



Long-Term Ferry Funding Study

*Part II Technical Memorandum –
Initial Screening of Ferry Funding Sources*



Washington State Transportation Commission

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Executive Summary

Executive Summary

The goal of Phase II of the Washington State Ferry Funding 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. This report presents results of an initial screening of numerous potential sources of funding, and provides preliminary recommendations to the Commission for moving forward with detailed revenue analysis of the more promising sources. This report focuses on additional revenue sources that could be made available to ferries, and does not evaluate changes to priorities in the general transportation budget that could be undertaken to move substantial and sustainable additional funds to ferries.

The Ferry Funding Crisis

It should be readily evident that the ferry system faces a current and looming funding crisis. Since elimination of the motor vehicle excise tax (MVET) in 2000, WSF has struggled to fund both its operating and capital needs. Terminal enhancement projects have been put on hold and vessel preservation has been deferred. Rising fuel and labor costs have contributed to a widening gap between operating costs and operating revenues, despite significant fare increases.

The ongoing WSF/JTC Ferry Finance Study will provide projections of future financial resources needed to keep the system functioning. While the extent of this need has not yet been determined, it is likely to be in excess of \$1 billion over the next 16 years, the State Legislature's long-term financial planning horizon. It is now clear that deferred preservation and maintenance activities over the past decade or more, coupled with rising operating costs, will require significantly higher capital outlays in the future than in the recent past simply in order to maintain the existing level, quality and extent of ferry service, let alone to accommodate future growth in demand for service.

Not only has inflation chipped away at the purchasing power of existing ferry funding sources, but fuel, labor, and insurance costs have all, at various times over the past decade, increased at a rate greater than general inflation. Thus it is important that methods of indexing revenue sources to inflation be considered as a means of ensuring that revenues keep pace with future capital and operating costs. And given the more recent, dramatic rise in fuel costs, the State should also investigate ways of responding to fuel cost volatility and managing its impact on revenues and costs.

In short, the anticipated cost of equipping, operating, maintaining and preserving the Washington State Ferry system requires taking a hard, fresh look at both alternative funding sources and augmentation of existing funding sources. What is permitted under current State law, coupled with the existing fare structure, will likely fall far short of the amount of future revenue that will be needed

for both operating the system and replacing aging vessels over time. The WSTC Long-Term Ferry Funding Study is intended to identify those sources of revenue that appear most able to generate both the revenue and the broad support necessary to sustain ferry operations long into the future.

The remainder of this section summarizes the key findings of the initial screening of possible funding sources. The following sections provide detail about the characteristics and mechanisms of the various sources, as well as the numerous assumptions that have been made to facilitate initial estimation of revenue generation potential.

Screening Approach

The first step in the screening process was to create a long list of possible funding sources and a set of criteria with which to evaluate them. The long list was vetted with several stakeholder groups, including the Ferry Advisory Team, the Joint Transportation Committee Policy Group, the Ferry Advisory Council Executive Committee, and the Transportation Commission.¹

The next step in evaluating the long list was to conduct an initial screening of each source according to the chosen criteria: yield and reliability; political acceptability; administrative effectiveness; equity; and economic efficiency. The purpose of the screening was to collect information on each of the funding sources and to identify sources to retain for further consideration and more detailed analysis.

The screening process was deliberately kept general at this stage in order to conserve resources for the second stage of screening, in which a smaller number of viable options will be analyzed in more detail. Therefore, the results should be considered approximate. In particular, the calculation of yield is meant to provide a “ball-park” estimate of how much could reasonably be obtained from each source in a biennium. It is important to reiterate that these estimates of yield are preliminary and very much subject to the underlying assumptions of the tax or fee rate and the population or geographic area to be assessed. Estimated yield should be interpreted as an indication of the relative revenue generation potential of a source rather than any specific projected amount. Future estimates of yield will be more precise and will take into account inflation; variation in yield over the planning horizon; leveraging opportunities; cost of administration; and other important variables.

¹ As a result of the vetting process, two funding sources were removed from further consideration: a distance-based vehicle fee (vehicle miles traveled fee) and a freight container fee. The distance-based fee was removed due to a concern that the technology for implementing it is not fully developed at this time; the container fee was removed due to lack of connection with the ferry system.

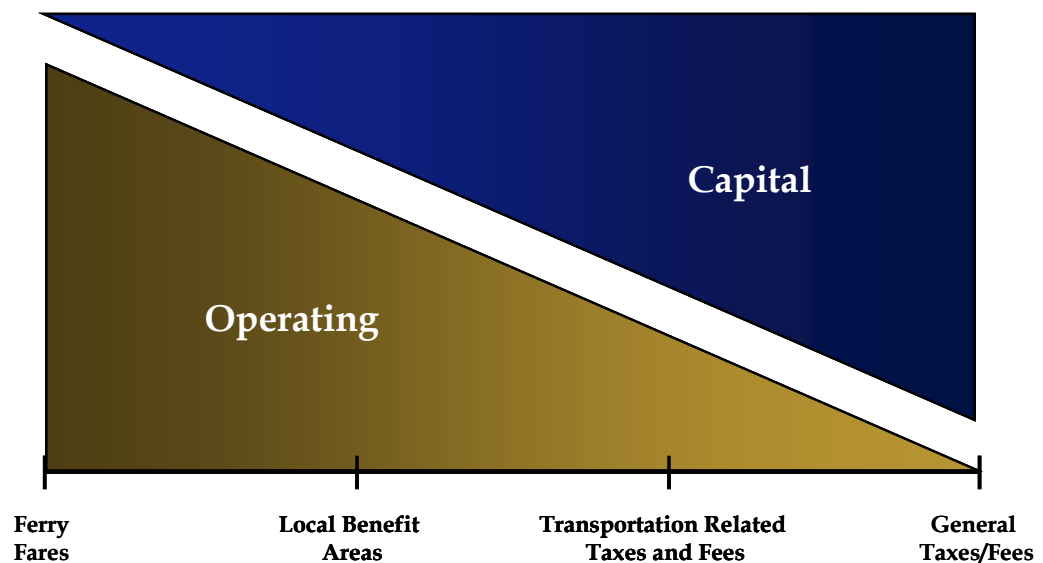
Organization of Screening Results

The funding sources listed in Table ES.1 are presented below with an indication of how well they met the chosen performance criteria. Sources are arranged in the following groups:

- **Taxes and fees collected by the state.** This includes sources already used for transportation purposes at the state level, such as the motor vehicle fuel tax, as well as some sources that are not currently in place but could be applied at a state level, such as a Motor Vehicle Excise Tax.
- **Ferry system-related revenues.** This includes a range of revenues that would be obtained directly from ferry system users. Technically, these would also be collected by the state, but are of a different nature than other state-level taxes and fees.
- **Taxes and fees collected by local governments.** This includes a range of local option taxes and fees (e.g., local option fuel taxes). These sources could be collected at the county level, city level, or by special taxing districts that could include portions of cities and/or counties.

The team is proceeding with the assumption that, in general, revenues connected directly with the ferry system (e.g., ferry fares), will be used primarily for operating expenses, while statewide taxes and fees will be used primarily for major capital expenses. This assumption is based on guidance from the Commission and from the Washington State legislature, which has indicated that ferry system revenues should be used only for operating expenses unless the portion being used for capital is separately identified in the fare. Figure ES.1 below illustrates the likely mix of operating and capital revenue sources.

Figure ES.1 Likely Mix of Operating and Capital Revenue Sources



Results

Table ES.1 presents a brief summary of how each funding source performed in the screening process. Each source was rated high, medium, or low on three of the evaluation criteria: yield, reliability, and administrative effectiveness. The remaining criteria (political acceptability, equity, and economic efficiency) are discussed qualitatively throughout this report but not rated.

Table ES.1 Screening Results

	Yield	Reliability	Admin. Effectiveness	Challenges/Issues
State Sources				
Vehicle Excise Tax	●●●	●●●	●●	The state MVET was rescinded in the past due to voter opposition.
Fuel Tax Increase	●●●	●●●	●●●	Fuel prices are at historical highs; adding to the price may generate opposition.
Sales Tax Surcharge or Increment	●●●	●	●●	State sales tax revenues are typically dedicated to the state general fund.
Tolls	●●	●●	●	By law, toll revenues may not currently be used outside the tolled facility.
Licenses, Permits, and Fees	●●	●●●	●●●	Some licenses, permits, and fees have been increased in the recent past.
Rental Car Tax Surcharge	●	●●	●●●	This source is weakly linked to the ferry system; direct impact is greatest on out-of-state visitors.
Local Sources				
Sales Tax	●●●	●	●●	Local transit operators depend on local sales tax revenues.
Property Tax	●●●	●●●	●●	Local school systems depend on property tax revenues.
Vehicle Licenses	●●●	●●●	●●	Local option license fees have been repealed in the past due to voter referendums.
Motor Vehicle Excise Tax	●●●	●●●	●●	Some local transit operators also depend on this tax.
Fuel Tax	●●●	●●●	●●	Fuel prices are at historical highs; adding to the price may generate opposition.
Employer Tax	●●●	●●	●●	This tax is currently intended for use by local transit agencies.
Real Estate Excise Tax	●●●	●	●●	This source has not traditionally been used for transportation purposes.
Utility Excise Tax	●●	●●●	●●	This tax is currently intended for use by local transit agencies.
Development Impact Fees	●●	●	●●	This source may be too unreliable to provide a steady source of funds for the ferry system.
Commercial parking tax	●	●●	●●	Revenues from this source will be minimal unless applied to all commercial parking lots.
Ferry System				
Ferry Fares	●●	●●●	●●●	Ferry fares have been increased substantially in the recent past.
Ancillary Revenues	●	●	●	Revenues from this source are minimal unless major changes are made to the institutional structure of WSF.
New Service Offerings	●	●	●	A reservation system and preferred loading lanes are currently under study by WSF; preliminary survey results indicate customer opposition to the preferred loading lanes concept.

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 (●).

Discussion of Individual Criteria

Yield

Yield is primarily a function of two factors: 1) the level of the tax or fee, and 2) the size of the tax/fee base². The sources with the greatest yield are those for which the level of the tax or fee is set high and the tax base is very large.

Yield is also influenced by the structure of the tax or fee. Excise taxes and flat fees lose their value over time if they are not indexed to inflation, whereas sales taxes and property taxes automatically adjust to inflationary pressures.

To be able to estimate yield, the consultant team made assumptions regarding both the level of the tax or fee and its area of application. The aim was to make reasonable assumptions given historical increases in taxes or fees (where available), or to assume relatively small increases such as indexing to inflation. Table ES.2 provides the assumptions that were used to make the yield determinations. Changes in the assumptions will significantly affect the estimate of yield. As a preferred funding strategy takes shape it should be anticipated that the estimated net yield of any of these sources will change.

Table ES.3 provides a classification of the funding sources by their estimated yield.

² Yield is also a function of the elasticity response of the tax/fee base to the imposition of the tax/fee. Elasticities were not included in the yield calculations at this stage, but will be assessed in the next stage.

