## Regional Mobility in Prince William Sound

March 2019

Report prepared for:

- Prince William Sound Economic Development District
- U.S. Department of Agriculture Rural Development

Report prepared by:
National Association of Development Organizations (NADO) Research Foundation


#### Abstract

Prince William Sound is an economically important body of water in Alaska that ties together five communities served by the Prince William Sound Economic Development District. Each community has its own economy, trends, and mobility needs, but they all share a community and economic development need to be connected to the rest of the state and beyond to access markets and essential services and to allow for the movement of people and goods. The communities have different transportation assets, including roads, rail, ferry service and other water transportation, commercial air service and general aviation, and pipeline. Ferry service plays an especially important role in regional mobility, providing transportation for workers, tourists and other visitors, residents, and businesses that connects communities in the Sound to one another and, by road, to Anchorage.

This report summarizes stakeholder feedback about uses of and significance of ferry service in Prince William Sound, as well as offers information on other ferry service institutional and operational arrangements as stakeholders in the region and across the state consider reforming and transforming ferry service. Potential funding sources and information on eligibility is summarized, and also provided as an appendix, which may guide the consideration of future plans for ferry service. With future regional transportation planning efforts likely to occur, this report also includes information on rural public involvement and stakeholder mapping techniques.


## Acknowledgements

The National Association of Development Organizations (NADO) Research Foundation would like to extend deep and sincere thanks to the Prince William Sound Economic Development District, including its members and staff. In particular, Executive Director Wanetta Ayers provided significant effort to make connections to local leaders and stakeholders and provide information about the region and its transportation needs. Joselyn Billoon, Alaska Department of Transportation, provided important context on statewide transportation issues and planning. Many individuals in area local governments, institutions and businesses, and residents also generously gave their time to talk with the research team about transportation needs. These contacts are not listed individually here because their responses are generally aggregated in this report, but their time is much appreciated, and the information was invaluable to understanding how location affects commute options and business models.

This report was authored primarily by NADO Associate Director Carrie Kissel and NADO Graduate Fellow Annie Dixon. Work was conducted under a contract from the United States Department of Agriculture Rural Business Development Grant Program. Any opinions, findings and conclusions, or recommendations expressed in this publication are those of the authors and do not necessarily reflect the views of the funding agency. Any mention of a specific company, product, or service in this report does not constitute or imply an endorsement by the research team.

## Contents

Abstract ..... 2
Acknowledgements ..... 2
Introduction ..... 4
Stakeholder Input ..... 5
Literature Review ..... 6
Municipal Port Authority: Inter-Island Ferry Authority ..... 7
Transit Case: Joint Operations in Sitka ..... 9
Local Government-run Ferry. ..... 10
Transit Agency-operated Ferry ..... 10
Transit Authority Public-Private Partnership ..... 11
Tribal Ferries ..... 12
State Agency ..... 13
Quasi-Public Agency ..... 14
Other Institutional Structures ..... 15
Potential Funding and Financing Programs ..... 16
Public Participation in Regional Rural Transportation Planning ..... 18
Mapping Partner Relationships and Connecting to Economic Development ..... 19
Conclusions ..... 21

## Introduction

Prince William Sound is an economically important body of water in Alaska that ties together five communities served by the Prince William Sound Economic Development District (PWSEDD). Each community has its own economy, trends, and mobility needs, but they all share a community and economic development need to be connected to the rest of the state and beyond to access markets and essential services and to allow for the movement of people and goods. The communities have different transportation assets, including roads, rail, ferry service and other water transportation, commercial air service and general aviation, and pipeline. Ferry service plays an especially important role in regional mobility, providing transportation for workers, tourists and other visitors, residents, and businesses that connects communities in the Sound to one another and, by road, to Anchorage.

The PWSEDD service area includes five communities, Chenega, Cordova, Tatitlek, Valdez, and Whittier, which are located on Prince William Sound, a body of water off the Gulf of Alaska. The Valdez-Cordova Census Area includes all five communities of the PWSEDD, as well as several other communities that are not located on Prince William Sound. In 2010, the total population of the Valdez-Cordova Census Area was 9,636 , of which 5,143 ( 53.4 percent) were male and 4,493 ( 46.6 percent) were female. The racial composition of the census area population is: white - 74 percent, American Indian or Alaska Native 13.6 percent, Asian - 3.7 percent, African American - 0.5 percent, and two or more races -7.2 percent. Hispanic or Latino residents of any race made up 3.6 percent of the region's population. ${ }^{1}$ The ValdezCordova Census Area's foreign-born population is estimated to be 458. Foreign-born residents are estimated to be from the following regions of origin: Asia -33.4 percent, Oceania -22.5 percent, Latin America - 21.6 percent, Northern America - 12.2 percent, Europe -10.3 percent. The region has an estimated 1,118 individuals, or 12.2 percent of the total population, who have a disability. This includes 6 percent of children under age $18,10.1$ percent of adults aged $18-64$, and 36.3 percent of adults over $65 .^{2}$

