





# Passenger-Only Ferry Study and Business Plan

Bellingham to Friday Harbor

**Produced By** 



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In Partnership With



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# **Executive Summary**

The Whatcom Council of Governments and the Ports of Bellingham and Friday Harbor commissioned this study to develop an approach to providing high-speed passenger-only ferry service between Bellingham and Friday Harbor. The plan builds on the results of the pilot service, conducted during the winter of 2005-06, and represents the next step toward establishing permanent service between the two communities.

# **Benefits of Proposed Service**

The proposed high-speed ferry link between Bellingham and Friday Harbor offers a number of unique benefits that will provide a positive impact on both communities. These benefits include:

- Shorter transit time for San Juan Island residents to shopping and services
- Strengthened connections between families stretched between the San Juan Islands and Whatcom, Skagit Counties and British Columbia.
- Commuter access for San Juan Island residents within Whatcom and Skagit Counties job markets
- Expanded commuter access for Whatcom County residents for jobs in San Juan County
- Expanded access to medical services, particularly for residents of San Juan County
- Increased tourism and resultant commerce from San Juan County to Whatcom County and vice-versa
- Increased traffic through Whatcom County by San Juan County bound tourists
- Increased access to higher education institutions for San Juan Island residents
- Increased direct access to educational and recreational experiences on San Juan Island and indirect access to all of the islands
- Unlike competing services, this route has the potential for lower seasonality effects stemming from its substantial commuter base rather than a pure tourist base
- Significantly faster and competitively priced transportation option between communities
- Lower tax subsidy than that of other public transportation options

#### **Contract Model**

The plan proposes a public-private partnership, wherein the Principal Partners (the Ports) will partner with a private vessel operator to provide the service. This model was established in order to leverage the capabilities of both partners and is based on a standard industry contract model. Under this arrangement, the Principal Partners will provide the vessel, facilities and public subsidy necessary for the service, while the operator would be responsible for all aspects of the operation itself, including staffing, vessel maintenance, logistics and marketing. The operator will be compensated for all direct costs and will be

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provided an additional fixed fee to cover overhead and a minimal profit. The operator will also receive 20% of all fare revenue as an incentive to grow ridership, with the remainder being retained by the Principal Partners.

## **Proposed Vessel**

The vessel proposed for the service is a high-speed (30+ knot), low wake, aluminum catamaran ferry, which will be owned by the Principal Partners. A municipal lease will be used to procure the vessel. Under this arrangement, the vessel will be leased for a fixed period of time, after which the Principal Partners will retain full ownership. This arrangement eliminates the burden of traditional financing while retaining the ability to use grants and other resources available to public entities to aid in vessel purchase. Some available public funding sources are discussed within the plan.

#### Schedule

The proposed service will provide four daily round-trips between the Bellingham Cruise Terminal in the Fairhaven District and the Passenger Ferry dock in Friday Harbor. The schedule provides two AM and two PM sailings from each location and is set up to allow passengers to use the service and still complete a full day's work.

#### **Fares**

The fare structure provides a discount for residents of Whatcom County and San Juan Island. Fares are designed to be competitive with alternative modes of transportation between the two communities. One-way fares are set at \$20 per passenger, \$25 for non-residents. Commuters may also purchase 10-ticket books for \$150. Youth (under 18) pay \$15 to travel one-way, and children under 5 travel free.

# **Economic Impact**

This plan analyzes the economic impact of the proposed service using the IMPLAN modeling tool. As reflected in the tool, the marine industry has a higher-than-average impact, or "multiplier", with regard to new job creation. It is estimated that the service would create the equivalent of 40 new full-time positions and, using conservative estimates, infuse more than \$1 million into the local economy as a result of these new positions.

In addition to this direct impact, the service will encourage additional tourism and commerce between the two communities and beyond. While quantitative estimates of additional commerce and tax revenue are beyond the capabilities of the economic model used in this study, the increased commerce will certainly have a positive impact on sales and tourism tax revenue. The increased commerce will also have a "multiplier effect" that will help sustain additional jobs and economic activity.

Finally, the proposed service offers a significant user cost savings over transportation alternatives. Currently, it costs an individual between \$65 and \$94 to make a round-trip

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between Bellingham and Friday Harbor, depending on the direction of travel. This figure factors in the cost of travel between Bellingham and Anacortes, parking (if necessary), and Washington State Ferry fares. The proposed service offers direct, round-trip service between Bellingham and Friday Harbor for as low as \$30.

## **Environmental Impact**

In addition to user cost savings, the proposed service offers a significant environmental benefit over the current mode of transportation between the two communities. The plan calculated the per-traveler fuel consumption, and associated greenhouse gas emissions, for travel between Bellingham and Friday Harbor via Anacortes and compared it to that of the proposed service. An individual traveler using the Washington State Ferry in Anacortes is estimated to consume over 4 gallons of fuel in each direction, generating 86 lbs of greenhouse gasses for a one-way trip. Using the proposed service, it is estimated that an individual will only consume just over 2 gallons in each direction, generating only 51 lbs of greenhouse gasses.

#### **Partnerships**

Community partnerships and linkages were identified as critical at the outset of the study. The success of the service will largely depend on its ability to serve the interests of a wide variety of stakeholders. This plan proposes a full-time marketing person be dedicated to the task of establishing relationships with community stakeholders and growing ridership. This person will be empowered to partner with community institutions, such as medical centers, schools, businesses and community organizations to establish guaranteed seat programs, sell discount tickets and find opportunities for which the proposed service can offer a mutually-beneficial relationship. This person will also coordinate operator efforts to generate additional revenue by providing special sailings for community events or to participate in emergent transportation opportunities.

# **Financial Projections**

The plan incorporates financial projections for the proposed service through 2016. Ridership assumptions were based on those in the 2006 study, which included both high and low projections. Detailed financial projections are provided for both the high and low ridership scenarios, including pro-forma P&L statements, estimates of fare revenue, breakeven ridership projections and fuel price analyses. In the first year of service, the operation is expected to cost between \$2.8 and \$3.2 million.

The projections reflect that ridership will be the key driver of service success and will determine whether the Principal Partners will be able to substantially recoup their investment. In the low ridership scenario, the service will need a \$2.1 million annual subsidy, while in the high ridership scenario, the service will bring in over \$1 million after all expenses.

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# **Principal Partners**

## The Whatcom Council of Governments (WCoG)

The WCoG embodies the recognition that decisions made by any one jurisdiction within Whatcom County may affect the welfare of others. The Council was created with the belief that it is in the best interests of all Whatcom County governments that representatives of the jurisdictions come together regularly for the purposes of defining, discussing, and planning the future of the region and of our regional international relationship with the Greater Vancouver and Fraser Valley area of British Columbia.

It is the mission of the Whatcom Council of Governments to provide general and special governments with an organized means of providing a more unified response to significant issues of this regional Whatcom County community.

# The Port of Bellingham

The Port of Bellingham operates two large marinas, port facilities and the Bellingham International Airport. The port of Bellingham's mission is to fulfill the essential transportation needs of the region while providing leadership in maintaining Whatcom County's overall economic vitality through the development of comprehensive facilities, programs, and services. The port seeks partnerships with other entities to strengthen the greater community while providing world class services.

The Port of Bellingham engages in coordinated efforts to plan economic revitalization and environmental stewardship within Bellingham Bay. The Port's sustainable waterfront stewardship approach is focused on meeting future transportation needs, economic revitalization, and restoration and stewardship of marine habitat.

The Port of Bellingham has three port commissioners each representing a district within Whatcom County.

# The Port of Friday Harbor

The Port of Friday Harbor operates a marina, an airport, a seaplane base and a public beach with a boat launch. The mission of the port is to maintain a healthy economy with family wage jobs, while causing the least possible harm to the social and natural environments of the island.

The Port of Friday Harbor has three port commissioners.

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# **Passenger Ferry Service**

#### **Vision for Future Service**

In order to meet the needs of a growing community and embrace the natural connections that exist between Whatcom County and San Juan Island, the Principal Partners seek to launch a regularly scheduled passenger-only ferry service between Bellingham and Friday Harbor. The Bellingham Cruise Terminal will host passenger service from Bellingham at the quickly-growing transportation hub located in Fairhaven. Service in Friday Harbor will terminate at the existing passenger dock, which plays a pivotal role in waterborne and airborne transportation. At both facilities passengers will find comfortable, climate-controlled facilities that represent the cultures of their communities.

All aspects of the physical ferry service will be conducted by contract with a service provider in partnership with the Principal Partners. Service would initially include four daily round trips, seven days a week. Service enhancements would be added based on seasonality and demand.

The ideal vessel to serve this route is a high speed (30+ knot), fuel-efficient, multi-hull, low wash vessel with a capacity of 100-149 passengers. This type of vessel would be able to travel the 27 nautical miles in no more than 55 minutes<sup>1</sup>. However, fuel efficiency and overall operational cost savings will be taken in to account when reviewing available equipment options with an emphasis on meeting customer expectations while minimizing overall expenses.

Proposed service within this document is offered from the position that an operator would utilize a single vessel until any single trip reaches a sustainable 75% capacity load. At no time should passengers be turned away because of a "full boat" during the first 3 to 5 years of operations. This may require strategic partnering by the partners and the operator to expand service capacity during the peak season for one or two years until year round passenger load sustains two vessels.

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<sup>&</sup>lt;sup>1</sup> NSCCP Ferry Opportunities Study. Wilbur Smith Associates. January 2005

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Passenger studies have indicated that baseline amenities should include<sup>2</sup>:

- Information / maps
- Temperature controlled passenger area
- Limited engine/mechanical noise within the passenger compartment
- Comfortable seating / work areas
- Food / beverage service
- Clean restrooms
- Newspapers or other reading materials

#### Secondary amenities include<sup>3</sup>:

- Internet connection / power for laptops
- Espresso coffee service
- Limited baggage/parcel handling capacity
- Cargo space for bicycles or large parcels

Any facilities or vessels utilized should conform to current access for persons with disabilities guidelines and requirements to ensure no barriers exist for any passenger seeking to travel<sup>4</sup>.

# **Intermodal Transportation**

Critical to the success of passenger ferry service will be strong intermodal connection to landside transportation options at both terminals. The experiences of other marine transportation services have shown the importance of these connections to rider utilization and service success.

On the Bellingham side, the terminal's proximity to Amtrak, scheduled bus service, park and ride lots and taxi services will provide ferry riders ample ability to access jobs, schools, businesses, services and recreational destinations that will make the service attractive. In Friday Harbor, intermodal transportation connections are important to riders wishing to access locations beyond the town center, such as other islands or destinations on San Juan Island. These may include busses, taxis, car rentals, or ferries to other islands. In either case, the connections must be structured to support the ferry service in a way that riders can be confident that, having left their personal vehicle, they can access the destinations they need to in a timely, efficient, clean and cost-effective manner.

<sup>&</sup>lt;sup>2</sup> WCoG Passenger Only Ferry Study November 2006

<sup>&</sup>lt;sup>4</sup> Access for Persons with Disabilities to Passenger Vessels and Shore Facilities – the impact of the Americans with Disabilities Act of 1990. A report published by the US Department of Transportation, Office of Environment, Energy and Safety, and Office of the Secretary of Transportation. July 1996.

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# **Activity to Date**

A number of studies have been conducted regarding various passenger-only ferry options and routes originating in Bellingham since 1990. A pilot project was conducted during the winter months of 2005-2006 with funding from the US Federal Transit Administration. The intent of the pilot project was to provide material data on potential markets and service characteristics.

WCoG contracted with Victoria-San Juan Cruises in partnership with the Port of Bellingham to operate a daily passenger only ferry between Friday Harbor and Bellingham. Throughout the pilot, data was solicited from those using the service regarding multiple aspects of the operation.

The pilot project's service consisted of two round-trips each day on weekdays only. Departures from Bellingham occurred at 7:00am and 3:00pm and departures from Friday Harbor occurred at 9:00am and 5:00pm.

The vessel utilized for the study was the 149-passenger Victoria Star II, a 96-foot mono-hull vessel with 1600 horsepower<sup>5</sup>. The vessel offered passengers indoor and outdoor seating areas, a snack bar and restrooms. Crossing time was one hour and forty minutes.

Prices were designed to be competitive with those offered by Washington State Ferries. Adult passengers were charged \$10 each way, youth passengers \$5 each way and those under 6 years of age travelled at no cost. Commuter books were also offered for \$75 for 10 one-way trips.