Table ES.2 Assumptions Used to Calculate Yield

	Yield Calculation
State Sources	
Vehicle Excise Tax	Imposition of a statewide 1 percent MVET generates \$1.25 billion per biennium.
Increase Fuel Tax	Indexing the fuel tax to inflation over two years (2.25 cent increase) generates \$156 million/biennium.
Sales Tax Surcharge	0.1 percent sales tax increase (over current level of 6.5 percent) generates \$232 million/biennium.
Tolls	\$1.50 toll applied to Puget Sound High-Occupancy Toll (HOT) lanes and a representative bridge in the Puget Sound region generates \$63 million/biennium.
Licenses, Permits, & Fees	A \$1.00 increase in both the Motor Vehicle Registration Fee (currently \$30) and the Vehicle Weight Fee (ranges between \$10 and \$30) generates \$20 million/biennium.
Rental Car Tax Surcharge	A 0.5 percent addition to the rental car tax (currently at 5.9 percent) generates \$3.9 million/biennium.
Local Sources	
Sales Tax	A 0.1 percent sales tax increase in all eight ferry-served counties generates \$150 million/biennium.
Property Tax	Each cent per \$1,000 of assessed value in all eight ferry-served counties generates \$10 million/biennium. A maximum levy of 75 cents per \$1,000 of assessed value may currently be used to support County Ferry Districts; a similar levy to support WSF would generate \$754 million/biennium.
Vehicle Licenses	A \$1.00 license fee in all eight ferry-served counties generates about \$7 million/biennium. A \$100 fee (the maximum currently allowed in law) generates \$700 million/biennium.
Motor Vehicle Excise Tax	A 0.1 percent MVET in all eight ferry-served counties generates \$50 million/biennium. If the MVET rate were set at the maximum currently allowed by county (varies by county), it would generate \$408 million/biennium.
Fuel Tax	Every cent of motor fuel tax imposed in all eight ferry-served counties generates \$42 million/biennium. A 3.75 cent fuel tax (amount currently allowed in law) in all eight ferry-served counties generates \$157 million/biennium.
Employer Tax	A \$1.00 employer tax in King, Pierce, Snohomish, and Kitsap Counties (areas where tax is currently authorized) generates \$87 million/biennium.
Real Estate Excise Tax	A 0.1 percent real estate excise tax in all eight ferry-served counties generates \$75 million/biennium.
Utility Excise Tax	A \$1.00 utility tax imposed in all eight ferry-served counties generates \$38 million/biennium.
Development Impact Fees	A \$1,000 per unit residential development impact fee imposed in all eight ferry-served counties generates \$38 million/biennium. Number of new units in each county calculated using Census population growth rates and average household size. Industrial and commercial developments were not included in the calculation. The exact amount of the fee must be established by a study.
Commercial Parking Tax	Assumed average amount currently earned in the three ferry-served cities that have implemented the tax would also be earned in the six additional ferry-served cities with significant numbers of walk-on riders. About \$5.2 million/biennium would be generated if all nine cities implemented the tax and earned revenues of about \$300,000 each per year.
Ferry System	
Ferry Fares	Indexing ferry fares to inflation over a biennium generates \$18 million in the biennium.
Ancillary Revenues	No specific amount was estimated; depends on level of investment in new space for concessions.
New Service Offerings	About \$8 million generated if both preferred loading lanes and reservation system options are implemented. Estimates based on responses to rider survey questions regarding expected frequency of use and willingness to pay for these services.

Note: All estimates reflect gross yield. Net yield, reflecting administrative costs, demand elasticity impact on revenue, etc. will be calculated at a later stage of the analysis.

Table ES.3 Funding Sources by Yield

Low Yield <i>Up to \$10 million per biennium</i>	Medium Yield <i>Between \$10 million and \$70 million per biennium</i>	High Yield <i>More than \$70 million per biennium</i>
<ul style="list-style-type: none"> • Rental car tax • Ferry ancillary revenues • New offerings (preferred loading lane + reservation system) • Commercial parking tax 	<ul style="list-style-type: none"> • Tolls • Licenses, permits, and fees • Utility tax • Development impact fees • Ferry fares 	<ul style="list-style-type: none"> • State and local motor vehicle excise tax • State and local motor fuel tax • State and local sales tax • Local option property tax • Local option vehicle license fees • Local option employer tax • Local option real estate excise tax

Reliability

Reliability was judged primarily in relation to the probable stability of the tax base over time. Although all tax or fee revenues are influenced by economic fluctuations and changes in population, some would be expected to be more volatile than others. Tax revenues that are linked to discretionary consumption, such as those from sales taxes, would be more prone to fluctuation than revenues not closely linked to consumption, such as those from vehicle license and registration fees. Additionally, taxes and fees closely linked to real estate transactions are likely to fluctuate more quickly than those which are less closely linked. For example, property taxes are linked to the real estate market, but not as closely as development impact fees, which are only paid as new development occurs, or a real estate excise tax, which is paid only upon the sale of property.

Finally, reliability is affected by the vulnerability of the tax or fee source to repeal by referendum or to being diverted to serve other purposes. Ferry fares are very reliable in this sense, because it is very unlikely they would be diverted. Sources used for many purposes, such as sales and property taxes, are more subject to diversion.

Table ES.4 Funding Sources by Reliability

Low Reliability <i>Tax base highly linked to discretionary consumption or to real estate market</i>	Medium Reliability <i>Tax base somewhat linked to discretionary consumption or real estate market</i>	High Reliability <i>Tax base weakly linked to discretionary consumption</i>
<ul style="list-style-type: none"> • Real estate excise tax • Development impact fees • Ancillary ferry system revenues • New ferry system offerings (e.g., reservation system or preferred loading lanes) • State and local sales tax 	<ul style="list-style-type: none"> • Tolls • Rental car tax • Employer tax • Commercial parking tax 	<ul style="list-style-type: none"> • State and local motor vehicle excise tax • State and local licenses, permits, and fees • Utility excise tax • State and local motor fuel tax • Property tax • Ferry fares

Administrative Effectiveness

Administrative effectiveness relates to the difficulty and cost of collecting revenue. Sources that scored high on administrative effectiveness are those which are already in place and already used to support the ferry system. They include the motor fuels tax; licenses, permits, and fees; ferry fares; and rental car taxes. An increment can be added to any one of these sources in order to provide additional funds for the ferry system.

Sources that scored medium on administrative effectiveness are those that are currently authorized in law but not used to support the ferry system. There would be some additional administrative burden associated with using the tax or fee to support ferries. Most local option taxes and fees fall into this category, as does the state motor vehicle excise tax, which is not currently authorized in at the state level but was previously authorized, so the collection mechanism has been established.

Sources that scored low on administrative effectiveness are those for which a significant up-front investment would be required to implement the new tax or fee. This group includes tolls, ancillary ferry system revenues, and new ferry system offerings (e.g., reservation system or preferred loading lanes).³

³ Incremental administrative costs of a reservation system that are directly related to the cost of collecting a reservation fee would likely be a small portion of the total cost of implementing the overall reservation system. Since the system would be implemented primarily for reasons other than revenue generation (i.e., to better manage demand and vessel utilization), it could be argued that the effective administrative cost of the reservation *fee* itself is modest.

Table ES.5 Funding Sources by Administrative Effectiveness

Low Administrative Effectiveness <i>Significant up-front investment needed to expand revenues for ferry system</i>	Medium Administrative Effectiveness <i>Tax/fee currently or previously authorized in law but not used specifically for ferries at this time</i>	High Administrative Effectiveness <i>Tax or fee currently supports ferries; no administrative effort other than raising the tax/fee level</i>
<ul style="list-style-type: none"> • Tolls (new) • Ancillary ferry system revenues • New ferry system offerings (e.g., reservation system and preferred loading lanes) 	<ul style="list-style-type: none"> • State and local motor vehicle excise tax • State and local sales tax • Local property tax • Local vehicle license fees • Local fuel tax • Local employer tax • Local real estate excise tax • Local utility excise tax • Local commercial parking tax • Local development impact fees 	<ul style="list-style-type: none"> • State motor fuel tax • State licenses, permits, and fees • Ferry fares • Rental car tax

Note: The administrative burden associated with a ferry fare increase could be higher if the increase required creation of a new class of ferry fares (e.g., peak-hour fare surcharge).

Other Criteria

Political acceptability, equity, and economic efficiency were also evaluated for each funding source but were not scored due to their complexity.

Political Acceptability

New taxes or fees can be expected to meet with political resistance. Resistance comes from those most directly affected by the tax or fee. Ferry riders will object to fare increases; vehicle owners will object to an increase in vehicle registration fees; and so forth.

The relative acceptability of any tax or fee increase is a function of the political power of the group affected by the increase and by the degree of burden the tax or fee places on them. For example, the constituency of people who pay rental car taxes in the State of Washington is not politically organized (though owners of rental car establishments may be). Ferry riders, by contrast, are a relatively organized, vocal constituency.

The relative burden of the tax or fee is a function of the amount and frequency of payment. Infrequently paid, relatively small fees will likely meet with lesser objection than larger and frequently-paid fees. An increase in vehicle registration fees, which are currently low relative to many other states and are only paid once a year, may be more politically acceptable than an increase in the tax on

gasoline, which is purchased on a very regular basis and which is already above the national average.

The relative visibility of the tax or fee increase may also impact its acceptability. Fuel taxes are rolled into the purchase price of gasoline, and are not visible to the consumer. By contrast, the Motor Vehicle Excise tax required a discrete and highly visible annual payment. Some have suggested that this visibility may have contributed to the MVET's eventual rescindment.

Equity

Equity refers to the distribution of the burden of the tax or fee on different income groups. Flat taxes and fees such as license and registration fees are regressive. They place a disproportionate burden on low-income individuals, who pay the same tax and fee amount though their income is lower. Most taxes and fees analyzed for this study are regressive. Property taxes (such as a motor vehicle excise tax, or property taxes paid to a special assessment district), are considered to be somewhat less regressive because they are paid in proportion to owned property wealth.

Economic Efficiency

Economic efficiency is a complex concept that describes the extent to which a funding strategy provides clear pricing signals to consumers of a service or good. Funding strategies with high economic efficiency are those that help make the marginal prices of goods and services reflect their true costs. Strategies with low economic efficiency are those that collect fees that are unrelated to the services they help fund, and thus “distort” consumer behavior by masking the true cost of the service. In a distorted market, consumers are apt to over-consume a service or product that is under-priced relative to its perceived value.

Of the taxes and fees that were assessed, fares are the only source that can be considered economically efficient, and this only to the extent that fares are linked with the cost of providing ferry services. The other sources are not economically efficient, in that they send no price signal to ferry users but may distort behavior in other areas. For example, a tax increase on rental cars to support the ferry system could cause a decline in the use of rental cars.

Next Steps

The next stage of the Long-Term Ferry Funding Study will involve more detailed analysis of revenue generation potential of the most promising sources, and development of a recommended long-term funding plan for the ferry system. Based on the results of this initial screening and input from the Commission, a smaller subset of funding sources will be identified and subjected to further analysis for the purpose of developing the detailed funding plan.

The consultant team recommends that the remaining funding sources be grouped into the following categories for the next phase of analysis:

- **Sources most appropriate for vessel acquisition** – Ferry vessels are extremely expensive, with the larger auto ferries costing as much as \$80 million to \$100 million per vessel. Revenue sources with high yield are needed to cover future vessel acquisition costs. The consultant team recommends that major state-level sources of funds be dedicated for this purpose, since it would be difficult to incent local governments to institute the taxes and fees necessary to cover vessel acquisition costs. Sources most appropriate for consideration in this category include the state motor fuel tax; the state motor vehicle excise tax; tolls; and vehicle licenses, permits, and fees. The last two sources may need to be paired to generate sufficient funds to cover vessel acquisition costs.
- **Sources most appropriate for terminal development** – The development of terminals provides an opportunity for WSF to incent local governments to implement taxes and fees to support the ferry system. WSF can make terminal expansions or terminal access expansions contingent on the provision of funds by local governments. Any of the local option taxes or fees could reasonably be used for this purpose. The next stage of study will focus primarily on considering the mechanism, whereby local funds could be invested in terminal development. State-level sources will also be considered for this category.
- **Sources most appropriate to cover ferry operating costs** – Traditionally, ferry operating costs have been met primarily through ferry system farebox revenues supplemented with a variety of dedicated sources, including fuel taxes, vehicle license and registration fees, etc., via the Puget Sound Ferry Operations Account. The consultant team recommends that this precedent be continued. Sources that should be considered to cover unmet ferry operating costs include ferry fares and new system offerings such as a vehicle reservation system. In addition, local governments could be asked to provide funds in exchange for receiving additional ferry service above a certain baseline level.