Major industries in the Prince William Sound EDD region include oil and gas production and distribution; seafood harvesting, production, and processing; tourism and outdoor recreation; and maritime transportation and services. ${ }^{3}$ These industries provide essential employment and business ownership opportunities for the region's residents, and large numbers of seasonal employees also participate in the regional economy. For example, numerous commercial fisheries are also based in the region, including many small, family-owned businesses, whose livelihoods are intertwined with that of the region. ${ }^{4}$ Representing the region's connection to a larger labor-shed, one large seafood processor, Trident Seafoods, has two shore plants in Cordova that process salmon with a combined peak seasonal employment over 500 workers. Transportation to Alaska and housing in a dormitory are available to workers from outside the region who complete the terms of their work agreement. ${ }^{5}$

[^0]
## Stakeholder Input

Through phone calls, site visits, and email interaction occurring from late 2017 through early 2019, the research team collected qualitative information from area businesses, local government staff and officials, and transportation users including school systems and residents within the Prince William Sound region. Stakeholders mentioned mobility needs tied to rural development and quality of life.

Business stakeholders and residents mentioned access to essential goods services that require reliable, affordable mobility options. For households, completing health appointments and conducting household shopping for items not available within the Prince William Sound region were best completed by ferry when possible, due to the price difference between traveling by air or water. Household ferry trips with a car raise the cost of riding, due to the need to pay for the car driver as a ferry passenger as well as for the vehicle itself, can simplify completing errands and trip-chaining to multiple sites. This is more difficult and expensive when individuals have to fly outside the Prince William Sound region to other areas such as Anchorage. Ferry service was reported as essential to the reliable and affordable movement of children and families for school events, including enrichment and sporting events at communities within and outside of Prince William Sound. Ferry service also plays an important economic role in supporting movement of seasonal workers such as those working in fisheries-related jobs, as well as an option to move product to market cost effectively.

Stakeholders report that they appreciate having access to both ferry and air transportation, although cost and reliability both present concerns. Ferry transportation has usually been less expensive than flying in and out of commercial airports in the region. However, but the ferry transportation has been unreliable at times, with regular maintenance periods changing the schedule for part of each year, with intense weather events causing planes to be grounded and certain ferry vessels to be periodically unable to operate on their regular schedule.

This feedback from Prince William Sound stakeholders matches that about the Alaska Marine Highway System (AMHS) from stakeholders around the state. The 2019 AMHS Economic Impact Report presents stakeholder quotes that reflect the significance of ferry service to recruiting and retaining employees and accessing a larger labor shed, retaining businesses and jobs in the region, and maintaining population. ${ }^{6}$

Due to the limited transportation access in the region, with few or no roads connecting communities, long distances, and expensive travel options, the Alaska Marine Highway System has provided a critical mobility option for residents and businesses in the Prince William Sound region. Because of funding and operational constraints of the statewide system, the region is exploring whether regionalization of the ferry service would provide any additional options, or if reforms to the statewide system offer new opportunities to improve service in the Sound while optimizing service statewide.

[^1]
## Literature Review

Currently, stakeholders in Alaska are undertaking the AMHS Reform initiative to consider an institutional and financial alternatives to the existing AMHS structures. The reform initiative has identified a need to stabilize funding and grow revenues in order to plan for consistent operational schedules, recommending that transitioning AMHS from a line agency to a public corporation. Public support of the ferry system is expected to be a necessity, since the cost of operations cannot be entirely recovered by farebox revenues under the scenarios modeled in the reform initiative. ${ }^{7}$ The reform initiative makes recommendations about increasing revenue from working with the tourism sector and freight transportation. Operations optimization and labor relationships recommendations provide opportunities to reduce costs. Other non-operating sources of revenue have been explored, including bonding, land grants, capital endowments, real estate leases, a transportation improvement district, and other sources. ${ }^{8}$ In 2019, the state of Alaska is seeking the services of a consultant to analyze options to reshape part or all of AMHS service, which may guide the implementation of any reform recommendations. ${ }^{9}$