# **Unique Factors of Service**

Providing direct service between Bellingham and Friday Harbor offers a number of unique factors from those services presently available that provide service between these two ports:

- Shorter transit time for San Juan Island residents to shopping and services
- Strengthened connections between families stretched between the San Juan Islands and Whatcom, Skagit Counties and British Columbia.
- Commuter access for San Juan Island residents within Whatcom and Skagit Counties job markets
- Expanded commuter access for Whatcom County residents for jobs in San Juan County
- Expanded access to medical services, particularly for residents of San Juan County

<sup>&</sup>lt;sup>5</sup> US Department of Transportation, Bureau of Transportation Statistics, 2006

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- Increased tourism and resultant commerce from San Juan County to Whatcom County and vice-versa
- Increased traffic through Whatcom County by San Juan County bound tourists
- Increased access to higher education institutions for San Juan Island residents
- Increased direct access to educational and recreational experiences on San Juan Island and indirect access to all of the islands
- Unlike competing services, this route has the potential for lower seasonality effects stemming from its substantial commuter base rather than a pure tourist base
- Significantly faster and competitively priced transportation option between communities
- Lower tax subsidy than that of other public transportation options

## **Objectives and Keys to Success**

The primary objective of this venture is to create a sustainable public transit network between Bellingham and Friday Harbor.

In order to meet this objective the following critical steps must be taken:

- Public commitment to a multi-year/year-round passenger ferry project
- Securing a vendor with appropriate capabilities, experience and the desire to be a true partner in this venture
- Appropriate and innovative marketing messages and vehicles to promote the service to those most likely to participate
- Meeting the stated amenities as revealed during the 2005-2006 pilot project
- Identifying and meeting specific ridership goals to meet fiscal models
- Partnering with other public transit systems to coordinate schedules and availability
- Collecting public opinion to guide improvements or additions
- Fares that are competitive with the cost of travel on Washington State Ferries via Anacortes
- Attaining 10% increases in ridership on an annual basis in year two and 5% each year thereafter
- A trend of decreasing public subsidy as ridership increases
- Demonstrated positive economic impact for both San Juan and Whatcom Counties

# Regulations

Commercial ferry operations are subject to a number of state laws and rules, and are regulated by the Washington Utilities and Transportation Commission (WUTC). These laws and rules include:

- WAC Chapter 480-51: Commercial Ferry Rules
- WAC Chapter 480-07: Procedural Rules

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RCW 81.84: Commercial Ferries

WAC Chapter 480-149: Tariff Circular No. 6

#### **Washington Utilities and Transportation Commission**

The WUTC under RCW 81.84.010 requires all commercial ferry operators operating ferry service to apply for and maintain a certificate for particular routes. More than one certificate may be issued for any particular route if either the current certificate holder or holders do not protest or if service is constructed in such a way that it is deemed to be a new route. Public entities are not required to seek certificates for any ferry service they choose to operate unless a certificate has been issued prior to the launch of such public service.

Passenger ferry operators are required to report to the WUTC every six months regarding the progress of the certificated route including, but not be limited to, the progress of environmental impact, parking, local government land use, docking, and financing considerations.

Holders of certificates may not sell, assign, lease, mortgage, or in any manner transfer, either by the act of the parties or by operation of law, the rights provided unless prior WUTC authorization has been given.

The WUTC may issue temporary permits valid for 180 days or, in the case of a declared emergency, suspend any and all rules for ferry service.

Currently the WUTC has issued two certificates for the Bellingham to Friday Harbor route to Island Commuter Service LLC (dba Island Commuter Service) and Pacific Cruises Northwest (dba Victoria San Juan Cruises). Other certificates with origination in Bellingham have been issued to various ports of call within the San Juan Islands not including Friday Harbor. One additional certificate is issued to San Juan Express Inc (dba San Juan Express) providing service to Friday Harbor with the origination point of Seattle.

In the event a current operator does not provide the services described within this document an additional certificate would need to be sought from the WUTC. It is recommended that this additional certificate be issued to the principal partners and not to an additional operator so as to protect the long-term interests of the partners.

It is important that the UTC license be addressed in the operator RFP. The Partners may favor respondents who can provide a UTC license, or otherwise negotiate to obtain a license from a respondent who currently holds such a license.

#### **Application Process**

In order to apply for the Commercial Ferry Certificate, an application must be prepared and submitted to the WUTC. The application document, available on the WUTC website,

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requires completion of a form and submittal of supporting documentation. This documentation includes:

- A map clearly showing the route
- A tariff, containing proposed fares and rates, and the rules and regulations governing them
- A schedule that includes routes, trips, times, points served, distances and available facilities
- Pro forma financial statement of operations (income and expense projections for the first year of operations)
- Ridership and revenue forecasts
- The cost of service for the proposed operation
- · An estimate of the cost of assets to be used in providing service

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# **Communities Served**

#### Bellingham

Situated 90 miles north of Seattle and 21 miles south of Vancouver, BC the city of Bellingham consists of 28 square miles that attracts an increasing number of residents, visitors and scholars. More than 71,000 people call Bellingham home<sup>6</sup>. The city is the county seat for Whatcom County and plays a pivotal role in supporting growth throughout the county and region.

Bellingham residents are passionate about community life. Strategic investments in parks, trails and preserved open spaces offer recreation and respite, and help the community grow gracefully as the population increases. Numerous public/private partnerships support the burgeoning arts and cultural district downtown and elsewhere. Bellingham's active waterfront hosts a range of marine activities, with significant change on the horizon as area community leaders and residents consider options for development.

According to Census data there are 82 commuters from Whatcom County and 110 from Skagit County to San Juan County<sup>7</sup>. These two counties are the largest provider of commuters from within the state to San Juan County employers.

#### **Friday Harbor**

Located midway along the eastern shore of San Juan Island between Canada's Vancouver Island and the Washington State mainland, Friday Harbor consists of a single square mile and serves as the county seat for San Juan County. The island is served by a multitude of water and airborne transportation options but an overwhelming number of travelers arrive via the Washington State Ferry. The town draws large annual surges of tourists and vacation home owners and has more than 2,200 full-time residents<sup>8</sup>.

According to Census data there are no commuters from San Juan County to Whatcom County, but there are 63 to Skagit County and 15 to Snohomish County<sup>9</sup>.

<sup>&</sup>lt;sup>6</sup> 2004 Census data

<sup>&</sup>lt;sup>7</sup> 2000 Journey to Work Census data

<sup>8 2006</sup> Census data

<sup>&</sup>lt;sup>9</sup> 2000 Journey to Work Census data

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# **Existing Facilities**

#### Bellingham

Located in the Historic Fairhaven District and completed in 1989, the Bellingham Cruise Terminal is the southern connection for the Alaska Marine Highway System. Seasonal foot ferries and charter vessels also provide connections to Victoria, British Columbia and the San Juan Islands. The terminal provides safe and convenient passenger facilities for more than 200,000 passengers each year. The facilities include three berthing areas with two options for a passenger-only ferry.

The terminal features a climate-controlled waiting area, which includes a restaurant, Northwest gift shop, vending machines, an ATM, car rental, meeting/reception facilities, high-tech office space, and visitor information. Located within a four-minute walk are connections to local bus service, Amtrak passenger train service, and Greyhound bus line service. Both affordable short-term and ample long-term parking are available.

Both berth options include power and sewage connections. One option is available for SOLAS-classed vessels while the other is used for non-SOLAS vessels. Maintenance and fuel facilities are located nearby.

A small desk or office space is available within the terminal for ticketing or the use of a visitor's booth/kiosk may also be an additional option for serving passenger needs.

Operational concerns regarding the use of the Bellingham Cruise Terminal include:

- Posted operational hours of Winter 8am 5pm and Summer 7am 9pm which may need to be extended to serve potential passengers
- Public transportation, Whatcom Transit, not directly serving the terminal may require negotiations to extend the "red line" to the terminal
- Secure bike storage may be requested by potential passengers
- Dock space is currently in high demand during the summer season requiring assurances of priority access from the Port of Bellingham
- Dock space is exposed to winter storms requiring the operator to potentially seek safer harbor space for overnight moorage during the winter season

The Port of Bellingham charges a \$1.25 per-passenger port facility fee. This plan does not incorporate port facility fees into its financial projections.

#### **Friday Harbor**

The passenger dock at Friday Harbor is located within the heart of the town and is adjacent to the Washington State Ferry terminal. The dock is also utilized by the Victoria Clipper and other vessels. Water depth at zero tide is 20 feet, which is more than adequate for the

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types of vessels envisioned for service. Additional infrastructure is not anticipated except for possible minor improvements such as cleats, lighting or other small items.

There are a large number of services and activities for passengers a short distance from the dock. Restaurants, galleries, shopping, accommodations, pubs, and several ground transportation options are nearby including taxis and car rentals. There is a shortage of long-term parking around the Friday Harbor waterfront and public transportation is minimal. The Port of Friday Harbor has mentioned the possibility of expanding available parking through construction of an additional level at its existing parking lot.

Office space is available within the terminal for ticketing or passenger relations. The current dock includes available power but sewage pumping is not currently available although it could be installed. Fuel services are available nearby.

The Port of Friday Harbor charges a \$1.50 per-passenger fee. This plan does not incorporate port facility fees into its financial projections.

Operational concerns regarding the use of the passenger dock at Friday Harbor include:

- Dock space is currently in high demand during the summer season, requiring assurances of priority access from the Port of Friday Harbor
- The existing passenger waiting area will require additional lighting and heat to ensure passenger comfort during the winter season
- Secure bike storage may be requested by potential passengers
- San Juan County Transit does not currently provide service to the area except during the Summer season

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# **Partnerships**

In order to successfully launch this venture it is essential that not only the Principal Partners identified within this document create a partnership agreement, but these distinct entities must present themselves as a single cohesive unit in order to partner with a service provider to conduct ferry activities.

Other partnerships may be required. Within the City of Bellingham, partnerships regarding parking, transportation linkages, and additional ancillary service providers may be necessary. Within Friday Harbor, additional partnerships to ensure ground transportation may be required – especially for non-Friday Harbor centered special events or employment. Each of the principal partners may seek local corporate partners to draw customers, quarantee ridership and encourage a package of mass transit options.

Tourism and recreation partnerships may lead to expansive use both during peak and non-peak seasons. An initial approach of attracting any customers will yield to a much more targeted approach as the peak season demand begins to near overall capacity. A long-term strategy of seeking partnerships that draw passengers during off-peak seasons will be critical to the long-term sustainability of the ferry service. An example of this might be a partnership with contractors that do work on San Juan to purchase seats at a reduced rate. Another might be partnering with Bellingham medical providers who would purchase seats to give to patients who would travel from the islands.

The key to partnerships will be a win-win perspective. Each opportunity should be evaluated from the perspective that all parties should be able to be financially successful based on their participation. Shared revenue should be directly connected to shared risk.

#### Potential partners include:

- Whatcom Transit
- San Juan County Transit
- Amtrak
- Western Washington University
- St. Joseph Hospital
- Recreation activity providers such as Mount Baker
- Bell Aire for specific point to point ground transportation
- Large employers through a pre-purchased seats program
- On-line travel vendors
- Chambers of Commerce
- Artist Communities
- Local businesses through on-board advertising program or guaranteed seats
- Medical providers

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- Fairhaven Retailers Association
- Arts providers in Bellingham and Friday Harbor

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# **Industry Analysis**

The passenger conveyance industry between mainland Washington and the San Juan Islands is highly fractured but is dominated by a single player – Washington State Ferries (WSF). WSF dominates not because they offer the best product, offer the best schedule or have secured the best departure and arrival locations, but rather because they offer highly-subsidized services which permit frequent sailings at a low visible customer cost. This scenario allows WSF to charge less than actual cost, entering and dominating the market as the low-cost player. All other players must enter the market within a defined niche to meet cost and secure some level of profit.

The assorted marine vessels that call on Friday Harbor and the mainland do so from various ports of call and are often associated with the recreation industry co-marketing themselves under various activities such as whale watching or complete vacation packages. Each has a niche, whether it is the port of origin, speed or an ancillary option.

Those travelling by air, which is two to four times the cost of travelling by boat, do so because of time constraints, additional reliability requirements and, in many cases, simply because it is paid by an employer or other third party. Some employers require the use of air travel within the San Juan Islands to ensure reliability of arrival and departure.

Through the time frame in which regional passenger ferry service has been contemplated, the industry has shrunk both in the number of players and the number of runs made. Despite public subsidy, Washington State Ferries has needed to adjust and reduce its level of service due to economic concerns.

Crucial to the future of the industry will be the connectivity to other modes of mass transportation. Local and distant buses, shuttles and trains will need to arrive and depart in concert with marine traffic patterns. Shared car services, park and ride lots, secure bike storage and high-occupancy transit vans will need to be readily accessible within a secure environment. Low-cost rental services, such as small scooters, are also likely to be highly utilized by passengers.

Most service providers maintain straight-forward prices and most provide a small discount for younger travelers. WSF, on the other hand, offers a complex pricing schedule which is confusing to many casual users.