1.0 Statewide Taxes and Fees

1.0 Statewide Taxes and Fees

State sources have historically been the mainstay of capital funding for the ferry system. This section discusses how the following state-level sources of funds performed on each of the evaluation criteria:

- Motor fuel tax;
- Motor vehicle excise tax;
- Sales tax;
- Rental car tax;
- Vehicle licenses, permits, and fees; and
- Tolls.

Note that in the calculations of yield below, it is assumed that any state level tax or fee increase could be dedicated to exclusively to ferries. In practice, revenues from a new tax or fee increase would be divided between ferries and other parts of the state transportation system. The likely distribution of new revenues is not considered here but will be considered in the full funding plan to be released in November of 2008.

1.1 STATE MOTOR FUELS TAX

Yield (High)

Revenues from motor fuel taxes are already a major source of funds for the ferry system. Additional funds could be raised for the system by increasing the amount of the tax by a specified increment.

A conservative scenario would involve increasing the amount of the tax by inflation over a biennium. To keep up with inflation, the tax would have to be raised by 2.25 cents over its current level of 37.5 cents, assuming inflation equals 3 percent a year, or a combined 6 percent over the biennium. According to the Transportation Resource Manual, every 1 cent increase in the motor fuels tax generates \$69.3 million per biennium. Therefore, indexing the tax to inflation (2.25 cents) would yield about \$156 million a biennium.

A more extreme scenario would involve increasing the tax by the same amount as the most recent increase of 9 cents (for the Transportation Partnership Package in 2005). This would yield about \$624 million in a biennium.

Note that yield from the motor fuel tax, like any excise tax, is vulnerable to inflationary pressures. Over time the value of the tax will decrease unless it is indexed to inflation or the price of fuel.

Reliability (High)

The fuel tax is considered to have high reliability, because it has been a historically stable source of revenue, growing at about 1.6 percent per year. However, fuel tax revenues may be less predictable in the future. The recent rise in gasoline prices has already been linked to a small nationwide decline in fuel sales. Increases in the purchase of fuel-efficient vehicles may also undermine revenues.

Administrative Effectiveness (High)

Administrative effectiveness is assumed to be high, because there is an existing mechanism for collecting the taxes.

Political Acceptability

Though taxpayers are accustomed to motor fuel taxes, under escalating gas prices, they will be less receptive to tax increases.

Equity

The fuel tax is considered to be moderately regressive. All else being equal, lower-income individuals pay a greater share of their income on fuel taxes. However, some very low-income individuals do not drive, and thus do not pay the fuel tax at all. Wealthy individuals make more trips, and thus pay a greater absolute amount of fuel taxes.

Economic Efficiency

Fuel taxes send very weak price signals, because they are a small proportion of the cost of fuel. It is unlikely that a fuel tax increase of a few cents per gallon would change the behavior of ferry users (e.g., by causing them to walk on instead of drive on).

Implementation Options

There are several ways to increase revenue from motor fuels. These include adding an increment to the tax rate; indexing the tax, and applying a sales tax on motor fuel, which indexes the tax to the price of gasoline.

Initial Implementation Barriers

All changes to the fuel tax require legislative approval, but, as noted above, the infrastructure exists for administering and collecting a fuel tax increase.

Additional Information Needs

An increase in the gas tax may decrease fuel consumption; however, no assumption was made regarding demand elasticity.

1.2 STATE MOTOR VEHICLE EXCISE TAX

The MVET is a property tax levied on the value of the vehicle on an annual basis. It was once an important source of funding for WSF and the rest of the State's transportation system, but was repealed in 2000 following a voter-led initiative. This section considers a scenario where the MVET is reintroduced.

Yield (High)

To estimate yield for the 2007 to 2009 biennium, historical MVET revenue from Washington Department of Revenue (1994 to 2000) was used as a base and then extrapolated using a seven percent annual rate, the average annual growth rate of MVET revenue between 1994 and 2000. Annual inflation of three percent was assumed based on historical data of the National Consumer Price Index.

The results show that every one percent of the MVET would generate approximately \$1,247 million (2007 dollars) during the 2007 to 2009 biennium. If the MVET were implemented at its historical level of 2.2 percent, revenues would amount to \$2,743 million per biennium.

An advantage of the MVET is that it is not as vulnerable to inflationary pressures as other taxes (e.g., the fuel excise tax), because inflation is reflected in the assessed value of the vehicle.

Reliability (High)

Reliability is considered to be high, because the MVET would be collected on a stable tax base (the vehicle fleet).

Between 1994 and 2000, when the tax was still in place, MVET revenue increased at a nominal rate of seven percent annually. If the MVET were reinstated, it is uncertain whether revenues would continue to increase at the same rate as in the past. If the recent nationwide trend of a decline in vehicle sales continues, the average vehicle age may increase and the size of the fleet may decrease, both of which would negatively impact MVET revenues. Nevertheless, these changes would be expected to occur slowly and would not significantly undermine the reliability of the MVET.

Administrative Effectiveness (Medium)

This tax was collected for several years by the state, and thus the collection scheme is known. The Department of Licensing was responsible for collecting the tax. There would be some administrative burden associated with re-instituting the tax.

Political Acceptability

The MVET proved to be politically controversial in the past and was removed because of a voter-led initiative. Given this history, substantial effort would be required to gain the political support necessary to reinstate it.

Equity

Since the MVET is calculated in proportion to property wealth (vehicle value), it is relatively less regressive than flat taxes such as the motor fuel tax. In terms of geographic equity, the MVET would be required of all vehicle owners regardless of their place of residence or use of the ferry system.

Economic Efficiency

This fee is not related to the use of the ferry system and thus has no effect on ferry rider's travel decisions in terms of mode choice, route, and schedule.

Initial Implementation Barriers

Reinstatement of the MVET at the state level requires legislative approval, and may be particularly politically controversial.

1.3 STATE SALES TAX

Yield (High)

Washington State currently has a 6.5 percent sales tax in place at the state level. Every 1 cent increase in the sales tax would generate about \$232 million in additional revenues for the biennium.

This figure was calculated by estimating total sales tax revenues for the 2007 to 2009 biennium and applying a percentage of 0.1. Total revenues were estimated by extrapolating historical revenues using a growth rate of 4 percent per year (the historical rate of growth), and adjusting for inflation, which was assumed to be 3 percent per year based on historical trends in the Consumer Price Index.

One advantage of the sales tax is that, unlike excise taxes, it automatically adjusts for inflation, and will not lose its buying power over time.

Reliability (Low)

The sales tax was judged to have low reliability due to the fact that sales tax revenues are linked to discretionary consumption and tend to fluctuate with economic cycles. Between 1995 and 2005, sales tax revenue increased at a nominal rate of four percent annually, but it is uncertain whether this trend will continue in the future.

Administrative Effectiveness (Medium)

The sales tax is already collected at the state level. There would be some administrative burden associated with redirecting funds for use by WSF.

Political Acceptability

Traditionally, Washington State has used its state sales tax revenues for general purposes, not for transportation. Using an increment on the sales tax for transportation purposes may be perceived as a threat to other important state priorities.

Equity

Sales taxes are considered to be somewhat regressive, since low-income individuals tend to spend a greater proportion of their income on taxable sales, and pay the same tax rate for basic necessities as high-income individuals pay though their income is lower. However, wealthy individuals make more frequent and costly purchases, so the total amount of tax paid is greater.

Economic Efficiency

Economic efficiency is low, because this tax is not related to the use of the ferry system, and thus has no effect on ferry rider's travel decisions in terms of mode choice, route, and schedule.

Implementation Options

Sales taxes could be applied on all goods or could be limited only to transportation-related goods such as vehicle parts and vehicle sales.

Initial Implementation Barriers

A sales tax increase would require legislative approval, as would the redirection of sales tax revenues to support the ferry system.

Additional Information Needs

An increase on the tax may decrease general consumption; however, no assumption was made regarding demand elasticity.

1.4 STATE RENTAL CAR TAX

Yield

There is currently a 5.9 percent rental car tax in place in Washington State. For the purpose of estimating additional revenues that could be obtained for WSF, a 0.5 percent surcharge was assumed (yielding a combined tax rate of 6.4 percent).

Historical car rental tax revenues from the Washington Department of Revenue from 2005 to 2007 were used as a base to estimate the revenue for the biennium 2007 to 2009. The 2007 revenue amount was extrapolated to 2009 using a four percent annual rate, which is the annual growth rate of the car rental tax revenue between 1995 and 2005. Annual inflation of three percent was assumed based on historical data of the National Consumer Price Index.

The results suggest that, for the 2007 to 2009 biennium, \$3.9 million (2007 dollars) additional dollars would be generated by adding the 0.5 percent surcharge. This is in addition to the near \$50 million that will be generated by the current tax.

One advantage of the rental car tax is that unlike excise taxes, it automatically adjusts for inflation, and will not lose its buying power over time.

Reliability (Medium)

Rental car reliability was judged to be medium due to the fact that car rentals are discretionary purchases and would be expected to fluctuate with the economy. However, in the recent past (between 1995 and 2005) rental car tax revenues have increased a nominal rate of 4 percent annually.

Administrative Effectiveness (High)

Administrative effectiveness is assumed to be high, because the State has experience in collecting this tax and it is already used to support WSF.

Political Acceptability

Increasing the rental car tax is likely to be more politically acceptable than increasing other taxes or fees, because the tax is paid by rental car users, many of whom are not state residents. However, representatives of the business community and the tourism industry may have concerns regarding the impact of the tax on their revenues.

Equity

Car rentals are not a basic commodity, so increasing the tax rate on car rentals would not disproportionately burden the poor. A tax on car rentals does disproportionately burden out-of-state tourists and business travelers, who are the primary users of rental car services.

Economic Efficiency

This tax is not related to the use of the ferry system and thus has no effect on ferry rider's travel decisions in terms of mode choice, route, and schedule.

Implementation Options

A hotel tax could be another implementation option where the tax burden lies mainly on international and out-of-state travelers.

Initial Implementation Barriers

A rental car tax increase requires legislative approval.

Additional Information Needs

An increase on the tax may decrease the demand for car rental services; however, no assumption was made regarding demand elasticity.

1.5 VEHICLE LICENSES, PERMITS, AND FEES

Revenues from a number of vehicle licenses, permits, and fees are currently used to support the ferry system. The highest-grossing fees are the combined licensing fee; the vehicle weight fee; and the vehicle registration fee (Table 1.1). Together, these fees gross approximately \$760 million a biennium. A number of smaller fees listed in Table 1.1 also supports the system, but gross a much smaller amount – approximately \$55 million combined in the last biennium.

Yield (Medium)

One scenario would involve increasing both the Motor Vehicle Registration Fee, which has not increased since 2000; and the Vehicle Weight Fee, which was implemented in 2005. According to the Transportation Resource Manual, every \$1.00 increase in either fee would generate about \$9.9 million per biennium. Increasing both fees by \$1.00 would generate about \$20 million in a biennium. Since the fees are not indexed to inflation, they will lose their buying power over time and the revenue will decrease.

Reliability (High)

Revenue from vehicle fees was judged to have high reliability, because the size of the tax base (the vehicle fleet) would be expected to change relatively slowly, given the fact that vehicle purchases occur infrequently. By contrast, sales tax revenues would be expected to vary more rapidly over time because they are linked to daily consumption patterns.

Administrative Effectiveness (High)

Administrative effectiveness is assumed to be high, because a mechanism is in place for collecting licenses, permits, and fees, and these revenues are already used to support WSF.

Political Acceptability

It is assumed that increasing vehicle licenses and registration fees, which are relatively small and infrequently paid, would be more politically acceptable than increasing fees paid on a regular basis (such as the motor fuel tax), or instating a new fee.