The statewide reform initiative provides information on improvements that would benefit the entire state. However, even a reformed system might not provide for the level of service desired by stakeholders in Prince William Sound. To provide alternatives to relying on a statewide system, the research team conducted a search of literature related to providing ferry service, including reviewing online and print resources and conducting email and telephone interviews when possible. Many different institutional arrangements exist for ferry operation and decision-making. This includes developing a municipal port authority under Alaska state statute, joint agreement, state, regional, and local institutions. Outside of the Inter-Island Ferry Authority example, which is known to some stakeholders in Prince William Sound, few resources describing ferry and transit service were in places that were very comparable to communities in the Prince William Sound or the distances between them that the ferry must travel. The research team reviewed information relating to the following institutional structures (* indicates that short case information follows):

| Municipal Port Authority | $\bullet$ Inter-Island Ferry Authority* |
| :--- | :--- |
| Joint Operation of Transit | $\bullet$The RIDE in Sitka (transit rather than <br> ferry service)* |
| Department of Public Works | $\bullet$ Pierce County Ferry* |
| Transit Agency | $\bullet$ Kitsap Transit* <br>  <br>  <br> Tribe <br> $\quad$Beaver Island Transit Authority/Boat <br> Company* |

[^2]| State Agency | - Massachusetts Bay Transportation Authority* <br> - Washington State DOT |
| :---: | :---: |
| Other | - Casco Bay Ferry (quasi-municipal nonprofit corporation)* <br> - Fishers Island Ferry District* <br> - San Francisco Water Emergency Transportation Authority (runs SF Bay Ferry)* <br> - Steamship Authority |
| Private company | - Boston Harbor Cruises/City of Salem |
| Nonprofit | - Augusta Ferry |

## Municipal Port Authority: Inter-Island Ferry Authority

In Southeast Alaska, the Inter-Island Ferry Authority (IFA) operates daily ferry service between Ketchikan and Hollis, Alaska, on Price of Wales Island. IFA was established in 1997 under the Municipal Port Authority Act and began service in 2002. IFA's member municipalities include Craig, Klawock, Hydaburg, Thorne Bay, Coffman Cove, and Wrangell; previously Petersburg was also a member but withdrew in $2012 .{ }^{10}$

The six member communities each have one seat on the IFA board of directors, along with one at-large position. IFA is staffed by about 28 people, including a four-person leadership team consisting of the executive director, operations manager, financial manager, and terminal manager. IFA owns two vessels, $\mathrm{M} / \mathrm{V}$ Stikine (the primary vessel) and $\mathrm{M} / \mathrm{V}$ Prince of Wales (used as a back-up during maintenance). The second vessel was procured when IFA had been planning to establish a northern route between Coffman Cove, Wrangell, and South Mitkof, so that all of its member communities would be connected to a regional transportation network. ${ }^{11}$

IFA's farebox recovery rate on its operating expenses is around 85 percent. ${ }^{12}$ IFA also receives funding through the Alaska Department of Transportation, including Federal Transit Administration 5311 rural transit funds and Federal Highway Administration Ferry Boat Program funds. A grant from the Department of Veteran's Affairs supports travel for veterans using the ferry for medical trips. Other programs such as Medicaid support for non-emergency medical transportation also support eligible riders' fares and allow them to access essential services. Some funding programs require match which cannot come from passenger fares. ${ }^{13}$

Takeaways for Prince William Sound stakeholders: If communities in Prince William Sound decide to pursue a regionalized ferry service through the Municipal Port Authorities Act, stakeholders will need to consider issues that may differ from IFA as well as lessons learned, including the governance structure,

[^3]relationship to AMHS service, and ability of governments and partners to support ferry operations from local, state, federal, and other funds.

Governance: All five of the PWSEDD member communities receive benefit currently from having ferry service, but its effects are different for communities that also have roads in comparison to communities without roads. This might affect the governance structure and policies that are adopted by a municipal port authority. In current statute, tribes and other communities that are not organized as municipalities cannot lead the effort to establish a municipal port authority; but parallel language can be adopted by multiple municipalities to create a regional authority. Governance structures could be developed to ensure participation by entities that are not municipalities. Alternatively, a legal change could be sought from the state legislature to allow a tribe to participate in the authority.

The act requires that enabling ordinances be adopted by voters in the municipalities proposing to form and join the port authority, and that the board of directors composition, appointment or election process, and terms of service be clear in the ordinance. ${ }^{14}$ Because the composition of the board is left up to determination in the enabling ordinances, the statutory language may not prevent the local ordinances from providing for board participation from communities that are not organized as municipalities. This might be accomplished by the appointment of at-large directors, or a provision that members or governing councils of non-municipal communities could adopt a resolution in support of the enabling ordinance in order to participate in the port authority.