While WSF has experimented with reservations on select routes, all other competitors take and manage reservations either on-line or through a telephone line. Reservations provide assurance to non-commuters that they will be able to arrange transport to their destination and are highly desirable.

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# **Market Analysis**

#### Friday Harbor / San Juan Island

Friday Harbor, and San Juan Island, is a destination in and of itself for not only the residents of Whatcom County but throughout the Northwest and Canada. A quick, inexpensive and reliable route from Bellingham provides a significant value and capacity that is not currently present in the marketplace.

As a vacation destination, Friday Harbor should be viewed as both a destination and transportation hub. While many vacation users will terminate their voyage at San Juan Island some will transfer to other transportation modes gaining access to all of the islands and Canada.

WCoG's Ferry Study reports that a probable market exists in Whatcom County for 126,976 potential users of the Friday Harbor-destined ferry. This number may be inflated by 11% to account for the underlying census data to be updated, revealing a probable market size of 140,943<sup>10</sup>.

#### **Bellingham / Whatcom County**

Bellingham is a unique port of call from all those currently served from Friday Harbor. Nearby access to all forms of ground and air transportation provides commuters from the Island quick and easy access to work, school or other destinations. Day trippers from the Island will find a multitude of shopping experiences within easy reach of the terminal from large chain stores to local merchants offering specialized goods and services. Those seeking technical training or a college education have easy access to a number of highly-ranked institutions within minutes of the terminal. The only significant competitor with this same range is those routes serving Vancouver, BC and Seattle where similar options exist. Both of these options have serious detractions from that of Bellingham, however, including international border crossings and extended travel times.

The growth of San Juan County, and its major town, Friday Harbor, is expected to continue as the United States continues to add to its retired population base, shift population to suburban areas while others seek vacation homes and rental properties<sup>11</sup>. In fact, the County has seen a population growth of 9% from 2000 to 2006<sup>12</sup>.

<sup>&</sup>lt;sup>10</sup> The original report identified by age group the percentage of the population utilizing the pilot ferry. This percentage was then applied to the total population within San Juan Island to identify the potential market for similar individuals.

<sup>&</sup>lt;sup>11</sup> Friday Harbor and San Juan County have been working on expanding the UGA boundaries since 2007 and have recently approved significant changes.

<sup>&</sup>lt;sup>12</sup> Census data



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Further population growth is likely in the event of frequent reliable commuter connections to Whatcom County as residents of San Juan Island are able to secure employment sustaining their desired island-lifestyle.

WCoG's Ferry Study reports that a probable market exists on San Juan Island for 4,932 potential users of the Bellingham destined ferry. This number may be inflated by 9% to account for the underlying census data to be updated revealing a probable market size of 5,375<sup>13</sup>.

#### **Beyond Whatcom County**

It is highly likely that a significant number of non-Whatcom County residents will seek passage on a Bellingham – Friday Harbor route. The number of commuters traveling from Skagit and Snohomish Counties provides one such consistent stream, as does those travelling recreationally<sup>14</sup>. While these numbers cannot fairly be extrapolated from available data it is highly advised that data collection techniques be utilized to ascertain the impacts on the route in the future.

#### **Economic Impact of Service**

Passenger Ferry service between Bellingham and Friday Harbor is likely to add approximately 40 full-time equivalent positions to the Whatcom County economy creating an infusion of nearly \$1 million<sup>15</sup> annually. Tourism will also create an increase in economic activity within and around both ports of call, generating additional sales tax revenue on top of the increase in employment.

The economic expansion occurs within two key aspects of the regional economy. The first expansion occurs across a wide spectrum of industries necessary to support the operational aspect of the ferry service. The second expansion occurs as a result of the household expenditures of those employed by the ferry service and those whose jobs support the operational aspects of the service. This economic "ripple effect" creates a multiplier phenomenon that creates an economic expansion four times the size of the initial investment in salaries.

Marine transportation in Whatcom County offers a unique opportunity for economic expansion. While most industries see a multiplier of 2 to 3, this particular industry stands out at 4. Also unique to this industry is the wide ranging impacts that this expansion will have. In most industries, expansion occurs in a very narrow number of sectors, whereas

<sup>13</sup> The original report identified by age group the percentage of the population utilizing the pilot ferry. This percentage was then applied to the total population within San Juan Island to identify the potential market for similar individuals.

<sup>15</sup> The estimated direct salary impact is based on 8 new employees averaging \$30,000 in annual income. This number is a low estimate to provide a conservative measure in the model.

<sup>&</sup>lt;sup>14</sup> See the Communities Served section for more information.

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with marine transportation, expansion occurs in an extremely wide number of sectors, with each seeing growth of .1 to .2 FTE.

Because of the wide spread impact, Whatcom County gains not only increased job stability, but also supports the holistic local economy touching most aspects of the business community. While most employers would most likely not hire additional workers, they would expand their use of current employees, allowing more local workers to seek full-employment within a sector in which they are already trained and willing to work. This effect will also strengthen the overall ability of existing companies to weather the economic storms of business by diversifying their customer base.

Increased tourism will also play a role in economic expansion. It is expected that an increase in tourist activities will occur in and around both ports of call, resulting in increased sales tax revenue, but this is not easily quantifiable. An increase of 500 tourist days is projected as a conservative estimate.

Economic Impacts					
Direct	Ferry Operations	7.5 to 8 FTE	\$240,000		
Indirect/Induced	Multiplier effect	30 to 32 FTE	\$960,000		
Tourism	New Tourist Days	500	\$75,000		
		Total	\$1,275,000		

In order to calculate the potential economic effect, Western Washington University utilized data available through IMPLAN which creates a detailed social accounting matrix and multiplier model of a regional economy and conducts an impact analyses <sup>16</sup>. IMPLAN can be used to estimate detailed economic impacts of new firms moving into an area, special events such as conventions or professional sports games, recreation and tourism, military base closures, and passenger ferries. This tool projects how attributes such as employment and income of more than 500 different types of industries in a study area are affected.

IMPLAN specifically examines the effects of the economic ripple that occurs when adding jobs to a local economy. The ripple effect is created through both indirect and induced effects of new workers and increased regional gross product. Indirect activities are business related activities that must take place to service the new ferry service and include

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<sup>&</sup>lt;sup>16</sup> IMPLAN Version 2.0 with employment data for Whatcom County dated 2006. This is the most recent data available.

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items such as mechanical service, fuel, food, beverages and associated purchased goods and services required directly by the ferry service. Induced effects are consumer related activities that naturally occur within the process of living in society and include such items as groceries, entertainment and utilities.

With a multiplier of four, an additional 30 to 32 FTE employment positions within Whatcom County will be created beyond the 7.5 to 8 that would be directly connected to the proposed ferry service. This is a suggested estimated economic impact of \$960,000 additional dollars in the local economy stemming from the ripple effect<sup>17</sup>.

Indirectly, the economic impact of a passenger ferry is more difficult to project with any type of precision. Tourists will create a large amount of transactions both in Whatcom County and on San Juan Island. This economic impact will be highly seasonal and will be composed of both transfers between residents of both locations and new dollars from those travelling from outside of either port of call. According to statistics compiled by the Whatcom County Tourism the typical day visitor spends in the range of \$100 to \$200 while in the County. The San Juan Islands Office of Tourism does not currently compile statistics for day travelers but it is projected to be similar to that of Whatcom County visitors. It is highly likely that a tourist will have a significantly positive economic impact within both ports of call purchasing any number of items and services on their travels. All purchases will also have a multiplier effect.

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<sup>&</sup>lt;sup>17</sup> The model suggests a multiplier of 4. If the average additional staff member was paid \$30,000 with 8 FTE the new employees would be paid \$240,000. This number is multiplied by the multiplier. Given the wide spread of impacted areas this number is believed to be higher than that which will actually be achieved.

<sup>&</sup>lt;sup>18</sup> Travelers staying in commercial lodging establishments spend an average of \$293.50 per day per party.

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# Competition

Competition for a new passenger-only ferry is both a significant and insignificant factor within developing this venture. There are a significant number of options for transportation available to those on San Juan Island both by boat and by air. Destinations available to island-based travelers include: Anacortes, Seattle, Vancouver, Victoria, Kenmore and a multitude of small to large regional airports. While it may be argued that island-based travelers do not necessarily require an additional transportation option, it is highly likely they do need an additional potential destination. Bellingham offers shopping, professional services, educational opportunities and easily accessible regional transportation options such as Amtrak and the Bellingham International Airport. These options set Bellingham apart from any other destination accessible directly from Friday Harbor.

Travelers bound for Friday Harbor actively seek alternatives – especially during peak seasons. The WSF terminal in Anacortes, the primary gateway to the San Juan Islands, is neither conveniently located nor easily accessible by most modes of public transportation and is often subject to large back-ups because of capacity issues. Coupled with these concerns, Washington State Ferries serves a large route that extracts a crossing time that can be nearly double of that proposed in a high-speed, direct Bellingham-Friday Harbor route.

Within the current WSF schedule it is noted that there are eight crossings departing from Anacortes that arrive in Friday Harbor<sup>19</sup>. Of these crossings four make the journey in 65 minutes, two travel for 80 minutes and the remaining two trips take 125 minutes. There are potentially three stops between Anacortes and Friday Harbor making it difficult to make the crossing in a limited amount of time.

Travel from Friday Harbor to Anacortes is less frequent with five crossings per day. Of these crossings, two make the journey in 65 minutes, two in 80 minutes and one in 120 minutes. Travel time, by car, from Anacortes to Bellingham is approximately 1 hour with 45 miles to travel.

Competition should be considered on several foundations, based on which type of potential customer is being explored. All customers will seek a safe travel experience that allows them to bring whatever items they feel are essential for their journey. Price-bound customers will seek out the lowest possible price while retaining overall safety. Time-bound customers will seek the shortest possible amount of crossing time that also aligns with their overall time availability. Place-bound travelers will seek options that allow them to move from one accessible place to another – often relying on public transportation to arrive and

<sup>&</sup>lt;sup>19</sup> All WSF Schedule information based on Summer 2008 schedules. Winter schedules typically contain fewer crossings with longer travel times due to increased inter-island stops.

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depart. Experience travelers are seeking an experience: the more unique the better. Commuting travelers are looking for an easy way to get from A to B at their usual times and are generally not very flexible. Vacation and shopping destination travelers are seeking to get from one place to another while enjoying the experience along the way.

With each of these customers in mind a number of options have been sustained within the marketplace of Friday Harbor while no true waterborne option has developed from Bellingham.

- Washington State Ferries
- Clipper Navigation
- Victoria Express
- San Juan Island Shuttle Express
- San Juan Island Commuter
- Puget Sound Express
- Private Vessels
- Kenmore Air
- San Juan Airlines
- West Isle Air

Washington State Ferries have been able to dominate within the commuter segment of travelers through their sale of commuter ticket books. These pre-paid books of tickets are sold at a discount for typically ten trips each. While they are a significant investment for the commuter, they offer an even deeper discount from the nearest competitor, ensuring that a WSF customer remains a WSF customer. As an additional bonus to WSF, each commuter book sold potentially increases total revenue to WSF based on tickets expired, lost or otherwise not used.

It's important to note that with the current financial and operational problems being faced by WSF, service expansions and improvements are highly unlikely. On the contrary, it is not unreasonable to assume WSF will cut levels of service. Considering the future of the state ferry system, it is critical that alternatives like the proposed service are implemented.

Future potential competitions to a new passenger ferry are companies packaging themselves with recreational based or experiential based products that further define a niche not currently served. Technology may play a role long-term in regards to passage between the San Juan Islands and the mainland with faster, higher efficiency vessels that are able to serve the route at a lower cost or at a higher customer value. However, because of an extremely high start-up cost, it is unlikely that this form of competition would enter the market without a public-private partnership.

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# **Opportunity Cost of Service**

A key message in garnering ridership and public support for the service is the overall savings to users of the service, relative to the next available option. The proposed service between Bellingham and Friday Harbor represents a time and cost savings for users relative to travel using the Washington State Ferry in Anacortes, which is currently the cheapest option for travel between the communities. A summary of the cost of transportation between these communities is included in the tables below. Note that the trip from Friday Harbor requires a traveler to drive on to get to Bellingham, while a traveler to Friday Harbor can leave his or her car in Anacortes:

#### **Bellingham to Friday Harbor via Anacortes**

Drive Distance-Fairhaven to Anacortes	42	miles
Government Reimbursment Rate	\$ 0.505	per mile
Cost of Vehicle Travel (round trip)	\$ 42.42	
Parking Cost in Anacortes	\$ 10.00	
Round-Trip WSF Passenger Fare	\$ 13.15	
Total Round-Trip Cost	\$ 65.57	

#### **Friday Harbor to Bellingham via Anacortes**

Drive Distance-Anacortes to Fairhaven	42	miles
Government Reimbursment Rate	\$ 0.505	per mile
Cost of Vehicle Travel (round trip)	\$ 42.42	
Round-Trip WSF Auto/Passenger Fare	\$ 51.20	
Total Round-Trip Cost	\$ 93.62	

Based on these figures, the expected \$50 full round-trip fare for direct, high-speed passenger ferry service is a significantly more attractive option. Discounted travel is even more attractive. From the user's perspective, they are paying less to get to their destination quicker and with less hassle.

