



FRIENDS OF
FROG FERRY

Business Plan

Portland-Vancouver Passenger Ferry Service Initiative

frogferry.com

*Frog = "Shwah-kuk" in the Chinookan Tribal Language,
Artwork: With permission from the Family of Sam Robinson and artists Tony Johnson and Adam McIsaac.*

Vision

Imagine living in a place that values the environment as much as the individual. A place where locals flock to the beach, mountains, water-ways, and deserts to play as they work to preserve. A place where new ideas, new ways of thinking, new ways of connecting are honored. A place where rivers harbor the secrets of the native peoples who heralded the confluence of the two rivers as the perfect place to call home, raise families, establish trade centers, and enjoy a bountiful harvest.

We live in that place and are fortunate to call it home. And more and more people now call it home and compete to make a living and commute within traditional means of single occupancy autos. Let's use the waterway Mother Nature gave us as a natural highway to move about the region. Let's use this mode wisely, safely and consciously so we can both protect the resource and help preserve air quality as we consider leaving our cars at home and consider a new way of traversing the region.

The Frog Ferry is an organization formed around the need to bring an integrated and holistic approach to how we move people and cargo around the region with a commonsensical approach to problem solving. Our neighbors in Seattle, Vancouver B.C., San Francisco, and multiple river cities around the world maximize the advantage of river transit, while Portland has barely scratched the surface due to lack of expertise and political will. Now that demand for alternative means of commuting to downtown Portland is at an all-time high, let's put our collective wisdom to work in a public-private partnership for the betterment of municipalities, commuters, and downtown employers.

This is an ambitious and bold initiative to address a complex and vexing issue. However, the Portland-Vancouver region is known for its spirit of cooperation and willingness to address transportation challenges in an entrepreneurial and enterprising manner. Together we are capable of bringing a new way of navigating through our River City.

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Summary

Throughout history, water ways have been conduits of transportation. Portland, Oregon and Vancouver, Washington are unique locations that sit at the confluence of two majestic rivers, with the City of Portland split by the Willamette River (east to west) and the states of Washington and Oregon (north to south) divided by the Columbia River. The tremendous growth of this region results in expanding transportation infrastructure. **The vision and plan presented in this document is to provide a new alternate innovative transportation choice that embraces “River City” pride by establishing a passenger ferry service on the Willamette and Columbia rivers, called “Frog Ferry.”** Nearly every other major river city in the world has a passenger ferry service and nearly all are investing and growing their services. A passenger ferry service has been pursued in the past and this plan will: summarize lessons from past attempts, explain why the timing is better now, and show how to realize this vision by leveraging best practices of many river cities worldwide. This plan proposes a public / private partnership structure and outlines actions taken to date and actions that need to occur to realize the vision with a start of service in Summer 2022.

The goals for Frog Ferry are to:

- ❖ Enhance the region’s livability with an alternate transportation mode.
- ❖ Celebrate our Native American heritage and our history of transit by water.
- ❖ Activate our river with resilience planning, commuting and leisure enjoyment.
- ❖ Benefit all: passengers, non-ferry users (car commuters, freight movers), and provide decreased carbon emissions for improved air quality.
- ❖ Build on the “River City” brand and embrace, rather than avoid, our rivers.

Vision

We believe in the Portland region and strive to nurture community through improving connections between one another and our rivers.

Mission

Determine the viability of a safe and sustainable river-friendly passenger ferry service to better connect people to their river and help alleviate traffic congestion in the Portland-Vancouver Metropolitan area.

Objectives

- **Customer Satisfaction**
- **Public-Private Partnership**
- **Connect People to the River**
- **Culture Shift**

**“Heroes are not giant statues framed against a red sky.
They are people who say this is my community and it’s my responsibility
to make it better.” Tom McCall**

Purpose of “Friends of Frog Ferry”

Friends of Frog Ferry is a 501(c)(3) formed for the purpose of advocating for and supporting the introduction of a passenger ferry system in the Portland/Vancouver region. Key work plan items include organizing and advocacy, public speaking, planning and feasibility studies, and operations and financial planning. If the passenger ferry system concept is proven feasible, Friends of Frog Ferry will work with civic municipalities to identify the best organizational structure to launch and operate a passenger ferry service on the Willamette and Columbia rivers.

Support: Friends of Frog Ferry has convened more than 150 meetings with private citizens, public agencies, ferry service experts, and elected officials working towards the vision of bringing a passenger ferry service to the Metro Region. The Board of Directors for Friends of Frog Ferry is comprised of key people currently part of the Friends of Frog Ferry’s leadership team and, as of early 2019, more than 500 supporters have signed up to move the initiative forward. In addition, past studies and reports of developing a passenger ferry system have been cataloged and referenced, and leaders of past attempts have joined this effort.

As a result of extensive outreach (and because of the strength of the leadership team) community, business, and governmental support has been strong. The **Operational Plan will coalesce feasibility study data and outline the needed steps to make the vision of the Frog Ferry service a reality.**

Accordingly, the Friends of Frog Ferry is the organization that will lead the development, planning, and actions towards making Frog Ferry operational. The Leadership Team is comprised of private citizens with the support of local and state transit and economic driver-agencies.

Public / Private Partnership

Based on best practices of other passenger ferry service startups around the world, the public-private model has proven to be the most successful and efficient business model. Public entities and officials in the Metro Region support this vision of a ferry service on the rivers, and, as with nearly all public transit programs, there is a required public subsidy to help off-set the cost and it is understood that the public sector will need to be financially supportive on the front end as well as at the launch and for ongoing operations.

Private capital is expected to come from individuals, foundations and businesses as an investment in the community, not as a financial Return on Investment (ROI) model. This is similar to how the Portland Streetcar system started and similar to other public infrastructure support projects such as libraries, cultural centers, and museums.

Governance

In Summer 2017, the Frog Ferry LLC was formed and evolved in Q4 2018 to a 501(c)(3) (The Friends of Frog Ferry); the mission directly serves to benefit the general public in the Metro Region.

The Friends of Frog Ferry shall operate in accordance with the Articles of Incorporation and adopted Bylaws. A board was formed Q4 2018 with a Chair, President, and Secretary. Some highlighted governance considerations include:

- Fiscal Sponsor: Greater Portland Partnership for Economic Advancement (GPPEA), a 501(c) (3)
- Any funds raised must benefit the nonprofit organization
- Donations to Friends of Frog Ferry from the private sector shall be considered donations under the laws of a 501(c)(3) non-profit institution.

Routes (see [Exhibit 5](#) for alternative image of Routes 1.0, Route 2.0 and possible future Routes)



Route 1.0: The Frog Ferry will start with a round trip between Vancouver, Washington just west of the I-5 Bridge to downtown Portland. This phase will use existing docks and no new parking is planned. The Vancouver stop is the Port of Vancouver's Terminal 1 dock. The City of Portland stop will be the Salmon Springs Dock / Waterfront Park Wall, owned and managed by Portland Parks and Recreation, and currently leased to



