

# Long-Term Ferry Finance Study

*Part I Report – Financial Background  
and Summary of Previous Studies*



*prepared for*

**Washington State Transportation Commission**

*prepared by*

**Cambridge Systematics, Inc.**

February 2008





STATE OF WASHINGTON

**TRANSPORTATION COMMISSION**

*PO Box 47308, Olympia, Washington 98504-7308 • (360) 705-7070*

*Fax: (360) 705-6802 • E-Mail: [transc@wsdot.wa.gov](mailto:transc@wsdot.wa.gov) • <http://www.wsdot.wa.gov/commission>*

February 6, 2008

The Honorable Christine Gregoire  
Office of the Governor  
PO Box 40002  
Olympia, WA 98504-0002

The Honorable Members  
Senate Transportation Committee  
PO Box 40482  
Olympia, WA 98504-0482

The Honorable Members  
House Transportation Committee  
PO Box 40600  
Olympia, WA 98504-0600

Dear Governor Gregoire, Senators, and Representatives:

We are pleased to submit to you the Part 1 Report of the Commission's Long-Term Ferry Finance Study addressing financing alternatives for Washington State Ferries (WSF). The work to date collects and summarizes information about historical and current funding of the WSF, legal and regulatory issues related to funding the ferry system, and examples of finance practices of other comparable ferry system operations. This report does not present recommendations or draw new conclusions, other than to bring together information from disparate sources and thus make both the current situation and possible courses of action substantially more clear.

The second phase of this study has been proposed to complete the Commission's Long-Term Ferry Finance Study by conducting detailed analysis of the funding capacity and feasibility of several alternative financial strategies. This work would be coordinated with ongoing studies of ferry system operational and pricing strategies, capital and operating revenue needs, etc., being directed by the Joint Transportation Commission and the Department of Transportation. A second report, to be prepared by late fall 2008, would present findings of this more specific analysis and will recommend implementing actions for a long-term finance package.

We look forward to your guidance and participation in the development of a stable, long-term financing plan for the Washington State Ferry system.

Sincerely,

Richard Ford  
Chair, Washington State Transportation Commission



*final report*

# Long-Term Ferry Finance Study

## *Part I Report*

*prepared for*

The Washington State Transportation Commission

*prepared by*

Cambridge Systematics, Inc.  
555 12<sup>th</sup> Street, Suite 1600  
Oakland, California 94607

*date*

February 2008



# Table of Contents

<b>Executive Summary .....</b>	<b>ES-1</b>
<b>1.0 Introduction .....</b>	<b>1-1</b>
1.1 Financial Situation of Washington State Ferries .....	1-1
1.2 Phase II Ferry Financing Studies .....	1-3
1.3 Structure of This Report.....	1-3
<b>2.0 Review of Previous Studies .....</b>	<b>2-1</b>
2.1 History of Ferry Finance in Washington .....	2-2
2.2 Current Financing.....	2-6
2.3 Funding Sources .....	2-14
2.4 Recommendations from Previous Studies .....	2-16
2.5 Summary of Findings.....	2-22
<b>3.0 Ferry Systems Comparison .....</b>	<b>3-1</b>
3.1 Washington State Ferries .....	3-2
3.2 British Columbia Ferry System.....	3-6
3.3 Scandlines .....	3-12
3.4 Alaska Marine Highway System.....	3-15
3.5 Bay Area Ferry Services .....	3-17
3.6 Summary of Findings.....	3-20
<b>4.0 Regulatory Framework .....</b>	<b>4-1</b>
4.1 State Funding Sources.....	4-1
4.2 Regional Funding Sources.....	4-2
4.3 Local Funding Sources.....	4-4
4.4 Other Potential Revenue Sources Not Currently Authorized to the WSF .....	4-4
4.5 Summary of Findings.....	4-5
<b>Appendix A. Staten Island Ferry System .....</b>	<b>A-1</b>
<b>Appendix B. Washington State Ferries Revenues and Expenses, 2005-2007     Biennium .....</b>	<b>B-1</b>



# List of Tables

Table ES.1	Sources of New Transportation Funds Recommended in Previous Studies .....	ES-3
Table ES.2	Summary Ferry Systems Comparison, 2006.....	ES-5
Table ES.3	Summary of WSF Revenue Sources.....	ES-7
Table 2.1	Ferry Finance Timeline.....	2-5
Table 2.2	Accounts .....	2-11
Table 2.3	Inventory of Funding Sources .....	2-15
Table 2.4	Sources of New Transportation Funds Recommended in Previous Studies .....	2-23
Table 3.1	Ferry Systems, 2006.....	3-1
Table 3.2	WSF Fare Adjustments .....	3-3
Table 3.3	Anacortes-Sidney Fares 2007 .....	3-5
Table 3.4	2007 BC Ferries Fares in U.S. Dollars, One Way .....	3-8
Table 3.5	2007 Scandlines Fares in U.S. Dollars .....	3-13
Table 3.6	Bay Area Fares, 2007 .....	3-19
Table 3.7	Summary Ferry Systems Comparison, 2006.....	3-22
Table 4.1	Summary of Revenue Sources.....	4-5
Table B.1	WSF Operating Program Sources and Uses of Funds <i>State Fiscal Biennium 2005-2007, In Thousands of Dollars</i> .....	B-1
Table B.2	WSF Capital Program Sources and Uses of Funds <i>State Fiscal Biennium 2005-2007, In Thousands of Dollars</i> .....	B-2



# List of Figures

Figure 1.1	Washington State Ferries Fuel Costs Per Gallon <i>FY 2003 to FY 2008</i> .....	1-1
Figure 1.2	Comparison of Select World Class Ferry Operators .....	1-2
Figure 2.1	Ferry Operating Resources <i>2005 to 2007</i> .....	2-6
Figure 3.1	WSF Revenue Sources .....	3-2
Figure 3.2	Historical Ferry Fares Adjusted for Inflation <i>2006 Dollars</i> .....	3-4
Figure 3.3	BC Ferries Revenue Composition .....	3-7
Figure 3.4	Scandlines Revenue Composition .....	3-12
Figure 3.5	Alaska Funding Sources Composition.....	3-15
Figure 3.6	Bay Area Funding Sources Composition.....	3-18
Figure 3.7	Concessions Revenue Normalized by Weighted Average Sailing Time.....	3-21
Figure A.1	Staten Island Revenue Composition.....	A-2



---

# **Executive Summary**



# Executive Summary

Since elimination of the Motor Vehicle Excise Tax (MVET) in 2000, Washington State Ferries has struggled to fund its operating and capital needs. Multiple stop-gap measures, including reductions in ferry staff and service, fare increases, and transfers from other funding sources have been used to cover unmet expenses.

In spite of these measures, Washington State Ferries' finances are still under strain, not just due to loss of the MVET but because of the rapidly escalating cost of providing ferry service. Fuel costs alone have risen by about 50 percent since the 2003-2005 biennium, and are expected to continue to rise in the coming years. Raising the funds to cover rising fuel costs will be a major challenge.

The system is also strained by increasingly pressing capital investment needs. Washington State Ferries has the oldest average vessel age of any of 21 major ferry systems operating around the world<sup>1</sup>. The consequences of deferred maintenance and replacement of these vessels are already becoming evident. Just recently, a maintenance crisis with steel electric ferries caused the Governor to seek out \$100 million in emergency funds to replace the aging vessels.

The combination of the elimination of a major source of income (the MVET) and the effects of rapidly rising operating and capital costs point to the need for a sustainable, predictable, and long-term source of funding for Washington State Ferries. The Washington State Legislature has responded by commissioning this Long-Term Ferry Finance Study, which is aimed at identifying new sources of funds among a range of state, regional, or local alternatives.

This report is the product of Part I of Long-Term Ferry Finance Study. It summarizes the financial situation of Washington State Ferries and defines the range of future financing options, thus laying the groundwork for a more in-depth Part II study that will investigate several options in more detail. It consists of three sections:

1. A synopsis of previous relevant finance studies;
2. A comparison of Washington State Ferries with other ferry systems, focusing on financial characteristics; and
3. A review of legislative authority related to ferry funding in Washington.

Each section is summarized below.

---

<sup>1</sup> Source: British Columbia Ferries 2007 / 2008 Business Plan, [http://www.bcferrries.com/files/PDFs/BCFerries\\_Business\\_Plan\\_0708.pdf](http://www.bcferrries.com/files/PDFs/BCFerries_Business_Plan_0708.pdf).

## Review of Previous Studies

Several previous studies have addressed the issue of the future funding needs of Washington State Ferries or, more generally, the future transportation funding needs of the State as a whole. Although the studies covered disparate topics, a number of themes relevant to Washington State Ferries emerge from them:

- **Political considerations are crucial.** Voters have played a strong role in Washington State Ferries financial history by demanding the rescindment of the Motor Vehicle Excise Tax and by rejecting Referendum 51 in 2002, which would have provided new funds for ferries. Though the legislature stepped in and passed two new transportation funding packages in 2003 and 2005, the ferry system still lacks needed funds. Any new funding sources must be able to generate substantial and sustained support from voters.
- **Ferry fare structures should reflect markets.** Several previous studies indicated the need for a new fare structure in which fares are tailored to individual markets, such as certain travel sheds or customer groups (e.g., out-of-state tourists). The studies indicated such fare structures could help smooth out peak vehicle demand, maximize use of existing infrastructure, and help Washington State Ferries meet its' farebox recovery goals.
- **Maximize earned revenue.** Several previous studies have indicated that the ferry system can maximize its earned revenue by making the most out of its property holdings, such as through enhanced concessions, advertising, and value capture opportunities, as well as through the optimized fare structures described above. Maximizing revenue from the system itself adheres to the 'benefit principle' described in the Long-Term Financing Study, which states that users should pay for the transportation services they receive. It should be noted, however, that current financial policy in the State of Washington limits the use of user fees to no more than 100 percent of operating costs.
- **Maximize revenues from existing sources and develop new sources.** Several studies recommended maximizing revenues from existing sources by indexing the gasoline tax to inflation and maximizing revenues from ferry operations (e.g., by optimizing the fare structure, expanding funds from concessions, and increasing ridership). Several studies also recommend specific new sources of funds, such as tolls, special assessment districts, etc.

Table ES.1 below lists existing and new sources previously recommended for the State of Washington generally, or Washington State Ferries specifically.

The Long-Term Financing Study suggests that any new funding sources adopted in the State should be evaluated based on the following criteria:

- **Yield and reliability.** The amount of funds the source can produce and the stability of the funding stream;

**Table ES.1 Sources of New Transportation Funds Recommended in Previous Studies**

Funding Source
<b>Taxes</b>
Index the gas tax <sup>a,b</sup>
Sales tax on gasoline <sup>a,b</sup>
Special assessment districts, property tax, or parcel tax in areas benefiting from ferry service <sup>a,b</sup>
Sales taxes (general and on vehicle parts) <sup>a</sup>
Tax increment revenues <sup>a</sup>
Tax on local tourism/recreation-related business accessible by ferry (e.g., hotel or restaurant tax) <sup>b</sup>
<b>Charges and Fees</b>
Tolls <sup>a,b,c</sup>
User fees based on VMT <sup>a,b</sup>
Container fees <sup>b</sup>
Development impact fees <sup>a</sup>
<b>Ferry System Earned Revenue</b>
Increase revenue from fares through fare restructuring (e.g., tourist surcharge, time-of-day, route pricing) <sup>a,d,e</sup>
Increase revenue from concessions (parking, advertising) <sup>a,e</sup>
Increase revenue by increasing ferry ridership
<b>Other</b>
Regional funding <sup>a</sup>
Private-sector contributions/development partnerships <sup>a,e</sup>

a. Recommended in the Washington State Transportation Plan.

b. Recommended in the Washington State Long-Term Financing Study (Cambridge Systematics, Inc.).

c. Recommended in the Statewide Tolling Study (Cambridge Systematics, Inc.).

d. Recommended in the Ferry Financing Study (Cedar River Group).

e. Recommended by Washington State legislators in interviews for the Ferry Financing Study (Cedar River Group).

- **Public acceptance.** While any new taxes or fees may be objectionable to the public, funding sources that are somewhat removed from the transportation project or service they are supporting tend to be particularly unpopular;
- **Administrative effectiveness.** The cost and ease of administering the fee or tax;
- **Economic efficiency.** The ability of the source to send a clear price signal; and
- **Regressivity.** The extent to which a funding source (tax or fee) equitably burdens different groups of people.

The report further suggests that the “benefit principle,” which is the idea that funds for a service should be drawn directly from those who benefit from it, is a useful consideration when evaluating funding sources. As applied to

Washington State Ferries, the principle suggests that new funds should be drawn from those who benefit directly (e.g., ferry users) or somewhat directly (e.g., property and business owners in areas with access to ferries) from the system.

## Review of Ferry Systems

A scan of other auto and passenger ferry systems was conducted to identify funding strategies of potential interest. True “peer” systems are uncommon as each system has many unique characteristics. From an initial longer list of systems around the world, four were selected for comparison: the Alaska Marine Highway System, British Columbia Ferries, San Francisco Bay Area ferry service provided by multiple operators, and Scandlines, a Danish ferry system. These systems differ significantly in their revenue composition, as well as in their specific operating environment. The most relevant financial characteristics are compared below and in Table ES.2.

- **Farebox recovery ratio.** Washington State Ferries and BC Ferries are able to cover a similar portion of their operating costs through their earned revenue (about 72.7 and 77 percent, respectively). Scandlines is able to cover a much larger portion (93 percent), in part because of its ownership of lucrative retail stores and revenues from the freight industry. The Alaska Marine Highway System covers a smaller portion (38 percent) of its operating costs with its earned revenues.
- **Revenue from concessions.** BC Ferries and Scandlines rely more heavily on customer-related activities (concessions, on-board catering, retail, etc.) to generate revenue, while U.S. ferries use it as a minor source. While BC Ferries and Scandlines are able to cover 16 and 39 percent, respectively, of their total operating costs through customer-related nonfare revenue, WSF and Alaska only cover 1.4 and 5 percent, respectively. These differences cannot be explained solely by the fact that Scandlines and BC Ferries have on average longer sailing times than WSF. Some portion of the remaining difference is likely due to the fact that both BC Ferries and Scandlines offer a wider range of customer services and amenities than WSF, and Scandlines owns and operates a lucrative duty-free retail outlet at a border crossing.

Table ES.2 Summary Ferry Systems Comparison, 2006

	WSF	BC Ferries	Scandlines	Alaska
Annual riders (millions)	23.8	21.7	20.0	0.3
Annual vehicles (millions)	10.8	8.5	4.2	0.1
Vessels	28	36	24	11
<b>Operating Revenue (Main Sources)</b>				
Fares	71.3%	61%	54%	33%
Concessions/catering	1.4%	16%	39%	5%
Subsidies	27.3%	22%	2%	62%
<b>Capital Funding Sources</b>				
Operating revenue*	No	Yes	Yes	No
Loans	No	Yes	Yes	No
Bonds	Yes	Yes	No	No
Federal subsidy	Yes	Yes	Yes	Yes
State subsidy	Yes	Yes	No	No
Local subsidy	No	No	No	No

Sources: Washington State Department of Transportation Office of Budget & Financial Analysis; 2007-2008 British Columbia Ferries Business Plan; Scandlines Annual Report 2006; Interview with staff of Alaska Marine Highway System.

\* In the 1999 to 2001 and 2003 to 2005 biennia, state subsidies intended for the Puget Sound Operating Account were transferred to the Puget Sound Capital Construction Account. However, these subsidies did not include fare revenues.

- Sources of capital funds.** The ferry systems differ significantly in their sources of capital funds. Operating revenue is routinely used for capital purposes in both the BC Ferries and Scandlines systems, while it is infrequently used by Washington State Ferries and never used in the Alaska System. BC Ferries, for example, plans to fund about half of its capital expenses in the next five years through its operating revenue (which includes some government subsidy). WSF, BC Ferries, and Scandlines all use debt instruments to raise capital funds, but Alaska State Ferries does not, since its capital funding is drawn exclusively from Federal grants. One of the Bay Area ferry systems, Golden Gate Ferries, draws approximately 20 percent of its capital funds from tolls collected on the Golden Gate Bridge.
- Institutional arrangements.** Different institutional arrangements impact each ferry system's finances. BC Ferries and Scandlines, for example, are privately held, profitable companies that pay return on equity to shareholders. As such, they have access to capital markets that the other ferry systems do not. They also possess greater flexibility in changing their fares; BC Ferries, for example, is allowed to make unscheduled fare increases in order to cover losses related to rising costs. Golden Gate Ferries also has a

unique institutional arrangement in that it is a subsidiary of the Golden Gate Bridge Transportation District, a public entity that operates the Golden Gate Bridge. As such, the ferry system has direct access to toll bridge revenues.

The review of ferry systems revealed a number of unique or innovative sources of funding that could be pursued by Washington State Ferries in the future:

- **Demand management.** Price differentiation is seen as a convenient tool to stabilize demand by shifting some riders to the off-peak, while also attracting new travelers. Operators differentiate tariffs not only by season, but also by day and hour. The BC Ferries program CoastSaver, which provides fare discounts on specific vessels, has been a success.
- **Additional customer-related revenue.** As noted above, some of the ferry systems have succeeded in raising substantial customer revenues (\$27 million annually for BC Ferries and \$289 million annually for Scandlines) by diversifying the services offered on board and at ferry terminals in order to respond to customer preferences. They have added new products and services such as expansion of food and beverage options, bars and lounges, and retail merchandise.
- **Marketing.** To increase market awareness of the services provided and increase demand for them, operators are implementing marketing campaigns and pursuing joint marketing initiatives with tourism associations, tour wholesalers, and tour operators.
- **Fare adjustments.** Fare adjustments to keep pace with inflationary pressures are necessary to maintain levels of service. BC Ferries and Scandlines update their fares on an annual basis. In the case of BC Ferries, fares are linked to Vancouver Consumer Price Index. Additionally, when necessary, BC Ferries and Scandlines have imposed extraordinary charges to cope with unexpected rises in fuel prices. BC Ferries also is allowed to request extraordinary fare adjustments for capital needs.
- **Tolls.** In the San Francisco Bay Area, ferry operators obtain nearly one-third of their revenue from bridge tolls, which have been raised steadily over the past decade. In the past, WSF received additional support from the Hood Toll Bridge, which was considered part of the ferry system; however, in 1985 these funds were eliminated. Bridge tolls are no longer used to fund WSF.
- **Sales taxes, regional funds, and transit impact fees.** Among the tools identified to fund capital investments, other than operating revenue and debt, are local retail sales and property taxes, transit impact fees, and regional subsidies. Both local sales taxes and regional measures, such as funds from toll bridges, are currently used in the Bay Area, while transit impact fees are proposed to fund new services.