Table 1.1 Major Vehicle Licenses, Permits, and Fees Supporting the Ferry System

Fee and Amount	Who is Taxed	Amount of Tax	2007-2009 Forecast	Total Value of Increase	Relationship to Ferries
Combined licensing fee	Vehicle owners registering trucks with gross weights of 4,000 lbs or more; commercial trailers; prorated vehicles	\$40-\$3,402 annual fee, depending on gross weight	\$349 million (biennium) distributed to 5 accounts	\$3.5 million per 1% increase per biennium	Weak – fee associated with commercial vehicles
Vehicle weight fee	All licensed motor vehicles (except motor homes)	Typically \$10-\$30 per passenger vehicle, varies by weight	\$111.4 million (biennium) distributed to Multimodal account and Freight Mobility Multimodal Account	\$9.9 million per \$1.00 increase per biennium	Weak – fee associated with wear & tear on pavements
Motor vehicle registration fee	All owners of passenger cars and other vehicles	Original registration \$30, renewal registration \$30	\$297 million (biennium) distributed to State Patrol Highway Account, Ferry Operations Account, and Motor Vehicle Account	\$9.9 million per \$1.00 of registration fee increase per biennium	Less weak – fee associated with all licensed vehicles

Note: Other fees with smaller distributions to the Motor Vehicle, Multimodal, or Ferry Accounts include Camper Registration fee, Collegiate License Plates Fee, Farm Vehicle Gross Weight Fee, Farm Vehicle Licensing Fee, International Fuel Tax Agreement Decal, Motor Home Title Elimination Fee, Motor Home Weight Fee, Natural Gas and Propane Fee, Reflectorized Plate Fee, Replacement Plate and Tab Fee, Single-Axle Trailer Fee, and Vehicle Title and Inspection Fee.

It should be noted that Washington State’s vehicle license’s fee level of \$30 is significantly lower than the national average⁴ of \$56. Some states charge much more; Iowa’s vehicle license fee is \$298. This suggests Washington may have room to substantially increase its license fees.

Equity

From a social equity perspective, a flat increase to any fee would be more burdensome for low-income individuals, since the increase would consume a greater share of their income.

Economic Efficiency

Fees paid by vehicle owners do not send any price signal to users of the ferry system, and would thus have low-economic efficiency.

⁴ *Vehicle Title and Registration Fees Study, A Rationale For Change*, May 2008. Document prepared by Cambridge Systematics, Inc. for Texas Department of Transportation.

Implementation Options

One of the existing fees could be increased; a combination of fees could be increased; or the formula for distributing fees could be changed to increase revenues for WSF.

Additional Information Needs

To precisely estimate revenues, it would be necessary to know which fee or fees will be increased; by how much over time; and the expected change in the tax base over time.

1.6 TOLLS

Yield (Medium)

There are a large number of potential sites for tolling within Washington State. For the purposes of estimating potential yield from toll revenue, it was assumed that revenues would be collected on an average bridge in the Puget Sound region and on a new system of HOT lanes converted from High-Occupancy Vehicle (HOV) lanes within the Puget Sound region. The HOT lane network is a concept that the Puget Sound Regional Council (PSRC) is currently studying as one of the tolling alternatives envisioned for the region.

To estimate yield for an average bridge in the Puget Sound region, volumes on four major bridges (SR 520, I-90, Hood Canal, and Tacoma Narrows)⁵ were averaged and multiplied by a toll rate of \$1.50. This is less than the amount currently charged on the Tacoma Narrows Bridge.

To estimate traffic volumes for the HOT network, the project team made preliminary estimates based on the size, in terms of lane miles, of the infrastructure to be converted and potential traffic volumes the HOT network could attract due to lower congestion levels and improved travel experience. A toll rate of \$1.50 was also used.

Combining the revenues from the HOT lane network and a typical Puget Sound bridge yield revenue of approximately \$63 million per biennium.

Note that yield from toll revenues is vulnerable to inflationary pressures if toll rates are not raised annually to keep up with inflation.

Reliability (Medium)

Toll revenues were judged to be of medium reliability because they are linked to discretionary choices (whether or not to make a trip on a tolled route). If there

⁵ Volumes obtained from the WSDOT web site.

are no viable alternatives to the tolled route, the reliability of toll revenues will be higher.

Other factors that can affect the reliability include energy costs and the state of the economy, which tend to affect traffic volumes as people take fewer discretionary trips when the economy is in a downturn.

Administrative Effectiveness (Low)

It is assumed the initial effectiveness will be low, since there are significant costs associated with collecting new tolls. However, costs would be reduced if the toll were implemented as a surcharge on an existing tolled route, or by making use of existing back office infrastructure from other tolled facilities (e.g., Tacoma Narrows Bridge).

Political Acceptability

Washington State is increasingly using tolls to fund its transportation infrastructure. Recent examples include the Tacoma Narrows Bridge and SR 167 HOT Lanes Pilot Project.

The use of toll revenues specifically to fund the ferry system may encounter political resistance. Tolls are typically justified as a means to make improvements to the tolled facility, not to finance unrelated transportation projects. This barrier could be reduced somewhat if the toll were imposed at a key point of entry to the ferry system.

Another factor that may force politicians to oppose tolls is the cost of energy. Rising gas prices may make it difficult for politicians to sell the idea of tolls to their constituencies.

Equity

Tolling parts of the transportation system where the users do not perceive a direct benefit is less equitable than other options, such as charging the ferry users the actual cost to operate, maintain, and preserve the ferry system, or charging the business and residences that benefit directly from ferry services.

Tolls are somewhat regressive in that a flat toll represents a greater burden for low-income individuals. However, this is offset by the fact that higher-income individuals make more trips and would a greater absolute amount in toll fees.

Economic Efficiency

Tolls have the potential to send a price signal to ferry users, but only if the tolled facility is geographically linked to the ferry system. For instance, adding a toll to a bridge that competes with the ferry system could cause some drivers to take the ferry instead of the tolled route. Adding a toll to a roadway outside of Puget Sound does not send any price signal to ferry users.

Implementation Options

Assuming implementation of tolls is viable, revenue from tolls could include the following facilities for the potential HOV-HOT network conversion: I-5, I-405, SR 520, I-90, SR 167, and SR 16. These facilities are in the vicinity of the ferry system's areas of "influence," providing an argument that revenues should be used to support the ferry system.

Initial Implementation Barriers

- Under current legislation, toll revenues may not be used outside the tolled facility;
- Any toll to support the ferry system would have to be added on top of toll amounts necessary to support the tolled facility itself (e.g., to cover roadway construction or maintenance costs); and
- Toll collection and back office systems would need to be deployed to enable toll collection, including investigating the form of collection (e.g., electronic toll collection, video tolling, or combination thereof).

Additional Information Needs

- Toll policy and rates;
- Identification of tolled facilities;
- Traffic and revenue estimates on tolled facilities; and
- Cost estimates for implementation, operations and maintenance, and capital renewals.

2.0 Local Taxes and Fees

2.0 Local Taxes and Fees

A wide variety of local taxes and fees could be used to support the ferry system. Among the broad range of taxes and fees already authorized for transportation purposes at the local level, the following sources were evaluated:

- Commercial parking tax;
- Vehicle license fee;
- Motor fuel tax;
- Sales tax;
- Employer tax;
- Property tax;
- Vehicle excise tax;
- Household/Utility Excise Tax; and
- Developer fees.

A real estate excise tax was also evaluated, although it has not explicitly been authorized to be used for transportation purposes. State law currently allows counties to use the real estate excise tax to finance capital improvements.

Several of the local option taxes listed above have been authorized only for the purpose of funding special districts created for a specific transportation purpose, such as funding high-capacity transportation alternatives, county ferry services, passenger-only ferry services, highways of statewide significance, and local transit agencies. Detail on each type of district is contained in Table 2.1. Multiple taxes and fees are authorized to fund each type of district. There are also several types of local option taxes that can be implemented without establishing a special district. These include the commercial parking tax; the motor vehicle and special fuels tax; and the property tax road levy.

Table 2.1 Local Options for Transportation Purposes

Instrument	Eligibility	Use of Funds	Taxes/Fees
Commercial Parking Tax	County or city	Fund general transportation purposes	Parking tax – no tax rate set.
High Capacity Transportation Taxes	Regional transit authorities (RTA) in King, Pierce, and Snohomish; transit agencies in Kitsap	Construction and operation of high-capacity transportation	<ul style="list-style-type: none"> • Motor vehicle excise tax on vehicles<=6,000 lbs. Up to 0.8% of vehicle value. • Employer tax of up to \$2.00 per employee per month. • Sales and use tax of up to 1% of purchase. Limited to 0.9% if 0.1% sales tax for criminal justice is imposed.
County Ferry District	Counties or portion of it	Construction and operation of county ferry facilities	<ul style="list-style-type: none"> • Annual property tax- up to 75 cents/1,000 value. • Excess property tax.
Passenger-Only Ferry	Counties or portion of it	Construction and operation of passenger-only ferry facilities	<ul style="list-style-type: none"> • Motor vehicle excise tax. Up to 0.4% of vehicle value. • Sales and use tax up to 0.4% of purchase. Cannot be imposed in RTA.
Regional Transportation Investment Districts (RTID)	King, Pierce, and Snohomish	Capital construction of highways of statewide significance	<ul style="list-style-type: none"> • Sales and use tax of up to 0.1% of purchase. • Vehicle license fee up to \$100. • Motor vehicle excise tax of up to 0.8% of vehicle value. • Parking tax on commercial businesses. • Tolls. • County fuel tax equal to 10% of statewide tax.
Transportation Benefit Districts	Citywide to multicounty, except in King, Pierce, and Snohomish Counties	Construction and operation of transportation systems	<ul style="list-style-type: none"> • Sales and use tax of up to 0.2% of purchase. In effect no longer than 10 yrs unless reauthorized by voters. • Vehicle license fee up to \$100 on vehicles<=6,000 lbs. • Excess property tax. • Tolls. • Late comer fees, development fees, local improvement districts.
Motor Vehicle and Special Fuel Tax for Counties	Counties	Highway purposes as defined by the 18 th Amendment	<ul style="list-style-type: none"> • County fuel tax equal to 10% of statewide tax.
Property Tax Road Levy	Counties	Construction and maintenance of county roads, including wharves for vehicle ferry service	<ul style="list-style-type: none"> • Annual property tax- up to \$2.25/1,000 value.
Transit Taxes	Transit districts	Operation and capital needs of transit districts	<ul style="list-style-type: none"> • Sales and use tax of up to 0.9% of purchase. Cannot be imposed if business and occupation tax or household tax is imposed. • Business and occupation tax. • Household/utility tax. • Motor vehicle excise tax of up to 0.725% of the value of the vehicle. • Up to \$1.00 per month per housing unit.

Source: Washington State Transportation Research Manual: Local Taxes.

It is very important to note that at the current time, there is no clear mechanism for using local revenues to support WSF. Some local option taxes (e.g., the local option fuel tax)⁶ have broadly-defined uses, and therefore would be eligible to support the ferry system under current law; nevertheless, it is unclear how that would be accomplished. Possible methods include using local revenues to fund access improvements to ferry terminals or terminal construction, or undertaking an arrangement; whereby, local governments reimburse WSF for ferry service above a certain baseline. In the next stage of analysis, careful consideration will be given to how local sources could be used to support WSF.

Note that although none of the local option taxes can be used to support WSF, and some are intended specifically for other purposes (e.g., funding local transit improvements), it was assumed that any existing district could be used to support WSF. This is principally because established tax rates provide a convenient mechanism of estimating a “reasonable” level of yield from local funding sources.

2.1 LOCAL OPTION: VEHICLE LICENSE

Local option vehicle license fees are authorized under RCW 36.120.050 to fund RTIDs in King, Pierce, and Snohomish Counties. Fees may be up to \$100 per registration.

Local option license renewal fees of up to \$100 may also be used to support the creation of Transportation Benefit Districts in all counties, except King, Pierce, and Snohomish.

Yield

In King, Pierce, and Snohomish Counties combined, every \$1.00 of a vehicle license fee would generate approximately \$6 million (2007 dollars) in the 2007 to 2009 biennium. This value was estimated using vehicle registration forecasts by county from Washington State Department of Transportation (WSDOT), and adjusting for an annual inflation rate of three percent.