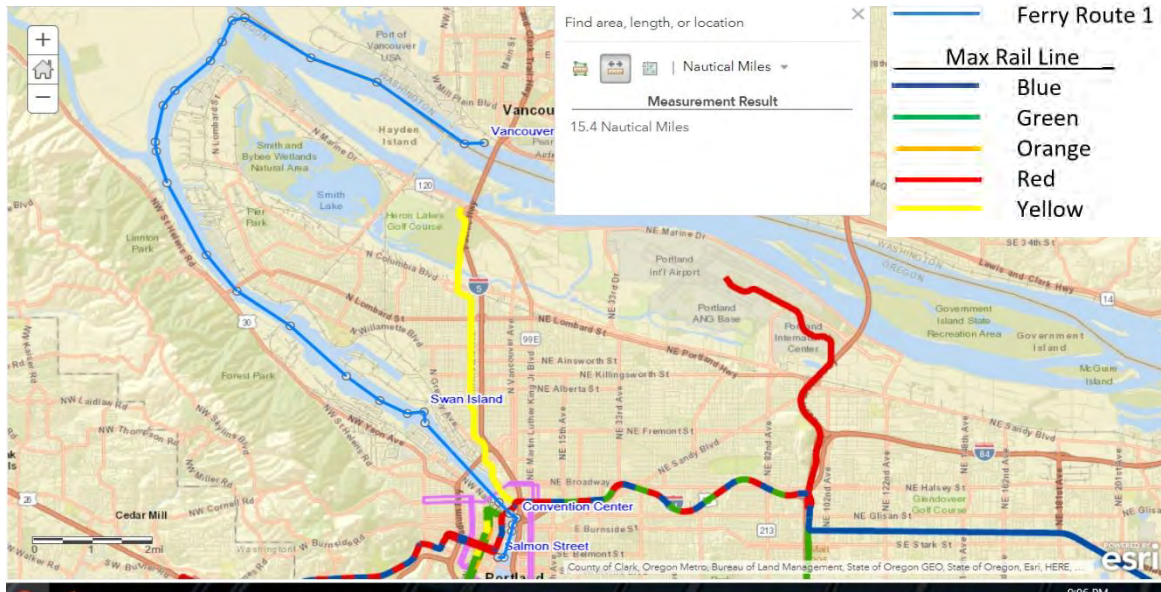
American Waterways (Portland Spirit)

Route 2.0 will provide service within the downtown Portland core, potentially including: Swan Island (Daimler Campus), Duckworth Dock (OCC-PBOT), OMSI (dock owned by OMSI), and OHSU/Zidell South Waterfront. Additional stops may include Lake Oswego, and Milwaukie / Oregon City / West Linn.



Route 3.0: The following Oregon and Washington cities have also been proposed: Pearl District, St. Johns, Port of St. Helens, Troutdale, and West Linn, Oregon; and Camas, Washington; and stops within the Columbia River Gorge.

Route Length and Approximate Transit Time: 38 minutes upriver



Situational Analysis

Portland, Oregon / Vancouver, Washington region (hereafter called the “Metro Region”) has experienced tremendous growth, leading the nation in inbound interstate immigration, increasing by 150 people per day. This enhanced density, combined with the defined urban growth boundary, has dramatically increased traffic congestion.

Portland has been an innovator for multi-modal transportation, having installed MAX Light Rail lines beginning in 1986, which now extend east to west and north to south with splinter systems that include the Portland Streetcar, which operates as a central city circulator, as well as the Willamette Shore Trolley during summer weekends. In 2008, 12.6% of all commutes in Portland were on public transit. Currently, the Metro Region is mired in traffic and is a leading conversation topic every day.

New transportation infrastructure transforms communities and is a vital source of community development. (Note: Statistics pulled from referenced studies – see [“Exhibit 4 - Research”](#))

- In 2014, Portland area congestion cost businesses and families \$1.8 billion in wasted time and fuel.
- By 2040, congestion is projected to increase by 30%.
- Reducing road congestion is the highest priority action item for the Oregon Business Plan Transportation Advisory Committee. More than 110,000 autos cross the Columbia River on I-5 Bridge daily; 120,000 cross the I-205 Bridge.
- Passage of \$5.3B Oregon Transportation HB 2017 Funding Bill focused on infrastructure improvements over the next 10 years to improve the economy, quality of life, and reduce congestion.
- Transportation comprises 37% of Oregon’s greenhouse gas emissions.

- In November 2018, the City of Portland approved \$36.0M in transportation projects.

Portlanders and Clark County residents are proud of their community; they leave their recyclables at the curb, enjoy their trails and parks, and protect the natural resource-based environment in general. If anything, Portland and Vancouver have become loved too much—with employers flocking to the area in search of a work-life balance that provides a special quality of life for young families who honor “diversity”—across many dimensions of the definition.

Portland’s distinctive personality is evident in its proudly held nicknames and slogans: River City, Portlandia, Stumptown, Keep Portland Weird, and City of Bridges. Accordingly, locals take pride in being unique and creative in management of the region.

Locals are supportive of using new and multiple modes of transportation in efforts to preserve the environment. Bicycle lanes are a cultural norm, with 15,000 cyclists crossing five bicycle-friendly bridges each day. Portland is a walking-friendly city with short blocks, and the use of Uber and Lyft is skyrocketing (gained 35% of Portland International Airport market within first two years of launch). The City of Portland, with support of Nike and other local business, has started BIKETOWN, a bike sharing program with 1,000 bikes at over 100 stations across Portland. Recently, Portland approved the use of electric scooter sharing as a transportation option. In the 120-day trial period, people took 700,369 trips covering 801,887 miles. A majority of Portlanders viewed e-scooters positively, with 71% using e-scooters as transportation to a destination. All of these transportation choices are designed to give residents and visitors a fun, affordable, and convenient alternative to autos, taxis, and ride sharing to help efficiently and effectively move people while avoiding the congestion and high downtown parking fees.

Although there is a lot of proactive transportation planning in the Metro Region, the obvious passenger ferry option not available, with naysayers citing a lack of expertise or fear of the cost, which is an unknown. Yet, Portland and Vancouver are iconic in that the communities sit at the confluence of two major rivers, providing an underutilized natural highway infrastructure that should be seriously considered.

Customers and Benefits

- Commuters
- “Circulators” Locals crossing the river
- Visitors
- Emergency Response

While the Frog Ferry's transportation option is one leading value, other benefits include tourism, recreation, emergency response, the calming effect of the river, and an improved connection between Portland and Vancouver.

Commuters

The Portland-Vancouver region is one of the fastest growing regions in the nation. Traffic congestion increasing silos the two cities due to the I-5 bridge not having the capacity to fulfill the demand. 130,000 vehicles cross the I-5 Bridge over the Columbia River every day, and of that traffic, 30,000 are commuting to Portland's downtown core. This congestion issue is one of the most significant in the region, and although working across the jurisdiction of two states is complex, it is the most significant issue we can help to address.

Our premise is to start with three boats, two which are operational with one spar, which will move:

596 passengers per commute = 500 cars = removes 3.5 miles of I-5 congestion

What is different about ferries from rail and road-based transportation is that it is more easily Scalable for growth—as it is modular with greater flexibility of operations. Once the dock interface is in place, additional boats and/or more frequency can be added at a significantly lower cost than traditional modes of transportation.

Circulators

Pedestrians and cyclists in the downtown core will have an additional option across and up or down the river for lunch, work meetings, personal appointments, and various attractions near the river such as the Rose Quarter, OMSI, and the South Waterfront. This service features a non-home destination (going to/from work, appointments or meetings) on either end, with focus on servicing businesses, restaurants, and other points of interest.

Visitors/ Recreation

In recent years, tourist attractions are capitalizing on the beauty and history of the Willamette and Columbia Rivers.

- **Portland Spirit** – a short-term Willamette River cruise that typically includes lunch, brunch, or dinner as sightseers enjoy the Captain's narration with access to full-service beverage service on board.
- **Willamette Jet Boats** - An exhilarating river tour packed with history, fun, and splash on the Willamette River that shows guests Swan Island and the shipyards that put the “port” in Portland, as well the history behind the iconic bridges that earned Portland the nickname of “Bridge City.”
- **Columbia Gorge Sternwheeler** – A sightseeing cruise that can include lunches / dinners through the heart of the Columbia River Gorge. Learn about landmarks and natural wonders. Snacks and beverages from a full-service bar are available.
- **Explorer** – A high speed boat that explores the Willamette and Columbia rivers from Portland through the Heart of the Columbia Gorge, covering over 120 miles.

From the beauty of the Willamette Valley and Portland skyline, through the Port of Portland, into the epic Columbia Gorge, and through the locks at Bonneville Dam.