## Review of Legislative Authority Related to Ferry Funding

According to the Revised Code of Washington, there are several mechanisms that can be implemented at different government levels to fund operating and/or capital expenses of WSF. Among the sources available, county ferry districts may be a promising tool to fund both operating and capital expenses; as they do not require voters’ approval, they could help expedite the process of generating additional revenue from an essentially new source. At the local level, upon voter approval, counties or cities could support ferry services by imposing several taxes (sales, use, parking, etc.). Table ES.3 summarizes the revenue sources.

**Table ES.3 Summary of WSF Revenue Sources**

Revenue Source	Taxes/Fees Authorized	Uses
<b>State Level</b>		
Ferry fares	Fares	Operations Capital expenses only if identified separately in the fare
Warrants	N/A	Capital
Bonds	N/A	Capital
<b>Regional Level</b>		
County ferry districts	Ad valorem tax Excess property tax levy	Capital and/or operations Capital and/or operations
Public Transportation Benefit Area Authorities (Passenger ferries only)	Motor vehicle excise tax, sales and use tax, fares, passenger fares, parking, and concessions	Capital and/or operations of passenger-only ferries
<b>Local Level</b>		
Motor vehicle and special fuel tax	An additional fuel tax	Operations
Commercial parking tax	Parking tax	Capital and/or operations
Public Transportation System Sales/Use Tax	Sales and use tax	Capital and/or operations
Property Tax Road Levy	Property taxes	Capital and maintenance of wharves
Transit Taxes	Business and occupation tax	Capital and/or operations

Source: Cambridge Systematics, Inc.



---

# **1.0 Introduction**



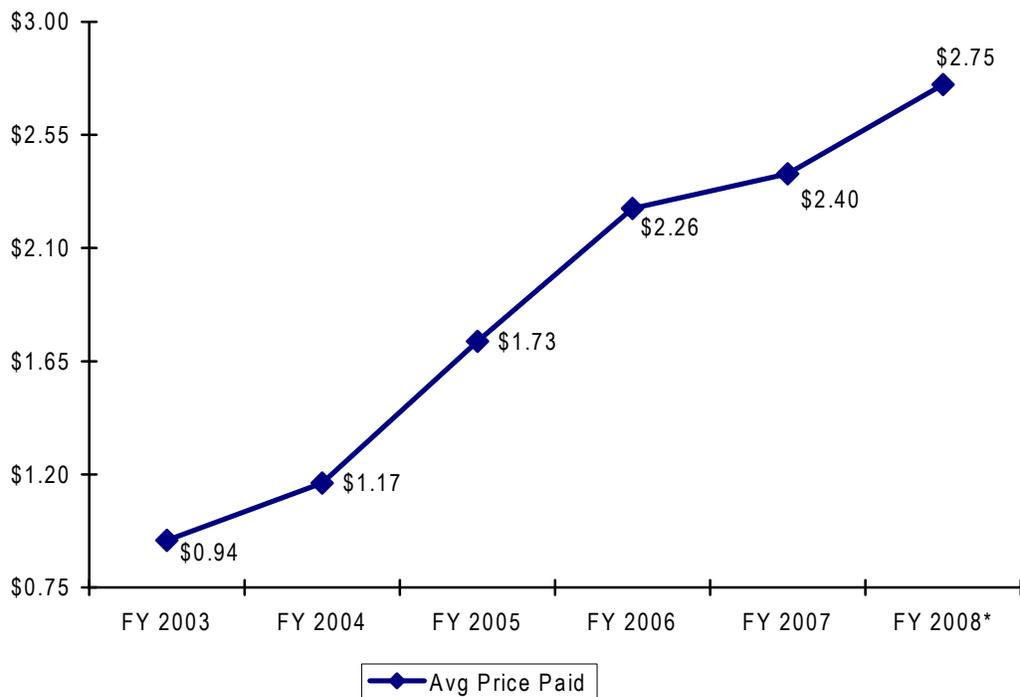
# 1.0 Introduction

## 1.1 FINANCIAL SITUATION OF WASHINGTON STATE FERRIES

Since elimination of the Motor Vehicle Excise Tax (MVET) in 2000, Washington State Ferries has struggled to fund its operating and capital needs. Multiple stop-gap measures, including reductions in ferry staff and service, fare increases, and transfers from other funding sources have been used to cover unmet expenses.

In spite of these measures, Washington State Ferries' finances are still under strain, not just due to loss of the MVET but also because of the rapidly escalating cost of providing ferry service. In particular, the rising cost of fuel presents a major challenge to the ferry system. Figure 1.1 below shows the average price per gallon of fuel paid by Washington State Ferries for the last several years and the expected price in 2008. The cost per gallon increased over 150 percent between FY 2003 and FY 2007.

**Figure 1.1 Washington State Ferries Fuel Costs Per Gallon**  
*FY 2003 to FY 2008*



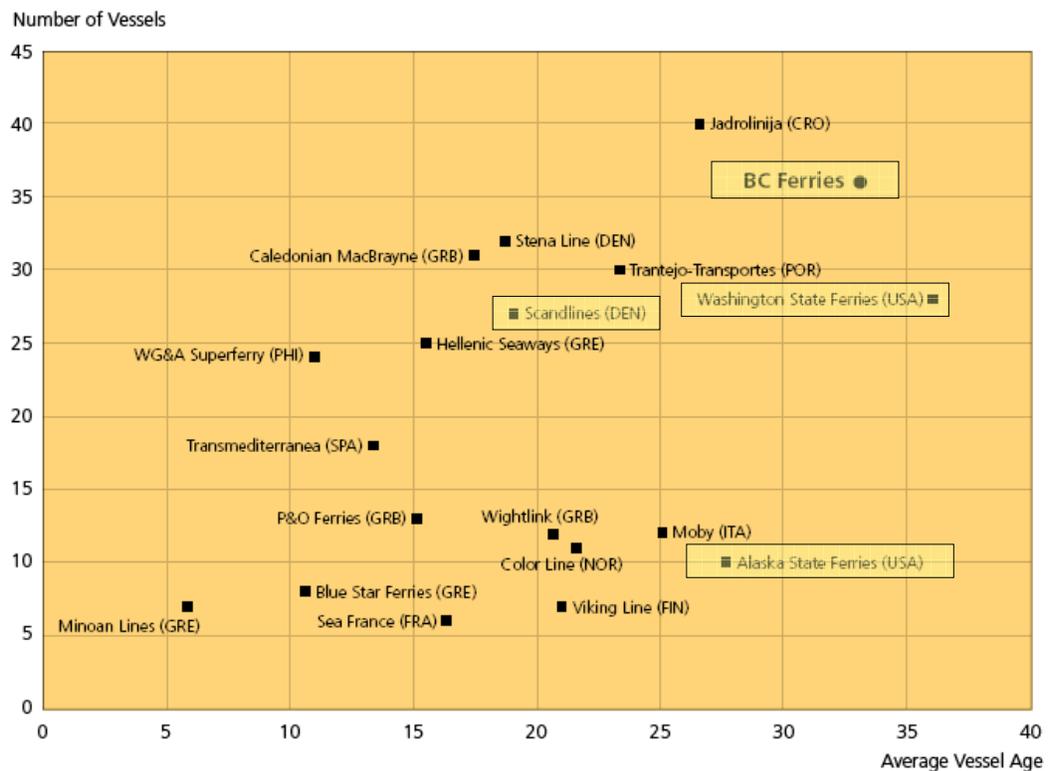
Source: Washington State Ferries Budget Office.

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

The system is also strained by increasingly pressing capital investment needs. Washington State Ferries has the oldest average vessel age of any of 21 major ferry systems operating around the world<sup>2</sup> (Figure 1.2). The consequences of deferred maintenance and replacement of these vessels are already becoming evident. Just recently, a maintenance crisis with steel electric ferries caused the Governor to seek out \$100 million in emergency funds to replace the aging vessels.

The combination of the elimination of a major source of income (the MVET) and the effects of rapidly rising operating and capital costs point to the need for a sustainable, predictable, and long-term source of funding for Washington State Ferries.

Figure 1.2 Comparison of Select World Class Ferry Operators



Source: British Columbia Ferries 2007/2008 Business Plan.

<sup>2</sup> Average vessel age for Washington State Ferries calculated before the recent retirement of several of the oldest steel electric ferries.

## 1.2 PHASE II FERRY FINANCING STUDIES

To help improve the efficiency and financial viability of Washington State Ferries in the long term, the State Legislature has commissioned a series of studies covering a wide range of system processes and operations, such as fare pricing, ridership forecasting, capital needs forecasting, labor agreements, and more.

The first major phase of study culminated in 2006 with the publication of the Cedar River Group Report, “Ferry Financing Phase I.” Following publication of the report, the legislature commissioned a second phase of study. The second phase will result in several new reports, of which this Long-Term Ferry Finance Study<sup>3</sup> is one.

This study is unique from the other Ferry Finance Phase II studies in that it focuses specifically on identifying long-term, sustainable sources of funding for Washington State Ferries. The questions of how much new capital and operating funding are needed and how costs can be reduced are not treated in this study but are being investigated in concurrent research efforts.

## 1.3 STRUCTURE OF THIS REPORT

This report is the product of Part I of the Long-Term Ferry Finance Study. It summarizes relevant background material and begins to define the range of financing options that could be used in the future to supplement or replace current funding sources. Its content will be used as the foundation for Part II of the study, which will involve a more in-depth investigation of future funding alternatives for Washington State Ferries, and which will incorporate projections of capital and operating needs, operational and pricing strategies, future passenger volume, etc.

This Part I report is organized into three sections:

1. **Section 2.0** consists of a review and analysis of previous studies, presentation, and reports on the subject of transportation finance in Washington State in general and the finance of Washington State Ferries in particular. The goal of the review is to summarize the financial situation of Washington State Ferries, both past and present, and to synthesize previous recommendations regarding where Washington State Ferries could look for future funding.
2. **Section 3.0** consists of a comparison of Washington State Ferries’ finances with those of four other ferry systems (BC Ferries, Scandlines, the Alaska Marine Highway, and Bay Area ferry services). The purpose of the

---

<sup>3</sup> The Long-Term Ferry Finance Study was commissioned by the legislature in ESHB 1094 Section 206.

comparison is to reveal the extent of subsidy needed by other ferry systems, and to begin to identify possible new sources of funding Washington State Ferries could pursue.

3. **Section 4.0** consists of a synopsis of the current legal and regulatory authority in place for collecting funds for ferries. The goal of the review is to determine what barriers, if any, exist to pursuing new and innovative sources of funding.

The information contained in this report will be used as the foundation for Part II of this study, which will involve a more in-depth analysis of future funding alternatives for Washington State Ferries.

---

## **2.0 Review of Previous Studies**



## 2.0 Review of Previous Studies

Considerable information about Washington State Ferries and its funding challenges have already been described in previous reports. This section summarizes that information to lay the groundwork for future consideration of innovative financing solutions. Rather than presenting a summary of each relevant report in sequence, it draws together information from several previous reports in order to answer the following questions:

- How has Washington State Ferries been funded in the past?
- How is it currently funded?
- What is the range of funding sources that could be drawn on for future funding?
- What funding-related recommendations have been made in previous studies?

### Sources

The following sources specific to Washington State Ferries were drawn on for this study:

- New ferry and budgetary-related legislation (HB 2358, adopted April 2007, and ESHB 1094);
- A research report and presentation by Douglas MacDonald, Mike Anderson, and Richard Ford, *Prospects for Washington State Ferries: Where are the Ferry System and its Finances Headed in the Next Sixteen Years?* (2007)
- Washington State Ferries Financing Study Final Report and Technical Appendices 1 to 5 (2006), prepared for the Washington Joint Transportation Committee by the Cedar River Group;
- Washington State Ferries Draft Long-Range Strategic Plan (2006);
- Washington State Ferries Progress Report (2001 to 2003);
- Washington State Ferries Two-Year Operations Report (1999 to 2001); and
- Report of the Washington State Legislature Joint Task Force on Ferries (2001).

The following Washington State-related sources were drawn on:

- Long-Term Transportation Financing Study (2007), prepared for the Washington Joint Transportation Committee by Cambridge Systematics, Inc.;
- State of Washington Long-Range Transportation Plan (2006); and
- Washington State Comprehensive Tolling Study (2006), prepared for the Washington State Transportation Commission by Cambridge Systematics, Inc.

## 2.1 HISTORY OF FERRY FINANCE IN WASHINGTON

In considering future funding directions for Washington State Ferries, it is essential to reflect on the past. Looking backward provides historical context for today's financial challenges, and may illuminate new strategies. This section describes the financial history of Washington State Ferries, including the removal of the Motor Vehicle Excise Tax and its repercussions.

### Transition to Public Operation<sup>4</sup>

Washington's ferries were initially operated by private companies regulated by the State. This started to change in the late 1940s with the development of major highways and bridges that served as an alternative to the ferry system. Operators were put under strain by diminished demand for ferry service and pressure from labor unions to raise wages. Denied permission to raise fares to cover their increased costs, the companies abruptly ceased ferry service. To keep the system running, the State bought out the ferry companies in 1951 and Washington State Ferries came into existence.

***Past Sources of Funds for the Ferry System:***

***Motor Vehicle Excise Tax (1977-2000)***

***Hood Canal Toll Bridge Revenues (1962-1985)***

At the time it was purchased, the ferry system was expected to finance itself solely through farebox revenues. The Toll Bridge Authority, which managed the ferry system's finances, was able to raise funds by selling bonds backed by farebox revenues alone. However, by 1960, the ferry routes were not generating revenues in excess of operating expenses. The state government stepped in and provided gas tax funds to pay the debt service on the ferry bonds. Between 1962 and 1985, the system also received support from toll revenues collected on the Hood Canal Toll Bridge, which was technically considered part of the ferry system at that time. The bridge sank in 1979; when it was replaced tolls were phased out by 1985<sup>5</sup>.

Since the 1960s, public subsidies have helped fill the gap between ferry system expenses and farebox revenues. The sources of public subsidy have included gasoline sales taxes, fuel taxes, vehicle licenses and fees, and the Motor Vehicle Excise Tax (MVET), a 2.2-percent levy on the assessed value of motor vehicles licensed in the State.

<sup>4</sup> Sources: Washington State Ferries web site, History of Washington State Ferries, and discussion with staff of the Washington State Transportation Commission.

<sup>5</sup> Source: Washington State Department of Transportation web site, History of the Hood Canal Toll Bridge.

In 1998, taxpayers approved Referendum 49, which funded passenger-only ferry service from Kingston and Southworth to Seattle and appropriated funds to address system preservation. It also provided new funding for the State's transportation system, including ferries, by reallocating a greater share of MVET funds for transportation purposes<sup>6</sup>.

### **Loss of MVET Funds**

The Motor Vehicle Excise Tax was first used for ferry purposes in 1977. It continued to support the ferry system and the road system until 2000, when it was repealed by the state legislature in response to voters' desire for relief from their overall tax burden<sup>7</sup>.

Before its elimination, the MVET had provided about 20 percent of Washington State Ferries' operating funds and 82 percent of Washington State Ferries' capital funds (including Referendum 49 bond proceeds backed by the MVET). The net result of eliminating the MVET was that the State's transportation system lost both its MVET revenue and the Referendum 49 bond revenue.

The loss of MVET revenues, coupled with increasing costs due to rising fuel, utility, and insurance prices, was a difficult challenge for Washington State Ferries. The budget shortfall was met by both reducing costs and drawing on stop-gap resources to cover the gap between revenue and expenditures. Costs were reduced through the following short-term measures<sup>8</sup>:

- Reduced number of management and support positions by 30 percent;
- Reduced service on selected routes; and
- Reduced capital expansion program in order to focus limited resources on preservation.

New funds were identified through the following short-term measures:

- Implemented a program of fare increases. In 2001, this included an across-the-board fare increase of 20 percent and a flat \$1.00 surcharge on passenger-only fares.
- Discontinued the practice of providing refunds on unused portions of farebooks.
- Drew down \$109 million cash balance in the operating account. This reserve had previously been intended for expansion of passenger-only service.

---

<sup>6</sup> Source: Washington State Ferries Two Year Operations Report, 1999 to 2001.

<sup>7</sup> Sources: Washington State Long-Term Financing Study, page 3-1; and the Washington State Transportation Resource Manual: State Taxes and Fees.

<sup>8</sup> Source: Washington State Ferries Two Year Operations Report, 1999 to 2001.

- Legislature authorized a one-time transfer from the general fund (\$5 million) and the state Multimodal Fund (\$5 million).

Along with these short-term measures, Washington State Ferries developed a longer-term plan in an attempt to stabilize its finances. Referred to as the “5+5+5 Business Plan” (2002), it set out a program through which Washington State Ferries could reduce costs by 5 percent; cap ferry fare increases at 5 percent; and generate 5 percent in new revenues with a comprehensive retail, marketing, and advertising program. The plan was intended to help the ferry system recover 90 percent of its operating costs by 2008 with revenues generated by the ferry system<sup>9</sup>.

In 2002, voters rejected Referendum 51 that would have provided critical funding for capital projects, including four new ferries, preservation and maintenance projects, and new ferry terminals. The referendum would have raised a total of about \$8 billion, nearly 9 percent of which would have gone to Washington State Ferries. The new funds would have been raised from the following sources<sup>10</sup>:

- 30 percent increase in truck weight fees,
- 9 cent fuel tax increase,
- 1 percent motor vehicle sales tax increase, and
- \$4.6 billion bond authorization.

However, in 2003, the legislature approved the “Nickel Transportation Package,” a \$4.2 billion package of 158 transportation improvements across the State. The package included \$300 million for ferry vessel and terminal construction activities around Puget Sound. Funds were raised from the following sources:

- 5 cents per gallon motor fuel tax increase;
- 15 percent increase in gross weight fees on heavy trucks;
- 0.3 percent increase in the sales tax on motor vehicles;
- A \$2.6 billion bond issuance backed by motor fuel tax revenues (“Motor Vehicle Fuel Tax Revenue Bonds”)<sup>11</sup>; and
- A \$349.50 million bond issuance backed by sales taxes, rental car receipts, and other fees (“Multimodal Bonds”).