Every \$1.00 of vehicle license fee imposed in the remaining ferry counties (Kitsap, Skagit, Island, San Juan, and Jefferson) would generate approximately \$0.6 million in revenues.

The maximum amount that could be earned from the fee would be approximately \$703 million per biennium, given the current constraints of the law. This

⁶ Transportation Benefit Districts and Commercial Parking Taxes also have broadly-defined eligible uses of funds that could be construed to include support of the ferry system.

would occur in the case where all of the counties imposed the maximum \$100 fee.

Table 2.2 Vehicle License Fee: 2007 to 2009
In Millions of 2007 Dollars

	\$100 all Vehicles in King, Pierce, and Snohomish	\$100 Fee on All Vehicles of Less Than <= 6,000 in Remaining Ferry Counties	Total
Yield	\$640.1	\$63.0	\$703.1

Reliability (High)

Revenue from vehicle fees was judged to have high reliability, because the size of the tax base (the vehicle fleet) would be expected to change relatively slowly, given the fact that vehicle purchases occur infrequently. By contrast, sales tax revenues would be expected to vary more rapidly over time because they are linked to daily consumption patterns.

Political Acceptability

Vehicle license fees are relatively small in comparison to the value of the vehicle, and are paid infrequently. Increasing them by a small amount would likely be more politically acceptable than increasing regularly paid taxes, such as the gasoline or the sales tax. However, local option vehicle license fees of \$15 have been repealed by voter initiative⁷ in the past; and although the fees of up to \$100 are currently authorized by law, no localities have implemented them.

Administrative Effectiveness (Medium)

Administrative effectiveness is medium because the tax has been authorized in law but is not currently being used to support WSF.

Equity

License fees are regressive given that the amount levied is the same for all drivers regardless of their income levels.

Economic Efficiency

Fees paid by vehicle owners do not send any price signal to users of the ferry system, and would thus have low-economic efficiency.

⁷ Initiative 776 repealed the Local Option Vehicle License fee in November of 2002. It was later reintroduced as a mechanism to fund RTIDs and Transportation Benefit Districts.

Implementation Options

This type of fee can currently be implemented at the city and county level to support Transportation Benefit Districts or Regional Transportation Improvement Districts. The purpose of these districts would need to be expanded, or a new type of district created in order to make improvements to the ferry system an eligible use of funds.

Initial Implementation Barriers

- There is no current mechanism in place for transferring locally collected revenues to WSF; and
- Voter approval is not necessary in order to implement the local option license fee, but it is subject to referendum.

2.2 LOCAL OPTION: MOTOR FUEL TAX

Counties are authorized in law (36.120.050(1)(e) and 82.80.120) to levy local motor fuel taxes equal to 10 percent of the state level, or 3.75 cents per gallon.

Yield (High)

If a motor fuel tax of 3.75 cents were applied in all eight ferry-served counties, the yield would be approximately \$157 million per biennium, or near \$42 million per penny of the tax.

Revenue estimates for 2009 at the county level from the Transportation Resource Manual on Local Taxes were used as a base to determine revenues for the 2007 to 2009 biennium. The 2009 estimates were interpolated using an annual increase of 2.0 percent in VMT based on WSDOT forecasts and an annual increase of 0.4 percent in motor fuel efficiency based on fuel efficiency data from the Energy Information Administration. An annual inflation of 3 percent was assumed based on historical data of the National Consumer Price Index.

Note that yield from the motor fuel tax, like any excise tax, is vulnerable to inflationary pressures. Over time the value of the tax will decrease unless it is indexed to inflation or the price of fuel.

Table 2.3 Motor Fuel Tax: 2007 to 2009
In Millions of 2007 Dollars

King	Pierce	Snohomish	Kitsap	Skagit	Island	San Juan	Jefferson	Total
\$75.3	\$31.9	\$29.0	\$10.3	\$4.9	\$3.2	\$0.7	\$1.2	\$156.5

Reliability (High)

The fuel tax is considered to have high reliability, because it has been a historically stable source of revenue, growing at about 1.6 percent per year. However, fuel tax revenues may be less predictable in the future. The recent rise in gasoline prices has already caused a small nationwide decline in fuel sales. Increases in the purchase of fuel-efficient vehicles may also undermine revenues.

Administrative Effectiveness (Medium)

Administrative effectiveness is medium because this tax is authorized, but is not currently in use at the local level, and is not used to support WSF. Implementing it at the local level would involve some administrative burden.

Political Acceptability

No county has enacted this tax, suggesting it may not presently be politically viable.

Equity

The fuel tax is considered to be moderately regressive. All else being equal, lower-income individuals pay a greater share of their income on fuel taxes. However, many very low-income individuals do not drive, and thus do not pay the fuel tax at all. Wealthy individuals make more trips, and thus pay a greater absolute amount fuel taxes.

Economic Efficiency

Fuel taxes send very weak price signals, because they are a small proportion of the cost of fuel. It is unlikely that a fuel tax increase of a few cents per gallon would change the behavior ferry users (e.g., by causing them to walk on instead of drive on).

Implementation Options

The tax can be imposed by counties or RTIDs. However, ferry system improvements are not an eligible use of funds for RTIDs at this time.

Initial Implementation Barriers

The imposition of a local option motor fuel tax requires voter approval. Additionally, there is no current mechanism in place for using locally collected revenues to support WSF.

Additional Information Needs

No assumption was made regarding the change in fuel consumption due to price increases.

2.3 LOCAL OPTION: SALES TAX

State law authorizes counties or portions of counties to levy sales taxes to fund transportation investments under the following local options:

- Local Taxes for High Capacity Transportation (RCW 81.104.140) – Up to one percent;
- Passenger-Only Ferry (RCW 82.14.440) – Up to 0.4;
- RTIDs (RCW 82.14.430) – Up to 0.1%;
- Transportation Benefit Districts (RCW 82.14.0455) – Up to 0.2; and
- Transit Districts (RCW 82.14.045) – Up to 0.9%.

At present, all ferry-served counties, but San Juan, have a sales tax in place to support transit service, with Snohomish and King County levying the highest rate at 0.9 percent.

Yield

If all ferry-served counties imposed an additional 0.1 percent sales tax increase, the resulting yield would be approximately \$149 million per biennium.

If all ferry-served counties imposed a revenue-maximizing⁸ sales tax surcharge, the yield would be approximately \$754 million per biennium. Table 2.4 shows the revenue by county for each of these scenarios.

To make the yield calculations, taxable sales by county for 2006 from the Washington Department of Revenue were used as a base to estimate the revenue for the biennium 2007 to 2009. The 2006 revenue amount was extrapolated to 2009 using a four percent annual rate; the annual growth rate of sales tax revenue between 1995 and 2005. Annual inflation of three percent was assumed based on historical data of the National Consumer Price Index.

⁸ This was calculated by determining the current additional sales tax authority available under each benefit district type (listed above) in each county and selecting the type with the greatest remaining taxing authority.

Table 2.4 Sales Tax: 2007 to 2009
In Millions of 2007 Dollars

	King	Pierce	Snohomish	Kitsap	Skagit	Island	San Juan	Jefferson	Total
Lower bound rate	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%	
Lower bound revenue	\$88.26	\$24.70	\$22.18	\$7.05	\$4.97	\$1.68	\$0.72	\$0.01	\$149.57
Upper bound rate	0.5%	0.5%	0.5%	0.4%	0.7%	0.4%	0.9%	0.4%	
Upper bound revenue	\$441.3	\$123.5	\$110.9	\$28.2	\$34.8	\$6.7	\$6.5	\$3.0	\$754.9

Note: The upper bound rate was calculated by determining the current additional sales tax authority available under each benefit district type (listed above) in each county and selecting the type with the greatest remaining taxing authority.

Reliability (Low)

The sales tax was judged to have low reliability due to the fact that sales tax revenues are linked to discretionary consumption and tend to fluctuate with economic cycles. Between 1995 and 2005, sales tax revenue increased at a nominal rate of four percent annually, but it is uncertain whether this trend will continue in the future.

One advantage of the sales tax is that, unlike excise taxes, it automatically adjusts for inflation, and will not lose its buying power over time.

Administrative Effectiveness (Medium)

Administrative effectiveness is medium because the tax has been authorized in law, but is not currently being used to support WSF.

Political Acceptability

Traditionally, local sales tax revenues have been used to support public transit agencies throughout Washington State. Transit agencies may therefore perceive the use of sales tax revenues for ferries as a threat to their financial stability.

Equity

Sales taxes are considered to be somewhat regressive, since low-income individuals tend to spend a greater proportion of their income on taxable sales, and pay the same rate for many basic necessities as high-income individuals pay.

Economic Efficiency

This tax is not related to the use of the ferry system and thus has no effect on ferry rider's travel decisions in terms of mode choice, route, and schedule.

Implementation Options

This tax could be implemented under local option for High Capacity Transportation, RTIDs, and Transportation Benefit Districts. However, none of these districts can currently be used to support WSF, so the nature of the districts would have to be changed or a new type of district created for that purpose.

Initial Implementation Barriers

Local option sales taxes require voter approval. Additionally, there is no current mechanism in place for using locally collected revenues to support WSF.

Additional Information Needs

An increase in the sales tax may decrease general consumption; however, no assumption was made regarding demand elasticity.

2.4 LOCAL OPTION: EMPLOYER TAX

State law allows counties under local option taxes for High Capacity Transportation (RCW 81.104.150) to charge up to \$2.00 per employee per month to raise funds for the construction and operation of transportation systems. The eligibility is restricted to King, Pierce, Snohomish, and Kitsap Counties.

Yield (High)

As it is currently authorized, yield from a \$1.00 employee fee would generate about \$43 million in revenue during the 2007 to 2009 biennium. A \$2.00 fee (the maximum amount currently allowed) would generate twice that amount, or \$86 million.

Yield was calculated using employment statistics for 2007 by county from the Washington State Employment Security Department. The 2007 employment data were extrapolated using an annual employment growth of 1.2 percent based on forecasts from Washington Department of Revenue. An annual inflation rate of 3 percent was assumed based on historical data of the National Consumer Price Index from the Federal Reserve Bank of St. Louis.

The employer tax is a flat excise tax, and as such would lose its buying power over time if not adjusted for inflation.

Table 2.5 Employee Tax: 2007 to 2009
In Millions of 2007 Dollars

	King	Pierce	Snohomish	Kitsap	Total
Revenue	\$57.9	\$13.3	\$11.5	\$4.1	\$86.8

Reliability (Medium)

The reliability of the employee tax was judged to be medium, given the fact that the size of the employment base would be expected to fluctuate with the economy. Over the last decade, employment has been increasing at about 1.2 percent per year.

Administrative Effectiveness (Medium)

Administrative effectiveness is medium because the tax has been authorized in law, but is not currently being used to support WSF.

Political Acceptability

If instated as a small fee of \$1.00 or \$2.00 per employee per month, the employee tax would not be likely to generate as much opposition as taxes that impose a heavier financial burden.

Equity

The social equity impacts of an employer tax are unclear, but the tax would burden lower-revenue businesses more than high-revenue businesses, since the tax is the same regardless of the type of business.

Economic Efficiency

This tax is not related to the use of the ferry system and thus has no effect on ferry rider's travel decisions in terms of mode choice, route, and schedule.

Implementation Options

Regional transit authorities in King, Pierce, and Snohomish and transit agencies in Kitsap can implement this tax. For the tax to be used by WSF, its eligibility would have to be expanded.

Initial Implementation Barriers

The imposition of an employer tax requires voter approval. Additionally, there is no current mechanism in place for using locally collected revenues to support WSF.

2.5 LOCAL OPTION: PROPERTY TAX

State law allows County Ferry Districts (RCW 36.54.130) to levy up to 75 cents per \$1,000 on assessed property value to finance the capital and operating expenses of passenger-only ferry services and county ferry services.