- **American Queen Steamboat** – A live-on-board river cruise along the Columbia and Snake Rivers displaying an abundance of awe-inspiring, natural beauty. Travel into the heart of Washington’s wine country where many acclaimed wineries of the Pacific Northwest have made their mark among wine connoisseurs.
- **National Geographic** – A seven-day adventure that retraces the Pacific Northwest portion of Lewis and Clark’s epic 19th-century expedition aboard the National Geographic Quest ship. Cruise through the lush landscapes of the Columbia River Gorge, the mountains of the Cascade Range, and the historical lands of the Native American tribes that the Corp of Discovery encountered on the journey along the Columbia and Snake rivers.
- **Boat Rental Services** – Boat rental services along the Willamette and Columbia river cater to those who want to cruise and relax along the rivers, or to those who seek the exhilaration of jet skiing and water skiing.

The Frog Ferry will provide a cost-effective option for seeing the sights along the Willamette and Columbia rivers, especially in months when most other river boat tour options are not in operations or have limited service. Ferry service would provide sightseeing during non-commuter hours via an iconic, fuel-efficient mode of transportation for locals and visitors who wish to see the City from a new point-of-view that promotes the “City of Bridges” and “River City” brand. This service would connect most river-front amenities as well as provide a link to other mass transit options. Cyclists can hop on and off the Frog Ferry as part of a bike ride journey.

Emergency Response

The I-5 Bridge connecting Oregon and Washington opened in 1917, and is one of the last vertical lift interstate bridges in the country to allow for shipping traffic to pass. Any trouble with this bridge design or catastrophe due to earthquake events can limit emergency response option between Washington and Oregon. The Frog Ferry would be able to move many people on the Rivers in such an event.

Calming Effect of Water Transit

Most of us recognize the calming effect of a walk by a river or along a beach. Even city planners and developers of ancient Roman cities understood that people prefer urban environments with green space and water features. The Frog Ferry will move commuters on the rivers at the start and end of their work day, in a mode of transit that may help reduce work-related stress and promote the work / life balance many in the Metro Region seek.

Improved connectivity between Portland and Vancouver

Vancouver, Washington was recently named the country's "most hipster city" when it comes to tattoos, beer, and other signs of "hipsterdom" according to a London-based moving-information company. Portland, Oregon is known for its large number of microbreweries and micro-distilleries, coffee enthusiasm, and outdoor-oriented culture. While the spirit and lively culture of Portland and Vancouver are similar, the two communities are connected only by two bridges that are often congested with traffic. Traffic has worsened to the point that residents avoid crossing the river during many hours of the day. Vancouver's new development at the waterfront features new shops and restaurants, and the expanding Vancouver bike path system will increase the interest in identifying options to better connect the two cities. Frog Ferry will be a valuable link that improves the social-economic connection between Portland and Vancouver.

Project Phases and Funding

Summarized Phases of Work by Calendar Year. For more detail outline of actions to date and planned actions under each of the following Phases, see [Exhibit 7 for the Project Plan Time Table](#).

- **Phase 1, 2017-18:** Coalesced studies, via 200+ meetings; built stakeholder support; proved viable ability for mission; built brand; assembled team. Realized cost: *\$400,000 cash and in-kind services*

- **Phase 2, 2019:** Conduct feasibility studies (demand modeling, landside infrastructure, economic impact) and staff fundraising, lobbying, marketing, legal, etc. Deliver Operations Plan *Projected cost: \$650,000 in cash and in-kind services*

- **Phase 3, 2020:** Create ferry service operating financial plan—mapped to federal, state, local, and nonprofit income + farebox *Projected cost: \$650,000 in cash and in-kind services*
 - **Go or No-Go decision.**

- **Phase 4, 2021:** Issue RFP for operator and management of the ferry service system

- **2022: Start Service** (Summer)

The following table is a summary of the Business Plan deliverables with cost and funding sources:

2019 Deliverables	Contractor	Cost	Timing	Funders
Transit Demand Modeling Study	Metro	\$ 50,000	February	TriMet: \$xxx City \$xxx
Points O&D (Business plan behind each stop)				
Ridership Demographics				
Economic, Environmental & Social Impact Study--Triple Bottom Line	EcoNorthwest & FFF Admin	\$ 80,000	March	City \$xxx Grant \$xxx
User & Non User Benefits				
Benefit Cost Analyst				
Environmental Impact				
Resilience Planning				
Triple Bottom Line				
Health, Equity				
Passenger Ferry Service Case Studies	Friends of Frog Ferry	\$ 30,000	April-July	City \$xxx Grant \$xxx
Regional Operational Models				
Similar Global Models				
Operational Infrastructure Report	HMS Consulting & Flowing Solutions & FFF Admin	\$ 200,000	April-July	City \$xxx Grant \$xxx
River Access				
Cap Cost				
Insurance, Fuel, Equipment				
Training, Regulations, Certifications				
Barriers to Development				
Funding Strategies--Staffing and Professional Services		\$ 290,000	2018 Jan-Dec	City \$xxx Grant \$xxx
Business Plan & Accounting & Grant writing	FFF & Kingfisher Writing			
Governance	Horenstein Law & Miller Nash			
Office Expenses/Intern & Marketing (web, newsletter, events & presentations)	Cuprum Creative			
Advocacy, Leadership & Staffing	Friends of Frog Ferry			
Media Relations & Social Media	Coates Kokes & Sparkloft			
Government Affairs	Summit Strategies and The Leo Group			
Total 2019		\$ 650,000		
2020 Finance Plan--Staffing and Professional Services	Friends of Frog Ferry 501(c)(3) + TBD	\$ 650,000		State of Oregon: \$ City of Vancouver: \$
Infrastructure Dev. Plans				
Startup Costs				
Frog Ferry Feasibility Study: Costs & Suppliers				
Go - No Go - City of Portland issues RFP for Operations (2022-23 - Service Starts)				
Staffing, studies, plan, advocacy, stakeholder building, gov't and community relations				
Total 2019-2020		\$1.3 million		
2017 & 2018 Delivered value of \$400,000 cash and in-kind services in advocacy, research, & definition of project approach and operations. 2019: \$200,000 in-kind committed for media relations, social legal, accounting, lobbying and event staging.				

Sources of Investment Capital in the Boats:

Every major public Ferry Service in the world is subsidized and all services in the U.S. found to date are subsidized through federal, state, county, regional, and non-profit funding along with the fare box. Funding sources of investment capital for the boats will be defined in Phase 3.

For the King County, Washington State case study, they have four terminals and eight vessels, traveling at 34 knots. Crewed by one captain and two deck hands, for

commuters year-around and with twice the number of passengers in the summer. The fare box gold standard is 30%. The most important measure of success is reliability.

Goals

- **Safety** above all else.
- **Customer satisfaction:** Seamless customer experience from parking to destination and back; beat or match travel time by car ([See Exhibit 3 – Transit Time](#)). These are motorists willing to leave their cars at home, or to park near the shore by their home, and commute via watercraft and as well as compatible modes of transportation such as MAX light rail, bicycle, walking, or bus. The target is north-south commuters and does not address the east-west commuters into inner Beaverton or Gresham unless mass transit options exist. In addition to visitors and recreational customers as previously discussed, pedestrians in the downtown core may use transit during the day across or up or down the river for lunch, meetings, or errands. The plan is to make the on-board experience a clean, safe, professional atmosphere with amenities that cater to a variety of customers' needs and interests such as various drinks (local coffee and microbrews), healthy snacks, Wi-Fi, and an audio-visual system.
- **Connect people and the cities** using the river corridor to provide an instrumental means of unifying the transportation infrastructure network of bus, light rail, pedestrian, bicycle, and auto.
- **Operational efficiency:** Strategic equipment, timing, ramp access, partnerships with municipalities, and operational best practices. "Green" practices to 'do no harm' to the river or environment. Reduce CO2 emissions.
- **Public-private partnership:** This would be a watershed public-private partnership that would benefit road users throughout the region and minimize the burden through partnership and start-up cost share.
- **Cost effectiveness:** There have been models developed in the past that haven't penciled out. We must prove there is demand and scale the operations for cost-effectiveness comparable to other public transportation services. However, based on other cities with similar ferrying systems and based on most public transportation systems, cost of operations will likely not be covered solely by user fares.

