



Long-Term Ferry Funding Study

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



Executive Summary

Washington State Transportation Commission

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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.

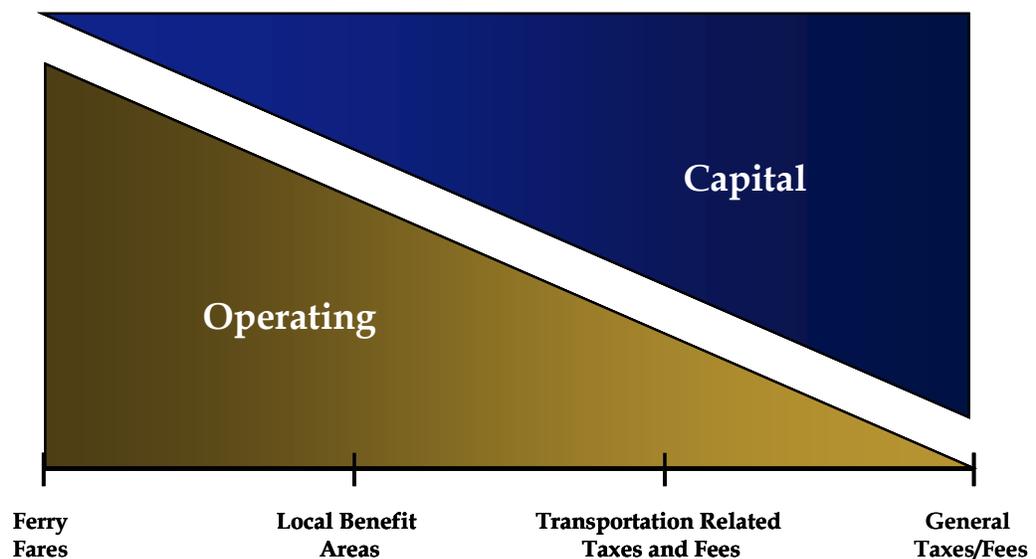
Organization of Screening Results

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.