Yield (High)

Revenues would be approximately \$10 million a biennium for every cent of property tax imposed in the eight ferry-served counties, or as much as \$754 million in a biennium if the maximum levy of 75 cents were imposed.

To make these calculations, assessed property values from 2006 by county from Washington Department of Revenue were used as a base to estimate property tax revenue for the 2007 to 2009 biennium. No annual growth on property values was assumed, reflecting the current decline in the real estate market. Annual inflation of three percent was assumed based on historical data of the National Consumer Price Index.

Table 2.6 Property Tax: 2007 to 2009
In Millions of 2007 Dollars

	King	Pierce	Snohomish	Kitsap	Skagit	Island	San Juan	Jefferson	Total
Revenue	\$426.4	\$113.3	\$120.7	\$41.0	\$20.1	\$17.9	\$8.9	\$5.6	\$754.0

Note: Assumes a property tax levy of 75 cents per \$1,000 of assessed value.

Reliability (High)

Property values (the tax base) fluctuate with economic cycles, but the degree of fluctuation is limited by the fact that values are assessed infrequently, and state law caps the annual tax increase at one percent annually. This dampens the effect of changes in property values.

Over the past decade, revenue from property taxes grew at about four percent annually.

Political Acceptability

Using property tax increases to fund WSF may encounter political opposition due to the fact that property taxes are currently a mainstay of funding for local education. Moreover, property taxes impose a significant cost on individual homeowners.

Administrative Effectiveness

Administrative effectiveness is medium because the tax has been authorized in law but is not currently being used to support WSF.

Equity

Property taxes are less regressive than other forms of taxation because the amount of the tax is proportional to the value of the property. High-income households tend to own more expensive properties than low-income households, and thus pay a higher tax relative to lower-income households.

Economic Efficiency

This fee is not related to the use of the ferry system, and thus has no effect on ferry rider's travel decisions in terms of mode choice, route, and schedule.

Implementation Options

The tax could be implemented in all or a portion of a county. Another option would be to create a new Special Assessment District (SAD) funded by property taxes. Special Assessment Districts are frequently used methods of funding transportation investments. Since there is a connection between accessibility and property prices, improvements in access through the increase of service frequency or the implementation of new routes are, generally, translated into higher property values. A way to capture a share of the increase in property values is by establishing SAD. In general, properties located near the transportation facility are expected to register higher property values than properties located further from the facility.

Initial Implementation Barriers

This tax is intended to support passenger-only ferry services and county ferry services. The law would need to be modified to allow it to be used to support WSF.

2.6 LOCAL OPTION: VEHICLE EXCISE TAX

State law allows counties to levy a motor vehicle excise tax under the following local options:

- High Capacity Transportation Taxes (RCW 81.104.160) – Up to 0.8 percent of the vehicle value;
- Passenger-Only Ferry Districts (RCW 82.14.440) – Up to 0.4 percent of the vehicle value; and
- RTIDs (RCW 36.120.050 (1)(a) and (RCW 82.14.430) – Up to 0.725 percent of the vehicle value.

Yield (High)

Every 0.1 percent of MVET assessed in the ferry-served counties generates approximately \$50 million in revenues during a biennium. If the rate were the maximum permissible under current law (see Table 2.7), revenue would be more than \$408 million (2007 dollars) in the 2007 to 2009 biennium.

Table 2.7 Motor Vehicle Excise Tax: 2007 to 2009
In Millions of 2007 Dollars

	King	Pierce	Snohomish	Kitsap ^a	Skagit	Island	San Juan	Jefferson	Total
Max Rate	0.800%	0.800%	0.800%	0.725%	0.725%	0.725%	0.725%	0.725%	
Revenue	\$196.8	\$80.1	\$76.5	\$25.5	\$15.4	\$8.4	\$2.0	\$3.6	\$408.2

^a Kitsap can impose a 0.8 percent MVET under local option for high-capacity transportation on vehicles less or equal to 6,000 lbs; however, under local option for transit tax, it can impose a tax up to 0.725 on all vehicles.

Yield was calculated by using MVET revenues for King, Pierce, Snohomish, and Kitsap Counties listed in the Transportation Resource Manual. Those estimates were used as a base to calculate an average MVET per vehicle based on the vehicle fleet size. The average value per vehicle was multiplied by the size of the vehicle fleet of the rest of the counties. The 2007 revenue amount was extrapolated to 2007 to 2009 using a seven-percent annual rate, which is the annual growth rate of MVET revenue between 1994 and 2000. Annual inflation of three percent was assumed based on historical data of the National Consumer Price Index.

Reliability (High)

Reliability is considered to be high, because the MVET would be collected on a stable tax base (the vehicle fleet).

Political Acceptability

The MVET has faced political opposition both on the state and local levels. For example, in 2002, Seattle voters rejected a proposition that would have funded the Seattle Monorail with a local MVET. Methods of calculating the MVET have also been challenged in court. However, the MVET is still used to fund local transit service in some areas.

Administrative Effectiveness

Administrative effectiveness is medium, because the tax has been authorized in law, but is not currently being used to support WSF.

Equity

This tax is less regressive than other taxes, given that it is based on the value of the vehicle. Higher-income households tend to own more expensive vehicles relative to lower-income households, and thus their disbursement per vehicle is higher.

Economic Efficiency

This tax is not related to the use of the ferry system, and thus has no effect on ferry rider's travel decisions in terms of mode choice, route, and schedule.

Implementation Options

The tax can be implemented at the county level under Passenger-Only Ferry Districts, RTIDs, and by transit agencies for high-capacity transportation projects. However, none of these districts can currently be used to support WSF, so the nature of the districts would have to be changed, or a new type of district created for that purpose.

Initial Implementation Barriers

The local option for motor vehicle excise tax requires voter approval. Additionally, there is no current mechanism in place for using locally collected revenues to support WSF.

2.7 LOCAL OPTION: HOUSEHOLD UTILITY TAX

State law allows counties to levy a household utility tax under local options for Transit Taxes (RCW 35.95.040) of up to \$1.00 per month per household.

Yield

Each \$1.00 of household utility tax imposed in the ferry-served counties would generate more than \$38 million (2007 dollars) in the 2007 to 2009 biennium.

Yield was calculated based on estimates of the number of housing units per county (2007 data from the U.S. Census). These estimates were extrapolated to 2009 using the average annual growth rate in housing units by county between 1997 and 2007. An annual inflation of three percent was assumed based on historical data of the National Consumer Price Index.

The household utility tax is a flat excise tax, and as such would lose its buying power over time if not adjusted for inflation.

Table 2.8 Household Utility Tax: 2007 to 2009
In Millions of 2007 Dollars

King	Pierce	Snohomish	Kitsap	Skagit	Island	San Juan	Jefferson	Total
\$19.1	\$7.5	\$6.6	\$2.4	\$1.1	\$0.9	\$0.3	\$0.4	\$38.1

Note: Figures are rounded.

Reliability (High)

Reliability was judged to be high, because the tax base (number of housing units) would be expected to change more slowly than revenues from taxes on discretionary purchases (e.g., sales taxes, and to a lesser extent, fuel taxes).

Administrative Effectiveness

Administrative effectiveness is medium, because the tax has been authorized in law, but is not currently being used to support WSF.

Political Acceptability

The household utility tax would amount to a burden of \$12 per year on housing units. This is a small amount compared to other tax and fee alternatives; therefore, opposition to this type of tax is expected to be relatively low. In addition, the utility tax may be less visible than other forms of taxation, because it can be rolled into monthly utility bills.

Equity

This fee is regressive because the fee amount is the same for all housing units regardless of their property values. To comply with the fee, lower-income households would have to allocate a higher share of their income than higher-income households.

Economic Efficiency

This fee is not related to the use of the ferry system, and thus has no effect on ferry rider's travel decisions in terms of mode choice, route, and schedule.

Implementation Options

The tax can be implemented at the county level, but is not currently authorized to be used to support the ferry system.

Initial Implementation Barriers

- The local option household utility tax requires voter approval; and
- There is no current mechanism in place for using locally collected revenues to support WSF.

2.8 LOCAL OPTION: REAL ESTATE EXCISE TAX

State law authorizes counties to levy a real estate excise tax, which is a tax on property sales, to fund capital investments in addition to the 1.28 percent levied by the state on all property sales. Currently, all counties served by WSF, but Skagit, impose a real estate excise tax of 0.25 percent; Skagit charges 0.50 percent.

Yield (Medium)

Each 0.1 percent of additional real estate tax imposed in all the ferry-served counties would generate nearly \$75 million (2007 dollars) in the 2007 to 2009 biennium.

The yield estimate is based on the statewide revenue and forecast for real estate excise tax prepared by the Economic and Revenue Council and the average historical share by county on statewide revenue. An annual inflation of three percent was assumed based on historical data of the National Consumer Price Index.

Table 2.9 Real Estate Excise Tax: 2007 to 2009
In Millions of 2007 Dollars

King	Pierce	Snohomish	Kitsap	Skagit	Island	San Juan	Jefferson	Total
\$43.1	\$11.3	\$12.5	\$3.7	\$1.6	\$1.3	\$0.6	\$0.6	\$74.7

Reliability (Low)

Although revenues from this source have been growing rapidly at a rate of 12 percent annually between 1995 and 2005, reliability was judged to be low. This is because the excise tax is paid only at the time of sale, so revenues would be heavily linked to home sales, which vary with the strength of the real estate market. By contrast, property taxes are paid annually by all property owners, not just those who have recently made property purchases.

Administrative Effectiveness (Medium)

Administrative effectiveness is medium, because the tax has been authorized in law, but is not currently being used to support WSF.

Political Acceptability

The fact that real estate excise taxes are widespread in Washington State suggests that they are more politically acceptable than other local option taxes that have not been implemented at the local level, such as the local option license fee and the local option fuel tax.

Equity

This tax is less regressive than other forms of taxation, because the amount levied is a share of the property value. Since higher-income households buy more expensive properties than lower-income households, they pay a higher tax relative to lower-income households.

Economic Efficiency

This tax is not related to the use of the ferry system, and thus has no effect on ferry rider's travel decisions in terms of mode choice, route, and schedule.

Implementation Options

A real estate excise tax could be levied at the county level, as is currently authorized in law. The tax could also be imposed as part of a newly created special assessment district.

Initial Implementation Barriers

There is no current mechanism in place for using locally collected revenues to support WSF.

2.9 LOCAL OPTION – COMMERCIAL PARKING TAX

State law has authorized counties or cities to impose commercial parking taxes (Authorized in RCW 82.80.030). No specific tax rate is set in the law. The Cities of SeaTac, Bainbridge Island, Bremerton, Mukilteo, and Tukwila have implemented the tax.

Yield

Precisely estimating future yield from a commercial parking tax surcharge would require building an inventory of all the commercial parking spaces in counties served by the ferry system.

To simplify the calculation, the revenues currently earned in each of the ferry-served cities where the tax is in place were averaged. The average amount earned in these cities (Bainbridge Island, Bremerton, and Mukilteo) was \$288,594 in 2005 (as reported in the Transportation Resource Manual). Assuming the Cities of Edmunds, Kingston, Clinton, Seattle, Fauntleroy, and Vashon all implemented the tax and received similar revenues, the total amount earned per biennium for all nine cities would be approximately \$5.2 million. These cities are the most likely candidates for imposition of a commercial parking tax to support the ferry system, because they have the greatest volumes of walk-on passengers, the primary customers of commercial parking lots located in proximity to the ferry system.

Although this is a very approximate calculation, it illustrates the fact that commercial parking lots located close to the ferry system are a small tax base, and would not be expected to generate substantial revenues for the ferry system. If all commercial parking lots in the eight ferry-served counties were included regardless of proximity to the ferry system, yield would be higher. However, that possibility is not considered here.

Reliability (Medium)

Reliability would be expected to be medium, because use of parking lots is somewhat discretionary. Often, users have multiple choices when accessing the ferry system, including being dropped off, bicycling, or taking transit.