Competitive Advantages

- a. **Timing/Demand.** The demand is high with few other alternatives to address the existing and growing traffic issues. Portland/Vancouver draws many people in search of jobs, young families searching for an affordable sense of community,

leading-edge research doctors, global apparel designers, and tech innovators. At its heart, the Portland metropolitan area is approachable; a small town with a big-city sense of culture, and a demand for sophisticated cuisine, outdoor travel experiences, and transportation infrastructure. Such treasured highly used amenities include the Port, aerial tram, Waterfront Park, and Forest Park—all in proximity to the water and downtown. Portland recently adopted a transportation funding bill to help alleviate traffic congestion—however accessibility remains problematic.

Citizens are mired in gridlock, and traffic has become the gripe of the hour. Providing new means of moving large groups of people is largely beyond the financial capability of individual municipalities and even regional public entities. Yet the community is hungry for this type of creative leadership and innovation. There is a visible and viable opportunity to integrate our light rail, pedestrian bridges and corridors, bicycle-way system, roadways, and maximize the river highway that runs through the Metro Region and was its historical transportation back bone.

- b. **Cost and Ease.** Vancouver to Portland commuters are currently averaging more than an hour to commute each way every day. The aggravation, time, and fuel costs are frustrating commuters who don't have an alternative way to make a living unless their employer allows them to work from home. There is the ease, romance, and mystique of driving 10 minutes to park, boarding a watercraft to enjoy a leisurely trip to work—catching up on emails, the news, and enjoying a quality beverage—then debarking to walk, take MAX, street car, or bicycle to the office.
- c. **Lack of Competition.** At present there are few alternatives to address this issue, especially given constraints of state funding, the delayed Bi-State Bridge River Crossing), and no other organized water taxi service for large numbers of passengers. Currently there is the Portland Spirit, a tour boat traveling at 8 knots for noon-hour scenic tours and a Jet Boat tour operator for thrill-seekers who cruise up the river at 40 knots to see the sights and enjoy 360-degree spins. Both operators may be potential partners to have for back up needs.
- d. **Partnerships.** The leadership of Frog Ferry has a 30-year career of working with a variety of municipalities to create new ways of doing business better. Friends of Frog Ferry has the capability to coalesce multiple disciplines to aggregate resources and the collective need to improve the traffic situation. If every vested entity participates, and Friends of Frog Ferry is able to leverage civic relationships, coalesce knowledge of the communities along the route, and put the customer experience first, we can significantly improve the livability of residents and address one pivotal aspect of commute-time congestion. This would be a watershed public-private partnership that would benefit nearly all citizens and minimize the burden through partnership and start-up cost share.

Challenges / Risks

a. River Obstacles

- High and low water variance
- Environmental considerations (dock and wake impacts)
- Wake
- Speed/range of boat
- Bridge clearance
- Dock access/ riverbank erosion concerns
- Logs (deadheads) and debris in the water
- Channel right of way
- Riverway is unlike any other

b. Funding/Municipality Support

- Lack of cohesion with local public transit leaders and elected officials.
- Will to subsidize like other public transit services.
- In the past, the river has been treated as an “obstacle” or hurdle rather than an asset.
- Lack of maritime knowledge in the Metro Region.
- Demand for commuter vs. downtown circulator service.
- Finance/Fiscal Sponsor plan: which agencies will serve as champions?
- Operational cost: Log-incident inspection down time, unionization, insurance, and municipalities’ appetite to provide docks and access.

Prior Passenger Ferry Service Attempts

There have been at least six credible attempts to approach the concept and some have written papers, others have created route maps, and one individual purchased boats. Several of those individuals support this effort. Three substantial efforts were undertaken by the Shaver family and Peter Wilcox, as well as Metro, which commissioned a report in 2006:

Shaver: The Shaver family, known for their maritime heritage of Shaver Tugboat and Marine, attempted a passenger ferry service in 2000. The effort was abandoned due to lack of elected leadership support.

Wilcox: In 2011, Peter Wilcox attempted to start an east-west Willamette River passenger ferry service, having purchased the retired Crater Lake research vessels. Efforts were suspended due to lack of support.

Willamette River Passenger Ferry Service Report- 2006 (Metro) (Full report may be found at <http://frogferry.com/steps-to-success-goals/research/> and [Exhibit 4](#))

Key requirements included the following; all have been met fully or mostly:

- Exponential population growth
- Longer commute times due to denser traffic congestion
- Need for better engineering and technology, minimizing wake/noise/and energy
- Creation of a broad cross-section of supporters and stakeholders
- Sourcing a low clearance boat, large enough to move a meaningful number of passengers
- Integrated transportation infrastructure to MAX, Portland Streetcar, bus, bicycle access, etc.

Guiding Principles

- Put the customer experience and safety first
- Stay focused. Avoid rabbit holes and scope creep
- Early engagement with potential partners
- Create stakeholder group:
 - Public sector municipalities
 - Private sector investors
 - Private sector property owners/managers
 - Transportation experts
- Gather research and conduct focus groups and studies
- Media outreach
- Lobbying
- Engage elected officials
- Must be unified, with some compromises made
- We won't "fix" the traffic problem or I-5 bridge congestion, but will complement it
- There will be competing issues and budgets: we must become a priority
- One route to start; follow where there is demand and a civic will
- Create and adopt operational plan, with recommended vessels that will work effectively on the Columbia and Willamette rivers while being clean and quiet to match expectations of the community
- Create a public-private partnership and financial plan that leverages early private-sector investment for vessels and allows time for public-sector entities to commit budget to subsidize the service. All municipal water taxi services researched around the world are subsidized. Base the start up on the Portland Streetcar public-private model
- Other support documents: operations plan, stakeholders, vessel competitive analysis, financial plan

Leadership Team

The Friends of Frog Ferry Team is passionate about this vision and strongly believes the timing is right. The initiative has a focused, proactive leadership team and strong community support—both from the private sector and the public sector. Windows of opportunity for private, community transportation-related support is difficult to come by, but the impact of traffic congestion is motivating business leaders to find a better way to move people within the Metro Region.



Founder/President/Board Member

Susan Bladholm is a transportation enthusiast, who learned to work with multiple jurisdictions as a co-founder and first executive director of Cycle Oregon, a 30-year old bike ride that gained recognition as a top ride in the nation within the first three years of operations. She has staffed five governors, served the Oregon Economic Development Department (dba Business Oregon) for 10 years, spent 10 years with the Port of Portland (airports, seaports, industrial lands) as Director of Corporate Marketing, and most recently served as the Senior Director of Marketing and Strategy for Erickson Incorporated, a global aviation services company that conducts business across six continents. Having graduated from the U of Puget Sound (Go Loggers!), she is a student pilot and native Oregonian compelled to help improve the region's livability through her experience and network of community leaders.

Board of Directors



Scott South, Chair of Friends of Frog Ferry, is owner of Stevens Water Monitoring Systems, a manufacturer of data acquisition instrumentation for environmental monitoring and control applications serving domestic and international markets. He is also President of South Wind Development, a company focused on real estate development and investing in start-up ventures. Scott co-founded and led the start-up phase of Stormwater Management, Inc., a manufacturer of water treatment systems for urban water runoff. He was also Hollywood Video's second largest shareholder and CFO during the start-up and growth phase. Scott started his career at PricewaterhouseCoopers and was a CPA and manager for the firm. Scott is active with various non-profit boards and an OSU graduate.



Allison Tivnon, Secretary of Friends of Frog Ferry, serves as a partner and Director of Marketing for EcoNorthwest, the Pacific Northwest's largest consultancy specializing in economic research. She oversees the firm's business development outreach and philanthropic involvement and giving. She is a passionate civic volunteer, supporter, and participant in regional conversations related to transportation, land use, affordable housing, and public art. She is a former board governor for the City Club of Portland, and is acting Chair of the Beaverton Arts Commission.