---

<sup>9</sup> Source: Washington State Ferries Progress Report, 2001 to 2003.

<sup>10</sup>Source: Washington Policy Center Policy Brief, “An overview of referendum 51” by Eric Montague, <http://www.washingtonpolicy.org/Transportation/PBMontagueTransportationR51.html>, September 2002.

<sup>11</sup>Source: Washington State Department of Transportation, 2007-2009 Budget Request, *Sources and Uses of Funds*, pg. 4.

In 2005, the legislature approved another increase in the fuel tax with the passage of the Transportation Partnership Funding Package. The package raised nearly \$7 billion through the following sources<sup>12</sup>:

- 9.5-cent motor fuel tax increase phased in over 4 years (\$5.5 billion);
- Vehicle weight fee on passenger cars (\$908 million);
- Light-truck weight fee increase (\$436 million); and
- Annual motor home fee of \$75 (\$130 million); and
- A \$5.1 billion bond issuance backed by motor fuel tax revenues (“Motor Vehicle Fuel Tax Revenue Bonds”)<sup>13</sup>.

The package funds 276 projects over 16 years. Nearly \$200 million, or 3 percent of the funds, will go towards ferry projects.

**Table 2.1 Ferry Finance Timeline**

Late 1940s	Increases in ferry worker wages and constrained fares lead to abrupt cancellations of private ferry services
1951	State buys ferry companies
1960	Gas tax funds help to pay debt service on ferry bonds
1977	MVET funds start being used to fund ferry service
1985	End of fiscal support from Hood Canal Bridge due to discontinuation of bridge tolls
1998	Referendum 49 approved - funds Kingston & Southworth to Seattle passenger ferry service and system preservation, reallocates Greater Share of MVET to transportation
2000	MVET repealed (eliminating 20% of WSF operating funds and 82% of capital funds)
2002	5+5+5 Plan Established
2002	Voters reject referendum 51 (would have provided about \$720 million to WSF for new ferries, new terminals and preservation and maintenance)
2003	Legislature approves “Nickel Package” (includes \$300 million for ferry vessel and terminal construction)
2005	Legislature approves “Partnership Funding Package” (includes \$200 million over 16 years for ferry projects)

<sup>12</sup>Source: Washington State Department of Transportation web site, funding section: <http://www.wsdot.wa.gov/Projects/Funding/>.

<sup>13</sup>Source: Washington State Department of Transportation, 2007-2009 Budget Request, *Sources and Uses of Funds*, pg. 4.

## 2.2 CURRENT FINANCING

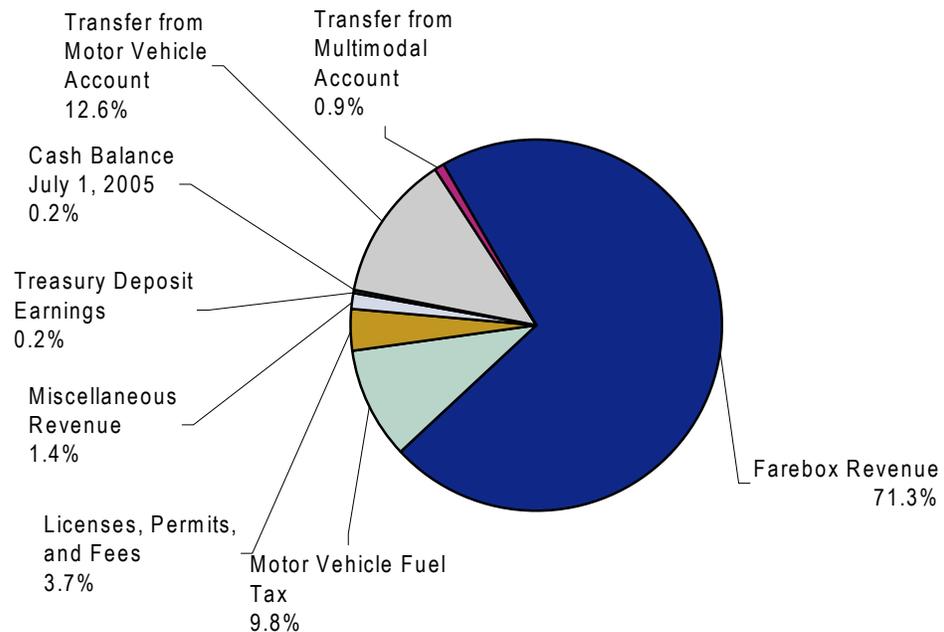
Having established the financial history of Washington State Ferries, this section turns to its current financial situation, including an inventory of operating and capital revenues and expenses. The main source for the factual information in this section is actual ferry system expenses for the 2005-2007 biennium, obtained from the Office of Budget & Financial Analysis of the Washington State Department of Transportation (WSDOT). Appendix B contains the figures they provided.

Cost projections in the 2007 Enacted Supplemental Budget and Legislative 16-year Plan are used as secondary source for more detailed breakdowns of sources and uses of funds. Note that total projected revenues and expenses for both the operating and capital program differed by less than one percent from actual values as reported by WSDOT.

### Operating Resources

Washington State Ferries' operating resources are currently drawn from a combination of farebox revenues, taxes and fees, income from ferry property, and transfers from the Multimodal Transportation Account and the Motor Vehicle Account. Each of these sources is described in more detail below, and the relative proportions are illustrated in Figure 2.1.

Figure 2.1 Ferry Operating Resources  
2005 to 2007



Source: Office of Budget & Financial Analysis, WSDOT. Figures reflect actual ferry system funding sources for the 2005-2007 biennium.

### *Farebox Revenue*

Farebox revenue is the largest and most important source of operating funds, amounting to \$286.4 million between 2005 and 2007, or 71.3 percent of operating costs.

The amount of projected future farebox revenue depends on ridership forecasts, which are currently being updated. According to the Washington State Ferries 2006 Draft Strategic Plan, farebox revenues are projected to grow at between 6 and 11 percent per biennium through 2021 due to strong projected ridership growth. Ridership is projected to grow due to expected increases in population and employment, and an expected stabilization of ferry fares. New ridership is expected to come primarily from walk-on riders because of expanded transit connections to the ferry system and lower vehicle usage due to peak-period capacity constraints on vehicles. Note that these outcomes may change once ridership forecasts and assumptions are updated.

### *Dedicated Taxes and Fees*

The second largest source of operating funds is taxes and fees dedicated to the Puget Sound Ferry Operations Account (the operating account for Washington State Ferries). In total, support from these dedicated taxes and fees amounted to \$55.4 million between 2005 and 2007, or 13.8 percent of operating funds. This support came from a combination of the following individual sources:

- **State Motor Vehicle Fuel Tax.** The Puget Sound Ferry Operations Account receives 2.3283 percent of net gas tax collections or 0.54 cents of the 23-cent state gas tax. This amounted to a total of \$39.2 million, or 9.8 percent of operating funds over the 2005 to 2007 biennium. This includes additional gas taxes collected in San Juan and Island Counties<sup>14</sup>.
- **Motor vehicle registration and licensing fees.** The Puget Sound Ferry Operations Account receives \$2.02 per new vehicle registration and \$0.93 per renewal and combined licensing fees (1.375 percent of collections). Between 2005 and 2007, these sources totaled \$14.7 million, or 3.7 percent of operating funds.
- **Treasury deposit earnings and cash balance.** In the 2005-2007 biennium, Washington State Ferries also received \$727,000 in treasury deposit earnings and \$724,000 from a previous cash balance. Together, these sources made up less than 1 percent of operating funds. Treasury deposit earnings are the investment earnings made on the cash balances on state financial accounts.

---

<sup>14</sup>In 2006, the legislature directed that the fuel taxes and fees from the additional gas taxes levied in 2003 and 2005 in San Juan and Island counties would not be refunded to the Counties as required by the Capron Refunds law, but instead would be made available for WSF operations.

### *Supplemental Tax Support*

Washington State Ferries receives supplemental tax support to cover the portion of its operating costs not met by dedicated sources. In the 2005 to 2007 biennium, \$50.7 million, or 12.6 percent of WSF's operating costs, in supplemental support were transferred from the Motor Vehicle Account to the Puget Sound Ferry Operations Account. Over the same period, \$3.6 million, or nearly 1 percent of operating costs, were appropriated out of the Multimodal Transportation Account to the Puget Sound Ferry Operations Account for passenger-only ferries (Vashon-Seattle). These transfers are not expected to continue in future years.

### *Income from Property*

Between 2005 and 2007, concessions and income from property<sup>15</sup> revenues amounted to \$5.6 million, or 1.4 percent of operating funds.

Concessions income is derived from a number of sources. To illustrate, between 2003 and 2005, a total of \$3.8 million from concessions was accumulated from the following sources<sup>16</sup>:

- 17 percent from parking (\$640,000);
- 59 percent from vessel concessions (\$2,261,000);
- 18 percent from terminal concessions (\$680,000); and
- 6 percent from advertising income (\$218,000).

Concessions and property revenues are expected to grow over the next several years, primarily due to expected increases in ridership and in inflation. The outlook for each source of concessions income is as follows:

- **Food/beverage concessions outlook.** Income from existing concessions agreements (with Olympia Cascade, CDX, and Sound Food), as well as revenues from parking and vending are expected to grow along with ridership and inflation. In addition, Washington State Ferries has made efforts to expand the scope and nature of concessions services to increase revenues<sup>17</sup>. In 2003, it issued a new set of Request for Proposals (RFPs) for 10-year concessions contracts. Innovative features of the program include flexible hours of service, ability to subcontract business opportunities to local businesses, waiver of minimum annual concession fee guarantees during the

---

<sup>15</sup>Concessions and income from property are reported as "miscellaneous" sources by the Office of Budget & Financial Analysis.

<sup>16</sup>Source: Washington State Ferries Financing Study Technical Appendix 5, 2006.

<sup>17</sup>New approach to concession services is mentioned in Washington State Ferries' Progress Report 2001 to 2003.

first two years for new concession segments, and expansion opportunities throughout the WSF system.

- **WIFI concessions outlook.** A new five-year contract for WIFI service on ferries will contribute a new source of revenue.
- **Terminal food concessions.** Terminal food concession revenues are expected to increase due to the movement of concessions indoors at Bainbridge Island, and from construction of a new terminal at Anacortes with expanded food service.
- **Advertising.** Advertising revenues are expected to grow due to inflation and Washington State Ferries efforts to expand its advertising program. In early 2007, it issued an RFP for a 10-year Advertising Concession Contract to expand advertising through new media (e.g., poster ads, wraps, banners, video screens, etc.), and through existing advertising space<sup>18</sup>. Two contracts were awarded in the fall of 2007. The first, a brochure and display contract, is expected to bring in at least \$115,000 in FY 2008 and \$118,000 in FY 2009 to Washington State Ferries. The second contract, a “New Media” contract, is the first of its kind, and will cover advertising on the insides of boats, inside car tunnels, and so on. The contract is expected to bring in approximately \$300,000 in FY 2009.

## Uses of Operating Resources

The uses of operating resources are presented differently in various budget documents. In order to show a complete picture of the uses of WSF operating funds, they are presented three different ways below.

Between 2005 and 2007, Washington State Ferries operating budget was used as follows:

- **Maintenance and operations.** About \$392 million, or 98 percent of the operating budget, were used for maintenance and operations over the 2005-2007 biennium.
- **Office of Information Technology.** About \$8.4 million, or 2 percent of the operating budget, were directed to the Office of Information Technology.
- **Transportation Management and Marine Employees Commission.** About \$1.7 million, or less than 1 percent of the operating budget, were used for Transportation Management and the Marine Employees Commission.

Cost projections in the 2007 Enacted Supplemental Budget and Legislative 16-year Plan provide a more detailed breakdown of the uses of Washington State

---

<sup>18</sup>The advertising RFP was obtained from the Washington State Ferries web site. Detail on projected revenues from advertising contracts was obtained from discussion with WSF’s public information staff.

Ferries operating funds. They indicate that the operating fund was used for the following purposes in the 2005 to 2007 biennium:

- Operations consumed 78 percent of the operating budget; within this category, about half was consumed by vessel operations costs, almost a third by fuel costs, about 15 percent by terminal operations costs, and about 6 percent by operations management and support costs.
- Maintenance (including vessel maintenance, terminal maintenance, and maintenance management and support) consumed 14 percent of the operating budget; and
- Management and support and other charges together consumed 8 percent of the operating budget.

### **Farebox Recovery**

The ratio of earned income (including income from farebox and property income) to operating expenses, known as the farebox recovery ratio, has varied over time. In FY 1998 and 1999, the ferry system generated revenue to cover 65 and 66 percent of its operating costs, respectively. By FY 2005, 76 percent of operating costs were recovered by earned revenues from the farebox and other income. However, the ratio in that year varied considerably by route, from a low of 23 percent on the Vashon-Seattle passenger-only ferry to a high of 111 percent on the Seattle-Bainbridge route<sup>19</sup>.

According to the Washington State Ferries Draft Long-Range Strategic Plan, the farebox recovery ratio is expected to grow substantially over time, due to projected ridership increases and modest increment in fares. The Draft Plan projects operating revenues will exceed operating costs by the 2013 to 2015 biennium.

However, there are multiple uncertainties that make it difficult to definitively estimate the future farebox recovery ratio. Some of the uncertainties were pointed out in a 2007 report titled, *Prospects for Washington State Ferries: Where are the Ferry System and its Finances Headed in the Next Sixteen Years?*<sup>20</sup>. The presentation points out uncertainties related to both costs, (cost of labor, fuel, maintenance, and increases in service levels) and revenues (from lagging ridership or inability of fares to keep up with inflation). In some scenarios, the need for state subsidy could be considerably higher than what is indicated in the current operating budget 16-year plan, and the farebox recovery ratio could be lower than what is currently predicted.

---

<sup>19</sup>Source: Cedar River Group, Technical Appendix 5, 2006 Ferry Financing Study.

<sup>20</sup>By Douglas MacDonald, Mike Anderson, and Richard Ford.

## Capital Funds

### *Accounts*

Funds for ferry capital construction are collected from a number of sources and deposited into four accounts that are the main sources of funds for ferry capital improvements. The accounts include the following:

- The Puget Sound Capital Construction Account,
- The Multimodal Transportation Account,
- The Nickel Account, and
- The Transportation Partnership Account.

These accounts sometimes receive transfers from other accounts, notably the Motor Vehicle Account, the Puget Sound Ferry Operations Account, and the Multimodal Transportation Account, for budget-balancing purposes. Table 2.2 lists the accounts and the sources of funds for each.

**Table 2.2 Accounts**

Accounts	Source of Fund
Puget Sound Capital Construction Account	<ul style="list-style-type: none"> <li>• Fuel tax</li> <li>• Federal grants</li> <li>• Bond proceeds</li> <li>• Local funds*</li> </ul>
Multimodal Transportation Account	<ul style="list-style-type: none"> <li>• Sales tax on new and used vehicles</li> <li>• Car rental fees</li> <li>• Gross weight fee on passenger vehicles</li> <li>• Annual motor home fee</li> <li>• Federal grants</li> <li>• 100% of treasury deposit earnings</li> <li>• Other revenue</li> </ul>
Nickel Account	<ul style="list-style-type: none"> <li>• Fuel tax</li> <li>• Combined licensing fee</li> <li>• Bond proceeds</li> <li>• 80% of treasury deposit earnings</li> </ul>
Transportation Partnership Account	<ul style="list-style-type: none"> <li>• Fuel tax</li> <li>• Licenses, permits, and fees</li> <li>• Bond proceeds</li> </ul>

Accounts	Source of Fund
<b>Transfers</b>	
Motor Vehicle Account	<ul style="list-style-type: none"> <li>• Fuel tax</li> <li>• Motor vehicle licenses, permits and fees</li> <li>• Federal highway grants</li> <li>• Local funds</li> <li>• Bond proceeds</li> <li>• 80% of treasury deposit earnings</li> </ul>
Puget Sound Ferry Operations Account	<ul style="list-style-type: none"> <li>• Fuel tax</li> <li>• Registration and combined licensing fees</li> <li>• 80% of treasury deposit earnings</li> <li>• Concessions and other miscellaneous revenue</li> </ul>

Source: Washington State Transportation Resource Manual; discussion with staff of the Washington State Department of Transportation office of Strategic Planning and Programming.

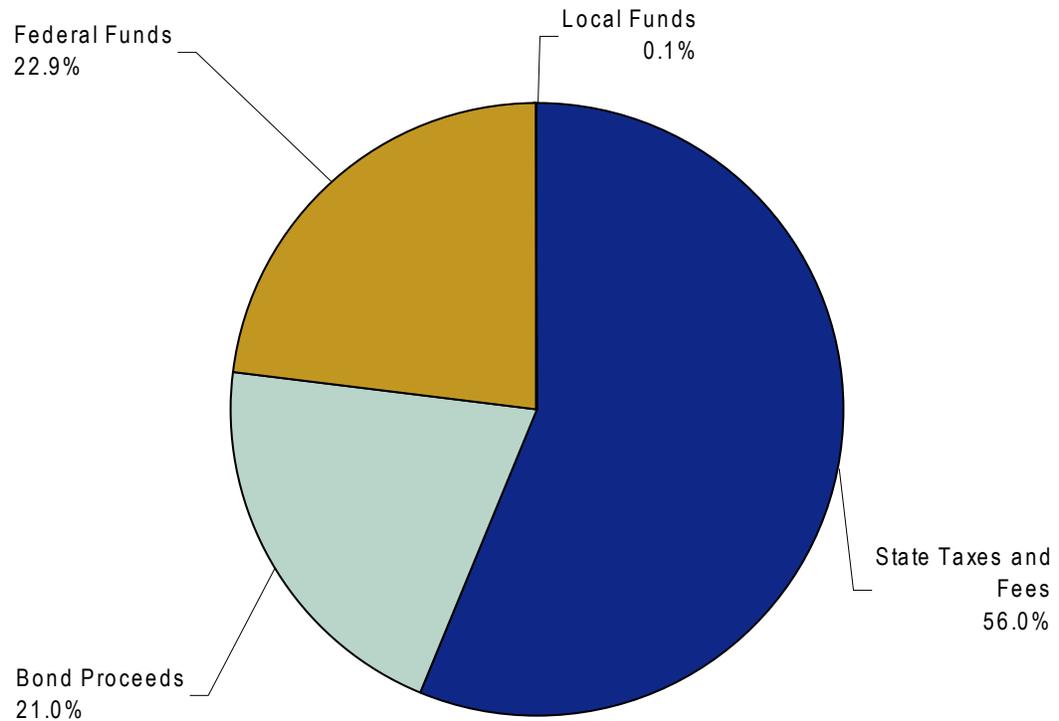
\*When a state account receives local funds, it is to reimburse state expenditures for which there was a contract with a local agency to provide all or partial funding for a service or project. Thus, “local funds” are not a true revenue source.