Administrative Effectiveness (Medium)

Administrative effectiveness is medium, because this tax is currently authorized in law, but not used to support the ferry system.

Political Acceptability

Increasing parking charges in commercial lots near ferry terminals would be likely to be more politically acceptable than increasing taxes or fees unrelated to the ferry system.

Equity

Increasing commercial parking charges in ferry-served counties is relatively equitable, in that it places more of the burden of paying for the ferry system on ferry system users. The charge might burden lower-income individuals more than higher-income individuals, since it would represent a greater share of their income.

Economic Efficiency

Economic efficiency is low, because this tax is not related to the use of the ferry system, and thus has no effect on ferry rider's travel decisions in terms of mode choice, route, and schedule.

Implementation Options

This tax may be an appropriate means to finance local access improvements to the ferry system, such as expanded parking areas, bus bays, or pedestrian walkways.

Implementation Barriers

There is no current mechanism in place for using locally collected revenues to support WSF. Note that voter approval is not necessary in order to implement the commercial parking tax, but it is subject to referendum.

2.10 DEVELOPMENT IMPACT FEES

Yield (Medium)

Development impact fees are one-time fees aimed at mitigating the impacts of new development, including impacts stemming from increased usage of transportation infrastructure.

To calculate the potential yield from development impact fees, Census data were used to estimate population growth rates and the average number of persons per household for the eight ferry-served counties for the period 2008 to 2023. This information was used to determine the number of new residences needed to

accommodate population growth. Finally, a one-time fee of \$1,000 per new residential unit was assumed. This fee would have to be assessed on top of existing development fees to support ferry services.

The amount of the fee was obtained from a report prepared previously for the State of Washington Legislative Transportation Committee.⁹ Note that this is an estimate only. The actual fee level would have to be established through a study relating new development with the cost of expanded transportation infrastructure needs.

Preliminary estimates yielded a revenue stream of \$38 million per biennium. This estimate assumes impact fees on residential development only, and does not include commercial and industrial land uses.

Reliability (Low)

This source of revenues is less stable than other sources (e.g., gas tax), and is directly related to the general health of the economy. A booming economy should spur new housing developments, but the converse is also true. In addition, this source's stability depends upon municipalities' building permit processes; typically, impact fees are paid by the time a building permit is issued, so delays in this process will affect the collection of impact fees.

Administrative Effectiveness (Medium)

Administrative effectiveness is medium, because developer fees have been authorized in law, but are not currently being used to support WSF.

Political Acceptability

It is anticipated that additional impact fees on new residential developments will face strong opposition from interest groups (e.g., builders, developers, etc.).

In addition to political opposition, legal issues may arise as well. Cities, municipalities, or counties that implement additional impact fees can expect legal challenges from those affected, as it has been in the past with legal cases like the City of Olympia vs. Drebeck, where the City's methodology for calculating impact fees was challenged in court.¹⁰

Equity

The equity issue is complex and requires a detailed evaluation as it has ramifications that affect different stakeholders in different ways. Increasing fees on new

⁹ Source: Public Finance Management, *Study of Alternative Transportation Project Funding Options*, 2005.

¹⁰Source: <http://www.mrsc.org/subjects/planning/impactpg.aspx>.

development will naturally raise the price of housing, as developers and builders pass these costs onto consumers, which may go against a policy objective, if it exists within the municipality, to provide affordable housing. This burden could be reduced if the level of the impact fee were differentiated by the size and type of dwelling. On the other hand, impact fees may eliminate the need to raise general taxes, making them more “equitable” than sales taxes, for instance, which are a regressive form of taxation.

From the perspective of ferry users versus nonusers, impact fees are relatively equitable since they place the burden of funding the ferry system on those who have reasonable access to it.

Economic Efficiency (Low)

The fee does not impact ferry riders’ decisions in terms of mode choice (drive or walk) and schedule choice; therefore, it does not promote economic efficiency.

Implementation Options

New development impact fees could be implemented in the areas served by the ferry system, which encompasses the following eight counties: Island, Jefferson, King, Kitsap, Pierce, San Juan, Skagit, and Snohomish.

Initial Implementation Barriers

Initial implementation barriers include the need for local implementation of the fee, potential legal challenges to the fee, and the need to overcome equity and housing affordability issues.

Additional Information Needs

To make a more precise estimate of yield, the following information would be needed: county budget data detailing current impact fees; real estate data (residential, commercial, industrial) for the eight-county area, including historical housing growth, commercial and industrial square footage information, property values, etc.; information on accepted methodologies for calculating impact fee levels; and ferry usage data that would substantiate impact fee calculation.

3.0 Ferry System Revenues

3.0 Ferry System Revenues

The following three different sources of ferry-system-related revenue were screened:

1. Ferry fares;
2. Ancillary revenues from existing offerings, including revenues from on-board and terminal concessions, parking, and advertising; and
3. Revenue from new offerings, including preferred loading lanes and vehicle reservation systems.

Detailed evaluations of each source are included below.

3.1 FERRY FARES

Yield (Medium)

According to the Washington State Transportation Resource Manual, every one-percent increase in ferry fares yields \$3.1 million additional revenues per biennium.

Increasing ferry fares by inflation during the biennium would yield approximately \$18 million in additional revenues, assuming an inflation rate of three percent per year.

It is important to note that relationship between ferry fare increases and yield is nonlinear. At a certain point, increasing ferry fares will not add any additional revenue because riders will forgo trips due to the cost. The estimate of yield above does not take this complexity into account, but it will be addressed in later stages of this study.

Reliability (High)

Ferry fare revenues would be expected to be relatively reliable, given the fact that a significant percentage of the trips are nondiscretionary (50 percent of annual trips are commute trips)¹¹, and that some riders are ferry dependent. However, economic fluctuations would be expected to cause changes in the number of discretionary trips made on the ferry system.

Another advantage of ferry fares is that they are directly controlled by the WSDOT, and as such is not likely to be diverted for use outside ferry system.

¹¹Source: <http://www.wsdot.wa.gov/ferries/pdf/WSFLargest.pdf>.

Note that ferry fares, like any flat fees, are particularly vulnerable to inflationary pressures. If they are not indexed to inflation, they will lose their buying power over time.

Administrative Effectiveness (High)

Administrative effectiveness is assumed to be high, because there is an existing mechanism for collecting fares. If the fare increase involves imposition of a surcharge that does not already exist, there will be a greater administrative cost associated with implementing it.

Political Acceptability

No increase in taxes, fees, or fares is politically popular. However, increasing fares is likely to be more acceptable than increasing taxes or fees unrelated to the ferry system. In addition, preliminary analysis of the first wave of the WSF customer survey revealed that there may be room to increase fares without alienating customers. Answers to the survey questions suggest that posted (nondiscounted) vehicle fares could increase by as much as 20 percent and walk-on fares could increase by as much as 15 percent and still be within an acceptable range for most riders.

Equity

Raising ferry fares is equitable from the perspective of ferry riders versus non-riders. A fare increase would draw additional revenue from those who benefit directly from the system (riders), rather than those unconnected with the system, such as those living in the eastern part of the State. Depending on how the fare increase was implemented, it could burden some riders more heavily than others (such as commuters vs. recreational riders). In terms of regressivity, this fee is somewhat regressive as low-income riders have to disburse a higher share of their income to pay the fare than higher-income riders.

Economic Efficiency

Raising ferry fares has a high-economic efficiency, because it connects the cost of providing ferry service with the price paid to use it.

Implementation Options

There are many mechanisms for implementing fare increases, such as flat fare increases, peak pricing, route-pricing, seasonal pricing, fuel surcharges, elimination of discounts, and so forth.

There are advantages and disadvantages associated with applying a fare increase selectively. The main advantage is that it provides a tool to support objectives other than revenue generation, such as demand management. For example, applying fare increases to peak drive-on passengers could reduce system capital costs, targeting the increases at occasional users could be more politically

acceptable, and implementing the increase as a fuel surcharge would reduce vulnerability to unexpected fuel price increases. However, if the fare increase is limited to a small pool of users, yield may be very low.

Multiple types of increases may be necessary for WSF to meet both its revenue and policy objectives. For example, an annual across-the-board increase in fares to keep up with inflation is not incompatible with a peak-pricing surcharge.

Initial Implementation Barriers

There is a strict system for setting fare policy that does not currently allow certain types of fare increases. For example, there is no legal mechanism for WSF to implement automatic fare increases to cover unexpected fuel increases.

By law, fares can not be increased until September 1st, 2009.

Additional Information Needs

- **Assumed rates of inflation** - For additional funds to be raised from fares, they would have to be increased by a percentage that exceeds inflation. WSF Draft Strategic Plan assumes an annual inflation rate of three percent.
- **Assumed minimum rate of fare increase** - WSF Draft Strategic Plan assumes an annual fare increase of 2.5 percent.
- **Fare elasticity** - Fare elasticities are needed to determine how much additional revenue could be gained from a fare increase.
- **Ridership projections** - Ridership projections will be needed to calculate the expected revenue from fares over the planning horizon. If the fare increase is applied to a subset of ferry users, ridership projections for that subgroup will be needed. The WSF Draft Long-Range Plan shows a significant future ridership increase; however, these projections are in the process of being revised.

3.2 ANCILLARY REVENUES

Yield (Low)

Revenues from concessions (e.g., food and beverage sales, property income) are currently used to support the ferry system. Between 2005 and 2007, these revenues amounted to \$5.6 million, or 1.4 percent of WSF's operating funds. The majority of revenue comes from on-board concessions, with smaller amounts coming from terminal concessions, parking, and advertising income.

Efforts have already been made to increase revenues from concessions through expanded advertising contracts and expanded on-board offerings such as WIFI. Increasing revenue would require new investments above and beyond those already being made (possible new investments are listed under "implementation options" below). Absent such investments or a substantial increase in ferry

ridership, concessions income will likely increase only marginally or remain stable.

WSF could significantly increase revenues from concessions if the entire ferry system were restructured through a public-private-partnership arrangement (see the section on public-private partnerships (PPPs)). Many peer ferry systems, such as BC Ferries and Scandlines, are operated by private companies under contract with the government. The fact that they are private allows these companies to operate on-board and terminal concessions in-house and keep net concessions revenues. For example, in 2007 BC Ferries generated more than \$70 million in gross on-board and terminal food and beverage revenue (as well as \$23 million in other ancillary revenues such as parking, advertising, reservations, etc.) on its major routes. This level of revenue is possible in part because BC Ferries is privately operated; nearly all concessions profits stay within the company¹². By contrast, WSF only takes in a share of net concessions revenues (currently around 10 percent of sales for on-board concessions).

Reliability (Low)

Most concessions purchases are food and drink purchases and are discretionary. Purchases would be expected to rise and fall with economic fluctuations. Moreover, under current arrangements, WSF has incomplete control over its concessions contracts. Future contracts are not guaranteed, but depend on the private-sector interest in providing concessions. WSF may not be able to obtain private-sector participation if its concessions fee structure and labor requirements are too arduous.

Administrative Effectiveness (Low)

If WSF wishes to obtain more revenue from concessions, it would likely have to make significant up-front investments in the space available for concessions.

Political Acceptability

Increasing revenue from concessions is not likely to meet with political objections unless it adversely affects riders. For example, heavy advertising in vessels and terminals could be negatively perceived by riders. However, if designed appropriately, expanded concessions offerings are likely to be well-received.

Equity

Obtaining additional revenues from concessions is relatively equitable, since the additional revenues would be provided voluntarily by ferry users according to their willingness to pay for the service being offered.

¹²BC Ferries contracts with other private operators to provide food services.

Economic Efficiency

Obtaining additional revenues by expanding concessions offerings is economically efficient; ferry users pay directly for goods and services.