Sue Van Brocklin, Board Member of Friends of Frog Ferry, serves as Vice President/Director of Public Relations for Coates Kokes and has been crafting client stories for the last 25 years and leads all aspects of Coates Kokes' PR efforts—from local and national media relations and event coordination, to media training and issues/crisis counsel. She contributes a unique public affairs insight to marketing and advertising strategy. In addition to her career in PR agencies, Sue brings government agency experience from her eight years on the Governor-appointed Board of Directors for TriMet. Most recently she served for six years on the Portland Parks Board, where she successfully led the effort to pass the policy declaring Portland's 200+ parks as smoke free.



Dan Bower, Board Member of Friends of Frog Ferry, serves as the Executive Director for the Portland Streetcar and manages all aspects of streetcar service including communications, planning, budgets, scheduling and Public/Private Partnerships and other related items. Portland Streetcar is the largest modern streetcar system in America with over 15,000 passengers each weekday. Prior to working with Portland Streetcar Dan was the Active Transportation Division Manager at the City of Portland where he managed a variety of programs aimed at increasing access to safe walking, bicycling and transit service in Portland.

Expert Advisory Teams

Maritime & Operations Team

- ❖ Dan Yates, Portland Spirit
- ❖ Captain Anne McIntyre, Columbia and Willamette Pilot Assn: Maritime Advisor
- ❖ John Sainsbury, HMS/PacNav Passenger Ferry Global Consultant
- ❖ Matt Markstaller, Daimler, Private sector representative
- ❖ Vigor: Portland industrial leader and global boat manufacturer
- ❖ Andy Jansky, Flowing Solutions dock engineering-design

- ❖ Mike Bomar, Port of Vancouver (Terminal 1)

Government and Public Affairs Team

- ❖ Sue Van Brocklin, Coates Kokes Advertising & PR
- ❖ Elisa Dozono, Miller Nash (former Port of Portland and MERC Chair)
- ❖ Linda Weston, Rapporto (former Executive Director Oregon Entrepreneurs Network)
- ❖ Kimberly Barta, Nike
- ❖ Martin Stoll, Sparkloft Social Media
- ❖ Michelle Giguere, Summit Strategies
- ❖ Greg Leo, The Leo Company
- ❖ Ginny Lang, Oregon Business & Industry Exec Director (former telecom exec)
- ❖ Shannon Carney, City of Portland
- ❖ James Paulson, Bikeshare & Worksystems Inc.
- ❖ Maren Calvert and Steve Horenstein, Horenstein Law Group

Engineering “Power” Team

- ❖ Kevin Bross, Intel
- ❖ Peter Wilcox, Inner Passage Executive Director (former ferry service attempt)
- ❖ Matt Markstaller, Daimler
- ❖ Art Parker/Alan Sprott, Vigor
- ❖ Andy Jansky, Flowing Solutions dock engineering-design

Financial Team

- ❖ Scott South, Stevens Water and Vancouver business leader
- ❖ Dan Bower, Portland Streetcar
- ❖ Joyce White, Grantmakers of Oregon and SW Washington (retired)
- ❖ Lloyd Purdy, Greater Portland Inc.
- ❖ Jim Mark, Melvin Mark

Professional Service Providers

- ❖ Heather Barta, Cuprum Creative (website, graphic design)
- ❖ Ron Laster, Printer
- ❖ Doug Morris and David Brandon, Miller Nash Law
- ❖ Denise Ker Waldron, Viva Events
- ❖ Bridger Dunn, Website

Reference Exhibit of endorsements: See www.frogferry.com letters of support which include:

Port of Portland, Port of Vancouver, Mayor Wheeler, Vigor, Daimler, Zidell, Working Waterfront Coalition, Central Eastside Industrial District, Travel Oregon, Travel Portland, Greater Portland Inc., Portland Business Association, Identity Clark County, UniSquare, Greenbrier, and many more.

Fact Sheet



www.frogferry.com susan@frogferry.com

- **Goal:** Create a safe and sustainable river-friendly passenger ferry service to better connect the Portland Metropolitan area.
- **This is a bold and innovative initiative that will take visionary leadership and collaboration.** Each transit agency in the region will need to participate with resources.
- **149 Passenger (no cars) ferry** with bicycle storage using the greenest proven propulsion technology available. Low air draft to allow for passage under bridges.
- **Start with two boats:** This is scalable; add boats for more capacity
- **Model:** Public-Private Partnership. 500+ stakeholders.
- **Nearly every major river city in the world has a passenger ferry service.** Of the top 80 river cities, we believe we are the only community without water transit.
- **1.0v** Vancouver to Portland (Port of Vancouver Terminal 1 to Salmon Springs)
2.0v Eight stops east and west banks of Portland from St. John's to Milwaukie
3.0v Camas to Gresham or Downtown to PDX or Downtown up to Portland International Airport and the Columbia River Gorge
- **2006 Willamette River Passenger Ferry Feasibility Study:** Meets key requirements for congestion/travel times, wake/erosion mitigation, dock facilities, and technology.
- **Frog Ferry:** Chinookan story about Frog teaching Native people how to fish.
- **Our Core Team:** Friends of Frog Ferry has filed for 501(c)(3).

Timeline:

2017/18 Concept Plan, Governance & Business Plan Delivered *Cost and in-kind \$400,000*

2019 Feasibility Studies and Operational Plan *\$650,000*

- **Transit Demand Modeling Report:** Where are commuters coming from and going?
- **Triple Bottom Line Report:** Benefit Analysis: user vs. non-user benefits.
- **Case study Report:** ferry service models around the world.
- **Operational Infrastructure Report** (cap cost, op cost, insurance, fuel, maintenance plan, etc.)

2020 Deliverable: Finance Plan

Cost: \$650,000

Scheduling/technology/ticketing/route mapping/timing/efficiencies, pricing, startup costs labor plan (crew, management), marketing plan etc. mapped to funding sources.

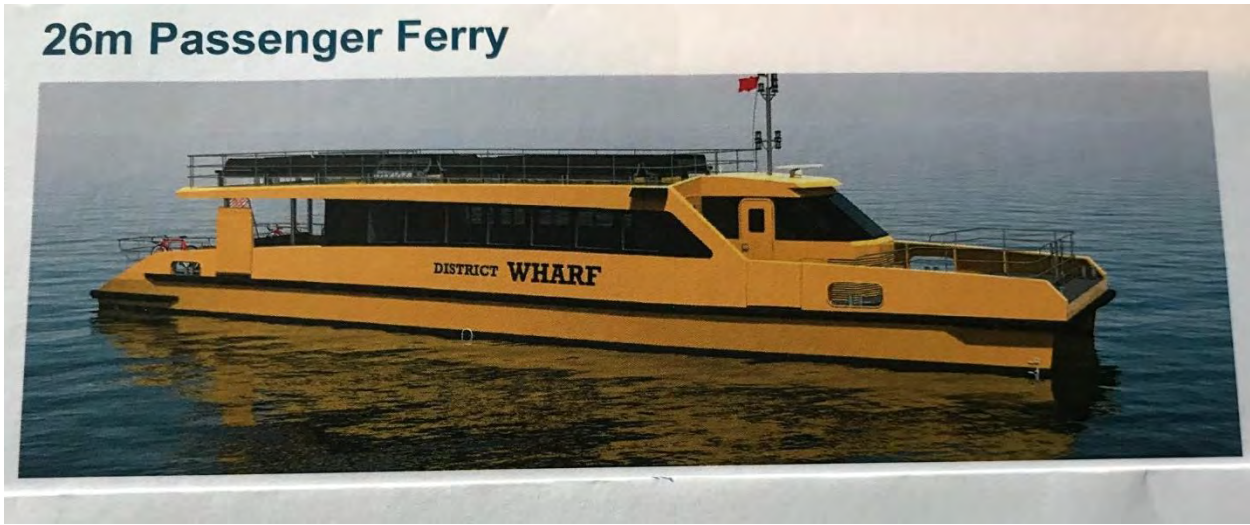
2020 Q4 Go or No-Go Decision

2021 If a "Go"—public agency sponsor contracts out for Project Management & Operations and secures funding.

2022 Summer Service Start

Exhibit 1 – Boat Design Concept

26m Passenger Ferry



Likely double-hulled catamaran

Single or double covered decks with low air draft

Jet propulsion

Green tech

149 passengers with bike storage

Crew of 4 (requirement of 3)

Exhibit 2 – Origin of the Name



Design Description: “*Shwah-kuk*” by Adam McIssac.