It is strongly recommended that this opportunity cost is communicated to potential users in marketing materials.

# **Fuel Consumption/Greenhouse Gas Emissions**

Another way to compare the proposed service with the alternative trip via Anacortes is in terms of fuel consumed per passenger and its associated CO2 emissions. First is a summary of fuel consumption calculations for each alternative:

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#### **Bellingham-Friday Harbor by Car**

Drive Distance-Fairhaven to Anacortes	42	miles	
Average Fuel Economy	22.1	mpg	
Average Fuel Consumed per Vehicle	1.9	gal	
Average Ferry Fuel Consumed per Ana-FH Trip	487.81	gal	
Average Passengers per Sailing	219	рах	
Est. Ferry Fuel Consumed per Passenger	2.23	gal	
Est. Fuel Consumed per Passenger Trip	4.13	gal 20	)
		-	
Bellingham-Friday Harbor by POF			
Average Fuel Burned per Trip	92.41	gal	
Average Est. Daily Passengers (2009)	362	рах	
Number of Sailings per Day (Avg. of Year-Round)	9		

Taking the figures for fuel consumption and applying EPA statistics for fuel CO2 content<sup>21</sup>, a per-passenger comparison of greenhouse gas emissions is included below:

2.30 gal

#### **Bellingham-Friday Harbor by Car**

**Est. Fuel Consumed per Passenger Trip** 

Est. Passengers per Sailing

Est Fuel Consumed per Vehicle Trip	1.88	
Gasoline Fuel CO2 Content	19.40	lb/gal
Est. Fuel Consumed per WSF Interisland Passenger	2.23	
Diesel Fuel CO2 Content	22.20	lb/gal
Total CO2 Emissions	85.88	lb

Fuel consumption rates were obtained directly from Washington State Ferries (Public Records Request PDR-08-0867). Ridership figures were obtained from public records available on the Washington State Ferries website.

<sup>&</sup>lt;sup>21</sup> "Emission Facts: Average Carbon Dioxide Emissions Resulting from Gasoline and Diesel Fuel", EPA420-F-05-001, February 2005

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#### **Bellingham-Friday Harbor by POF**

Fuel Consumed per Passenger Trip	2.30	gal/pax
Diesel Fuel CO2 Content	22.20	lb/gal
Total CO2 Emissions	51.07	lb

It is important to note that the figures used above are based on averages of POF ridership estimates. Per-passenger fuel consumption (and associated emissions) are highly-dependent on ridership. However, the calculations show that with healthy ridership, per-passenger consumption and associated emissions are lower for the direct POF route than a WSF trip via Anacortes. The lower level of fuel consumption and associated emissions of the proposed service versus the alternative can be an important component of service marketing.

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# Marketing

In developing a marketing strategy for a passenger-only ferry between Bellingham and Friday Harbor, it will be critical to segment the target populations delivering each a uniquely tailored message that directly addresses areas of high appeal for customers. Periodic opinion research of customers and likely customers (those who should use the ferry services but choose an alternate) should be conducted to both improve service and further tailor marketing messages.

A potential challenge to marketing the new ferry route will be to not limit the marketing messages in such a way that only a very specific customer will seek the service. For example, it is clear that for the daily commuter this service is a perfect product but if marketing is limited to this customer base, the ability for the ferry to draw others will be limited.

As a key marketing effort the proposed passenger only ferry should accept reservations for 20% of available capacity for each sailing. It is critical that a specific percentage of capacity be reserved for "walk-up" passengers to accommodate commuters and others who travel without prior planning. Reservations allow those who desire to be guaranteed a space to meet their needs while also permitting advanced planning during peak seasons in predicting passenger loads and the potential for adding additional capacity.

Reservations should be accepted, at a minimum, via an on-line interface but also through a telephone reservations line. The policy should be clearly explained in marketing materials so as to not discourage commuters or those not able to secure a reservation. As a bonus, reservations could also include pre-paid parking or other such value-adding components to attract non-commuting customers.

An integrated ticketing system through on-line and terminal-based kiosks will enable accurate tracking of ticket sales while minimizing ticketing expenses to the service provider. Kiosks have been highly successful with a multitude of products from transportation to movies and are familiar to most consumers.

The web-based presence of the passenger only ferry will be crucial. Not only should potential passengers be able to locate the information they need, but carefully-targeted advertising will provide passengers with value-adding opportunities for their destination while providing additional revenue for the Principal Partners. Passengers should also be able to sign up for service announcements via e-mail or text messaging services – especially critical during the winter storm season.

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#### **Product & Service Offered**

It is easy to limit the product offered with this proposed ferry service to simply another additional transportation option. To do so limits the ability to appeal to a larger group and to enable an overwhelmed consumer with figuring out what to do with it. It is critical that each marketing message provide the potential customer a clearly-defined place or activity for which they would need transportation. From the potential customer in Friday Harbor the ferry offers a faster gateway to:

- High-paying jobs
- Education
- Shopping
- Connections to Amtrak and airlines
- Theatre and the arts
- Dining & entertainment
- Winter sports
- Healthcare services
- Recreational activities

From the potential customer traveling from Bellingham the ferry offers a faster gateway to:

- Friday Harbor
- Unique shops & restaurants
- Weekend getaways
- Vacations for a day or more
- Recreational activities
- Museums
- 2010 Olympics and other international events in the region
- A transportation hub for the San Juan Islands, Gulf Islands, Vancouver, BC, Victoria BC.

Services offered to customers must be consistently of high quality but also must meet the needs of the various customers using the ferry. The services for each type of customer could also be used as marketing messages – such as internet access for commuters. Services indicated in prior passenger studies as critical include:

- Information / maps
- Temperature controlled vessel
- Controlled passenger compartment background noise
- Comfortable seating / work areas

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- Food / beverage service
- Newspapers or other reading materials
- Internet connection / power for laptops
- Espresso coffee service
- Cargo space for bicycles or large parcels

## **Pricing**

It is important that the pricing plan for ferry service be simple while maximizing revenue generation. Beyond the standard pricing schedule, three unique opportunities exist to effectively compete within the marketplace.

Resident pre-paid tickets provide incentive and recognition for local residents who make significant contributions to the community and to the viability of passenger ferry service. Similar to the commuter books offered by WSF, these packets of ten pre-paid tickets would be available only to Whatcom County and San Juan Island residents with a six month expiration date. Residency requirements could be satisfied by either a current driver's license or voter registration card and would be required at the time of boarding.

Vacation or recreational experience packages should be negotiated with available vendors but should not exceed the discount available to residents. Marketing any such packages should be a mutual responsibility.

*Promotions* should be marketed during low seasons to attract infrequent users. Promotions might include buy-one-get-one-free tickets, packages designed for Western Washington University students, or other activities that draw passengers.

#### **Fare Structure**

A tiered fare structure is proposed for the service, which rewards residents who subsidize the service with a discounted rate. Under this model, residents will be able to purchase individual tickets and ticket books at the lowest rates of any other user. Electronic ticket purchases would prompt the customer to enter his or her street address if they wish to purchase resident tickets. The computer will confirm residency based on the address. Cash sales of tickets will verify residency by showing a driver's license or other identification to the ticket agent. Agents would also be empowered to verify residency if an individual uses a pre-purchased resident ticket.

The proposed fare structure for the first year of service is as follows. Fares will inflate annually at 6%, rounded to the nearest dollar.

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Fare Category	One-Way Fare	Round-Trip Fare
Children Under 5	Free	Free
Youth (Under 18)	\$15	\$30
Resident Ticket Book (10 One-Way Tickets)	\$15/ticket, \$150 total	
Resident Single Fare	\$20	\$40
Non-Resident	\$25	\$50

#### **Promotion**

Reaching potential customers on San Juan Island is fairly easy in comparison with reaching those on the other end of the route. The key methods for reaching island residents are:

- Word of mouth
- Direct mail
- Partnerships with off-island employers
- Partnership with WWU Associated Students for pre-paid travel for students
- Partnership with off-island recreation providers
- Partnerships with those providing activities on both sides
- Advertising or earned media in community newspapers and newsletters

Reaching to those originating their trip in Bellingham requires consideration that there are three distinct target populations: Bellingham residents, Whatcom County residents and non-Whatcom County residents. While there may be some cross-over, each population will be considering the services of the ferry for different purposes. The key methods for reaching these groups are:

- Advertising or earned media in regional, local and community newspapers
- Partnerships with travel and tourism organizations
- Partnerships with island employers
- Partnerships with island organizations and businesses
- Partnerships with other public transportation providers
- Internet keyword and search tools (search engine optimization)
- Specific Canadian-focused advertising campaigns
- Strong web presence especially linkages to travel sites

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#### **Connections Critical**

In order for this passenger ferry service to be competitive within the marketplace it is critical that it clearly communicate the value of service far beyond that of simply passage between Bellingham and Friday Harbor. Potential passengers will require a well-articulated and compelling reason to seek passage. Through the development of partnerships with places such as the Mount Baker Theatre, the Mount Baker Ski area, fairs or festivals potential customers begin to seek passage to arrive somewhere else where they have a compelling reason to be. To this same end it will crucial that service be provided that meets their total needs, including additional late night service after the theatre show or when the bus returns from the slopes. These connections should not be an on-going affair but rather specific events that are marketed through highly targeted efforts as special or exclusive events.

## **Personnel Requirements**

It is recommended that one full-time-equivalent position be provided during the first two years of operation to support marketing and media efforts. This position could be either contracted or be housed with the vessel operator. The core function of this position is to manage the marketing and media relations needs to ensure the growth projected by the study. Without appropriate support, the growth rate will be significantly lower, decreasing the ability for this venture to produce the revenue stream required to maintain it.

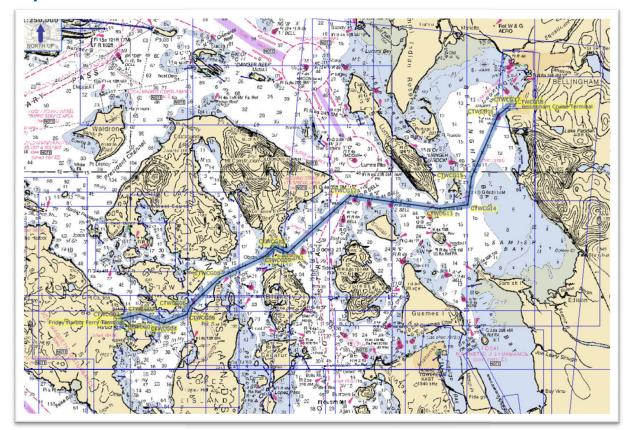
Long-term marketing support should be evaluated based on the impact derived from the first two years of operation, the long-term goals of the project and the capacity existing within the partners. The personnel responsible for marketing should be dedicated to the task and not be held accountable for actual ferry operations.

The approach to marketing and the qualifications of its proposed marketing position should be a component of the overall operator evaluation and selection and should be specifically addressed in proposals to provide service.

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# **Operational Profile**

# **Map of Route**



# **Vessel Requirements**

A number of requirements are necessary in order to meet the route's service expectations.

- 1. The vessel must be able to consistently operate at a cruising speed greater than 30 knots.
- 2. In order to minimize regulatory burdens and the costs associated with them, the vessel must be a classed as a USCG Subchapter T vessel.
- 3. The vessel should have a passenger capacity of 149 in order to accommodate the maximum number of passengers possible within its classification
- 4. Because this route serves two US ports, vessels must comply with the Passenger Vessel Services Act (Jones Act).
- 5. The vessel should be an aluminum catamaran in order to meet performance requirements and low wake criteria.
- 6. The vessel should feature low wake design for the narrow channels on the route.

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7. In order to minimize initial costs, this business plan seeks a single vessel to operate the initial service. In the event passenger demand exceeds capacity, an additional vessel should be chartered. In addition, the contractor is expected have a plan in place to maintain service in the event the primary vessel is out of service.