Implementation Options

For WSF to substantially increase revenues from concessions, it would have to make significant new facility investments or enter into public-private partnership arrangements covering all or a portion of the system. Some of these investments might include the following:

- **Expand/renovate terminals** – WSF is currently exploring opportunities for expanding concessions space in its terminals through public-private partnerships. WSF could also explore redesigning terminals so that more ferry users would have to pass through the terminal in order to get to the boat.
- **New or higher priced parking facilities near terminals** – WSF could seek opportunities to expand the supply of parking it offers, or to raise the cost of existing parking.
- **New concessions offerings on-board** – The 2002 WSF Amenity Concept and Customer Satisfaction Study indicated that many riders would be interested in expanded on-board offerings, especially food courts, espresso stands, and pubs/bars. About one-third of riders indicated they would use such amenities on a regular basis (for one-half of their trips or more). WSF has already made efforts to attract private interest in providing expanded concessions offerings, but could look for more opportunities to do so.
- **Expanding advertising** – WSF has already expanded its advertising contracts. These contracts are expected to bring in an additional \$400,000 in revenues in 2009. Assuming these revenues are realized, WSF could look for more opportunities to expand the scope of its advertising contracts.

Initial Implementation Barriers

WSF already has multiyear food and advertising contracts in place. To make significant changes to its concessions strategy, WSF would either have to renegotiate existing contracts, add new contracts, or wait until current contracts expire.

Additional Information Needs

- The cost of any future investments made to increase concessions revenue; and
- Effect of new investments on demand for concessions

3.3 NEW OFFERINGS

WSF is currently considering offering new services to travelers, including preferred loading lanes and reservation systems.

Yield (Low)

The approximate yield that could be obtained from preferred loading lanes or a reservation system was calculated using responses to questions on the first (March 2008) wave of the WSF customer survey. The survey included questions on the expected frequency of use and the willingness to pay for a reservation system and preferred loading lanes. Combined yield for both options was estimated to amount to approximately \$8 million per biennium.

It should be noted that the estimates above are significantly lower than the revenues earned by WSF's peer ferry system, BC Ferries. In FY 2007, BC Ferries earned about \$3.25 per vehicle from its reservation system and \$0.50 per vehicle from its preferred loading lane system on its major routes alone (this amounted to a total of almost \$15 million in that year). This compares with about \$0.15 and \$0.25 per vehicle predicted above for the reservation systems and preferred loading lanes, respectively. The discrepancy is likely due to differences in the rider markets served by BC Ferries and WSF, but it also raises a question as to whether WSF riders may have understated their willingness to pay for a reservation system in their survey responses.

Reliability (Low)

Preferred loading lanes and reservations are premium services that would be used on a discretionary basis by ferry riders, and would therefore be less reliable than mandatory payment of increased ferry fares. Usage of any discretionary premium service would be expected to fluctuate with the economy.

Administrative Effectiveness (Low)

A new, systemwide reservation system would require a significant up-front investment, so would have low administrative effectiveness. Preferred loading lanes could potentially require reconfiguration of loading areas, and a new method of fare collection would also be considered to have low administrative effectiveness.

Political Acceptability

Because reservations and preferred loading lanes would be purchased on a voluntary basis by ferry riders, they would have higher political acceptability than mandated fare, tax, or fee increases. However, riders may object to a reservation system if it effectively constitutes a fare increase (e.g., as in a case where the reservation fee is set high and 95 percent of the boat is reserved). In addition, preliminary work conducted by WSF and its consultants indicates that there is limited internal support for the preferred loading lanes concept.

Equity

Obtaining additional revenues from premium services is relatively equitable since the additional revenues would be provided voluntarily by ferry users.

Ferry users would provide the additional revenues according to their individual willingness to pay for the service being offered. However, lower-income individuals could be adversely affected by a reservations system, since they may have difficulty affording the additional charge, and less of the boat's capacity would be available to those not able to afford the premium.

Economic Efficiency

Obtaining additional revenues from premium services is economically efficient in that it promotes efficient use of a limited resource (space on the ferry boat). Economic efficiency would be enhanced if the price of making a reservation or using the preferred loading lane were to fluctuate based on demand for the service. For example, the fee charged for a reservation could be increased during peak hours when demand is high.

Implementation Options

WSF and its consultants are developing implementation options for the vehicle reservation system and preferred loading lanes. Some of the issues under consideration for the reservation system include the following:

- How much capacity is reserved, and how quickly reserved capacity is released; and
- How customers access the system (web based, walk-up based, and phone based).

Initial Implementation Barriers

- An up-front investment of resources would be required to implement a reservation system.

Additional Information Needs

- Estimates of the cost to purchase and maintain a reservation system over the 16-year planning horizon;
- Likely scope of the reservation system and preferred loading lanes (the number of routes it would cover);
- Projected ridership on affected routes (disaggregated by recreational, commuter, etc.); and
- Amount of the reservation or preferred loading lane fee.

4.0 Public-Private Partnerships

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During the last decade, public-private partnerships (PPPs) have become more a common mechanism for transportation infrastructure development. As conventional funding sources have become scarce, governments and other public organizations are using PPPs to build and operate transportation infrastructure and other public services. In the U.S., PPPs have encountered a mixture of reactions, favorable and not, but the trend has generally paralleled one taking place globally.

There are a wide variety of PPP alternatives available to WSF, including a long-term lease of the entire ferry system, terminal joint development, and ferry vessel leasing arrangements. Some of these alternatives are presented below as suggestions for further discussion and study. Detailed evaluation of the feasibility of PPP alternatives is beyond the scope and purpose of the Commission Ferry Funding Study and will not be pursued herein.

Long-Term Lease of Ferry System

Several major ferry systems around the world are operated through a long-term lease of the system to a private or quasi-private operator. BC Ferries is a proximate example, and is discussed in more detail below.

Typically, the private firm makes an up-front payment to the government for the rights to exploit the concession during the timeframe specified in the concession agreement. Alternatively, the company can enter into a revenue-sharing agreement where it makes payments to the agency from operations-generated revenues that exceed a pre-established revenue cap.

A long-term lease arrangement for WSF would come with both opportunities and potential challenges.

Opportunities

- A long-term lease of the system would not eliminate the need for state subsidy for the ferry system, but could reduce the amount of subsidy needed by increasing ancillary sales (see BC Ferries example) and by giving the private operator more flexibility to raise revenues from fares or expanded services on profitable routes;
- “Steer” rather than “row” – enables the agency to focus on direction and oversight of the system rather than managing day-to-day operations;
- Focus on performance measures, or key performance indicators (KPIs) – enables the agency to manage the private operator’s contract by a pre-established set of metrics or performance indicators;

- Up-front payment from private operator, or other form of financial arrangement – an up-front payment from a leased route could enable the agency to fund timely infrastructure needs in other parts of the system; and
- Efficiency – by moving away from day-to-day operations to overseeing the system, it enables management to focus on critical issues and strategies to maintain and improve services.

Issues

- Labor contracts – private operator would have to assume existing labor contracts, hence operational efficiencies may be limited due to labor contract restrictions.
- Relinquishing control – management may find it difficult to let a private operator take control of day-to-day operations; it may want to still be part of ongoing operations, even after contract execution. In Washington State members of the public and the Legislature may have similar concerns over relinquishing control of a familiar institution to a private entity.
- Profiting from a public “good” – as a private enterprise, a private operator expects a certain minimum return on investment, hence projecting the image as profiting from a public good or asset, which may prove unpopular with politicians and stakeholders.
- Long-term contracts – the duration of the contract is another issue for the agency, as these contracts typically span several years and in some cases, several decades, as is the case with BC Ferries, which is privately operated under a 60-year contract. This long-term relationship with a private operator may prove difficult to manage in some instances; much depends on how the concession agreement is designed.
- Privatization “stigma” – bringing private companies to build and operate infrastructure systems projects the idea that the government is selling public assets, spurring negative reaction from the general public, which affects the lease/concession concept even when this is not privatization.

BC Ferries Example

BC Ferries is the closest peer system to WSF, in terms of geography and operational characteristics¹³. Accordingly, BC Ferries has faced many of the same challenges encountered by WSF. Lack of stable funding, particularly to meet vessel replacement and maintenance needs, was a major problem in the past. In the

¹³The systems have similar annual ridership (over 20 million); similar vehicle annual vehicle usage (about 10 million). However, BC Ferries sailing times are about twice as long as those of Washington State Ferries (about an hour on average compared to one-half hour on average).

words of one staff person, BC Ferries went “cap in hand” every year to the state legislature to ask for capital funds. Billions of dollars in capital needs accumulated over the years.

Instead of raising taxes or fees to cover the shortfall, the government of British Columbia decided to reorganize BC Ferries into a private company. This was accomplished with the passage of the 2003 Coastal Ferry Services Act, which gave BC Ferries a 60-year leasehold over the ferry system, and set up an independent entity, the Ferry Commission, as a mediator between the government and the ferry company. Under the new arrangement, the government reimburses BC Ferries for the cost of operating unprofitable ferry routes.

Staff of BC Ferries interviewed for this report indicated that the restructuring process has been greatly beneficial for the ferry system, and has allowed a major revitalization of system infrastructure. Some specific benefits have included the following

- Greater control over fares – Although fares are regulated by the Ferry Commission, BC Ferries has the authority to raise fares at will to cover unexpected cost increases (e.g., from fuel costs).
- Ability to keep all concessions revenues – As a private company, BC Ferries runs its own concessions operations (e.g., food and drink sales), and is therefore able to keep all of its concessions revenues, which amount to more than \$70 million annually. By contrast, WSF only keeps about 10 percent of the revenues earned by private concessions providers with which it contracts.
- Ability to attract private investment – As a private company, BC Ferries is able to raise money for capital by selling bonds to private investors. Debt from these bonds is paid down through operating revenues.
- Flexibility – As a private company, BC Ferries has the flexibility to make strategic choices with relatively little outside interference. By contrast, WSF has limited control over decisions that affect the system.

Other PPP Alternatives

In addition to the full concession/lease scheme described above, other alternatives are available that provide an opportunity to address WSF’s capital needs. This section addresses two such alternatives: terminal joint-development and vessel leasing.

Terminal Joint-Development

WSDOT, via its PPP Program, is currently studying potential opportunities to joint-develop potential ferry system terminals with the private sector and other public partners. As defined by WSDOT, joint development means “a real estate development project that includes coordination between multiple parties to develop sites near the terminal, usually on publicly owned land.”

The current phase of the study has identified three terminals with the greatest potential for real estate development: Bainbridge Island, Seattle's Colman Dock, and Edmonds. According to WSDOT staff, preliminary findings of the study indicate that the additional revenue generated by these arrangements will likely be limited.

Vessel Leasing

Another alternative to address WSF's critical capital financial needs is the leasing of ferry vessels from private operators (as opposed to direct vessel purchase). One possible type of arrangement is the design-build-lease approach, in which the private sector would take the risk of design and construction of vessels based on WSF specifications, and then lease the vessels to WSF. The arrangement could be structured to include options to renew the vessel lease or purchase the vessels. Vessel purchase may be more attractive depending on the financial conditions of WSF at the time of renewal, as well as the general economy and financing environment (e.g., interest rates).

This option would be similar to the aviation industry where commercial airlines lease aircrafts not from the manufacturers but from separate organizations that specialize in leasing aircrafts to airline customers; the leasing company takes the risk of delivering the aircraft according to customer's specifications at a negotiated price.

The leasing option could potentially have the following benefits for WSF:

- Minimize the initial capital outlay required to acquire vessels.
- Shift the design-build risk to the lessor as all cost overruns would be borne by the lessor. This is critical as WSF has had experience with cost overruns in the past when purchasing vessels.
- Enable WSF to focus on providing service to customers instead of diverting needed resources to the maintenance of vessels (this may depend on the type of arrangement).

The potential downside of this alternative is that in the long term, it may end up costing more than the actual acquisition cost of the vessels. The Transportation Commission may consider undertaking a study to compare both alternatives, while taking into account past WSF history of cost overruns when existing vessels were procured.