Family crest of the Sam Robinson Family, used with permission.

Artist Statement

Canoes and Frog Mythology on the Columbia & Willamette Rivers

The ability to travel the waters of the Columbia and Willamette rivers has allowed people to become intertwined through trade and commerce for centuries by canoe. The journal entries of Lewis and Clark in 1805 described the shores of the Columbia River as being lined with canoes elaborately carved from cedar trees. The ability to navigate these waterways gave the Chinook people control over vast reaches of the Columbia River basin for hundreds of years.

The area surrounding the Columbia and Willamette rivers is steeped in a rich mythology told to us through early ethnographers who traveled the region.

Chinookan mythology, Frog (*Shwekheyk* in Chinook language), was given the basics of weavable fiber by his relatives, Snake and omnipotent Coyote. With this fiber, Frog was given the task of creating the cordage for the weaving of the first fishing net. With this net, made from fibers of nettle plants, Frog had made it possible for the new human beings to catch their first salmon. Coyote tested the net, with the guidance and wisdom of his three sisters, thereby establishing the complex set of taboos associated with the catching of the first salmon of the season.

The Chinook people would never eat or harm Frog for his association to them would always protect him. That is why you should always step around frogs and never over them.

—*Adam McIssac, Columba River Master Artist*

The Frog, an amphibian, symbolizes linking the river with the people who live along its shores.

Exhibit 3 - Transit Times

Ferry Stop	Nautical Distance	Latitude	Longitude	FF_NM	US_Dist	DS_Dist	Upstream Time (minutes)	Downstream Time (Minutes)
Vancouver	0	45.62226	-122.677	0	0	9.1	0	73.7
Cathedral Park	9.1	45.58229	-122.755	9.1	9.1	3.5	24.8	46.9
Swan Island	12.6	45.55325	-122.698	12.6	3.5	2	36.4	35.3
Convention Center	14.6	45.52561	-122.666	14.6	2	0.8	43.8	27.9
Salmon Street	15.4	45.51551	-122.673	15.4	0.8	0.6	48	23.7
OMSI	16	45.50752	-122.667	16	0.6	0.5	51.5	20.2
OHSU/Zidell	16.5	45.4995	-122.667	16.5	0.5	3.9	54.9	16.8
Milwaukie	20.3	45.44263	-122.643	20.3	3.9	1.6	67.4	4.3
Lake Oswego	21.9	45.42066	-122.656	21.9	1.6	0	73.7	0
Average Speed	22	knots						
Average Stop Time	2	minutes						

Exhibit 4 - Research

Willamette River Ferry Feasibility Study (2006)

<https://www.portlandoregon.gov/bps/article/292730> *Summary of Recommendations:*

- *Obstacles: lack of useable docks and terminal facilities.*
- *2006 operational cost of a 100-passenger catamaran vessel would be approximately \$210 an hour, and \$3.4M annually. Total cost per passenger approximately \$18.*
- *Successful funding strategy would rely on receipt of federal operating funds, passenger fares and likely require other non-traditional sources of local funding.*
- *Differences in passenger demographic for commuter vs. circulator service.*
- *Need for debris clearing from the river.*

Willamette River Recreation Strategy (2012) <https://www.portlandoregon.gov/bps/article/384686>

Willamette River background documents <https://www.portlandoregon.gov/bps/38962>

Central City 2035 Plan <https://www.portlandoregon.gov/bps/47907>

Columbia River Crossing Plan: <https://www.portlandoregon.gov/bps/article/501261>

Portland TSP Plan: <https://www.portlandoregon.gov/transportation/article/651817>

METRO Southwest Corridor Plan <http://www.oregonmetro.gov/public-projects/southwest-corridor-plan>

Modeling of Commuter Travel Patterns to Prove Demand: Look to the future, rather than the past, for modeling. Use analogies such as commuter rail from Wilsonville.