## **Emerging Technologies**

Any new vessel should adhere to the latest passenger ferry technology impacting speed and overall operational efficiencies. A grant provided by All American Marine is driving the development of a lightweight hydrofoil at Western Washington University in Bellingham<sup>22</sup>. The new composite hydrofoil is expected to be more durable at one-half the weight of current hydrofoils, providing benefits to vessel sea keeping and fuel efficiency. All such technologies should be viewed as a long-term investment that will decrease long-term costs.

## **Terminal Requirements**

No major modifications are necessary at either terminal location, although additional parking demand may need to be accommodated at both terminals.

#### **Draft Schedule**

The draft schedule is based on the schedule identified in previous studies, but modified based on the results of the current study, feedback from Principal Partners, and the goal to begin service using a single vessel.

#### Weekday Schedule

The weekday schedule is designed to meet the demand for peak period service to both terminal locations while meeting the need to use a single vessel. A key component of the weekday schedule is the ability for a working commuter to put in a full eight hour work day plus have sufficient time to travel to the terminal for departure.

	Depart Bellingham	Depart Friday Harbor
AM	6:00 AM	7:20 AM
	8:40 AM	10:00 AM
PM	3:40 PM	5:00 PM

<sup>&</sup>lt;sup>22</sup> Grant funds received from All American Marine and Pacific International Engineering. The program is a partnership between Western Washington University and the Port of Bellingham. See http://www.bellinghamherald.com/102/story/525811.html for more information.

P	ASSENCER-ONLY	FFRRV	STUDY	ΔΝΟ	BUSINESS PLAN
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6:20 PM	7:40 PM

#### Weekend Schedule

Weekend service was identified as a critical service component in the 2006 demonstration project. The weekend schedule is based on a flatter demand curve relative to weekday travel. During summer, or peak season, an additional evening run should be considered that would allow those using the ferry to have dinner in their departure city. The ability to spend a day plus have dinner is a highly profitable marketing position.

	Depart Bellingham	Depart Friday Harbor
AM	8:00 AM	9:30 AM
	11:00 AM	12:30 PM
PM	2:00 PM	3:30 PM
	5:00 PM	6:30 PM

#### **Second Vessel Schedule**

In the occasion that passenger demand begins to outstrip vessel capacity (as in the Q3 high-ridership scenario), an additional vessel is recommended in order to meet passenger demand. This additional vessel is likely, at least in the first few years of operation, to have a slower cruising speed (26kt planned) than the primary vessel, since it most likely will be a contracted vessel not owned by the Port. A schedule for this vessel during high-demand periods is as follows:

	Depart Bellingham	Depart Friday Harbor
AM	7:00 AM	9:00 AM
PM	4:30 PM	6:30 PM

In the long term, a backup vessel of similar specifications to the primary vessel is expected to be available. A schedule for a vessel with the same operating speed as the primary vessel is as follows:

	Depart Bellingham	Depart Friday Harbor
AM	7:00 AM	8:20 AM

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PM	5:00 PM	6:20 PM

# Crewing

Crewing will be the responsibility of the contracted vessel operator.

A crew of three will be needed to operate the vessel during any sailing. This crew includes one USCG-Licensed Master and two deckhands. Two sets of crew will be required to meet a seven day schedule while also meeting the need for staffing depth.

The deckhands will serve in a variety of roles common to this type of service. In addition to attending to vessel moorage at each terminal, the deckhands will serve as customer service representatives, concessionaires and ticketing agents. These crew members will be the "face" of the service requiring individuals with excellent customer service skills. The utilization of ticketing kiosks greatly reduce the time required to board the vessel and reduces the risk of cash management risks.

#### Management

The operator will be responsible for day-to-day operation of the service, as well as administrative management, supervision, marketing, employment of personnel and any subcontractors, vessel/equipment maintenance, reporting, cash fare collection and any other operational matters pertaining to the project.

Owner/Partner oversight of operations would be accomplished by a designated Project Manager. The Project Manager is the only employment responsibility of the Principal Partners.

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# **Capitalization & Organizational Structure**

The passenger-only ferry venture described within this document is a public-private partnership that will rely on the labor and expertise of the private provider in delivering the actual ferry service, while utilizing the public assets of the terminals and vessel(s). The Principal Partners would provide the support necessary to provide the service infrastructure, linkages between and access to the public ports of call, access to external public or private sources of funding, and a negotiated subsidy rate drawn from the corresponding financial account. The Principal Partners would retain control of services offered, setting service standards, schedules and other factors which directly relate to meeting customer requirements.

It would be required that contracted operators meet specific standards prior to entering a partnership with the Principal Partners. In addition, operators will be required to meet specific standards of service during operations. This will include compliance with state and federal regulations for operating a commercial ferry service.

## **Ownership**

Under the scenario proposed by this business plan the Principal Partners would own the principal assets of the operation – vessel(s), ticketing kiosks, ports of call, and income accounting. The operator would own the operation itself– crew, equipment, marketing and operating expenditures. It is expected that there will be several areas where both parties cooperate heavily including marketing and managing income systems. The leading advantage of public ownership is continuity of service and creating public confidence in the service.

# **Contractual Relationship**

The principal partners and the operator would create a relationship based on two separate but related contracts. The first contract relates to the vessel or vessels and the second relates to the financial exchange that must occur between the partners and the operator<sup>23</sup>.

A bareboat charter agreement is an arrangement where the partners would provide a vessel or vessels to an operator without providing a crew, provisions, fuel, maintenance or any other item outside of the physical craft. The operator would pay a fixed fee in exchange for the use of the vessel and is responsible for all operating expenses including fuel, labor, maintenance and insurance.

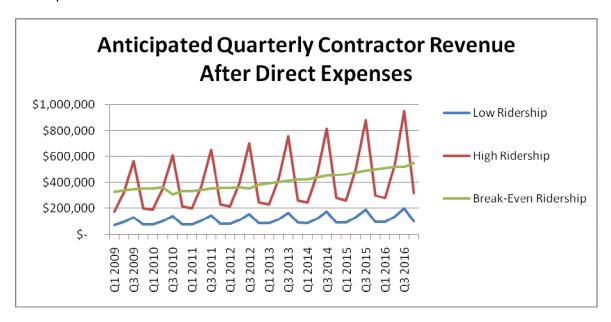
A cost-plus-fixed-fee contract would dictate the financial transactions that must occur between the partners and the operator. This agreement would dictate all service

<sup>&</sup>lt;sup>23</sup> All contracts should be exercised under the advice of a skilled maritime attorney.

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requirements and amenities desired by the partners. Under this agreement the Principal Partners would agree to reimburse the operator for all costs incurred through operations including fuel, maintenance and insurance. The partners would also agree to pay the operator a fixed fee in addition to a percentage of ticket sales. This fixed fee is set at a baseline of \$50,000 per quarter and inflated annually by 3%. This agreement serves as an incentive for the operator to attract and serve a maximum number of passengers while still providing a baseline profit that minimizes contractor risk. It is recommended that the profit sharing income stream should be a significant source of income for the operator and a 20% share is recommended to that end.

The figure below illustrates the potential revenue for the contractor, based on multiple ridership scenarios.



#### **Backup Plan/Vessel**

It is recommended that the operator contract include a provision to provide a plan to maintain service in case the primary vessel is out of service, or passenger demand outstrips capacity (as in the Q3 High ridership scenario). This plan would ideally include a backup vessel, but may incorporate other strategies to maintain service.

A backup vessel would require the principal partners to pay a daily fee for its use, based on favorable vessel charter rates. If the additional vessel cannot meet the high-speed (30-kt-plus) requirements of the service, schedule changes and/or cancelled sailings may be necessary.

It is recommended that the backup plan be a key part of operator selection. Additional points should be given to an operator that can provide a backup vessel that will still be able to meet the speed requirements of the route.

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## **Request for Proposal**

When crafting a request for proposal (RFP) to solicit bids from potential operators, the Principal Partners should consider the following organizational structure for their published document:

- Instructions to Respondents including all timelines and requirements as to the responding to the RFP
- 2. Project Information including this business plan and the pilot study data
- 3. Scope of Work detailing the exact requirements expected of the operator
- 4. Formatting and technical construction requirements of responses including firm information, vessel data, principal partner requirements, operating plan, financial plan, marketing plan and any other information necessary to fully disclose the potential relationship.
- 5. Specific Contractual Terms and Conditions
- 6. Federal Transit Administration (FTA) Requirements and other FTA information
- 7. As appendixes all forms, checklists or other standardized information sheets

#### **Public Finance of Operations**

It is well understood and expected that a subsidy of some type will be necessary in order to create and maintain passenger ferry service. The subsidy is proposed to be structured in a manner that reflects and aligns both the Principal Partners' desire to minimize any such subsidy and the operator's desire to sustain sufficient profit. The subsidy construct begins with the assumption that an operator should sustain a reasonable rate of return for its investment of resources.

The subsidy arrangement proposed within this model automatically declines with expanded use and softens changes due to seasonality. The subsidy consists of several elements:

- 1. Reimbursement to the operator for operational costs
- 2. Fixed-fee payment ensuring a small profit for the operator independent of actual service utilization
- 3. 20% of ticket sales revenue

Because the partners will capture 80% of ticket revenue plus the increased tax revenue generated from the economic impact of the ferry, the subsidy provided will decline from the revenue off-sets.

As service becomes well-known and marketing campaigns draw larger numbers of travelers to the ferry service it may be possible to renegotiate the terms of the contractual relationship, maximizing the return for the partners while ensuring a reasonable income stream to the operator.

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# **Vessel Acquisition**

It is the recommendation of this plan for the Principal Partners to acquire and fully own any primary vessel or vessels serving the identified route. Public ownership of vessel assets is important to ensuring a sustainable, long-term operation that best serves the specific requirements of the service. It also leverages a number of funding sources and mechanisms that are not available to private owners. Additional peak season or special run vessels could be contracted independent of this strategy on a case by case basis

A multitude of options and variables have been carefully considered in making this recommendation. Multiple advantages exist when the partners own the vessel(s) and contract for services:

- 1. Reduces the expected length of an operator contract. Reducing the short-term operating costs of the operator reducing the long-term costs of the partners.
- 2. Increases overall competition for delivering service due to minimizing start-up costs.
- 3. Increases likelihood of vessel meeting the RFP requirements serving the route.
- 4. Increases likelihood of service availability due to strict enforcement of purchase and maintenance scenarios.
- 5. Increases availability of public funds or grants to underwrite start-up costs.
- 6. Creates a less complicated subsidy equation.

It is further recommended that the Principal Partners acquire a vessel through the use of a municipal lease for any vessel expense not provided for through grants or other programs. A tax-exempt municipal lease is a unique option available to the partners. These leases are offered only to state and local governments and their political subdivisions. They are structured as lease/purchases or conditional sales, both of which result in ownership by the government at lease end. Tax-exempt leases are typically far easier to execute than municipal bonds, as no bond referendum is required. Leases can be short or long, from one year to 10 years and beyond. The size of a municipal lease is virtually limitless, as is the range of equipment that can be leased. There are a large number of companies that are able to provide municipal leases through an RFP process to ensure the lowest possible rates<sup>24</sup>.

Municipal lease payments are structured much like that of a mortgage. Unlike bonds or other funding sources, however, an identified or dedicated income stream is not required, providing maximum flexibility to the government entity. Qualifying factors include credit worthiness and an overall ability to pay the lease amount. In general, leases of shorter time frames have lower underlying interest rates and leases with monthly payments have a lower total cost due to less compounding interest.

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<sup>&</sup>lt;sup>24</sup> See Appendix A for a short list of potential vendors identified in this study.

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As an example, and only as an example, of how a tax-free municipal lease might work it is possible to project a vessel lease with a value of \$5 million. A ten year lease might have an underlying interest rate of 4.75% and a fifteen year lease might have a rate of 5.15%<sup>25</sup>. The partners would also have the option of making payments monthly, quarterly or annually<sup>26</sup>. The terms of the lease should ideally reflect either the operating life-span of the vessel or should match the ability to generate revenue from the proposed service – whichever is less. In this way the lease payments reflect either the operational cost of the vessel, otherwise known as depreciation, or reflect the ability to generate revenue with or without a subsidy.

	10 Years	15 Years
Monthly Payment	\$52,423.87	\$39,931.47
Quarterly Payment	\$157,756.01	\$120,133.96
Annual Payment	\$639,684.95	\$486,607.84

#### **Capital Funding Sources**

A number of public funding sources and mechanisms are available to support capital investments for the service for new vessel construction, including federal and state opportunities. These sources include:

#### **Federal**

#### **FTA New Starts Program**

The FTA New Starts program offers funds for construction of new "fixed guideway systems or extensions to existing fixed guideway systems"<sup>27</sup>. In the context of this program, "fixed guideway" refers to any transit service that uses "exclusive or controlled rights-of-way or rails, entirely or in part". Ferryboats are specifically mentioned as a potential transit service for which these funds are available.