### Sources

Funds flowing into the accounts described above fall into three main categories: state taxes and fees, Federal funds, and bond proceeds. The amount and type of funds is detailed below and illustrated in Figure 2.2.

- **State taxes and fees for ferry capital.** State taxes and fees for ferry capital amounted to \$135.4 million in the 2005 to 2007 biennium. In the 2007 to 2009 biennium, they are expected to amount to \$150.9 million. These taxes and fees include the following:
  - Motor fuel taxes;
  - Motor vehicle licenses, permits, and fees; and
  - Treasury deposit earnings.
- **Federal funds.** Federal funds for ferry capital amounted to \$55.3 million in the 2005 to 2007 biennium, and are projected to grow to \$66.1 million in the 2007 to 2009 biennium. Federal funding sources include grants from the Federal Transit Administration (FTA) (Sections 5309 and 5307), the Federal Surface Transportation Program, the Federal Ferry Boat and Terminals Construction Program, and the Federal Office of Homeland Security.

**Figure 2.2 Sources of Capital Funds**  
*2005-2007 Biennium*



Source: Office of Budget & Financial Analysis, WSDOT. Figures reflect actual ferry system funding sources for the 2005-2007 biennium.

- **Bond proceeds.** Bond proceeds amounted to \$50.8 million in the 2005 to 2007 biennium, and are projected to amount to \$131.5 million in the 2007 to 2009 biennium. Bond proceeds flow into all the accounts that fund the ferry capital program (Puget Sound Capital Construction Account, Nickel Account, Transportation Partnership Account).
- **Local funds.** In the 2005-2007 biennium, \$158,000 in “local funds” was used for ferry purposes. Note that when a state account receives local funds, it is to reimburse state expenditures for which there was a contract with a local agency to provide all or partial funding for a service or project. Thus, “local funds” are not a true revenue source.

### Uses of Capital Funds

According to the 2007 Enacted Supplemental Budget and Legislative 16-year Plan, capital funds were used in the following manner over the 2005-2007 biennium:

- Terminal investments consumed 45 percent of the capital budget;
- Vessel investments consumed 22 percent of the capital budget;
- Debt service consumed 16 percent of the capital budget;

- New vessel construction consumed 14 percent of the capital budget;
- Emergency repairs consumed 2 percent of the capital budget; and
- Multimodal passenger-only improvements consumed 0.2 percent of the capital budget.

## 2.3 FUNDING SOURCES

In order to lay the groundwork for identification of new sources of funding for Washington State Ferries, it is useful to inventory a wide range of funding sources that have been used in Washington State or elsewhere for transportation purposes.

The Long-Term Financing Study, completed in January of 2007 for the Washington Joint Transportation Committee, is a good starting place from which to build an inventory of appropriate funding sources for Washington State Ferries. The study provides a typology and list of transportation funding sources. They are described below.

### Typology of Funding Sources

The Long-Term Financing Study acknowledges that there are many different ways to organize the universe of potential funding sources. However, for the purposes of the study, funding sources were organized into four categories arrayed along a spectrum based on the “benefit principle.” The benefit principle states that those using a service should be the ones paying for it.

Proponents of benefit principle often cite its inherent equity as justification, and indeed, new taxes and fees may more easily gain public acceptance if they are more equitably applied. In the transportation context, the benefit principle also has the advantage of economic efficiency: the more direct and calibrated a usage fee or tax for transportation, the stronger the price signal sent to a user regarding the real cost of when, where, and how they use the transportation system. This price signal compels more efficient use of existing and future transportation facilities and services.

The following is a typology of transportation funding sources organized according to the benefit principle:

1. **Direct user fees.** Direct user fees most closely adhere to the benefit principle. Individuals pay the costs directly associated with the trip. Roadway tolls, transit fares, and ferry fares all fall into this category. Other potential direct user fees are parking fees, benefit assessment districts, and developer impact fees.
2. **Indirect user fees.** Indirect user fees are collected from transportation users, but are termed indirect because they are not collected in association with an actual trip itself. They differ from direct user fees like tolls, which are charged directly at the point of use. Motor fuel taxes are the largest of the

indirect sources. Other indirect user fees include vehicle registration fees and excise taxes.

3. **Specialized taxes.** These sources are distinct from user fees because they are applied to and collected based on non-transportation activities, but are dedicated to transportation. The major sources now utilized in this category are state and local option taxes, including sales and property taxes. This category also includes value capture techniques such as special assessment districts. Their critical difference from general taxes is the assurance given to voters, who must approve them, that the money will be used for transportation.
4. **General taxes.** These sources are those collected and used for broad purposes, of which transportation may be one purpose. The largest sources in this category are income taxes, property taxes, general sales taxes, and other taxes allocated to transportation through the legislature’s discretion.

### Inventory of Funding Sources

The Long-Term Financing Study included the following inventory of funding sources that can serve as a useful starting place when considering new funding options for Washington State Ferries as shown in Table 2.3.

**Table 2.3 Inventory of Funding Sources**

Type of Funding Source	Examples
Direct User Fees	<ul style="list-style-type: none"> <li>• Tolling (new roads, existing roads, hot lanes, bridges)</li> <li>• VMT fee</li> <li>• Transit fee (ferry fares)</li> <li>• Container fee</li> </ul>
Indirect User Fees	<ul style="list-style-type: none"> <li>• Gas tax</li> <li>• Sales tax on gasoline</li> <li>• Petroleum business tax</li> <li>• Vehicle registration fees</li> <li>• Vehicle property tax</li> <li>• Excise tax on vehicle sales</li> </ul>
General Taxes	<ul style="list-style-type: none"> <li>• Portion of sales taxes</li> <li>• Miscellaneous transit taxes (lottery, cigarette, etc.)</li> <li>• General revenue</li> </ul>
Local Options	<ul style="list-style-type: none"> <li>• Dedicated property tax</li> <li>• Value capture (impact fees, TIF, lease fees)</li> <li>• Local option vehicle, registration fees</li> <li>• Sales tax</li> <li>• Income tax</li> </ul>

## Evaluating Funding Options

In addition to cataloguing transportation funding sources, the Long-Term Financing Study explores considerations to be taken into account when evaluating funding options. Many of them are relevant to the discussion of long-term strategies for ferry finance. They include the following:

- **Yield and reliability.** When evaluating a funding source, both the amount of funds that it can produce (yield) and the stability of the funding stream over time (reliability) should be considered.
- **Public acceptance.** While any new taxes or fees may be objectionable to the public, funding sources that are somewhat removed from the transportation project or service they are supporting tend to be particularly unpopular.
- **Administrative effectiveness.** This is the cost and ease of administering the fee or tax; that is, the degree to which evasion and bureaucracy can be minimized.
- **Economic efficiency.** The extent that a strategy provides clear pricing signals should also be considered. 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 distort the market by collecting fees that are unrelated to the services they help fund.
- **Regressivity.** The extent to which a funding source (tax or fee) equitably burdens different groups of people. Excise and sales taxes and user fees are all regressive, since they require those with lower incomes to expend a disproportionately higher share of their incomes to pay the tax or fee. The only funding strategies receiving a high rating are those that levy different fees based on income level (for example, vehicle personal property).

## 2.4 RECOMMENDATIONS FROM PREVIOUS STUDIES

Several previous studies, including the Long-Term Financing Study discussed in the previous section, have made specific recommendations regarding ferry finance. Some of them address the issue of how new sources of funds could be obtained, while others make recommendations regarding how existing sources could be expanded. Relevant recommendations are discussed below.

### Long-Term Financing Study

The long-term financing study was motivated in part by a recognition that the gas tax, long a mainstay of transportation funding, is likely to decline in importance over the next several decades. The decline is expected because of inflation, which will gradually erode the buying power of the gas tax unless it is indexed, and because of a decrease in the demand for gasoline due to transitions to alternative fuels, increased engine efficiency, and increases in gasoline prices.

To fill the funding gaps left by declining gas tax revenues, the study recommends that the State seek out new long-term funding sources, including the following:

- Indexing of the motor fuel tax to keep pace with inflation;
- Replacement of some portion of the flat tax with a sales tax on motor fuel;
- Implementation of marine freight container charges;
- Imposition of vehicle tolls on specific corridors; and
- In the longer term, replacement of the motor fuel tax with a vehicle-miles traveled (VMT) tax.

In addition to making recommendations regarding how new transportation funds could be raised for the entire State of Washington, the Long-Term Financing Study also made general suggestions for new sources of funds for ferries as follows:

- **Tourism and recreation.** Hotels, restaurants, and other tourism-dependent industries accessible by ferry could pay a surcharge or special tax in the form of hotel occupancy tax, special tax on meals, surcharge on admission charges to special events, etc.
- **Higher fares for out of state-ferry users.** State residents see some of their gas taxes and vehicle fees subsidize ferry capital and operations. Thus, fares for out-of-state (nonresident) riders should be increased to offset the subsidy from state taxpayers.
- **Bundling ferry fares without service charges.** BC Ferries includes transit passes (which include access to ferries) with student union membership. Such bundling could be expanded to include hotel reservations, tour packages, or other charges for activities that involve using the ferries.
- **Property assessments.** The State could assess property that benefits from ferry services. These assessments could be levied in the form of a property tax, a parcel tax, or a special assessment district. A related funding source could be a surcharge on the MVET for cars registered where ferry service is provided. In fact, Revised Code of Washington (RCW) 36.54 governing county ferry districts and RCW 36.57 authorizing public transportation benefit authorities have been modified to encourage development of local passenger-only ferry services.

## Ferry Financing Study

In 2006, the Joint Transportation Committee of the Washington State legislature sponsored a study of the financial situation of Washington State Ferries. It took a comprehensive look at improving every aspect of the system from developing accurate ridership projections to selecting appropriate levels of service.

Of the broad range of topics covered by the study, the recommendations listed in Appendix 2, *Legislative Concerns and Directions*, and Appendix 5, *Operating Budget Review*, stand out as being particularly relevant to this effort. The most important among them are listed below.

### *Pursue Route Sensitive Fare Pricing Strategies*

One of the recommendations listed of the Ferry Financing Study<sup>21</sup> is that Washington State Ferries should divide the system into individual travel sheds when formulating fare policies and farebox recovery goals.

The study recommended that the Legislature reconsider the principle of Tariff Route Equity that has long been used in setting fares. The principle states that all riders should contribute equally to the fixed costs of the ferry system, and each rider should contribute proportionally for the space and time used occupying the vessel. This principle limits the ability of Washington State Ferries to set fares by route, making it difficult for WSF to manage demand on its ferry routes and meet its farebox recovery goals.

### *Pursue Demand Management Strategies*

A related recommendation emerging from Appendix 5 of the Ferry Financing Study is that Washington State Ferries should pursue strategies to manage demand on the ferry system. The main purpose of these strategies is to make the most of existing space on ferries, thereby reducing the need for capital investment in the system. The strategies include the following:

- Encouraging walk-on riders and discouraging single-occupant vehicles, since vehicles take up more space and consequently drive the ferry system's capital investment needs. This may include rethinking the passenger/vehicle fare relationship.
- Congestion (time-of-day) fare pricing options to incentivize off-peak travel. A corollary to this recommendation is that WSF should be provided with funds to market off-peak travel. The consultants also specifically recommended that priority be given to increasing nonpeak ridership over investing state capital dollars to increase concessions revenue.
- Value pricing in comparison to transit system charges within the various travel sheds.

### *Pursue New Sources of Funds*

Appendix 2 of the Ferry Financing Study, *Legislative Concerns and Directions*, does not include any consultant recommendations. However, it summarizes the

---

<sup>21</sup>Detail on this recommendation can be found in Appendix 5 of the study, *Operating Budget Review*.

results of interviews with legislators; some of which hit specifically on the topic of where the Ferry System should be seeking additional revenues. Interviewees suggested stable funding for the ferry system could come from:

- **Development partnerships and increased ancillary revenues.** This would not eliminate the need for a stable funding source, but would reduce the amount required.
- **Public/private partnerships,** although some questioned the capability of WSF to seek these partnerships.
- **Advertising and concessions income.** Several interviewees felt WSF could do a better job of generating advertising and concessions income, noting that at some terminals where there are long vehicle waits, food service is very important. Others felt WSF should be able to show a reasonable rate of return on any investments made in food service or other concession facilities.
- **Improved pricing strategies.** Some legislators suggested discounting nonpeak fares to improve utilization of existing route capacity, congestion pricing, and collecting fares both ways to promote greater ridership and reduce those riding for free.

### *Result of Ferry Financing Study*

Some of the recommendations of the Ferry Financing Study were adopted by the legislature in 2007 with the passage of HB 2358. Specifically, the new law states that, beginning in 2008, the department should develop fare and pricing policy proposals that must “recognize that each travel shed is unique, and might not have the same farebox recovery rate and the same pricing policies.” When developing fare and pricing policy proposals, the department must consider options for using pricing to level vehicle peak demand and options for using pricing to increase off-peak ridership.

The law also states that fare revenues should not be used for capital construction purposes unless the support for capital is separately identified in the fare.

### **Statewide Transportation Plan**

The State of Washington Long-Range Transportation Plan (2006) does not contain specific detail regarding ferry financing. However, it does include general information on funding challenges in the State as a whole, and provides recommendations on where new funds could be drawn from.

The plan indicates that traditional revenue sources will soon be insufficient to meet the State’s growing transportation investment needs unless they are increased substantially. The gas tax is not indexed to inflation, and there is resistance to increasing it; moreover, increased fuel efficiency undermines the gas tax as a viable source of funds. A further problem is lack of stability in funding sources. Unpredictability in funding and delays in projects and programs translate into highly inefficient system management. To address the

need for new, long-term sources of funds, the plan proposes the following list of funding sources:

- Tolling;
- Regional funding of projects;
- User fees based on VMT;
- Indexing of gas tax;
- Increased advertising;
- Sales taxes (general sales tax, fuel sales tax, or sales tax on vehicle parts, accessories, and services);
- Special assessment districts;
- Development impact fees;
- Tax increment revenues; and
- Private-sector contributions.

### **Washington State Comprehensive Tolling Study**

The Washington State Comprehensive Tolling Study, completed for the Washington State Transportation Commission in 2006, explores the potential of tolling as a major new funding source to support transportation investments in the State. Although the study does not focus specifically on ferries, its recommendations have potential implications for ferry finance. Those recommendations are:

- Washington State should use tolling to encourage effective use of the transportation system and provide a supplementary source of transportation funding;
- Tolling should be used when it can be demonstrated to contribute to a significant portion of the cost of a project that cannot be funded solely with existing sources, and/or to optimize system performance;
- Tolling should in all cases be fairly and equitably applied in the context of the statewide transportation system, and should not have significant adverse impacts through diversion of traffic to other routes;
- Toll revenue should be used only to improve, preserve, or operate the transportation system;
- Toll rates, which may include variable pricing, should be set to optimize system performance, recognizing necessary tradeoffs to generate revenue;
- Tolls should remain in place to fund additional capacity, capital rehabilitation, maintenance, operations, and to optimize performance of the system;

- The Washington State Transportation Commission should set and implement toll policy; and
- Toll collection systems should be simple, unified, and interoperable, and avoid attended tollbooths, wherever possible.

### **Report of the Washington State Legislature’s Joint Task Force on Ferries**

In 2001, after the Motor Vehicle Excise Tax was eliminated, a Joint Task Force on Ferries was convened to address funding crisis and to provide recommendations on future funding for the system. The report was never adopted by the legislature, and many of its recommendations were superseded by subsequent studies. Nevertheless, it remains an important record of the legislature’s early ideas regarding how to address the ferry funding crisis. Its recommendations were as follows:

- The ferry system is a crucial part of the state highway system, and thus should remain open. No currently operated ferry routes should be terminated.
- The State should continue to provide and maintain both auto ferry and passenger-only ferry service, since alternative service providers are not able to offer the current level of service as cost effectively as the State; in part because of the need for significant capital investment, and because any alternative provider would require a significant level of subsidy. However, state-local or public-private partnerships may be a viable option if the legislature wishes to explore expansion of the passenger-only program at some future date.
- The legislature should allow the Transportation Commission to phase in tariff increases that will:
  - Raise farebox recovery to 80 percent of operating costs within six years;
  - Result in passenger-only tariffs set at double the level for passengers on the auto ferries by May 2001; and
  - Implement a journey time-based model of time-based tariff structure (tariff route equity).
- Washington State Ferries should invest in the technology needed to implement time-of-day and day-of-week variable tariffs.
- The legislature should review ferry governance options, such as the creation of local or regional ferry transit districts, as a funding mechanism for the expansion of passenger-only ferry service.