The governing board is tasked with appointing a CEO and adopting bylaws consistent with its enabling ordinance, including board meetings; any compensation for serving on the board; any committees; duties and tenure of officers, directors, and the CEO; procedures for adopting regulations and bylaws; and reporting and financial statements. ${ }^{15}$

Development plan: The act also requires that municipal port authorities submit a development plan to its governing body prior to beginning any construction or acquisition of a project, and all such projects must be included in the development plan. ${ }^{16}$

Relationship to AMHS service: IFA was formed in response to cuts to AMHS service that left the region underserved. Before deciding whether to provide ferry service through regional port authority in Prince William Sound, stakeholders should consider similarities and differences with IFA and its service area. For instance, AMHS service in southeast Alaska feeds some travelers to the IFA route because of their connection at Ketchikan. This has been a successful relationship for IFA's Hollis - Ketchikan route. IFA's northern route was planned to connect to a new AMHS route that was never implemented due to budget hardship at the state level, and the IFA northern route ended up being unsuccessful. ${ }^{17}$

Any new regional service in Prince William Sound would have a different operational relationship with AMHS than IFA does. If AMHS continued to serve the Sound with some ferry service, even on limited days or seasons, the regional service would operate in competition. If AMHS ceased to serve the region

[^4]entirely, regional service would not have the benefit of sharing passengers or facilities with AMHS, the way IFA does at Ketchikan.

Financial stability: IFA is currently operating in a position of relative financial stability, with a high rate of cost recovery for its operating costs. However, management reported that the operation is about as lean as can be, so any future reduction in funding or unexpected expenses would be challenging to offset. Also, continuing to operate and maintain two vessels with just one route offers reliability to the system, due to the availability of a back-up vessel during maintenance periods, but is very expensive. Over the long term, IFA may not be in a position to maintain the second vessel. ${ }^{18}$

The Municipal Port Authority Act clarifies that port authority owns its own debt, to be met with its assets or revenue, while the state and municipalities are not liable for the debts. However, IFA's current financial outlook might look very different without having had past support from the state to pay down its debt, including debt related to financing vessel acquisition. This level of state support might be less likely for any new regionalized services, particularly in times of concern over the state budget and revenues. Without a high level of state support for those necessary capital investments, regional ferry service might still be able to start up and operate successfully, but its path to self-sufficiency would likely look different from IFA's. This might require more investment from within the region.

Municipal port authorities themselves are not taxing authorities, but they can receive assets from the state, municipalities, private organizations or other entities. Municipal port authorities can lease or sell a project, which might allow for the generation of some revenue through a leasing arrangement with an outside entity. ${ }^{19}$

## Transit Case: Joint Operations in Sitka

In Sitka, public transit is provided through agreements among multiple entities, including a nonprofit, Sitka Tribe, and local senior services agency. This institutional arrangement allowed the partners to each capitalize on their various strengths and prior experience, as well as each accessing funding sources.

Public transit service began in 2002. The nonprofit Center for Community (CFC) serves as the lead administrative agency and contracts with the Sitka Tribe of Alaska (STA) to operate fixed route service known as the RIDE (formerly called the Community RIDE). Six vehicles are used on three routes. Four of the vehicles are owned by CFC and operated by STA, while the other two transit vehicles and a snowplow truck that is used to clear snow from transit stops and facilities are owned and operated by STA. CFC is eligible to receive FTA 5310 and 5311 funding to support capital and operating expenses, which support the contracts for service. STA is also eligible to receive FTA 5311 Tribal and BIA Tribal Transportation funds, which have supported transportation on the route known as the Green Line, which is open to the general public regardless of Tribal affiliation but serves Tribal housing, medical, and educational facilities on the route. CFC contracts with Southeast Senior Services to provide paratransit services; although funding for operating and administrative expenses is provided through CFC, Southeast Senior Services obtains its own grants for capital purchases of paratransit vehicles.

[^5]Financial stability of the services has been challenging at times, particularly as grant allocations have changed over time, including Tribal and non-Tribal funding sources. The City and Borough of Sitka have provided some funding and in-kind donations such as fuel and maintenance to support transit service, although maintaining balanced local government and school district budgets has also been challenging, with proposed reductions in personnel and services as well as deferred maintenance in recent years. ${ }^{20}$

Takeaways for Prince William Sound stakeholders: Although not specific to ferry transportation, this case demonstrates a successful method of dividing responsibilities to provide transportation. Each of the transit partners in Sitka has different strengths, and they can access some different funding sources. The partnership approach allows the entities to capitalize on all of these opportunities.