2017 Portland survey for Water Taxi Service in Portland

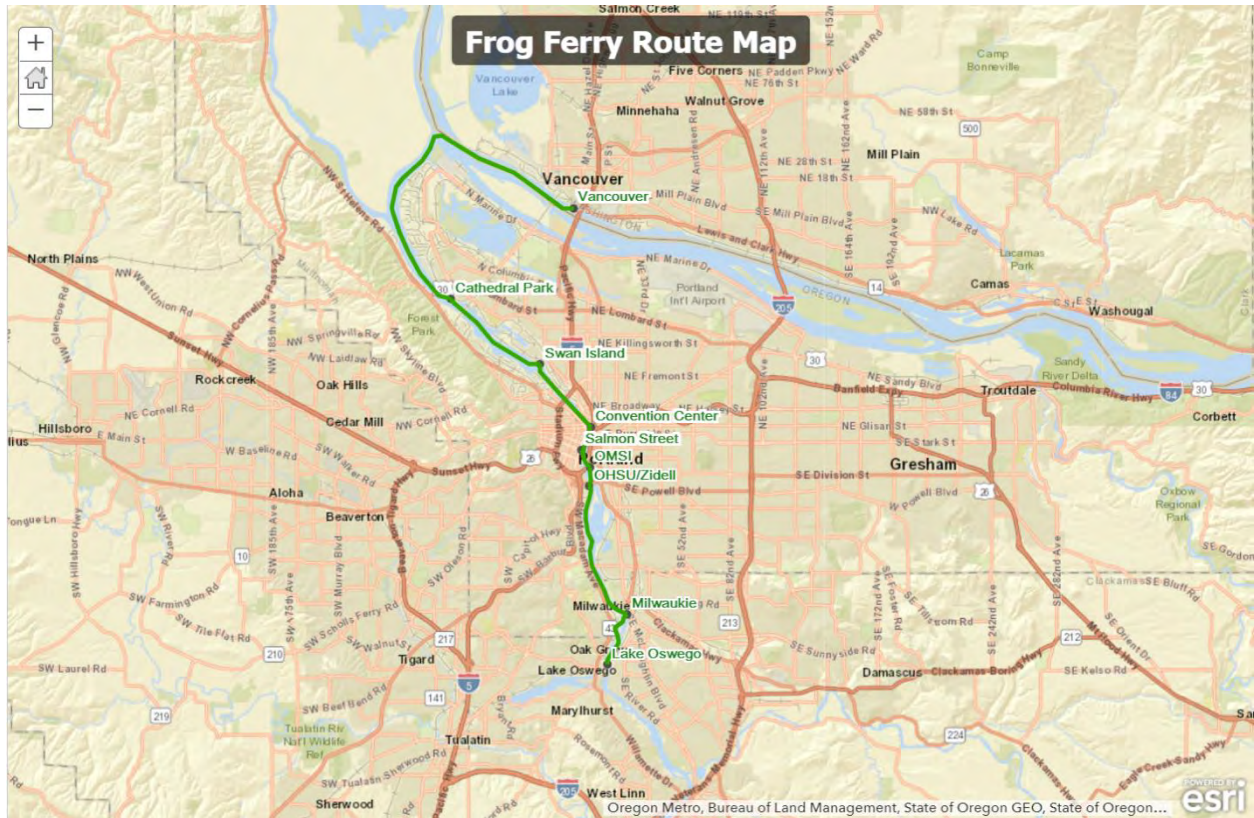
Credit: Rhonda Spencer

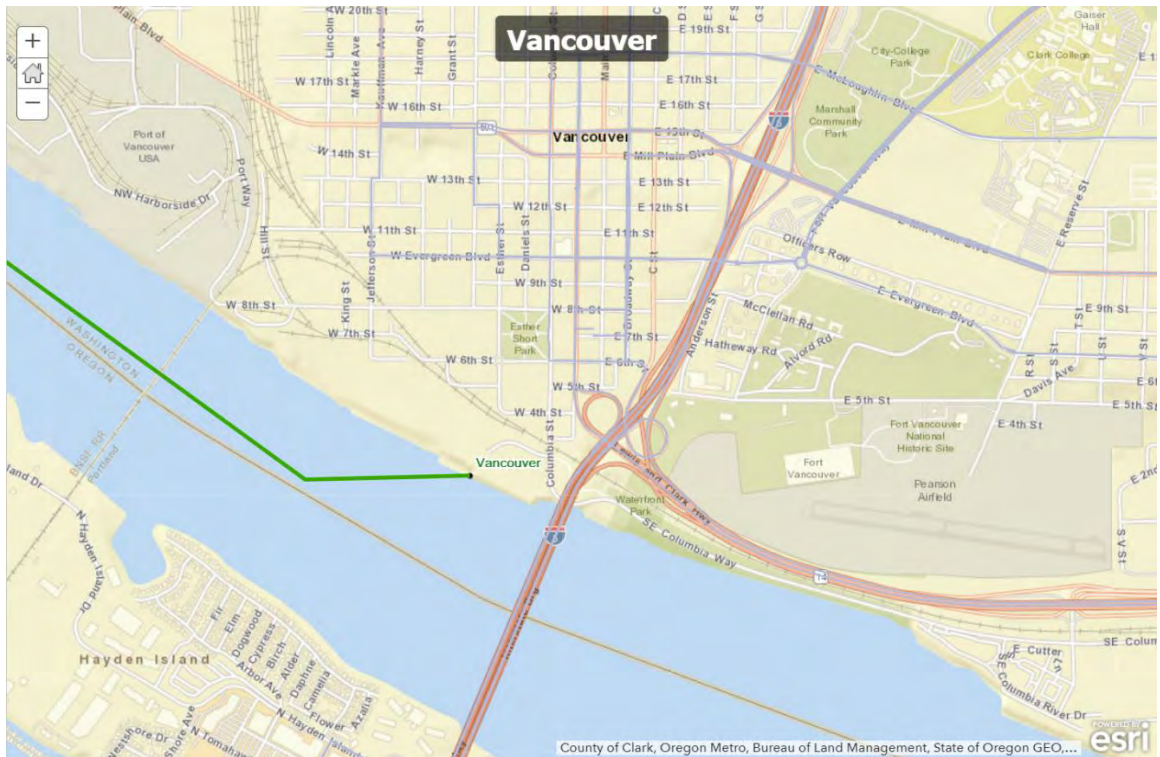
http://sunstoneoregon.com/gem/wp-content/uploads/2017/10/Ferry_Survey_2017.pdf

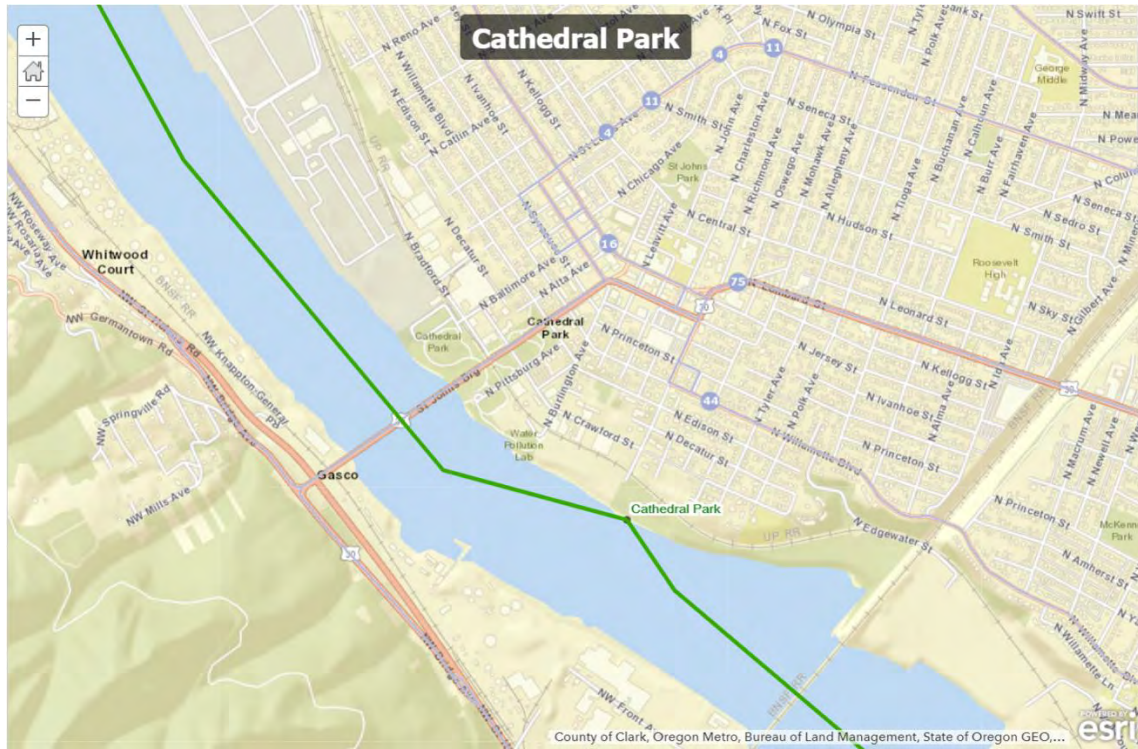
Exhibit 5 - Map of Proposed Route

Proposed Route 1.0, Route 2 and possible future Routes

Actual stops will be determined by demand modeling data.







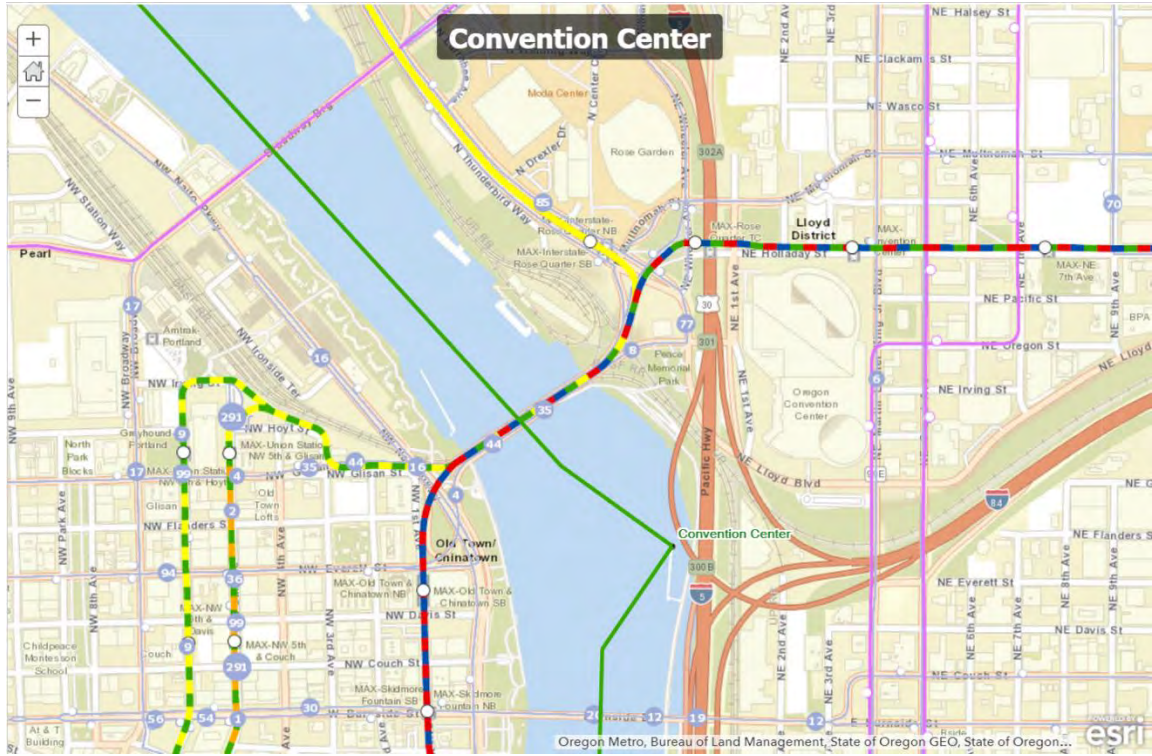


Exhibit 6: History

Exhibit 7 – Project Plan Time Table

PHASE 1: 2017 & 2018 Deliverable: Completed, a \$400,000 value

Concept Plan

- Situational Analysis
- Goals
- Routes 1.0, 2.0
- Transit Times
- Compilation of Research Studies
- Challenges: Why have previous attempts failed in the past
- Approach Principals