## 2.5 SUMMARY OF FINDINGS

This document presented relevant material from previous studies and reports related to the topic of ferry finance. Although the studies covered disparate topics, a number of themes relevant to Washington State Ferries emerge from them:

- **Political considerations are crucial.** Voters have played a strong role in Washington State Ferries financial history by demanding the rescindment of the Motor Vehicle Excise Tax and by rejecting Referendum 51 in 2002, which would have provided new funds for ferries. Though the legislature stepped in and passed two new transportation funding packages in 2003 and 2005, the ferry system still lacks needed funds. Any new funding sources must be able to withstand voter opposition over an extended timeframe.
- **Ferry fare structures should reflect markets.** Several previous studies indicated the need for a new fare structure, in which fares are tailored to individual markets, such as certain travel sheds or customer groups (e.g., regular commuters vs. out-of-state seasonal visitors). The studies indicated such fare structures could help smooth out peak demand, maximize use of existing infrastructure, and help Washington State Ferries meet its farebox recovery goals.
- **Maximize earned revenue.** Several previous studies have indicated that the ferry system can maximize its earned revenue by making the most out of its property holdings, such as through enhanced concessions, advertising, and value capture opportunities, as well as through the optimized fare structures described above. Maximizing revenue from the system itself adheres to the ‘benefit principle’ described in the Long-Term Financing Study, which states that users should pay for the transportation services they receive.
- **Maximize revenues from existing sources and develop new sources.** Several studies recommended maximizing revenues from existing sources by indexing the gasoline tax to inflation and/or replacing a portion of the gasoline tax. Several studies also recommend specific new sources of funds. Table 2.4 lists existing and new sources previously recommended for Washington State or Washington State Ferries specifically. It should be noted that current financial policy in the State of Washington limits the use of user fees to no more than 100 percent of operating costs.
- **Pinpoint revenue needs.** Several previous studies have pointed out the uncertainties associated with both Washington State Ferries future revenues and expenses. The identification of new funding sources for WSF must be coordinated with development of reliable estimates of WSF’s future funding needs.

**Table 2.4 Sources of New Transportation Funds Recommended in Previous Studies**

Funding Source
<b>Taxes</b>
Index the gas tax <sup>a,b</sup>
Sales tax on gasoline <sup>a,b</sup>
Special assessment districts, property tax, or parcel tax in areas benefiting from ferry service <sup>a,b</sup>
Sales taxes (general and on vehicle parts) <sup>a</sup>
Tax increment revenues <sup>a</sup>
Tax on local tourism/recreation-related business accessible by ferry (e.g., hotel or restaurant tax) <sup>b</sup>
<b>Charges and Fees</b>
Tolls <sup>a,b,c</sup>
User fees based on VMT <sup>a,b</sup>
Container fees <sup>b</sup>
Development impact fees <sup>a</sup>
<b>Ferry System Earned Revenue</b>
Increase revenue from fares through fare restructuring (e.g., tourist surcharge, time-of-day, route pricing) <sup>a,d,e</sup>
Increase revenue from concessions (parking, advertising) <sup>a,e</sup>
Increase revenue by increasing ferry ridership
<b>Other</b>
Regional funding <sup>a</sup>
Private-sector contributions/development partnerships <sup>a,e</sup>

<sup>a</sup>. Recommended in the Washington State Transportation Plan.

<sup>b</sup>. Recommended in the Washington State Long-Term Financing Study (Cambridge Systematics, Inc.).

<sup>c</sup>. Recommended in the Statewide Tolling Study (Cambridge Systematics, Inc.).

<sup>d</sup>. Recommended in the Ferry Financing Study (Cedar River Group).

<sup>e</sup>. Recommended by Washington State legislators in interviews for the Ferry Financing Study (Cedar River Group).



---

## **3.0 Ferry Systems Comparison**



## 3.0 Ferry Systems Comparison

This section reviews two ferry systems in the United States<sup>22</sup>, the Alaska Marine Highway System and the San Francisco Bay Area System, and two international ferry systems, British Columbia (“BC Ferries”) and Scandlines, a Danish and German-owned ferry company operating in the southern Baltic Sea. The purpose of the review is to compare the ferry systems’ sources of operating and capital funding, and to identify innovative financial practices that could be of interest for Washington State Ferries. Though financial performance could also be improved through cost reductions, this review focused only on revenues.

Among the ferry systems reviewed are the following:

- BC Ferries and Scandlines are the most comparable to WSF given that they provide both passenger and vehicle service and manage an annual demand similar to WSF, around 20 million riders , as shown in Table 3.1.
- Alaska’s ferry system carries a much smaller annual demand than WSF, 0.3 million riders and 0.1 million vehicles, but is similar to WSF in that it is state operated and provides service to both passengers and vehicles.
- The Bay Area ferry system is the least comparable to WSF given that it only provides passenger service, and is fragmented among different operators. Nevertheless, it offers interesting strategies for obtaining capital funding.

**Table 3.1 Ferry Systems, 2006**

Ferry System	Riders (in Millions)	Vehicles (in Millions)
Alaska Marine Highway	0.3	0.1
California Bay Area	4.3	NA
Scandlines	20.0	4.2
BC Ferries	21.7	8.5
WSF	23.8	10.8

Source: Ferry Operators.

<sup>22</sup>The New York Staten Island ferry system was not selected for comparison since it is currently fully subsidized by federal and local governments. Appendix A provides a brief description of the system.

### 3.1 WASHINGTON STATE FERRIES

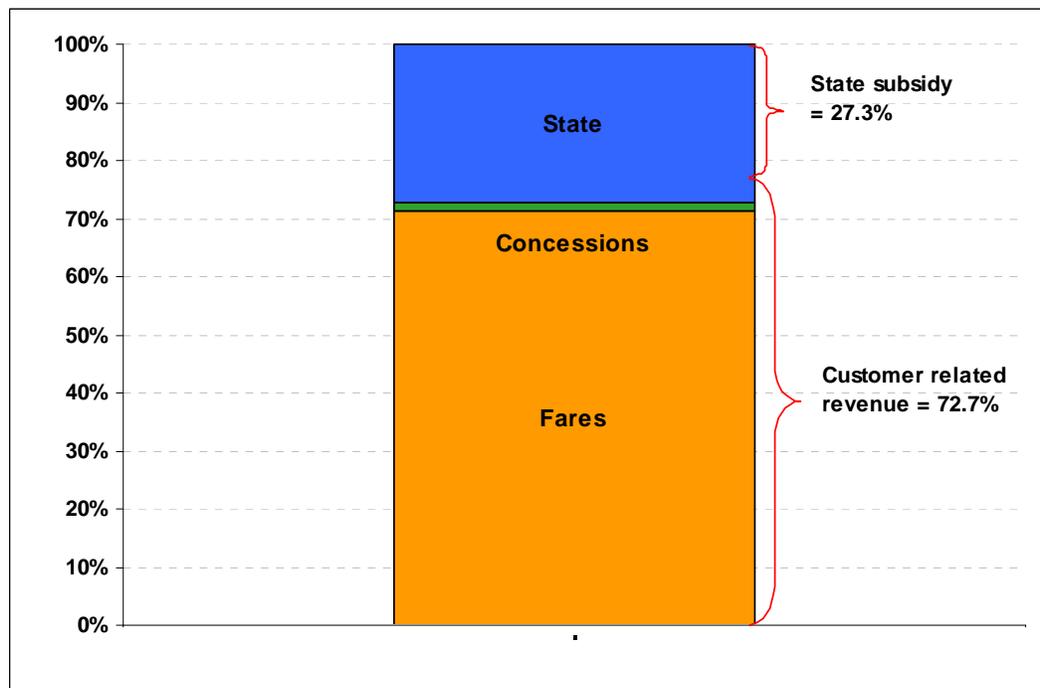
#### System Description

Washington State Ferries provides service in eight counties within Washington and the Province of British Columbia in Canada. Counties served include Pierce, King, Snohomish, Kitsap, Skagit, Island, San Juan, and Jefferson Counties. The existing ferry system has 10 routes and 20 terminals that are served by 28 vessels.

#### Operating Revenue Sources

WSF revenue comes primarily from fares, accounting for 71.3 percent of total revenue, followed by state subsidies providing 27.3 percent, and miscellaneous revenues (e.g., concessions and income from property) 1.4 percent, according to the Office of Budget & Financial Analysis at the Washington State DOT. Overall, customer-related revenue represents 72.7 percent of total revenue, while subsidies account for 27.3 percent, as shown by Figure 3.1.

Figure 3.1 WSF Revenue Sources



Source: Office of Budget & Financial Analysis, WSDOT. Figures reflect actual ferry system funding sources for the 2005-2007 biennium.

#### Fares

Ferry tariffs are set by the Washington State Transportation Commission (WSTC). The legislation (RCW 47.60.326) enumerates the factors that should be considered to undertake fare adjustments such as operating costs, subsidies,

time, and distance. Fares are not adjusted systematically, but are instead adjusted through an annual review process. State law also requires WSF to solicit advice from the Tariff Policy Committee (TPC) when adjusting fares.

Since 2001, tariffs have been raised more rapidly than in the past to make up for the loss of MVET revenues. The amount of the fare increase has varied by route; for car and driver fares, it has increased by between 37 and 122 percent since 2000; for walk-on fares, it has increased by between 40 and 135 percent since 2000.

Tariff rate increases are applied to the central Sound routes and rounded to the nearest nickel. Based on tariff rate equity, rates are then calculated for the other routes and rounded to the nearest nickel. Table 3.2 shows the percentage of the nominal increase in fares by year.

**Table 3.2 WSF Fare Adjustments**

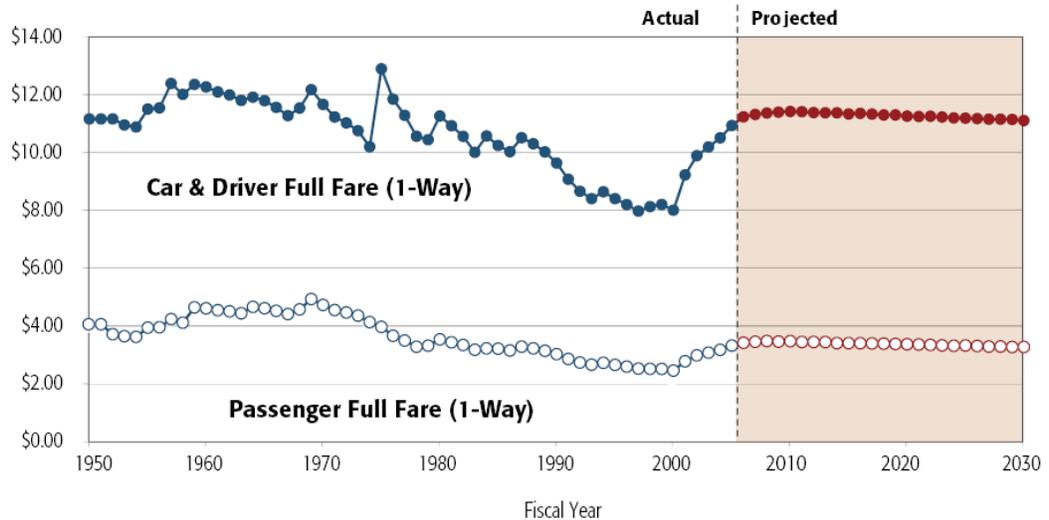
Year	Percentage of Nominal Increase	Year	Percentage of Nominal Increase
1994	6.0%	2003*	7.7%
1998	2.3%	2004*	5.4%
1999	4.4%	2005*	6.3%
2001*	22.9%	2006	6.0%
2002*	13.6%		

Source: Washington State Ferries Finance Study, December 2006.

\*Increase with nickel rounding.

Although fares have increased substantially since the loss of the MVET, they remain below the peak levels charged in the late 1960s and 1970s, once adjusted for inflation. Figure 3.2 below shows real vehicle and passenger fare levels since the 1950s.

**Figure 3.2 Historical Ferry Fares Adjusted for Inflation**  
*2006 Dollars*



Source: Washington State Ferries and Berk & Associates, 2006. Appears as Exhibit 29 in the Washington State Ferries Draft Long-Range Strategic Plan, 2006-2030.

Passenger fares include three categories of fares (full fare, youth, and senior/disabled), with discount books or passes available for frequent users. Children under six ride free. Passenger seasonal peak premium is only charged on the San Juan Island routes.

Vehicle fares include vehicle and driver fares for cars under 20 feet, regular fares, senior or disabled fares at approximately 85 percent of the full fare rate, and height surcharges. Motorcycle rates are available for the regular fare and at senior/disabled fares. For commercial vehicles, fares are length based (e.g., for the Anacortes-Sidney route vehicles under 30 feet and under 80 feet pay a fare between \$64 to \$343, respectively; and for vehicles over 80 feet, a \$2.15 per foot is charged).

Vehicles of all lengths and motorcycles pay a peak season premium on all routes. In the San Juan Islands, they also pay a weekend premium. Promotional rates are offered on the Anacortes-Sidney route for vehicles over 30 feet, including recreational vehicles. Table 3.3 provides an example of the different fares.

**Table 3.3 Anacortes-Sidney Fares**  
2007

Fare	Cost
<b>Passenger</b>	
Adult (age 19-64)	\$16.0
Senior/disabled (age 65 & over)	\$8.0
Youth (age 6-18)	\$12.8
Bicycle Surcharge Only	\$4.0
<b>Vehicle Under 20', Motorcycle, and Stowage</b>	
Vehicle under 20' & driver	\$42.9
Vehicle under 20' & senior/disabled driver	\$34.9
Over 7'6 height surcharge	\$42.9
Motorcycle & driver	\$21.4
Motorcycle & senior/disabled driver	\$13.4
Motorcycle trailer/sidecar surcharge	\$5.4
<b>Vehicle Length Based</b>	
Vehicle under 30' under 7'6	\$64.4
Vehicle under 30'	\$128.8
Vehicle under 40'	\$171.8
Vehicle under 50'	\$214.7
Vehicle under 60'	\$257.7
Vehicle under 70'	\$300.6
Vehicle under 80'	\$343.6
Cost per foot over 80'	\$4.3
<b>Promotion/Recreational</b>	
Vehicle under 30' under 7'6	\$64.4
Vehicle under 30'	\$64.4
Vehicle under 40'	\$85.9
Vehicle under 50'	\$107.4
Vehicle under 60'	\$128.8
Vehicle under 70'	\$150.3
Vehicle under 80'	\$171.8
Cost per foot over 80'	\$2.1

Source: Washington State Ferries web page.

### *Customer-Related Revenue*

Customer-related nonfare revenue (“miscellaneous”) revenue represents 1.4 percent of total revenue. According to Technical Appendix 5 of the Ferry Financing, miscellaneous revenue is made up primarily of on-board concessions, which contributed about 59 percent of all concessions revenue over the 2005-2007 biennium. Terminal concessions follow with 18 percent, parking with 17 percent, and advertising with 6 percent.

### *Government Support*

Subsidies come from the state government and represent 27.3 percent of total revenue. Motor vehicle fuel taxes contribute with 9.8 percent of total revenue; license, permit, and fees with 3.7 percent; and transfers from the Motor Vehicle Account and the Multimodal Transportation Account contribute 12.6 percent and 1 percent, respectively.

### **Capital Funding**

According to 2007 Enacted Supplemental Budget and Legislative 16-year plan, 59 percent of capital funding in the 2005 to 2007 biennium came from state taxes and fees, 20 percent came from the Federal government, and 21 percent came from bond proceeds.

## **3.2 BRITISH COLUMBIA FERRY SYSTEM**

### **System Description**

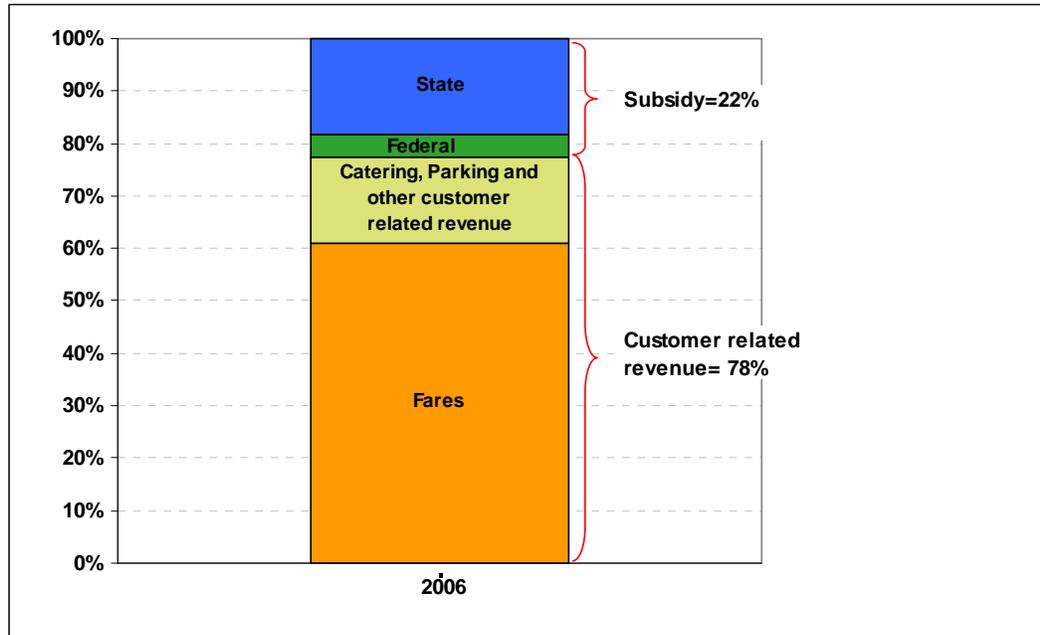
The British Columbia Ferry System (BC Ferries) operates 25 routes serving 48 locations on the British Columbia Coast. Since 2003, the system has been privately operated under a 60-year service contract.

BC Ferries is regulated by the Ferry Commission, an autonomous entity, independent from the government and the ferry company, which is in charge of regulating fares and service levels. The Ferry Commissioner insulates BC Ferries from the governmental budgeting process. For example, if the legislature decides to reduce the level of subsidy, the Ferry Commission can allow fares to be raised to make up the difference.

### **Operating Revenue Sources**

The 2007 financial statements from BC ferries reported total operating revenues of \$596.3 million. Operating revenue comes from four major sources: 1) tariffs, 2) catering and other revenue, 3) provincial subsidies, and 4) Federal subsidies. As Figure 3.3 shows, fares represent 61 percent of total revenue, on-board catering and parking around 16 percent, and Federal and local subsidies near 22 percent.

Figure 3.3 BC Ferries Revenue Composition



Source: 2007 to 2008 BC Ferries Business Plan.

### Fares

Fares can only be adjusted by the Ferry Commissioner, who revises the level of service and fees at the end of specific performance terms. The fare system operates under “price caps” that determine the ceiling on annual fare increases. Between 2003 and 2007, ferry fares were allowed to rise annually by 2.8 percent (for routes with major traffic) and 4.4 percent (for other routes). In 2008, they were allowed to rise by 6.4 percent for the major routes and 4.0 percent for the other routes. Subsequent annual increases through 2011 are related to consumer price inflation. Fares will increase 3.0 percent on major routes and 7.1 percent on other routes, assuming a consumer price index increase of 2 percent per year.