## Local Government-run Ferry

Pierce County Ferry (Washington)
The Pierce County ferry travels between Steilacoom and the islands of Anderson Island and Kertron Island and is run by the Pierce County Department of Public Works. The ferry receives funding from the county road fund, federal and state dollars including FTA 5307 (urbanized area funds), and fare revenue. The farebox recovery is not high enough to support operation of the ferry, so it receives subsidy from state and federal grants. The vessels and facilities are owned by Pierce County, but employees are contracted out and hired from a chosen company. During the summer season, many tourists use the service, but many locals also use the ferry to go to work on the mainland. The board of directors include at least three representatives of Pierce County including a representative of the airport and ferry facilities wing, Deputy Director of the Department of Public Works, and the Director of the Department of Public Works. The board also has representatives from the Anderson Island Citizens' Advisory board. There is no competition from other ferry services. And neither Anderson Island nor Kertron Island have bridges that connect to the mainland by road, so the ferry is the only connection service. Consequently, the ferry has high ridership, including by older adults and disabled individuals, although staff report that the ferry does not receive FTA 5310 funding. ${ }^{21}$

Takeaways for Prince William Sound stakeholders: This case shows how a local government could take on an ownership role in a ferry system, making it eligible to receive federal and state funding. Operation of the ferry occurs by contract. If this model were adapted to Prince William Sound, it might be possible to take advantage of workforce development efforts by the Native Village of Eyak or others to train individuals from the region, which may make it possible to form a local enterprise with the capability to operate a ferry that was owned by one or more municipalities or a municipal port authority.

## Transit Agency-operated Ferry

Kitsap Transit
Kitsap Transit is a publicly owned transit service established in 1982 (Public Transportation Benefit Area Authority, which allows for the collection of a local option sales tax to support transportation). Kitsap Transit operates buses, a carpool program, a vanpool program, and two types of ferries (fast and foot).

[^6]There is a ten-member Board with nine elected officials and a non-voting member (labor union representation). There are three members of the legislative body of Kitsap County; the mayor of Bremerton; the mayor/member of city council for Bainbridge Island, Port Orchard, and Poulsbo; a member of the Bremerton City Council; and an at-large member chosen by the Transit Board Chair. There is also a Citizen Advisory Committee comprised of ten different areas/groups. Kitsap Transit offers monthly passes and offers fast ferry, foot ferry, carpool, vanpool, and bus services. The ferry receives financial support from a .3 percent sales tax for ferry expenses only and part of a .8 percent sales tax for transit, which arose from the passing of a referendum. The fast ferry has operated for only one year, as of 2018. ${ }^{22}$

Takeaways for Prince William Sound stakeholders: This case shows the benefits of a local source of revenue in ensuring adequate ferry service to the region. Public Transit Benefit Authorities are enabled in Washington State statute at a rate of up to .9 percent and must be adopted by voters. In Alaska, municipalities are permitted to set their own sales tax rates, but there is no legal provision for a portion of that tax to be dedicated to transportation.

Governance of the agency is representative of the localities in the region, and the citizen's advisory committee ensures local input into the planning and operation of the ferry adopted by the board.

## Transit Authority Public-Private Partnership

Beaver Island Boat Company and Beaver Island Transit Authority (Charlevoix, MI)
The Beaver Island Boat Company (BIBC) started in 1984 with local residents of Beaver Island and Charlevoix, MI purchasing stock (individuals without property on either the island or in the city were discouraged from purchasing stock in the company via higher stock prices) when a private owner could no longer support the two ferries going to Beaver Island. A group of individuals in the Charlevoix/Beaver Island area then formed a company and sold about 60,000 shares of the company to local residents at $\$ 100 /$ share. This revenue helped the newly-formed company purchase the two boats from the previous owner and start the service.

In 1992, the Beaver Island Transportation Authority (BITA) formed as a public transit authority for two reasons. A transit authority would be eligible for more grants from federal and state sources than a private company, and since the transit authority movement was young, there was wariness of publicprivate partnerships with no oversight of contracted companies. When the BITA was operating fullsteam, BITA and BIBCO partnered to apply for grants to fund the purchase of a vessel known as Emerald Isle. The township in Charlevoix, MI started the transit authority and makes free appointments to its board of directors. The transit authority receives FTA 5311 dollars from Michigan's state allocation.

The service transports cars, motorcycles, bikes, and passengers to and from the island. The Beaver Island Transportation Authority owns a vessel that it helped the Beaver Island Boat Company service acquire to keep up with demand. According to the BITA website, the Michigan Department of Transportation Act 51 provides financial support for the service. BIBCO retains all revenues and pays BITA the local match of fifty percent for operating assistance and ten percent for capital grants. BITA receives state money and

[^7]pays for half of BIBCOs fuel. When BIBCO requires upgrades or fleet evaluation, it applies with BITA to receive money from the ferry boat discretionary fund.

The ferry competes for passengers with two airlines that service the island. There is also a freight barge that distributes freight to the island. But the ferry is the only reliable service for moving vehicles to Beaver Island. The ridership typically splits at a 65:35 ratio of tourists to locals, but the service helps locals in several ways. Local businesses benefit from the transport of passengers and freight that BIBCO provides, and locals may purchase tickets in the off-season to use during peak season when fares are higher. ${ }^{23}$

Takeaways for Prince William Sound stakeholders: This case accounts for investment by local stakeholders in the system, ensuring that the system is responsive to the needs of locals. It also demonstrates a public-private partnership model, where the public transit agency is eligible for funding that a private corporation would not be. If such a model were borrowed, the private sector partner could be organized as a cooperative, allowing for governance by the member-owners.