The New Starts program is available to public agencies, including Port Districts. It requires a funding match not to exceed a 60% federal share. Program funds are distributed at the discretion of the Secretary of Transportation, but Congress fully earmarks all available funding. Because of this, obtaining these funds would require the support of the local Congressional Delegation. Project earmarks are usually determined as part of the six-year

<sup>&</sup>lt;sup>25</sup> All rates and terms are for illustrative purposes only but were accurate on August 19, 2008. Bids through a competitive process will vary.

<sup>&</sup>lt;sup>26</sup> Terms vary by issuer.

<sup>&</sup>lt;sup>27</sup> FTA New Starts & Small Starts Overview, http://www.fta.dot.gov/funding/grants/grants\_financing\_3590.html

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transportation funding act. As of 2008, \$11.2 million has been allocated to ferry projects (in Alaska and Hawaii) out of a total current allocation of \$367 million.

We recommend that the Ports of Bellingham and Friday Harbor work with Representative Rick Larsen and the Washington State Congressional Delegation to obtain funds through this program.

#### Federal Highway Administration (FHWA)/FTA Surface Transportation Program

The Surface Transportation Program (STP) provides funding for highway projects that can be shifted to transit at the discretion of the state or regional Metropolitan Planning Organization (MPO)<sup>28</sup>. This funding can only be used for capital projects, and those projects must be supported through the regional Transportation Improvement Program (TIP) process.

We recommend that the Ports and WCOG incorporate the Bellingham-Friday Harbor POF service into the TIP in order to become eligible for these funds.

#### **FHWA Ferry Boat Discretionary Program**

This program is a special funding source through the Federal Highway Administration for ferry boats and terminal facilities.<sup>29</sup> In 2009, \$67 million in funding was authorized, with \$20 million set aside for marine highways systems on the National Highway System in Alaska, New Jersey and Washington (in other words, not available for this project). The remainder of these funds are available for projects where:

- It is not feasible to build a bridge, tunnel, combination thereof, or other normal highway structure in lieu of a ferry
- The operation of the ferry shall be on a route classified as a public road within the State, and is not designated as a route in the Interstate System
- The ferry boat or terminal facility is publically owned or operated; or an approved public/private partnership with substantial public benefit

Prioritization of these funds is based on the following criteria:

- 1. Systems which provide critical access to areas that are not well-served by other modes of surface transportation
- 2. Systems which carry the greatest number of passengers and vehicles; or
- 3. Systems which carry the greatest number of passengers in passenger-only service

Only state DOTs are permitted to submit applications for funding under this program. We recommend that the Ports and WCOG work with the State Department of Transportation to apply for and obtain funding through this program.

<sup>&</sup>lt;sup>28</sup> FTA Grants & Financing Info, http://www.fta.dot.gov/funding/grants/grants\_financing\_3786.html

<sup>&</sup>lt;sup>29</sup> FBDP Information, http://www.fhwa.dot.gov/discretionary/fbdinfo.cfm

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#### FHWA Transportation and Community and System Preservation Pilot Program

The Transportation, Community, and System Preservation (TCSP) Program is a comprehensive initiative of research and grants to investigate the relationships between transportation, community, and system preservation plans and practices and identify private sector-based initiatives to improve such relationships<sup>30</sup>. States, metropolitan planning organizations, local governments, and tribal governments are eligible for discretionary grants to carry out eligible projects to integrate transportation, community, and system preservation plans and practices that:

- Improve the efficiency of the transportation system of the United States.
- Reduce environmental impacts of transportation.
- Reduce the need for costly future public infrastructure investments.
- Ensure efficient access to jobs, services, and centers of trade.
- Examine community development patterns and identify strategies to encourage private sector development patterns and investments that support these goals.

Section 1117 of the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU, Public Law 109-203) authorized the TCSP Program through FY 2009. A total of \$270 million is authorized for this Program in FY's 2005-2009. Total allocations to Washington State-based projects in this period include \$25.9 million, \$24 million of which was allocated as part of the USDOT's Urban Partnership Program, which was a major initiative to reduce congestion in six major Interstate Highway corridors.

States, MPOs, local governments and tribal governments are eligible recipients of TCSP Program grant funds. An MPO may be both a project sponsor and endorse other activities proposed and submitted by a local government within its metropolitan boundary. An MPO or State may consider packaging related activities for submittal as one larger grant request.

We recommend that WCOG sponsor and pursue funding through this program.

#### State

**Washington State Passenger Ferry Grant Account** 

The Washington State Legislature passed Passenger Ferry Account legislation (RCW 47.60.645) to establish an account for capital or operating grants to improve passenger ferry projects. It is expected that approximately \$4.5 million in funds will be injected into the account when the WSF ferries *Chinook* and *Snohomish* are sold. Funds from this account are expended with appropriation from the State Legislature, which appropriates on a biennial basis.

We recommend that the Ports and WCOG work with local legislators to appropriate funds from this account.

<sup>&</sup>lt;sup>30</sup> FHWA TCSP Program, http://www.fhwa.dot.gov/tcsp/

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# **Development & Milestones**

This will serve as a "scorecard" for service success and will be based on both the work previously noted within the document and from the conversation with the client. All milestones are based on the initiation of the project

#### **First Steps**

Establish formal relationship between the Principal Partners

Select project manager, responsible for oversight of ferry project

Meet with local, state and federal political leaders and lobby for funding to support vessel acquisition

Begin application process for federal funds to support vessel acquisition

Participate in community events and build awareness of and support for ferry project

Select municipal lease broker and begin negotiations for municipal lease to support vessel acquisition

#### 3-6 Months

Hire owner's representative to assist in procurement and manage construction of vessel

Select and finalize vessel design

Initiate vessel construction

Solicit for and hire full-time marketing person

#### 6-12 Months

Develop RFP and contract documents for operator

Select and hire operator

#### **12-18 Months**

Vessel construction complete, vessel commissioned

Initiate service

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# **Risks & Contingencies**

Passenger ferry service has a number of risks that must be carefully considered, anticipated and avoided where at all possible. In general, risks are transferred, reduced through mitigation efforts or retained as part of conducting business.

#### **Increased Costs**

While most businesses rely on a generic 3% inflation factor for year-to-year increases in ongoing business costs this venture does not have such luxury. There are a number of inputs to providing service which typically experience a wide variance in year-to-year cost fluctuations. These include fuel, maintenance, shore-side expenses (workers, facilities, etc), and contracted expenses (guaranteed minimum income, step-ups, etc.). Alternate financial projections are provided in this document for fuel in multiple scenarios to illustrate the effect of fuel prices on the operation. In rough terms, fuel is approximately a third of the cost of the operation. It is impossible to mitigate increased costs but it is possible to understand their impacts and discuss how to work within a constantly changing environment. Increased costs are:

- absorbed into the current operation paid for increased efficiency or reduced profit
- passed on to the customer as rate increases
- Passed on to the principal partners as increased subsidies
- Some mixture of these options

#### **Increased Competition**

Given that this venture is a public-private partnership it is unlikely that direct competition is a real risk. However, a niche player could enter the market, siphoning customers from the venture's ferry to another vessel. In order to mitigate this it is important that services be offered in accordance with customer needs (schedule, cost, services) and strong linkages be established for those recreation attractions which are targeted by the niche players.

#### Loss of a Key Employee

In order to mitigate the damage created by the loss of a key employee it is critical that the principal partners require strong documentation including regular reports and both on-site and off-site storage of information. A qualified replacement employee should be able to recreate whatever may be innately lost from the loss of an employee through document review and discussions.

Salary, benefits and work environment will play a large role in attracting and retaining all employees, and contractors, of this project. It will be crucial to establish clear job roles and descriptions prior to seeking initial employees.

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#### Partner Failure to provide Product/Service

This is the largest risk factor for this venture. The single most critical component to the service is the physical craft maintaining its published scheduled. Secondarily all onboard services must be as promised. In order to mitigate this risk the principal partners should contractually require the service provider to have available, on an on-call basis, additional vessels to meet their obligation should they suffer a problem or another such acceptable provision for meeting passenger expectations. This should be done at the vendor's expense.

Contractual obligations from both parties should have fiscal consequences if they are not met. In addition to negative consequences, meeting or exceeding specific requirements or benchmarks should be positively compensated if they are completed ahead of an agreed upon schedule or above a specific requirement.

#### **Regulatory Changes**

Currently passenger ferries in Washington State are regulated under a number of different RCWs including:

- 36.57A.200 Passenger only service authorized Investment Plan
- 36.57A.210 Taxes, fees & tolls
- 36.57A.020 Public Transportation Improvement Conference
- 36.54.020 Joint Ferries
- 36.54.30 Joint Ferries crossing County Lines
- 36.54.040 Record Keeping
- 36.54.110 County Ferry Districts Authorization
- 36.54.120 County Ferry Districts Property
- 36.54.130 County Ferry Districts Tax Levies
- 36.54.180 County Ferry Districts exemption from WUTC
- 53.08.020 Port District Property
- 53.08.295 Port District Passenger Ferries

The passenger ferry topic is an extremely active discussion throughout Western Washington. This is escalated as clear incentives have developed for local ferry districts on the state level. Because the topic has a heightened focus it is highly likely that further regulatory changes will occur. It is essential that the principal partners establish as a key function a position to manage the information flow regarding regulatory changes and participate as an active member in the regional ferry community.

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## **Overall Changes in Operating Environment**

It is highly likely that other changes will occur that affect the operations and the profitability of a passenger only ferry between Bellingham and Friday Harbor. It will be critical for the manager of this venture to carefully monitor the environment and actively participate in ongoing discussions to protect the best interests of the venture.

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# **Financial Projections**

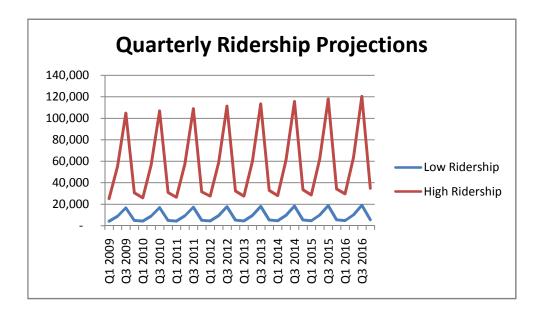
#### **Inflation Assumptions**

Inflation factors for operational costs have been incorporated into the financial projection model. Baseline fuel cost is assumed to be \$3.56/gal. Fuel price inflation is assumed to be the average increase in the no. 2 diesel spot price for Los Angeles, CA over the last twenty years (6% annually). All other costs are inflated based on the average Bureau of Labor Statistics Cost of Living Adjustment figures for the last ten years (2.57% annually).

## **Ridership Assumptions**

The ridership assumptions used in this report are based on the results of the 2006 Passenger-Only Ferry Study. These assumptions estimate demand on a quarterly basis, and include high and low estimates. The 2006 Study also projected this demand for ten years.

In order to project the project's financial performance, a series of assumptions have been made in regards to passenger demand, operating cost factors and vessel specifications. In this analysis, we begin with the assumptions for 2009 and continue the projection through 2016. Operating cost factors are based on proprietary data contained within the consultant's *FerryPro*<sup>TM</sup> suite of analysis tools. Vessel specifications were obtained for a generic vessel meeting the specifications described in this document The ridership assumptions are as follows:



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## **Low Daily Ridership Assumption**

QUARTER	2009	2010	2011	2012	2013	2014	2015	2016
Q1	48	49	50	51	52	53	54	55
Q2	102	104	106	108	110	112	115	117
Q3	191	195	199	203	207	211	215	219
Q4	55	56	57	59	60	61	62	63
Ann. Avg.	99	101	103	105	107	109	112	114

## **High Daily Ridership Assumption**

QUARTER	2009	2010	2011	2012	2013	2014	2015	2016
Q1	299	305	311	318	324	330	337	344
Q2	643	656	669	682	696	710	724	739
Q3	1206	1230	1254	1279	1305	1331	1358	1385
Q4	349	356	363	371	378	385	393	401
Ann. Avg.	624	637	649	663	676	689	703	717

#### **Pro-Forma Profit & Loss Statements**

Below are the pro-forma profit & loss statements for the service, projected through 2016.