Project Management

- Created the Frog Ferry Team, comprised of industry experts
- Created the Frog Ferry Strategy Team, comprised of government affairs and public affairs experts
- Built stakeholder coalition of 180, to include many private sector companies located on the water
- Researched the findings of the 2006 Willamette River Passenger Ferry Service; we meet all criteria for service
- Proved there is a boat that meets environmental and mission challenges.
- Created website with aggregated content: letters of support, relevant studies, key contacts

PHASE 2: 2019 Project Plan and Deliverables (budget is \$650,000):

Partnership: Secure Fiscal Sponsor Greater Portland Inc: (GPPEA)

Partnership: Secure Public Transit Planning Partner for Federal Funding: (ex: TriMet, METRO, PBOT,)

Identify, outline, and develop the following reports

- **River Access Report:** Current access, permits, restrictions, gangways, parking, docks
- **Transit modeling Report:** Where are commuters coming from and going? Demand for all four target audiences
- **Operations Report:** Cap cost, op cost, insurance, fuel, maintenance plan, environ, equipment, certification
- **Economic Impact Report:** Benefit Cost Analysis: Resilience, health, user vs. non-user benefits. Cost per commuter mile
- **Case study Report:** ferry service models around the world.

Grow stakeholder group and secure commitments

- Federal
- State
- City
- Local/Regional
- Regulatory Agencies
- Native
- Private—corporate, investors, sponsors

Feasibility Studies

1. Demand Modeling: Points of Origination and Destination

2. Triple Bottom Line: Social Economic and Environmental Impacts

3. Operations Plan

Staffing requirements/training/headcount/shifts

Certifications

Maps, transit time estimates,

Routine maintenance schedule

Fixed and variable costs

Incident recovery plan

Maintenance plan

Total operational cost

Insure accountability with contractors for hiring, fair and equitable

Current Docks, location, functionality, governance, needed investment

Permitting/access by local municipalities: Detail of requirements

Right of way

River access report

Recommended gangway/cost

Parking locations

Modeling to show travel patterns from home to leave car to destination demand

Pedestrian connectivity

Equipment recommendation

Research 3-8 similar river ways and the equipment used (with travel)

Capacity passengers/bike storage

River debris

ADA

Speed

Insurance

Engines/noise

Wake

Maneuverability

4. Best Practice Passenger Service Case Studies

Research similar passenger ferry services

Research passenger ferry service trends

Customer service training
Ticketing: Integration with other transit systems, priority seating, disadvantaged passenger fees
Comparison of carbon emissions. Research to employ greenest technology possible.

PHASE 3: 2020 Project Plan and Deliverables:

Financial Plan and Funding Structure

- Timing of investment by municipality
- Participants: Public and private
- Subsidy plan and lobbying effort/bond
- Solicitation/securing of funds
- Create board and advisory board

Federal and State Funding Entities Report

- Federal:
- State
- Regional
- City
- Local

Private Sector Investment

- Initial investment
- Second investment
- Repayment plan
- Sponsors

RFPs

- Vessels
- Operators
- Design engineers

--Go/No-go Decision--

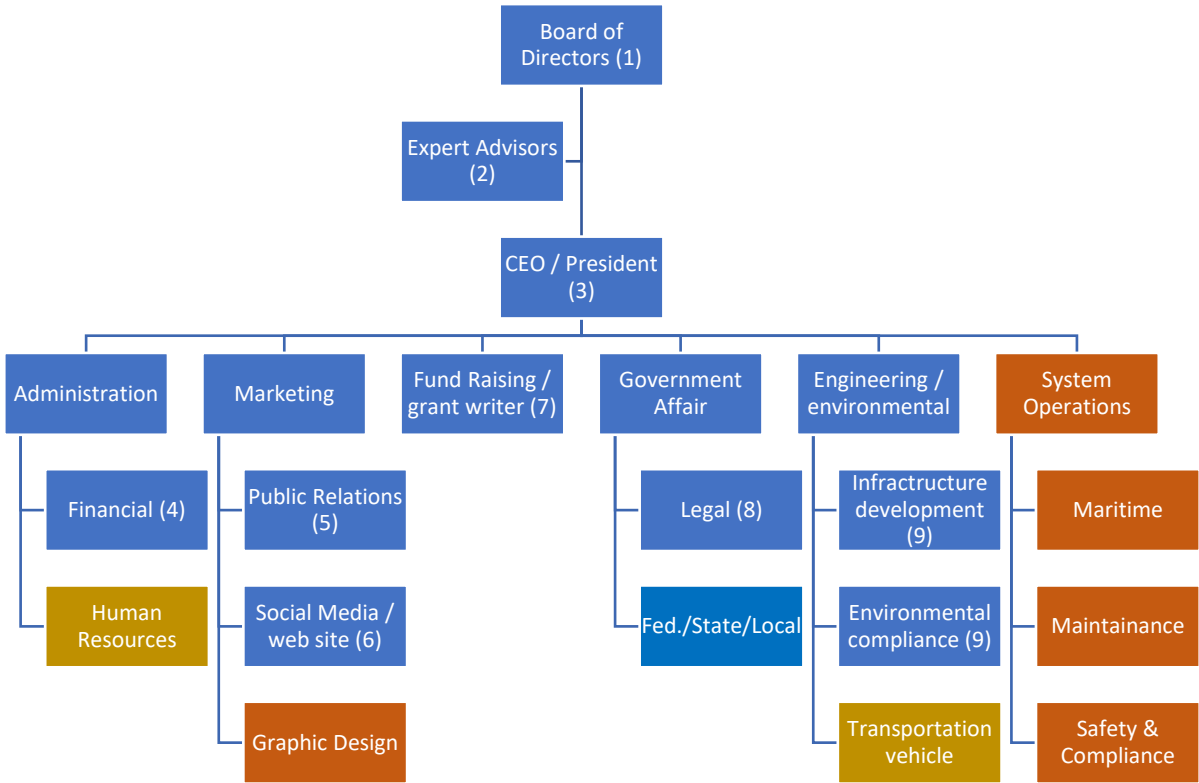
PHASE 4: 2021 Project Plan and Deliverable:

- Implement Operations and Financial Plan

June 2022

- Launch Service: Go live to public summer 2022

Exhibit 8 – Organizational Chart



2019
Phase 2

Current position in place: (1) [Board of Directors](#) ; (2) [Expert Advisors](#); (3) [Susan Bladholm](#); (4) Financials initial lead by [Scott South](#); (5) PR initial lead by [Sue Van Brocklin](#); (6) [Martin Stoll](#) with Sparkloft Social Media (7) (8) lead by [Elisa Dozono and Doug Morris](#) with Miller Nash ; and [Maren Calvert and Steve Horenstein](#) with Horenstein Law Group; Initially lead by [Andy Jansky](#)

2020
Phase 3

Roles of HR; additional Federal/State/Local governmental affairs, and Transportation maritime vehicle design will be initially managed by the Board of Directors and President. As needs increase for respective experts, these roles will be filled by other key people.

>2021
Phase 4

Near the end of this Business Plan actions is the development of a ferry system operational plan. At that point, key people with related expertise will be retained.