## Tribal Ferries

## Colville Tribe Inchelium Ferry (Washington)

The Colville Tribe operates a free ferry, the Columbia Princess, between Inchelium and Gifford on Roosevelt Lake (Columbia River) on the eastern side of the reservation. The ferry operates 7 days per week between 6:30 a.m. and 10:00 p.m. The tribe operates the ferry under a Public Law 93-638 contract. One round trip takes approximately 30 minutes. The ferry began operation in 1982. The Bureau of Indian Affairs (BIA) owns the ferry vessel, and the Colville tribes operate it. The ferry replaced an old barge that could not meet the vehicle capacity needs of the area. The BIA acquired money to construct a new ferry. The ferry cost $\$ 28$ million when purchased. In the past, the tribe has received Indian Reservation Road funding, which the Tribal Transportation Program has now replaced. The tribe recently received $\$ 940,000$ in Ferry Boat Discretionary funds to construct the new dock facility. The tribe receives money from the BIA and state DOT for operating the ferry. The Colville tribes are in the process of applying for the Consolidated Grant through the State of Washington to update some equipment.

The Confederated Tribes of the Colville Reservation has a business council that serves as the board. The Confederated Tribes of the Colville Reservation coordinates between many partners offering a variety of services, including Inchelium Ferry. The reservation has four legislative districts. Each district has a representative of the legislative district (except Keller) on the business council. The council also includes a Vice-Chairman of Health \& Human Services Committee Chair (Nespelem District Representative), Tribal Government Committee Chair (Inchelium District Representative), Community Development Committee Chair (Nespelem District Representative), Management and Budget Chair (Keller Representative), Employment \& Education Committee Chair (Inchelium District Representative), Natural Resources Committee Chair (Keller District Representative), Culture Committee Chair (Omak District Representative), Omak District Representative, Chair for the Tribal Government (Omak District Council Representative), Chairman (Nespelem District Representative), Law \& Justice Committee Chair,

[^8]Veterans, (Inchelium District Representative), and Secretary (Omak District Representative). Every year, seven new members replace seven members of the council.

There is another state-run ferry service nearby, but it does not compete with the tribal-run ferry. When the ferry closes at 10 p.m., a bridge 45 miles from the ferry route is the only option. ${ }^{24}$

## Chemehuevi Indian Tribe's Havasu Landing Resort and Casino (Arizona/California)

The Chemehuevi Indian Tribe operates a ferry service on Lake Havasu connecting California and Arizona. The ferry is connected to a consortium of businesses including a marina, casino, resort, and more. The Chemehuevi Tribe owns and operates all of the services, and the resort and casino split the cost of the ferry. The tribe has a council and executive committee that help oversee the consortium of businesses. The executive committee consists of a chairman, vice chairman, and secretary/treasurer. The tribe originally received several federal grants including grants to use specifically on the ferry. The ferry opened with the casino. It is unknown if they currently receive grants. The ferry travels 3.1 miles in about 18 minutes for a $\$ 2$ round-trip fare. The ferry comes every hour and only carries passengers. Tenets, tribal members and guests of the resort use the ferry service. The tenets serve as an additional form of income for the ferry. The tribe owns a parking lot on the Arizona side of Lake Havasu and charges residents of the California side to leave their vehicles on the Arizona side while riding the ferry back to California to their homes. The fare also helps support the operating costs of the ferry. There is no other ferry service in competition with the Lake Havasu ferry. The Chemehuevi Indian Tribe has already broken ground on a second casino/hotel combination set to open in 2019.

The ridership includes locals traveling to Lake Havasu City, AZ for goods and services, residents of the resort/casino goers, and schoolchildren. After a closure of a school in Havasu Lake, CA, an arrangement between the school corporation in Lake Havasu City, AZ agreed to allow the California students to attend school in Lake Havasu City schools. School children elementary through high school took the ferry twice daily across Lake Havasu to attend school. ${ }^{25}$

Takeaways for Prince William Sound stakeholders: These two cases operate with much shorter distances than travel within Prince William Sound, but they offer examples of tribal entities operating ferry services and accessing funding to support a combination of capital and operating expenses.

## State Agency

Massachusetts Bay Transportation Authority
The Massachusetts Bay Transportation Authority provides several transit services including a ferry with several routes. The ferry travels to several locations around the bay area and operates under the guidance of two boards: The Massachusetts Department of Transportation and Fiscal Management and Control Board. The governor established the Fiscal Management and Control Board early in his term when the entire public transportation system was experiencing financial hardship and disorganization.