PASSENGER-ONLY FERRY STUDY AND BUSINESS PLAN

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# **Low Ridership Estimate**

	2009		2010		2011		2012		2013		2014		2015		2016
\$	842,041	\$	908,288	\$	981,851	\$	1,065,001	\$	1,148,744	\$	1,240,375	\$	1,341,858	\$	1,449,911
\$	842,041	\$	908,288	\$	981,851	\$	1,065,001	\$	1,148,744	\$	1,240,375	\$	1,341,858	\$	1,449,911
Ur	nless otherwise	no	ted, the operat	tor	is responsible j	for	all expenses as	pai	rt of its agreen	nen	t to provide se	rvic	e		
\$	1,197,334	\$	1,267,962	\$	1,533,663	\$	1,628,935	\$	1,869,992	\$	1,980,981	\$	2,206,321	\$	2,316,662
\$	133,770	\$	137,208	\$	140,736	\$	143,858	\$	148,061	\$	151,866	\$	155,769	\$	159,771
\$	33,442	\$	34,302	\$	35,183	\$	35,964	\$	37,015	\$	37,966	\$	38,942	\$	39,943
\$	2,675	\$	2,744	\$	2,815	\$	2,877	\$	2,961	\$	3,037	\$	3,115	\$	3,195
\$	3,806	\$	3,973	\$	4,156	\$	4,309	\$	4,553	\$	4,757	\$	4,979	\$	5,177
\$	135,425	\$	138,905	\$	142,475	\$	145,221	\$	149,892	\$	153,744	\$	157,696	\$	161,748
\$	60,459	\$	62,013	\$	63,606	\$	64,832	\$	66,918	\$	68,638	\$	70,402	\$	72,211
\$	345,998	\$	354,890	\$	364,011	\$	372,089	\$	390,352	\$	400,385	\$	410,674	\$	421,229
\$	120,000	\$	123,084	\$	126,248	\$	129,493	\$	132,821	\$	136,235	\$	139,737	\$	143,329
Со	ontractor fees o	and	vessel lease ar	e e	xpenses borne	dir	ectly by the ow	ner							
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۶	200,000	۶	203,140	۶	210,410	۶	213,024	۶	221,372	۶	227,004	۶	232,300	ې	230,000
\$	168,408	\$	181,658	\$	196,370	\$	213,000	\$	229,749	\$	248,075	\$	268,372	\$	289,982
\$	631,024	\$	631,024	\$	631,024	\$	631,024	\$	631,024	\$	631,024	\$	631,024	\$	631,024
\$	3,032,342	\$	3,142,902	\$	3,450,703	\$	3,587,427	\$	3,884,710	\$	4,043,772	\$	4,319,931	\$	4,483,159
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the	\$ 842,041 \$ 908,288 \$ 981,851  \$ 842,041 \$ 908,288 \$ 981,851  Unless otherwise noted, the operator is responsible   \$ 1,197,334 \$ 1,267,962 \$ 1,533,663  \$ 133,770 \$ 137,208 \$ 140,736  \$ 33,442 \$ 34,302 \$ 35,183  \$ 2,675 \$ 2,744 \$ 2,815  \$ 3,806 \$ 3,973 \$ 4,156  \$ 135,425 \$ 138,905 \$ 142,475  \$ 60,459 \$ 62,013 \$ 63,606  \$ 345,998 \$ 354,890 \$ 364,011  \$ 120,000 \$ 123,084 \$ 126,248  Contractor fees and vessel lease are expenses borne  \$ 200,000 \$ 205,140 \$ 210,416  \$ 168,408 \$ 181,658 \$ 196,370  \$ 631,024 \$ 631,024 \$ 631,024  \$ 3,032,342 \$ 3,142,902 \$ 3,450,703	\$ 842,041 \$ 908,288 \$ 981,851 \$  \$ 842,041 \$ 908,288 \$ 981,851 \$  Unless otherwise noted, the operator is responsible for \$ 1,197,334 \$ 1,267,962 \$ 1,533,663 \$  \$ 133,770 \$ 137,208 \$ 140,736 \$  \$ 33,442 \$ 34,302 \$ 35,183 \$ \$ 2,675 \$ 2,744 \$ 2,815 \$ \$ 3,806 \$ 3,973 \$ 4,156 \$ \$ 135,425 \$ 138,905 \$ 142,475 \$ \$ 60,459 \$ 62,013 \$ 63,606 \$  \$ 345,998 \$ 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\$ 63,606 \$ 64,832 \$  \$ 345,998 \$ 354,890 \$ 364,011 \$ 372,089 \$  \$ 120,000 \$ 123,084 \$ 126,248 \$ 129,493 \$  Contractor fees and vessel lease are expenses borne directly by the owner  \$ 200,000 \$ 205,140 \$ 210,416 \$ 215,824 \$  \$ 168,408 \$ 181,658 \$ 196,370 \$ 213,000 \$  \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$	\$ 842,041 \$ 908,288 \$ 981,851 \$ 1,065,001 \$ 1,148,744  \$ 842,041 \$ 908,288 \$ 981,851 \$ 1,065,001 \$ 1,148,744  Unless otherwise noted, the operator is responsible for all expenses as part of its agreen \$ 1,197,334 \$ 1,267,962 \$ 1,533,663 \$ 1,628,935 \$ 1,869,992  \$ 133,770 \$ 137,208 \$ 140,736 \$ 143,858 \$ 148,061  \$ 33,442 \$ 34,302 \$ 35,183 \$ 35,964 \$ 37,015  \$ 2,675 \$ 2,744 \$ 2,815 \$ 2,877 \$ 2,961  \$ 3,806 \$ 3,973 \$ 4,156 \$ 4,309 \$ 4,553  \$ 135,425 \$ 138,905 \$ 142,475 \$ 145,221 \$ 149,892  \$ 60,459 \$ 62,013 \$ 63,606 \$ 64,832 \$ 66,918  Contractor fees and vessel lease are expenses borne directly by the owner  \$ 200,000 \$ 205,140 \$ 210,416 \$ 215,824 \$ 221,372  \$ 168,408 \$ 181,658 \$ 196,370 \$ 213,000 \$ 229,749  \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024  \$ 3,032,342 \$ 3,142,902 \$ 3,450,703 \$ 3,587,427 \$ 3,884,710	\$ 842,041 \$ 908,288 \$ 981,851 \$ 1,065,001 \$ 1,148,744 \$  \$ 842,041 \$ 908,288 \$ 981,851 \$ 1,065,001 \$ 1,148,744 \$  Unless otherwise noted, the operator is responsible for all expenses as part of its agreement   \$ 1,197,334 \$ 1,267,962 \$ 1,533,663 \$ 1,628,935 \$ 1,869,992 \$  \$ 133,770 \$ 137,208 \$ 140,736 \$ 143,858 \$ 148,061 \$  \$ 33,442 \$ 34,302 \$ 35,183 \$ 35,964 \$ 37,015 \$  \$ 2,675 \$ 2,744 \$ 2,815 \$ 2,877 \$ 2,961 \$  \$ 3,806 \$ 3,973 \$ 4,156 \$ 4,309 \$ 4,553 \$  \$ 135,425 \$ 138,905 \$ 142,475 \$ 145,221 \$ 149,892 \$  \$ 60,459 \$ 62,013 \$ 63,606 \$ 64,832 \$ 66,918 \$   **Contractor fees and vessel lease are expenses borne directly by the owner  \$ 200,000 \$ 205,140 \$ 210,416 \$ 215,824 \$ 221,372 \$  \$ 168,408 \$ 181,658 \$ 196,370 \$ 213,000 \$ 229,749 \$  \$ 3,032,342 \$ 3,142,902 \$ 3,450,703 \$ 3,587,427 \$ 3,884,710 \$	\$ 842,041 \$ 908,288 \$ 981,851 \$ 1,065,001 \$ 1,148,744 \$ 1,240,375 \$ 842,041 \$ 908,288 \$ 981,851 \$ 1,065,001 \$ 1,148,744 \$ 1,240,375 \$ Unless otherwise noted, the operator is responsible for all expenses as part of its agreement to provide set \$ 1,197,334 \$ 1,267,962 \$ 1,533,663 \$ 1,628,935 \$ 1,869,992 \$ 1,980,981 \$ 133,770 \$ 137,208 \$ 140,736 \$ 143,858 \$ 148,061 \$ 151,866 \$ 33,442 \$ 34,302 \$ 35,183 \$ 35,964 \$ 37,015 \$ 37,966 \$ 2,675 \$ 2,744 \$ 2,815 \$ 2,877 \$ 2,961 \$ 3,037 \$ 3,806 \$ 3,973 \$ 4,156 \$ 4,309 \$ 4,553 \$ 4,757 \$ 135,425 \$ 138,905 \$ 142,475 \$ 145,221 \$ 149,892 \$ 153,744 \$ 60,459 \$ 62,013 \$ 63,606 \$ 64,832 \$ 66,918 \$ 68,638 \$ 120,000 \$ 123,084 \$ 126,248 \$ 129,493 \$ 132,821 \$ 136,235 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$	\$ 842,041 \$ 908,288 \$ 981,851 \$ 1,065,001 \$ 1,148,744 \$ 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        \$ 37,966         \$ 38,942           \$ 2,675         \$ 2,744         \$ 2,815         \$ 2,877         \$ 2,961         \$ 3,037         \$ 4,979           \$ 135,425         \$ 138,905         \$ 142,475         \$ 145,221         \$ 149,892         \$ 153,744         \$ 157,696           \$ 345,998         \$ 354,890         \$ 364,011         \$ 372,089         \$ 390,352         \$ 400,385         \$ 410,674           \$ 120,000         \$ 123,084         \$ 126,248         \$ 129,493         \$ 132,821         \$ 136,235         \$ 139,737	\$ 842,041 \$ 908,288 \$ 981,851 \$ 1,065,001 \$ 1,148,744 \$ 1,240,375 \$ 1,341,858 \$ \$ Unless otherwise noted, the operator is responsible for all expenses as part of its agreement to provide service \$ 1,197,334 \$ 1,267,962 \$ 1,533,663 \$ 1,628,935 \$ 1,869,992 \$ 1,980,981 \$ 2,206,321 \$ \$ 133,770 \$ 137,208 \$ 140,736 \$ 143,858 \$ 148,061 \$ 151,866 \$ 155,769 \$ \$ 3,3442 \$ 34,302 \$ 35,183 \$ 35,964 \$ 37,015 \$ 37,966 \$ 38,942 \$ \$ 2,675 \$ 2,744 \$ 2,815 \$ 2,877 \$ 2,961 \$ 3,037 \$ 3,115 \$ \$ 3,806 \$ 3,973 \$ 4,156 \$ 4,309 \$ 4,553 \$ 4,757 \$ 4,979 \$ \$ 135,425 \$ 138,905 \$ 142,475 \$ 145,221 \$ 149,892 \$ 153,744 \$ 157,696 \$ \$ 60,459 \$ 62,013 \$ 63,606 \$ 64,832 \$ 66,918 \$ 68,638 \$ 70,402 \$ \$ \$ 120,000 \$ 123,084 \$ 126,248 \$ 129,493 \$ 132,821 \$ 136,235 \$ 138,037 \$ \$ 139,737 \$ \$ \$ \$ \$ 10,674 \$ \$ \$ 120,000 \$ 123,084 \$ 126,248 \$ 129,493 \$ 132,821 \$ 136,235 \$ 139,737 \$ \$ \$ \$ 168,408 \$ 181,658 \$ 196,370 \$ 213,000 \$ 229,749 \$ 248,075 \$ 268,372 \$ \$ \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ \$ 631,024 \$ \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ \$ 631,024 \$ 631,024 \$ \$ 631,024 \$ \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ 631,024 \$ \$ 631,024 \$

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# **High Ridership Estimate**