Passenger fares vary by type of passenger – adults pay full fare, while discounts are offered to children (age 5 to 11), students, groups, seniors, and disabled people. Fees also apply to stowage (kayaks, canoes, etc.) and bicycles. Motorized vehicles, such as passenger vehicles and motorcycles, pay a fixed tariff and commercial vehicles pay a tariff that increases as a function of vehicle size.

For most routes, fares are differentiated between the peak and off-peak seasons; and on some routes, fares also vary by peak hour and peak day. In 2006, BC Ferries launched a new fare program, the CoastSaver Sailing Program, which enabled all types of customers to take advantage of significant savings (e.g., \$20.00 discount for vehicles and \$5.00 for passengers) when traveling on specified sailings. Due to the successful customer response the program was extended to 2007.

Table 3.4 below shows an example of the tariffs charged for a trip between Swartz Bay and Tsawssen, 24 nautical miles or 1 hour and 35 minutes one way.

**Table 3.4 2007 BC Ferries Fares in U.S. Dollars, One Way**

	Weekend	Midweek	CoastSaver Sailings	Fuel Surcharge
Adult	\$10.1	\$10.1	\$4.8	\$0.7
Group rate	\$8.6	\$8.6	\$4.8	\$0.7
BC student	\$5.1	\$5.1	\$2.4	n/a
Permanently disabled	\$5.1	\$5.1	\$2.4	n/a
Child (age 5-11)	\$5.1	\$5.1	\$2.4	\$0.7
Stowage (kayaks, canoes)	\$3.8	\$3.8	\$2.8	n/a
Assured loading passenger vehicle & driver (book of 10)			\$786.2	
Conference room rental		\$57.6 per sailing		
Stateroom rental		\$24.0 per sailing		
Passenger vehicle & trailer (up to 7ft high, 20ft long)	\$33.6	\$31.68	\$19.2	\$2.7
Extra length (per foot)	\$1.7	\$1.6	\$1.0	n/a
Oversize Passenger Vehicle & Trailer (over 7 ft high, up to 20 ft long)	\$56.1	\$52.3	\$30.7	\$6.2
Extra length (per foot)	\$2.8	\$2.6	\$1.5	n/a
Motorcycle	\$16.8	\$15.8	\$9.6	\$2.85
Motorcycle with sidecar and/or trailer	\$25.2	\$23.7	\$14.4	\$2.8
Motorcycle group	\$12.6	\$11.9	\$9.6	\$2.8
Group with sidecar and/or trailer	\$18.9	\$17.8	\$14.4	\$2.8
Bicycle	\$2.4	\$2.4	\$1.92	n/a
Commercial vehicles/vehicles over 5,500 kg/GVW (per foot width)				
Up to 9 ft	\$3.9	3.9	2.5	\$0.3 per foot
Over 9 ft to 10 ft	\$4.3	4.3	2.8	\$0.3 per foot
Over 10 ft to 11 ft	\$4.7	4.7	3.0	\$0.3 per foot
Over 11 ft to 12 ft	\$5.1	5.1	3.3	\$0.3 per foot
Over 12 ft to 13 ft	\$5.5	5.5	3.6	\$0.3 per foot
Over 13 ft to 14 ft	\$5.9	5.9	3.8	\$0.3 per foot
Over 14 ft to 15 ft	\$6.3	6.3	4.1	\$0.3 per foot
Over 15 ft to 16 ft	\$6.7	\$6.7	\$4.3	\$0.3 per ft
Over 16 ft	\$7.1	\$7.1	\$4.6	\$0.3 per ft
Bus (per foot)	\$3.0	\$2.7	\$2.0	\$0.2 per ft

Source: BC Ferries. Currency conversion rate is the average value over 2006 (\$1 CA = \$1.13 US); conversion value obtained from the Federal Reserve Bank of St. Louis.

Note: Seniors ride free Monday to Thursday with the exception of holidays.

### *Extraordinary Fare Adjustments*

The Commission can make adjustments to the price cap under certain circumstances (e.g., because of fuel price increases, a need for capital investments, or safety measures). Under the Coastal Ferry Services Contract, if the Commissioner authorizes an extraordinary price cap increase, the Province may choose to increase its financial contribution by raising its per-sailing service fees for the particular route or route group affected. This would soften the impact of the price cap increase.

Recently, as a way to cope with increased fuel prices, the Commissioner approved a fuel surcharge of 3.2 percent for major routes connecting Vancouver Island to the Lower Mainland. A surcharge of 9.6 percent on all other routes will be applied to all fares, excluding the Mill Bay route. The Commissioner also has set a reduction target for BC Ferries to reduce the amount of fuel burned per year by 1 percent in 2006 and 2007.

In addition to implementing a fuel surcharge, BC Ferries protects itself from fuel price oscillations by hedging its exposure through the use of derivative instruments.

Table 3.4 shows an example of the fuel surcharge for Swartz Bay-Tsawssen route.

### *Customer-Related Revenue*

Customer-related revenue is earned from on-board catering, parking fees, reservation fees, assured loading ticket<sup>23</sup>, and other revenue (stateroom rental, etc.). Among them, on-board catering generates the largest amount of customer-related revenue, around 80 percent, followed by reservation fees at 15 percent, parking fees and other revenue at 3 percent, respectively.

### *Government Support*

BC Ferries receives financial support from Federal and local governments under the Federal-provincial subsidy agreement and the provincial ferry service contract fees, respectively. Together they account for 22 percent of total revenue.

**Federal-provincial subsidy agreement.** This agreement between the Federal government and the provincial government to provide adequate ferry service is indexed annually to the Vancouver Cost Price Index. The Coastal Ferry Services Contract between the Province and BC Ferries provides that the Province will make available to BC Ferries the full proceeds of the subsidy from the Federal Government. In 2006 the Federal government contributed 4 percent of total revenue.

---

<sup>23</sup> Assured loading tickets guarantee the passenger a place on busy routes.

**Provincial ferry services contract fees.** The Coastal Ferry Services Contract between BC Ferries and the Province of British Columbia has three components. The primary component is for the provision of services on designated routes. The second includes reimbursement from the Province for fares associated with social program areas (e.g., medical travel assistance program, children traveling for school and seniors traveling Monday to Thursday). The final component is funding provided by the Province to BC Ferries to oversee service provided by independent operators on eight nonregulated routes. In 2006, the three components together represented 18 percent of total revenue.

## Capital Funding

Capital investments are financed through operating revenue and financial instruments such as bonds or loans. According to the 2007 BC Ferries Financial Conditions and Results, the company estimates that over the next 5 years, 50 percent of capital expenditures will be financed directly through operating revenue (including fares and government support), while the rest will be derived from debt, including the following:

- **Bond issues.** BC Ferries has made several bond issues in the last few years, including two \$250 million senior secured public offerings in 2005, the net proceeds of which were used to pay a portion of their indebtedness to the province; and another \$250 million bond issue in March 2007, which will be used primarily to repay credit facilities, to fund capital expenditures, and for general corporate purposes.
- **Credit agreements.** BC Ferries recently entered into a credit agreement with a syndicate of Canadian banks, providing them with a 5-year revolving credit facility in the amount of \$155 million. The facility is available for working capital to fund the upgrade and acquisition of vessels and terminal upgrades, and other general corporate purposes.
- **Loan agreements.** In 2006, BC ferries finalized two loan agreements with a German export credit bank. The agreement allows BC Ferries to borrow up to \$90 million per loan, with net proceeds used to finance purchase of two Super C-class vessels.

BC Ferries is able to raise this amount of capital from private sources due to its good bond rating. The debt is paid down through the company revenues, which come from fares, concessions, and the fees paid to the ferry system by the Federal and provincial governments. BC Ferries treats all these sources as revenues and does not distinguish among them when paying down its debt.

## Innovative Practices to Increase Revenue

According to the 2007-2008 BC Ferries Business Plan, a key strategy to bolster revenue will be to focus on the demand side by developing new markets. A condition for this is to fully understand the different market segments and their potential, as well as exploring new traffic routes.

### *New Products and Ferry Services*

According to the BC Ferries Strategic Plan 2003-2025, leading ferry operators in the world have embraced commercial activities as a strong source of incremental revenue generation such as:

- **Food/beverage.** Ferry operators are offering a greater variety of food/beverage services onboard and at their terminals in order to satisfy different customer preferences. Besides buffet cafeteria style dining, services have grown to include a la carte restaurants and even fast food outlets. Currently, BC Ferries offers a variety of these dining options in addition to cafeteria services.
- **Expanded retail services.** On board and at the terminal, shopping stores (souvenirs, magazines, etc.) are growing rapidly. BC Ferries is providing such service on their vessels and terminals.
- **Bars/lounges.** Particularly on longer routes, many ferry operators offer bars/lounges on their vessels. BC Ferries is considering providing this service on tourist routes.
- **Premium services.** For additional fees, many ferry companies now offer branded premium services such as private lounges, upgrade seats, complimentary beverages, and newspapers. BC Ferries now offers private lounges for rent on some of its vessels.
- **Other services.** New services including cinemas, television, and Internet service rentals are being incorporated into ferry operations. These sources are currently under consideration by BC Ferries.
- **Expansion and pursuit of joint marketing initiatives with tourism associations, tour wholesalers, and operators as travel package products.**

### *Marketing*

BC Ferries is contemplating implementing marketing programs to build awareness of its services and to foster revenue.

### *Improve Customer Service*

BC Ferries undertakes annual customer satisfaction surveys to improve service and maintain vehicle and passenger traffic.

### *Demand Management*

To encourage demand during off-peak hours and in the off-peak season, price differentiation is being used to manage travel seasonality through the CoastSaver Sailing Program.

### 3.3 SCANDLINES

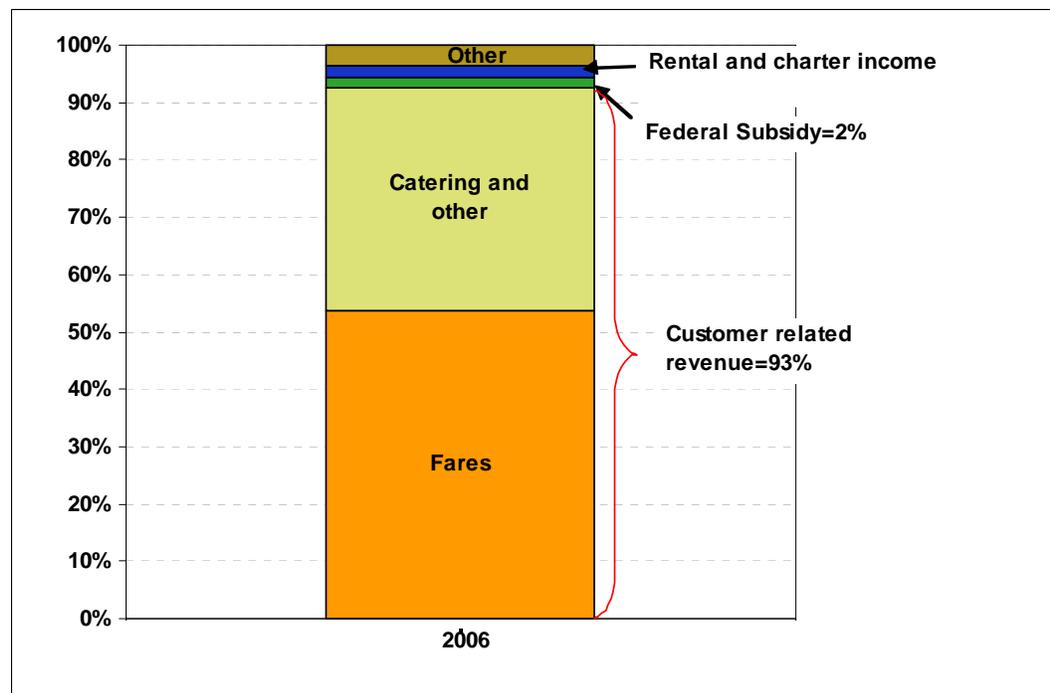
#### System Description

Scandlines is one of Europe’s largest ferry companies, established as a limited public company in 1998 by joining together the state-owned Danish company Scandlines A/S and the German private ferry operator DFO Deutsche Fährgesellschaft Ostsee. Scandlines provides both passengers and freight service on international and domestic routes in Danish, German, and Swedish coastal waters and to the Baltic countries. It operates 24 ferries on 12 routes and transports 4.2 million cars, 20 million passengers, nearly 1 million truck trailers, and 100,000 railway wagons every year.

#### Operating Revenue Sources

According to the Scandlines 2006 Annual Report, in that year net revenue reached \$129 million (103.3 million Euros), of which 54 percent came from fares; 39 percent from catering and retail; other sources such as insurance refunds and book profit from disposal of assets, etc., represented near 4 percent; rental and charter income 2 percent; and Federal subsidies 2 percent, as shown in Figure 3.4.

Figure 3.4 Scandlines Revenue Composition



Source: Scandlines Annual Report 2006.

### Fares

In 2005, fares represented 54 percent of total revenue. Tariffs apply to walk on passengers, private cars, motorcycles, bikes, commercial vehicles, and railway wagons. Vehicle and commercial tariffs vary as a function of the vehicle's length. Passenger tariffs, motorcycle, and bike tariffs are seasonally differentiated, including a premium during the summer. On some routes premiums also apply during weekends and peak hours. Freight tariffs are not subject to price differentiation.

Table 3.5 shows an example of current fares for a 45-minute trip on a commuter route between Denmark and Sweden.

**Table 3.5 2007 Scandlines Fares in U.S. Dollars**

Type	Fare
<b>Nonfreight</b>	
Private car	\$80.2
Private car over 6m length	\$102.0
Motorcycle includes 2 persons	\$50.3
Bike includes 1 person	\$16.3
Passenger walk-in	\$5.4
Children (4-11)	\$4.1
<b>Freight</b>	
Truck up to 8 m	\$185.0
Truck up to 10 m	\$227.1
Truck up to 11 m	\$251.6
Truck up to 12 m	\$273.4
Truck up to 13 m	\$295.1
Truck up to 17 m	\$359.0
Truck up to 19 m	\$376.7
Trailer	\$304.6

Source: Scandlines. Currency conversion rate is the average value over 2006 (1 Euro = \$1.36 US); conversion value obtained from the Federal Reserve Bank of St. Louis.

Scandlines responds rapidly to market fluctuations and to increases in operating costs by adjusting its fares. In 2005, the government decreased tolls over the Great Belt bridges, the main competitor with ferry service, which resulted in a decrease of both walk-on passengers and vehicles on Scandlines ferries. In response, the company reduced its fares on the routes crossing the Great Belt. Recently, due to rising fuel costs, a fuel surcharge has been applied on major routes.

### *Customer-Related Revenue*

Catering and retail sales contributed 39 percent of total operating revenue. Operational activities in the area of catering and retail sales are handled by the company's subsidiaries, Scandlines Catering A/S and Scandlines Catering GmbH. In 1999, Scandlines opened what is called a Border Shop in Puttgarden, Germany. The shop was intended to compensate for the abolition of duty-free shopping through the sale of goods typically sold at border crossings. Revenue performance has been extremely positive; in 2005, floor space was doubled to almost 8,000 square meters, and the product range was expanded to include electronics and clothing.

A major strategy to keep boosting customer-related revenue has been the expansion of on-board services. The following services are currently available on Scandlines vessels:

- Dining service, both *a la carte* and buffet;
- Travel shops such as perfumeries and boutiques;
- Conference rooms;
- Lounges;
- Bars (tourist routes);
- Cinema/video (long trips only);
- Slot machines (tourist routes);
- Saunas (tourist routes);
- Children's play rooms; and
- Cabins.

### **Capital Funding**

Capital investments are financed through operating revenue and public and private debt.

### **Innovative Practices**

Scandlines has adopted the following demand-oriented practices to increase operating revenue:

- Adding new services or products, such as full meals even on short trips, boutiques, etc.;
- Differentiating tariffs by charging peak premiums during the peak season, peak day, and peak hour;

- Adjusting fares based on demand fluctuations and operating cost increases; and
- Increasing freight services by exploring new routes.

### 3.4 ALASKA MARINE HIGHWAY SYSTEM

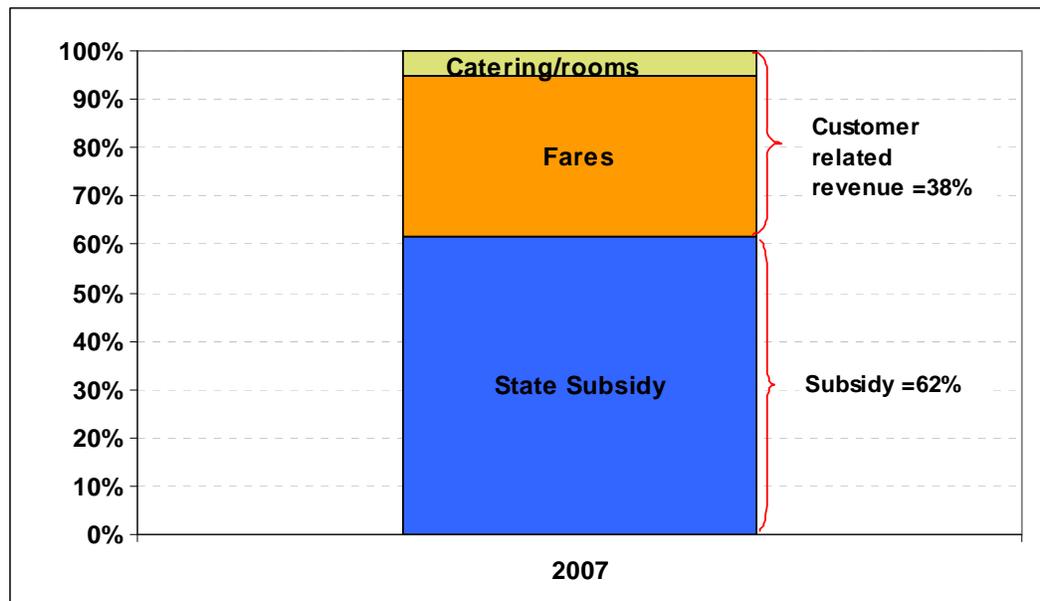
#### System Description

The Alaska Marine Highway System operates passenger and automobile ferry service through out the State. Ferry trips on average are considerably longer than those in Washington State, and can range from a couple of hours to several days in duration. Destinations stretch from Dutch Harbor in the Aleutian Islands to Bellingham, Washington. More than 35,000 miles of routes stop at 34 cities and are serviced by 11 ships. Due to the length of most trips, nearly all of the ships are equipped with overnight cabins which are rented for an additional fee above the base auto or passenger fare.