[^9]The secondary board of finances appears to be dedicated to systematic reform of the MBTA while the MassDOT must cater to the needs of the state. The fiscal board has five members, and three are also members of the Massachusetts Department of Transportation (11 members). All board members are appointed by the governor. In 2018, the MassDOT board consisted of a chair, former lawyer, former transit consultant, former mayor of Braintree, former director of finance and treasury, former director of business council, and representatives of the police department, department of public works, school district, and Harvard Kennedy School. Customers may purchase individual tickets, monthly passes for the ferry, or monthly pass for all Massachusetts Bay Transportation Authority services.

In a 2012 report on funding, the MassDOT identified the FWHA Ferry Boat and Terminal Facilities Program, Seaport Advisory Council, MBTA capital funds, Steamship Authority Funding, and Municipal Funding as potential sources. MassDOT also reported a farebox recovery of 58 percent of total operating costs. A goal of the 2017 strategic plan was to generate $\$ 100$ million in non-fare in-house revenue with three strategies: Drive up advertising income using technology; Aggressively pursue real estate projects to drive both ridership (through Transit Oriented Development) and revenue; Increase parking revenue by optimizing both supply and pricing. The MBTA has also received grants for climate resiliency and homeland security. The MBTA finance board implemented a "lockbox" policy where a portion of state allocations immediately were placed in a lockbox to be used only for capital expenditure, which shifted allocated dollars away from operating costs. ${ }^{26}$

Takeaways for Prince William Sound stakeholders: This case presents potential opportunities to raise revenue from sources beyond passenger fares by analyzing assets that MBTA has or could have which might be monetized. Although these particular assets and monetization opportunities might not be the same for Prince William Sound due to limited availability of land, for instance, asset identification might assist with developing other ideas to generate revenue to support ferry service.

Quasi-Public Agency
The Steamship Authority (Massachusetts)
The Steamship Authority serves Cape Cod, Nantucket, and Martha's Vineyard and arose from legislation from Massachusetts as a quasi-public agency. It is the only ferry service that provides year-round ferry service, serving locals and tourists, to Martha's Vineyard and the licensing authority for passengercarrying vessels. Sean Driscoll, communications manager at The Steamship Authority, described the authority as a hybrid between a ferry service and port authority, and a lifeline to the island. The service has a high farebox recovery rate that supports its operations (ticket fares and the sale of concessions). The authority receives no state or federal funding and did not require large capital purchases when the authority formed in 1960 from a multitude of existing services. If it has deficit years, the service solicits money from taxpayers. It has limited competition as it is the only ferry that carries cars to the island, however other companies are competition for passengers. The board of directors has five members consisting of a Nantucket resident appointed by the Nantucket County Commissioners; a Martha's Vineyard resident appointed by the Dukes County Commissioners; a Falmouth resident appointed by the Falmouth Board of Selectmen; a Barnstable resident appointed by the Barnstable Town Council; and a New Bedford resident appointed by the Mayor of New Bedford, with the approval of the New Bedford

[^10]City Council. There is also an advisory council consisting of representatives from Barnstable; Fairhaven; Falmouth; Nantucket; New Bedford; Oak Bluffs; and Tisbury. ${ }^{27}$

Takeaways for Prince William Sound stakeholders: This case presents a governance model with a small board of directors, similar to IFA, that represents the communities that use and support the ferry service. However, it would be likely be difficult to borrow the model of seeking extra taxpayer support in deficit years, as local governments in Alaska seem likely to also experience funding constraints that would make it difficult to supply funding for a service that was not budgeted in advance and on a consistent basis.

## Other Institutional Structures

Fishers Island Ferry District (New York)
The Fishers Island Ferry District includes ferries and charters traveling between Connecticut and Fishers Island, NY. The ferry accommodates passengers, bicycles, freight, and commercial vehicles including semi-trucks, rolloffs, and more. The ferry district and service began after the passage of the Enabling Act by the state of New York that detailed how the ferry would run. The Enabling Act established funding through "taxes levied for the fiscal year in which such expenditure is made; from surplus funds, or from the proceeds of town obligations to be issued and sold in the manner provided by the local finance law" and also required, in writing, that the ferry district would acquire and operate the airport located on Fishers Island (owned by the Town of Southold). The Enabling Act also outlined funding from borrowing from the town and the issuance of a referendum of households within the district. The board has five members who are residents of Fishers Island. The district lists nearby services as connection points such as light rail and also provides information on other ferry services in the area traveling outside of the district (e.g., a ferry to Martha's Vineyard). According to an audit by the State of New York, the district's costs in 2014 were $\$ 3.5$ million with its revenue at $\$ 3.6$ million. By law, there was $\$ 4.5$ million available for the district to use. Eighty percent of the ferry's operating costs come from ticket revenue with the other twenty percent coming from the property taxes in Southold, NY. Of the 112,000 annual riders, a majority come during the peak season where fare rates are higher. The ferry receives no federal dollars. ${ }^{28}$

Takeaways for Prince William Sound stakeholders: This case considers local sources of revenue that can support the establishment and operation of a ferry. Fishers Island Ferry has nearly the same amount of farebox recovery as IFA, but distances and operating costs would be much shorter than those in Prince William Sound.