Revenues		2009		2010		2011		2012		2013		2014		2015		2016
Fare Revenue	\$	5,290,092	\$	5,726,459	\$	6,191,545	\$	6,711,276	\$	7,238,024	\$	7,822,754	\$	8,460,604	\$	9,162,687
Total Est. Revenue	\$	5,290,092	\$	5,726,459	\$	6,191,545	\$	6,711,276	\$	7,238,024	\$	7,822,754	\$	8,460,604	\$	9,162,687
Expenses Unless otherwise noted, the operator is responsible for all expenses as part of its agreement to provide service																
Fuel cost	\$	1,456,023	\$	1,541,912	\$	1,865,018	\$	1,938,269	\$	2,274,012	\$	2,408,980	\$	2,683,007	\$	2,913,942
Maintenance																
Propulsion System	\$	150,637	\$	154,508	\$	158,480	\$	162,970	\$	166,729	\$	171,014	\$	175,409	\$	180,379
Other Vessel Machinery	\$	37,659	\$	38,627	\$	39,619	\$	40,742	\$	41,682	\$	42,753	\$	43,852	\$	45,095
Electrical System	\$	3,013	\$	3,090	\$	3,170	\$	3,259	\$	3,335	\$	3,420	\$	3,508	\$	3,608
Hull and Outfit	\$	23,914	\$	25,049	\$	26,207	\$	27,467	\$	28,685	\$	29,999	\$	31,396	\$	32,901
Floats and Docks	\$	135,425	\$	138,905	\$	142,475	\$	146,136	\$	149,892	\$	153,744	\$	157,696	\$	161,748
Insurance	\$	75,574	\$	77,516	\$	79,508	\$	81,551	\$	83,647	\$	85,797	\$	88,002	\$	90,264
Labor																
On-Board Labor	\$	389,624	\$	399,637	\$	409,908	\$	421,525	\$	439,571	\$	450,868	\$	462,455	\$	475,561
Shoreside Labor	\$	120,000	\$	123,084	\$	126,248	\$	129,493	\$	132,821	\$	136,235	\$	139,737	\$	143,329
Contractor Fees	Со	ntractor fees	and	vessel lease a	re ex	kpenses borne	dire	ectly by the ov	vner							
Fee	\$	200,000	Ś	205,140	Ś	210,416	\$	215,824	\$	221,372	\$	227,064	\$	232,900	Ś	238,888
Contractor Fare	Ť		_		_		_		_		_		_		_	200,000
Incentive	\$	1,058,018	\$	1,145,292	\$	1,238,309	\$	1,342,255	\$	1,447,605	\$	1,564,551	\$	1,692,121	\$	1,832,537
Vessel Lease	\$	631,024	\$	631,024	\$	631,024	\$	631,024	\$	631,024	\$	631,024	\$	631,024	\$	631,024
Total Est.																
Expenses	\$	4,280,909	\$	4,483,783	\$	4,930,381	\$	5,140,516	\$	5,620,375	\$	5,905,450	\$	6,341,106	\$	6,749,276
Net Income	\$	1,009,183	\$	1,242,676	\$	1,261,164	\$	1,570,760	\$	1,617,649	\$	1,917,304	\$	2,119,498	\$	2,413,412

# **Farebox Recovery/Subsidy Projections**

Below are tables which estimate the expected annual farebox recovery and required subsidy-per-passenger for both the high and low ridership projections:

#### **Low Ridership Estimate**

	2009	2010	2011	2012	2013	2014	2015	2016
Daily Ridership	99	101	103	105	107	109	112	114
Cost per Passenger	\$ 83.40	\$ 84.74	\$ 91.32	\$ 92.53	\$ 98.49	\$ 100.41	\$ 105.02	\$ 106.63
Subsidy per Passenger	\$ 63.78	\$ 63.94	\$ 69.28	\$ 69.17	\$ 73.73	\$ 74.16	\$ 77.19	\$ 77.13
Farebox Recovery %	24%	25%	24%	25%	25%	26%	26%	28%

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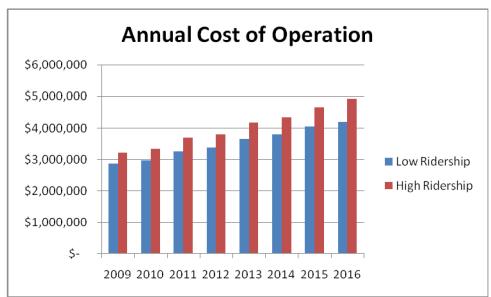
## **High Ridership Estimate**

	2009	2010	2011	2012	2013	2014	2015	2016
Daily Ridership	624	637	649	663	676	689	703	717
Cost per Passenger	\$ 14.94	\$ 15.15	\$ 16.43	\$ 16.53	\$ 17.85	\$ 18.21	\$ 19.11	\$ 19.78
Subsidy per Passenger	\$ -							
Farebox Recovery %	100%	100%	100%	100%	100%	100%	100%	100%

# **Cost of Operation Projection**

Below is a graph depicting the cost of the operation through 2016. These figures do not factor in fare revenue or the fare incentive payment to the operator:





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**Annual Cost of Operation** 

	<b>Low Ride</b>	rship	High Ridership					
2009	\$	2,863,933	\$	3,222,891				
2010	\$	2,961,244	\$	3,338,491				
2011	\$	3,254,333	\$	3,692,072				
2012	\$	3,374,426	\$	3,798,260				
2013	\$	3,654,961	\$	4,172,770				
2014	\$	3,795,697	\$	4,340,899				
2015	\$	4,051,559	\$	4,648,985				
2016	\$	4,193,177	\$	4,916,738				

#### Fuel Price Scenario (Year 1)

Given the expected rise in the cost of fuel, this report analyzes the effect of changing fuel prices on the cost of the operation. We use year one, high-ridership cost figures as the baseline.



# **Farebox Recovery**

Farebox revenue is a key aspect of the sustainability of the service. In establishing fares for the service, we analyzed a two-tiered fare. This fare was set to be competitive with WSF rates. Non-residents would pay the standard fare of \$25 per one-way trip, while residents would pay a rate of \$20 per one-way trip. For the purposes of this analysis, we assumed that 16% of users would pay the discount fare. This figure was calculated based on the percentage difference between the high and low ridership estimates. We also

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assumed a fare escalation of 6% annually, rounded to the nearest dollar. This figure was based on the estimated average increase in fuel cost, fuel being the single-largest cost driver of the service.

Based on these assumptions, gross annual revenue from fares is expected to be as follows:

**Annual Revenue from Fares** 

	Low Rid	ership	High Ridership					
2009	\$	842,041	\$	5,290,092				
2010	\$	908,288	\$	5,726,459				
2011	\$	981,851	\$	6,191,545				
2012	\$	1,065,001	\$	6,711,276				
2013	\$	1,148,744	\$	7,238,024				
2014	\$	1,240,375	\$	7,822,754				
2015	\$	1,341,858	\$	8,460,604				
2016	\$	1,449,911	\$	9,162,687				

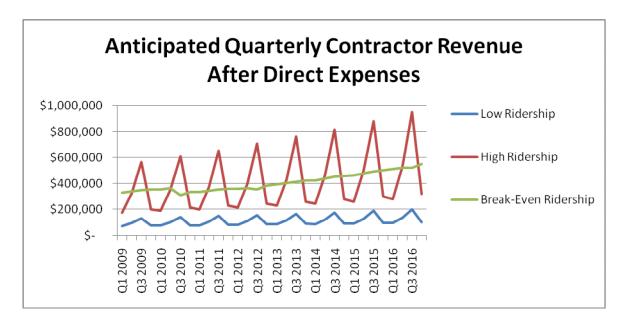
#### **Contractor Revenue**

This plan assumes that the contractor would retain 20% of all fare revenue. This is a built-in incentive for the contractor to increase ridership. In addition to incentive payments from fare revenue, the contractor will be compensated for all costs, plus \$50,000 per quarter, inflated 3% annually, to cover overhead and profit.

Below is a graph and table depicting the expected contractor revenue for the high and low ridership scenarios. We recommend that the owner provide this information as part of the RFP process in order to establish expectations for the operator. Note the significant increase in the contractor's share as ridership grows.

Because of the significant increase in contractor revenue over time, it is recommended that the principal partners periodically evaluate the contractor revenue structure in order to ensure a reasonable, but not excessive profit.

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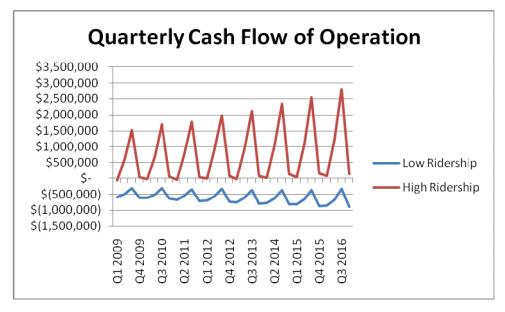
# Estimated Annual Contractor Revenue After Direct Expenses

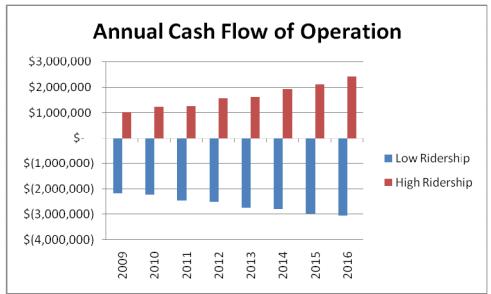
	Low Riders	hip	High Ridership					
2009	\$	368,408	\$	1,258,018				
2010	\$	386,798	\$	1,350,432				
2011	\$	406,786	\$	1,448,725				
2012	\$	428,824	\$	1,558,079				
2013	\$	451,121	\$	1,668,977				
2014	\$	475,139	\$	1,791,615				
2015	\$	501,272	\$	1,925,021				
2016	\$	528,870	\$	2,071,425				

# **Operational Profitability**

It is clear that ridership will make or break the success of the operation. This is most evident when examining the two ridership scenarios, accounting for all operational costs and fare revenue. Below, the overall quarterly operational cash flow is shown. Note that the operation loses money in the low scenario, but makes money in the high.

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## **Annual Operational Cash Flow**

	Low Ridershi	p High	High Ridership					
2009	\$ (2,1	.90,300) \$	1,009,183					
2010	\$ (2,2	234,614) \$	1,242,676					
2011	\$ (2,4	(68,852) \$	1,261,164					
2012	\$ (2,5	522,426) \$	1,570,760					
2013	\$ (2,7	35,966) \$	1,617,649					
2014	\$ (2,8	303,396) \$	1,917,304					
2015	\$ (2,9	78,073) \$	2,119,498					
2016	\$ (3,0	33,249) \$	2,413,412					

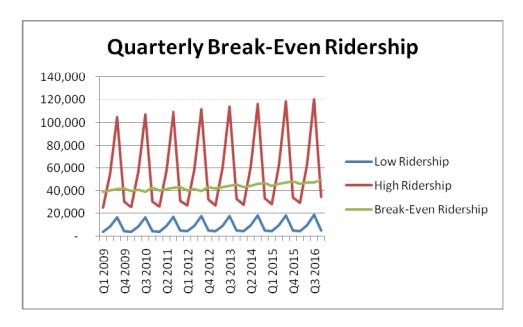
#### **Break-Even Ridership**

An operational subsidy will be needed if ridership does not achieve certain levels. The number of annual riders needed in order to achieve zero subsidy is as follows:

#### **Annual Riders to Break Even**

2009	161,655
2010	160,983
2011	165,989
2012	164,055
2013	173,666
2014	178,421
2015	184,017
2016	189,418

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# Appendix A: Sample Municipal Lease Funders

Municipal Asset Management Inc. 25288 Foothills Dr. N. Suite 225 Golden, CO 80401

Phone: (303) 273-9494 Fax: (303) 273-9505 Email: Info@mamgt.com

First Municipal Leasing Corporation 1905 Foothills Drive S Golden, CO 80401 888-456-0046

Baystone Financial Group 5225 N. Central Ave., Suite 218, Phoenix, AZ 85012 602.650.1184 (local) 888.345.0071 (toll-free) 602.650.1194 (fax)

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# Appendix B: Author Information

#### **Art Anderson Associates**

Art Anderson Associates is a multidiscipline engineering services firm with a long history of providing its clients *Value Beyond Engineering*<sup>®</sup>. Founded in 1957 as a naval architecture and marine engineering firm, Art Anderson Associates has fifty years of experience in the engineering consulting business. Over the years, we've developed an extensive resume of planning and implementation services for waterborne transportation, having completed projects in Canada, Mexico, Hawaii, Alaska and all over the continental United States.

Our mission in this market is to provide consultant services that assist prospective and existing ferry system owners and operators <u>plan</u>, <u>implement</u>, <u>manage</u> and <u>improve</u> passenger ferry systems. These services are performed by expert professionals who understand all of the components of a successful ferry system, including vessels, terminals and operations. We've assisted clients nationwide in evaluating existing or potential ferry routes, implementing new ferry transportation plans and improve the efficiency of existing ferry services. By examining the market, business, demographic, geographic, and environmental conditions, we can help an operator optimize current services and/or provide the expertise to successfully implement new services.

# **Western Washington University Small Business Development Center**

Twenty-three years ago, the SBDC started as an outreach program at Western Washington University's College of Business & Economics to give back to the business community. It has become a long and successful history of business planning for a wide array of industries, both public and private. Since 1996, the SBDC at Western Washington University has served over 4,600 businesses, helped save or create 4,100 jobs, and helped infuse over 139 million dollars into the region. Of the more than 1,100 SBDCs across the nation, the SBDC at Western Washington University is in the top three in terms of size, impacts, and the use of innovative approaches to growing regional economies.

The SBDC is rooted with strength and expertise in research and implementation of funding plans utilizing tested, proprietary, pro forma templates for financial projections. The Center has in-house expertise to conduct comprehensive research and develop economic impact analyses. The SBDC has a three-pronged approach to economic development: business counseling, market research and special projects

Today, the SBDC has grown to serve as an important partner with local governments, other economic-development service providers and our clients, making this region one of the best places in the Pacific Northwest to live and work.