#### Operating Revenue Sources

Alaska’s ferry system is funded through state and Federal subsidies, fares, and customer-related revenue. For operating expenses in FY 2007, state subsidies represented 62 percent of total revenue, fares 33 percent, and customer-related revenue 5 percent, as shown in Figure 3.5.

Figure 3.5 Alaska Funding Sources Composition



Source: Interview with Jim Potdevin, Alaska Marine Highway System, December 12, 2007.

### *Fares*

There is a large range of fares due to the large number of towns that the ferries reach. Fare per passenger, fare per vehicle, and any fees for staterooms are all separate fares and are all calculated as one-way trips. Fares do not vary seasonally. Passenger fares currently amount to about 14 percent of total operating expenses. In 2007, this was a total of \$18.7 million. Vehicle fares currently amount to about 19 percent of total operating expenses. In 2007, this was a total of \$24.3 million.

### *Customer-Related Revenue*

Customer-related revenue is primarily derived from concessions and staterooms fees that represent around 5 percent of total operating costs. In 2007, total revenue from staterooms and meals was \$6.7 million.

### *Government Support*

Government subsidies come from the following sources:

- State funds cover 62 percent of operating costs, totaling \$80 million in 2007. In contrast to WSF, operating expenses are much greater than fare revenues, due in part to the long distances traveled by vessels and limited ridership on many routes. The State traditionally covers all revenue shortfalls.
- Federal subsidies, as mentioned previously, amounted to \$17.5 million in 2007 and cover exclusively capital expenses.

### **Capital Funding**

Capital funding comes from the Federal government. The Alaska Marine Highway System received \$10 million from the FHWA Ferry Boat Program in 2007. An additional \$7.5 million came from the FTA.

### **Innovative Practices**

Alaska's ferry system offers a variety of customer services on many vessels such as the following:

- Hot meals, snacks, and beverages on all vessels in cafeteria style;
- Theater areas that show films of general interest;
- Gift shops sell magazines, books, and Alaskan souvenirs; and
- Video game arcades.

## 3.5 BAY AREA FERRY SERVICES

### System Description

Passenger ferry service on the San Francisco Bay is provided by a variety of public and contracted operators that differ significantly in the markets they serve and in their financial makeup. The operators are:

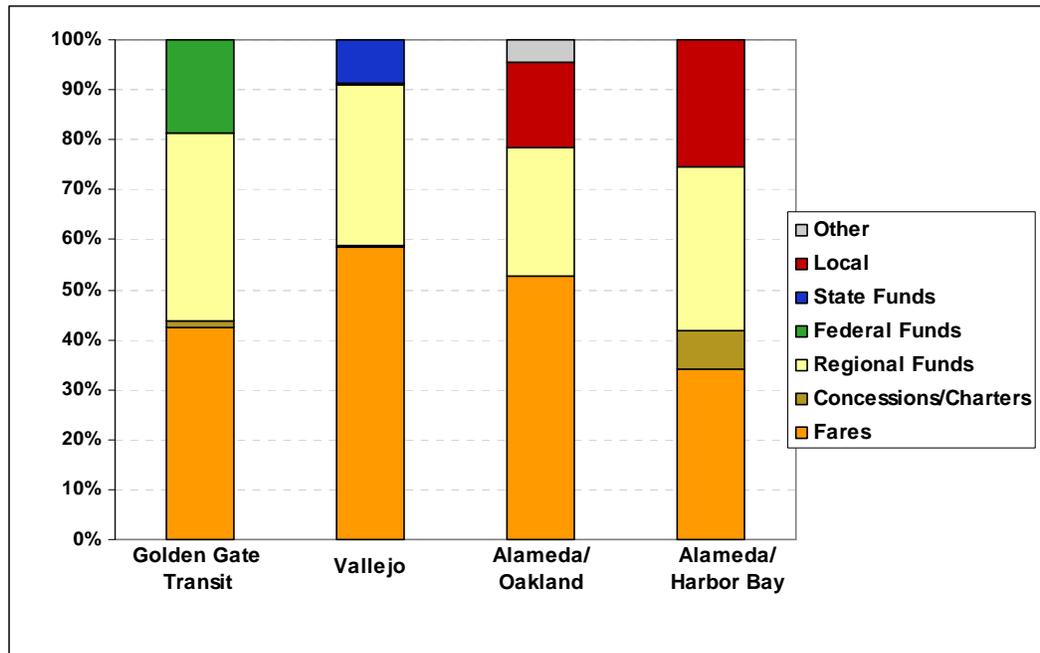
- Golden Gate Bridge Highway and Transportation District (GGBHTD),
- Alameda/Oakland Ferry,
- Alameda Harbor Bay, and
- Vallejo Baylink Ferry.

Additional public and privately-owned systems operate various routes primarily to serve the recreation and tourism industry and were not included in this review.

### Operating Revenue Sources

Ferry systems in the Bay Area are funded mainly by fares and regional subsidies. Fare recovery varies among the systems with the Vallejo Baylink Ferry achieving the highest recovery at near 60 percent, followed by the Alameda/Oakland Ferry at 53 percent, Golden Gate Transit at 42 percent, and Alameda Harbor Bay at 34 percent. The amount of regional funds provided to these ferry systems ranges between 26 to near 40 percent of their operating costs, depending on the system. For the Alameda Harbor and Alameda Oakland Ferries, local funds from the county and the city also represent a relevant source of revenue at 26 and 17 percent, respectively. Golden Gate Transit and the Alameda Harbor ferries are the only ones generating revenue from concessions and charters. Federal funds are only available for Golden Gate Ferries. Figure 3.6 presents operating revenue sources by operator.

Figure 3.6 Bay Area Funding Sources Composition



Source: MTC Programming and Allocations Committee, 2005, and San Francisco Bay Area Water Transit Authority, *A Strategy to Improve Public Transit With An Environmentally Friendly Ferry System*, July 2003.

### Fares

There is no fare policy or regulation to adjust fares on a normal basis. Fares have been adjusted based on revenue needs. Table 3.6 estimates the average annual fare increase for the different ferry systems since they started operations by interpolating current fares with the fares charged when the system started operating. As the data show, fare annual increases average around 2.5 percent, which is lower than the 3.9 percent average annual inflation registered between 1980 and 2007.

Table 3.6 Bay Area Fares, 2007

	Golden Gate Ferry	Vallejo Ferry	Alameda/Oakland Ferry	Harbor Bay Ferry
Year initial operations	1970 Sausalito 1976 Larkspur	1986	1989	1992
Travel time	45-30 min	60 min	20-30 min	25 min
Fare (one way)	\$7.10	\$12.50	\$6.0	\$6.00
Youth	\$3.55	\$6.25	\$3.25	\$3.50
Child	Free	Free	Free	Free
Avg. annual increase since initial operations	2.4%	2.5%	2.3%	2.7%

Source: Bay Area ferry operators.

### *Customer-Related Revenue*

Customer-related revenue, which is primarily derived from concessions and charters, is a small part of revenue, with Golden Gate Transit generating 1 percent of total revenue from concessions and Alameda Harbor generating 8 percent.

### *Government Support*

Government subsidies come from various sources, such as local tax options, regional funds (bridge toll funds), and state and Federal grants.

**Regional subsidies.** Regional funds, which finance in most cases more than one-third of ferry operations, come from bridge tolls. In November 1988, Bay Area voters approved Regional Measure 1 (RM 1), which authorized a standard auto toll of \$1.00 for all seven state-owned Bay Area toll bridges. The additional revenues generated by the toll increase were identified for use for certain highway and bridge improvements, public transit rail extensions, and other projects that reduce congestion in the bridge corridors. In March 2004, Bay Area voters passed Regional Measure 2, which increased bridge tolls by \$1.00.

**Local subsidies.** Local subsidies come from two sources: the Alameda County local sales tax (Measure B) and the City of Alameda.

- **Local Sales Tax.** Measure B, Alameda County's one-half-cent transportation sales tax, was originally approved in 1986 to improve transportation services in the County. Voters reauthorized the one-half-cent sales tax in November 2000 with 81.5 percent support. Sixty percent of the 2000 Measure B program expenditures are allocated to operations, maintenance, and improvements to essential transportation services and facilities.
- **City of Alameda.** The City supports the operation of the Harbor Bay Ferry service, contributing with 14 percent of total operating revenue.

**Port of Oakland.** The Port of Oakland also contributes to operating expenses of the Alameda/Oakland Ferry, funding 5 percent of total operations.

**Federal subsidies.** Federal subsidies, FTA Section 5303, are only used by the Golden Gate Ferry System and cover 5 percent of total operating costs.

### **Capital Funding**

The various Bay Area ferry operators obtain capital funding from a number of sources, such as Federal grants, local sales taxes, and dedicated regional funds from toll bridges.

For example, Golden Gate Ferries, a subsidiary of the Golden Gate Bridge Highway and Transportation District (GBHTD), funds approximately 20 percent of its capital needs from tolls it collects on the Golden Gate Bridge. The remaining 80 percent of its capital needs are funded almost completely through grants from the FTA (Section 5307 and 5309).

For the small portion of its capital needs not covered by the FTA funds, the GBHTD draws on its dedicated portion of the \$1.00 toll imposed on all state-owned bridges in the Bay Area. In addition, starting in FY 2008, the GBHTD will begin receiving some funds from the recent state infrastructure bond (Proposition 1B) that will be used as a match to Federal dollars, or to fund projects that could not compete successfully for Federal grants.

### **Innovative Practices**

Among the innovative practices that can be identified to fund ferry operations in the Bay Area are local sales taxes, regional measures (bridge toll revenues), and transit impact fees. Both local sales taxes and regional measures are currently under use and are planned to be extended to improve or expand service in the Bay Area. Transit impact fees are a one-time fee charged to new development with the purpose of maintaining the existing transit level of service for future development, or to improve it to a specific level. If current infrastructure will not be able to support future demand, a transit impact fee could be implemented to invest in expanding the service. Transit impact fees are currently proposed to fund the Richmond-San Francisco service, the expansion of the Oakland-Alameda-San Francisco service, and the Antioch-Martinez-San Francisco service.

## **3.6 SUMMARY OF FINDINGS**

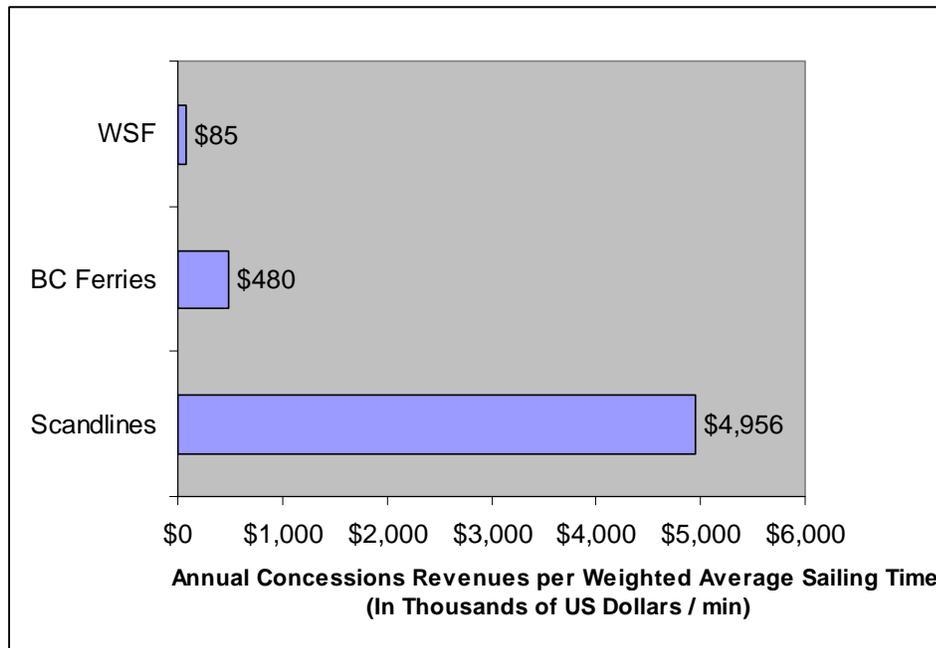
### **Operating Revenue Sources**

All the ferry systems in this review are similar, in that they all collect government subsidies, though at different levels. Alaska's system has the highest subsidy at 63 percent of total operating revenue; WSF and BC Ferries received similar subsidies at 23 and 22 percent, respectively, while Scandlines' subsidy represents only 2 percent of total revenue.

The systems differ substantially in the amount of customer-related revenue they collect. The international ferries rely heavily on customer-related activities (concessions, on-board catering, retail, etc.) to generate revenue, while U.S. ferries use it as a minor source. While BC Ferries and Scandlines obtain 16 and 39 percent, respectively, of their total operating revenue from customer-related revenue, WSF and Alaska Highway Ferries only get 2 and 5 percent, respectively.

The fact that Washington State Ferries has a shorter average ferry sailing times than the other systems explains some part of the difference in customer-related revenues, since customers are more apt to make purchases on longer ferry trips. However, after normalizing annual customer-related revenues by the system-wide weighted-average daily sailing time (about half an hour for Washington State Ferries and an hour for BC Ferries and Scandlines), there remain substantial differences between the systems. As shown in Figure 3.7, BC Ferries collects nearly 6 times as much as Washington State Ferries in normalized concessions revenues, and Scandlines collects nearly 60 times as much. Scandlines ability to earn such large amounts (nearly \$300,000,000 annually) of customer-related revenue is likely due to the fact that it owns and operates a range of retail outlets and customer amenities, including duty free stores, both on board its ships and at popular border-crossing locations.

**Figure 3.7 Concessions Revenue Normalized by Weighted Average Sailing Time**



Notes: Annual revenues obtained from ferry system web sites. Weighted average sailing time calculated from current schedules.

## Capital Funding

Ferry systems also differ on the way they finance their capital investments. BC Ferries uses operating revenue, loans, and bonds, while Scandlines relies only on its operating revenue and loans. WSF uses bonds, and Federal and state subsidies, while Alaska depends entirely on Federal subsidies.

Table 3.7 provides a comparison of operating revenue and capital funds among the different systems analyzed. The Bay Area ferry system was excluded from comparison, because its system is composed of multiple operators with different sources of funds and capital, and thus, is not comparable to the rest of the systems.

**Table 3.7 Summary Ferry Systems Comparison, 2006**

	WSF	BC Ferries	Scandlines	Alaska
Annual riders (millions)	23.8	21.7	20.0	0.3
Annual vehicles (millions)	10.8	8.5	4.2	0.1
Vessels	28	36	24	11
<b>Operating Revenue (Main Sources)</b>				
Fares	71.3%	61%	54%	33%
Concessions/catering	1.4%	16%	39%	5%
Subsidies	27.3%	22%	2%	62%
<b>Capital Funding Sources</b>				
Operating revenue*	No	Yes	Yes	No
Loans	No	Yes	Yes	No
Bonds	Yes	Yes	No	No
Federal subsidy	Yes	Yes	Yes	Yes
State subsidy	Yes	Yes	No	No
Local subsidy	No	No	No	No

Sources: Washington State Department of Transportation Office of Budget & Financial Analysis; 2007-2008 British Columbia Ferries Business Plan; Scandlines Annual Report 2006; Interview with staff of Alaska Marine Highway System.

\* In the 1999 to 2001 and 2003 to 2005 biennia, state subsidies intended for the Puget Sound Operating Account were transferred to the Puget Sound Capital Construction Account. However, these subsidies did not include fare revenues.

## Innovative Practices of Interest for WSF

### *Operating Revenue*

Innovative practices to bolster operating revenue include differentiating customer preferences; encouraging demand through tariff differentiation;

increasing market awareness of ferry services; and adjusting fares to keep pace with inflationary pressures.

- **Increase customer-related revenue.** Some operators have succeeded in raising substantial customer revenues by diversifying the services offered on board and at ferry stations in order to respond to different customer preferences, and through the creation of new products and services, such as the following:
  - *Expansion of food and beverage options.* Food and beverages are the main contributors to customer-related revenue. BC Ferries and Scandlines have increased the variety of food services on board and at their terminals to satisfy different customer preferences. Besides buffet cafeteria style dining, services have grown to include a la carte restaurants and even fast food outlets.
  - *Expansion of retail services.* On board and at the terminal, shopping stores (souvenirs, magazines, etc.) are a growing source of revenue.
  - *Bars/lounges.* On longer and/or tourist routes many ferry operators offer bars/lounges on their vessels.
  - *Premium services.* For additional fees ferry companies offer premium services, such as private lounges, upgraded seats, and complimentary beverages and newspapers.
  - *Other services.* New services, including cinemas, television, and Internet service rentals are being incorporated into ferry operations.

Though WSF generates some revenue from customer-related activities, it has strong potential to increase customer-related revenue by incorporating new products and services.

- **Demand management.** Price differentiation is seen as a convenient tool to stabilize demand by shifting some riders to the off-peak, while also attracting new travelers. Operators differentiate tariffs not only by season, but also by day and hour. The BC Ferries program CoastSaver, which provides fare discounts on specific vessels, has been a successful experience.

WSF could expand its tariff differentiation not only by charging premiums during peak travel times (season/day/hr), but also by offering discounts on certain vessels, as does BC Ferries.

- **Marketing.** To increase market awareness of the services provided and increase demand for them, operators are implementing marketing campaigns and pursuing joint marketing initiatives with tourism associations, tour wholesalers, and operators as travel package products.

Marketing through campaigns or joint marketing could be a tool for WSF to explore on tourist routes.

- **Fare adjustments.** Fare adjustments to keep pace with inflationary pressures are necessary to maintain levels of service. BC Ferries and Scandlines update their fares on an annual basis. In the case of BC Ferries, fares are linked to Vancouver Consumer Price Index. In addition, when necessary, BC Ferries and Scandlines impose extraordinary charges to cope with unexpected rises on fuel prices. BC Ferries is also allowed to request extraordinary fare adjustments for capital needs.

Since 2001, WSF has increased its fares on a consistent basis, but fares are not linked to inflation. An option to provide some certainty on future revenue and reduce the gap between operating expenses and revenue could be to index fares to inflation. In addition, the implementation of extraordinary charges to cope with rising fuel costs could also be considered.

However, the recently passed ferry-related legislation (HB 2358) limits the power of the commission to raise fares until 2009. It states that the commission “*may not raise fares until the fare rules contain pricing policies developed under Section 5 of this act, or September 1, 2009, whichever is later.*”

### *Capital Funding*

Among the tools identified to fund capital investments, other than operating revenue and debt, are local taxes, transit impact fees, and regional subsidies. Both local sales taxes and regional measures such as funds from toll bridges are currently under use in the Bay Area, while transit impact fees are proposed to fund new services. In Washington most of these options were used in the past or are currently available by law.

**Local Subsidy.** Currently, Washington State Code allows counties or regions to levy sales or use taxes to fund both capital and operating investments of ferry services through the creation of Public Transportation Benefit Areas (RCW 36.57A.200). Ferry districts are also allowed to levy property taxes to fund capital and operating funds (RCW 37.54.110).

Sales taxes to fund transportation investments have been successful in the Bay Area. This could be an option for WSF to put into practice since it is already allowed by law. Another option to generate revenue for capital expenses is the implementation of transit impact fees, which are one time fees charged to developers to improve transit infrastructure.

**Regional Subsidy.** In the Bay Area, ferry operators obtain near one-third of their revenue from regional funds through toll bridges. In the past, WSF received additional support from the Hood Toll Bridge, which was considered part of the ferry system; however, in 1985 these funds were eliminated. Funding WSF capital and operating expenses using resources from toll bridges could be an option to consider.

---

## **4.0 Regulatory Framework**



## 4.0 Regulatory Framework

Washington State Ferries is in the unique position of being both a mass transit system (as it is defined in RCW 47.60.017), and part of the highway system (as stipulated in the 18<sup>th</sup> Amendment of the State Constitution). As such, it has access to a broad range of funding sources.

This section inventories the range of funding sources available to Washington State Ferries at the state, regional, and local levels. It reviews currently authorized sources of funds and the restrictions on each source, and reveals potential funding sources not explicitly authorized at this time.

The review is based on the following sources:

- Transportation Resource Manual Local Taxes, Joint Transportation Committee, January 2007;
- Long-Term Transportation Financing Study, January 2007; and
- Revised Code of Washington (RCW).

### 4.1 STATE FUNDING SOURCES

State funding sources authorized to fund the ferry system include 18<sup>th</sup> amendment revenues, ferry fares, interim revenue warrants, and bonds. Each source is discussed in more detail below.

#### 18<sup>th</sup> Amendment Revenues

According to Article 2, Section 40 of the state Constitution, all fees and taxes on motor vehicles collected by the State (“18<sup>th</sup> Amendment Revenues”) must be used to for highway purposes. Since the ferry system is considered part of the state highway system, taxes and fees collected from motor vehicles can be used to fund its capital and operating expenses. Currently, taxes and fees from motor vehicles are dedicated to both the Puget Sound Ferry Operations Account and to the Puget Sound Ferry Capital Account<sup>24</sup>.

#### Ferry Fares (47.60.315)

Washington State Ferries is authorized to collect ferry fares to fund its operating expenses. However, according to RCW, fare revenues and other revenues deposited in the Puget Sound ferry operations account should only be used for operating purposes. They may not be used to support the Puget Sound capital

---

<sup>24</sup>Detail on the funds dedicated to each account is provided in Section 1.0.

construction account unless the support for capital is separately identified in the fare.

Ferry tariffs are set by the WSTC. The legislation (RCW 47.60.326) enumerates the factors that should be considered to undertake fare adjustments, such as operating costs, subsidies, time, and distance. It also states that the department should annually review fares and pricing policies applicable to the operation of Washington State Ferries. Beginning in 2008, the department must develop fare and pricing policy proposals that:

- Recognize that each travel shed is unique, and might not have the same farebox recovery rate and the same pricing policies;
- Be developed with input from affected ferry users by public hearing and by review with the affected ferry advisory committees, in addition to the data gathered from the survey conducted of ferry users (RCW 47.60.286);
- Generate the amount of revenue required by the biennial transportation budget;
- Consider the impacts on users, capacity, and local communities;
- Keep fare schedules as simple as possible; and
- Provide options for using pricing to level vehicle peak demand and to increase off-peak ridership.

### **Ferry Terminal Facilities-Interim Revenue Warrants (RCW 47.60.122)**

The Department of Transportation is authorized to issue interim revenue warrants, which are issuances of debt made by the department itself for which the state government is not responsible. The warrants are payable solely out of part or all of the revenues derived from the operation of the Puget Sound ferry system for the purpose of paying the cost of acquiring, constructing, or reconstructing ferries or ferry terminal facilities.

### **Bonds (RCW 47.60.060)**

The Department of Transportation is authorized to issue bonds to fund the ferry system. Bonds may be issued to pay the cost of developing new infrastructure or rehabilitating existing ferry-related infrastructure, including toll bridges, approaches, and roadways incidental to the system.

## **4.2 REGIONAL FUNDING SOURCES**

According to Washington State Code, there are three mechanisms that could be implemented to fund ferry services on a regional level: County Ferry Districts, Public Transportation Benefit Areas, and Transit Taxes. Regional funding arrangements are defined as situations in which two or more jurisdictions share

the responsibility of funding transportation system operations and/or capital investments.

### **County Ferry Districts (RCW 36.54)**

Counties can establish ferry districts in all or a portion of a county to fund operating and/or capital expenses of ferries through:

- An ad valorem tax not to exceed 75 cents per \$1,000 assessed value, which can be imposed by county legislative authority; and
- An excess property tax levy upon voters' approval.

In May 2007 the Metropolitan King County Council adopted an ordinance creating a passenger ferry district, which includes all of King County.

### **Public Transportation Benefit Area Authorities (RCW 36.57A)**

Cities and counties are authorized to collectively create public transportation benefit areas to fund the capital or operating expenses of passenger-only ferry services. In 2003, the code was amended to allow public benefit areas with a boundary located on Puget Sound to provide passenger only ferries. Upon voter approval, transportation benefit areas can finance transportation investments through:

- Motor vehicle excise taxes;
- A sales and use tax up to 0.4 percent;
- Passenger fares;
- Parking fees; and
- Charges or licensing fees for advertising, leasing space for ferry service, and other revenue generating activities.

### **Transit Taxes (RCW 35.95.040, 82.14.045)**

Cities, counties, unincorporated transportation benefit areas, public transportation benefit areas, transportation authorities, and metropolitan corporations may levy a business and occupation tax to fund the operation, maintenance, and capital needs of transit districts. Upon voter approval, the following taxes may be imposed:

- A household/utility excise tax of up to \$1.00 per housing unit, and
- Sales and use tax of up to a maximum of 0.9 percent.

## 4.3 LOCAL FUNDING SOURCES

At the local level, there are several mechanisms that can be implemented to fund the operating and/or capital expenses of transportation systems. All of them, but the Property Tax Road Levy, require voter approval.

### **Motor Vehicle and Special Fuel Tax (RCW 82.80.010)**

Upon voter approval, counties can charge an additional tax equal to 10 percent of the statewide motor vehicle fuel tax rate for highway purposes, including construction, maintenance, and operation of city streets; operation of ferries; and related activities.

### **Commercial Parking Tax (RCW 82.80.030)**

Upon voter approval, counties, cities, or districts have the authority to impose a tax on commercial parking for transportation purposes, including construction and operation of state highways, county roads, and city streets; public transportation; high capacity transportation; transportation planning and design; and other transportation-related activities.

Cities that have implemented parking taxes are SeaTac, Bainbridge Islands, Bremerton, Mukilteo, and Tukwila.

### **Public Transportation System Sales and Use Tax (RCW 82.14.145)**

Upon voter's approval, any city, public transportation benefit area, county transportation authority, or metropolitan municipality can levy a sales tax or use tax of up to 0.9 percent for capital and operating expenditures of public transportation systems.

### **Property Tax Road Levy (RCW 36.82.040)**

Counties are authorized to levy property taxes not to exceed \$2.25 per \$1,000 of assessed valuation for construction, preservation, and maintenance of county roads, bridges, and wharves for providing ferry service, and for other county road purposes.

## 4.4 OTHER POTENTIAL REVENUE SOURCES NOT CURRENTLY AUTHORIZED TO THE WSF

### **Toll Revenue**

Although between 1962 and 1985, the ferry system received support from toll revenues collected on the Hood Canal Toll Bridge; currently the ferry system does not receive revenue from toll bridges despite the fact that, as stated by

RCW 47.60.010, the system may include the construction of bridges, approaches, and connecting roadways.

According to RCW 47.56.160 and RCW 47.56.170, all tolls or other revenues received from the operation of toll bridges constructed with the proceeds of bonds issued shall be paid over by the Department of Transportation to the state treasurer and the surplus generated after paying the bonds shall be allocated to the construction, operation, and maintenance of the toll bridge.

## 4.5 SUMMARY OF FINDINGS

According to the Revised Code of Washington, there are several mechanisms that can be implemented at different government levels to fund the operating and/or capital expenses of Washington State Ferries. One source not currently authorized by the law, but which has been suggested as a potential source to fund ferry expenses in other studies, is toll bridge revenues.

Table 4.1 summarizes the revenue sources, except motor vehicle taxes and fees, authorized to fund the ferry system.

**Table 4.1 Summary of Revenue Sources**

Revenue Source	RCW	Eligibility	Taxes/Fees Authorized	Uses	Voter Approval
<b>State Level</b>					
Ferry Fares	37.54.110	WSF	Fares	Operations Capital expenses only if identified separately in the fare	No
Warrants	47.60.122	WSF	Na	Capital	No
Bonds	47.60.060	WSF	Na	Capital	No
<b>Regional Level</b>					
County Ferry Districts	36.54	County or part of it	Ad valorem tax	Capital and/or operations	No
			Excess property tax levy	Capital and/or operations	Yes
Public Transportation Benefit Area Authorities (passenger-only ferries)	36.57A	Cities and counties	Motor vehicle excise tax, sales and use tax, fares, passenger fares, parking, and concessions	Capital and/or operations (passenger-only ferries)	Yes
<b>Local Level</b>					
Motor vehicle and special fuel tax	82.80.010	Counties	An additional of up to 10% of state fuel tax rate	Operations	Yes
Commercial parking tax	82.80.030	Counties, cities, and districts	Parking tax	Capital and/or operations	Yes

Revenue Source	RCW	Eligibility	Taxes/Fees Authorized	Uses	Voter Approval
Public Transportation System Sales/Use Tax	82.14.145	Cities, public transportation benefit area, county transportation authorities, and metropolitan municipalities	Sales and use tax	Capital and/or operations	Yes
Property Tax Road Levy	36.82.040	Counties	Property taxes	Capital and maintenance of wharves	No
Transit Taxes	35.95.040, 82.14.045	Transit districts	Business and occupation tax	Capital and/or operations	Yes

Source: Cambridge Systematics, Inc.

---

# **Appendix A.**

*Staten Island Ferry System*



# Appendix A. Staten Island Ferry System

The Staten Island Ferry System was researched for this report but not included in the main body of the text due to lack of comparability with Washington State Ferries. A brief case study of the system is provided below.

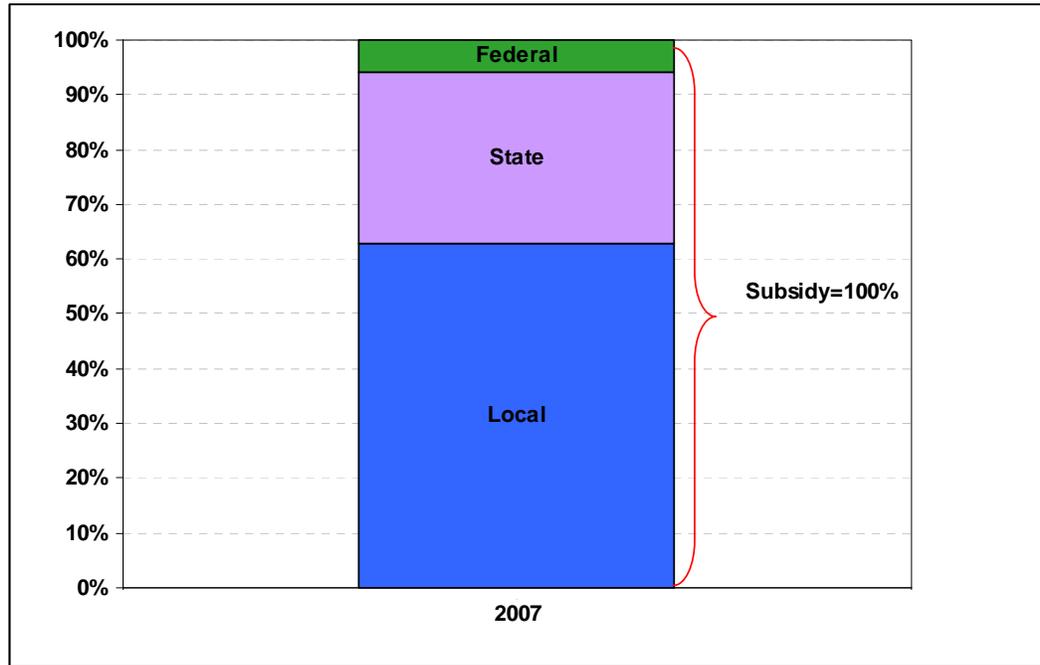
New York City is served by both public- and privately operated ferries transporting each approximately 20 million riders annually. The Staten Island Ferry has been a municipal service since 1905, and serves mainly commuter trips from Staten Island to New York City. There are four private waterborne operators – NY Waterway, Sea Streak, NY Fast Ferry, and NY Water Taxi – from which NY Waterway accounts for 90 percent of ferry passengers. Private ferry operators provide service between Manhattan and New Jersey, Manhattan and Queens, Manhattan and Yankee Stadium, and Manhattan and Brooklyn. Given that the private ferry providers do not have public information regarding their revenue sources, this appendix focuses only on the publicly operated Staten Island Ferry.

## Revenue Sources

Since 1997, when fares for walk-on passengers were abolished, the Staten Island Ferry System revenue has come exclusively from state and Federal subsidies. The fares were abolished with the purpose of decreasing the burden on commuters who had to pay up to three different transit services to arrive to their final destination. Though fares for vehicles are still applicable, after 9/11 no more vehicles were allowed on the ferries; thus, at present no fare revenue is collected.

According to New York City Independent Budget Office (IBO) Report published in March 2007, New York City carries 63 percent of total spending, the State 31 percent, and the Federal government 6 percent, as shown in Figure A.2. However, from a report published in 2003 by New York City DOT on Staten Island Ferry operations, it seems that additional revenue is collected from advertisement and concessions, around 2 percent; although such revenue was not mentioned on the IBO report.

Figure A.1 Staten Island Revenue Composition



Source: 2007 New York City Budget Office.

### Fares

Prior to 1997, when fares were collected on the Staten Island Ferry, the fares were kept extremely low and did not reflect the cost of providing the service. A 5-cent fare was established in 1897, and it was not until 1972 that the fare was raised to 10 cents. In 1975 the fare was increased to 25 cents; and 15 years after, in 1990, the fare went up to 50 cents. Finally on July 4, 1997, the fare for foot passengers on the ferry was eliminated.

In 2006 the City of New York requested a study to assess the potential of charging a tourist fare in the future, since approximately 10,000 trips or 11 percent of the demand comes from visitors. The study concluded that between \$4 million and \$14 million could be generated annually from a tourist fare of \$1.00 and \$4.00, respectively. However, no such fares are in place at this time.

---

# **Appendix B.**

*Washington State Ferries Revenues and Expenses,  
2005-2007 Biennium*



# Appendix B. Washington State Ferries Revenues and Expenses, 2005-2007 Biennium

The following tables were provided by the Washington State DOT Office of Budget & Financial Analysis. They contain actual Washington State Ferries revenues and expenditures for the 2005-2007 biennium.

**Table B.1** WSF Operating Program Sources and Uses of Funds  
*State Fiscal Biennium 2005-2007, In Thousands of Dollars*

Sources of Funds		
109	Farebox Revenue	\$286,379
	Motor Vehicle Fuel Tax	\$39,210
	Licenses, Permits & Fees	\$14,712
	Miscellaneous Revenue	\$5,635
	Treasury Deposit Earnings	\$727
	Cash Balance July 1, 2005	\$724
108	Transfer from Motor Vehicle Account	\$50,680
218	Multimodal Account funding for Passenger-only Ferry Service	\$3,648
<b>Total Sources of Funds</b>		<b>\$401,715</b>
Uses of Funds		
	Office of Information Technology	\$8,369
	Transportation Management	\$1,321
	WSF Maintenance and Operations	\$391,680
	Marine Employees Commission	\$345
<b>Total Uses of Funds</b>		<b>\$401,715</b>

**Table B.2**    **WSF Capital Program Sources and Uses of Funds**  
*State Fiscal Biennium 2005-2007, In Thousands of Dollars*

<b>Sources of Funds</b>		
099	Referendum 49 Bond Proceeds*	\$40,866
	Debt Service for Older Bond Issues**	\$(39,960)
	Gas Tax Distribution	\$35,754
	Federal Funds	\$55,314
	Local Funds	\$158
	Treasury Deposit Earnings	\$814
108	Transfer from MVA	\$70,223
	Motor Vehicle Account – Cash*	\$9,478
	Referendum 49 Debt Service*	\$(9,478)
218	Multimodal Funding – Cash	\$201
	Multimodal Funding – Bonds	\$9,885
550	Nickel funding for construction	\$18,954
<b>Total Sources of Funds</b>		<b>\$192,209</b>
<b>Uses of Funds</b>		
	Construction, State	\$127,427
	Construction, Federal	\$55,314
	Construction, Local	\$158
	Carry-forward Cash Balance	\$9,310
<b>Total Uses of Funds</b>		<b>\$192,209</b>

\* Debt service for Referendum 49 ferry bonds are paid by the Motor Vehicle Account (108).

\*\* Debt service for older ferry bonds are paid by the Puget Sound Capital Construction Account (099).