## San Francisco Water Emergency Transportation Authority (California)

The Water Emergency Transportation Authority or WETA began with the absorption of several ferry services in the San Francisco bay area and currently operates the San Francisco Bay Ferry. The legislation establishing the authority derives from a need of regionalism and emergency plan highlighted in the following quote: "...the Legislature created the San Francisco Bay Area Water Transit Authority for the purposes of preparing a bay area water transit implementation and operations plan and operating a comprehensive regional public water transportation system." WETA is technically a form of regional

[^11]government. Eleven board members sit direct the authority with the following nomination criteria: Eight of the members shall be appointed as follows: (A) Four members shall be appointed by the Governor. (B) Two members shall be appointed by the Senate Committee on Rules. (C) Two members shall be appointed by the Assembly Committee on Rules. The remaining three members will be members of the community advisory committee. WETA receives state bond funds, federal funds through FTA, local county transportation funds, bridge toll revenue and farebox revenue to sustain its operations. The farebox recovery rate is around $60 \%$ currently. Several ferry services operate in the Bay Area, and SF Bay Ferry shares ports with several of these other services. The Golden Gate Ferry service and Blue and Gold service share ports like the Port of San Francisco and Pier 41. However, they service areas that WETA's Bay Ferry does not. The Blue and Gold website even directs commuters to the Bay Ferry schedules if visitors are not interested in the tourist services of Blue and Gold. The other ferry services tend to cater to tourists. San Francisco also has the BART and Muni systems that are two light rail and bus transit systems operating in the area, but they only service some of the same areas that the SF Bay Ferry services (Oakland).

The responsibilities of WETA include operating the San Francisco Bay Ferry and preparing for a state of emergency in the bay area. This preparation for an emergency involves studying action plans, coordinating with all public and private ferry/boat operators in the area, being the lead organization in a time of emergency, and writing an emergency plan. The legislation outlines WETA may use all direct and indirect state/federal funds to bettering the public transportation ferry service and preparing for emergency protocol, but the legislation does not provide information on the application or reception of funds specifically for emergency preparation. ${ }^{29}$

Takeaways for Prince William Sound stakeholders: This case demonstrates that other entities with responsibility for transportation, such as emergency transportation in this case, but that have not traditionally been involved in ferry service can successfully take on operation of the ferry.

## Potential Funding and Financing Programs

The research team examined several federal funding programs that might assist with some of the costs of developing and providing ferry service to the region. These include funding programs from a variety of transportation agencies, which each have different eligible applicants and project types. A short summary of some of these programs follows, although more information on funding streams and eligible uses is provided separately in spreadsheet format.

Flexible funding sources for transportation across modes and communities include Federal Highway Administration (FHWA) Surface Transportation Block Grants, which are programmed through the statewide planning process and included Statewide Transportation Improvement Program. These funds have very broad eligibility across various project types and modes of transportation, which makes them very flexible to use but means many projects will be in competition for those funds.

Although the total available funding is small, FHWA Federal Lands Access Program funds could support a ferry-related project because the communities in the Prince William Sound region are all gateway communities to the Chugach National Forest. This funding source has periodic, rather than annual, calls

[^12]of projects, and the match rate is 9.3 percent for most projects, lower than many other federal programs.

Ferry service is eligible for Federal Transit Administration (FTA) Section 5311 funds, for rural public transportation. FTA 5311 funding can be used for rural transit operating expenses with a 50 percent match required, and for capital expenses with a 20 percent match rate. FTA considers ferry systems to be a type of "fixed guideway" transit (along with other modes such as rail, light rail, or bus rapid transit), and as a result, Capital Improvement Grants may be available for ferry-related projects.

Programs that subsidize or reimburse passengers' fares are often an important part of the financial picture for ferry and transit agencies, even if the agencies themselves are not direct recipients of those state or federal funds. This may include non-emergency medical transportation support provided through Medicaid, Veteran's Affairs, transportation support provided through Temporary Assistance to Needy Families, or at the state level through programs such as the Alaska Mental Health Trust Program.

Funding programs that are described here are already granted to the State of Alaska or recipients within the state. This means that funding applications for a any new ferry service within Prince William Sound, above the level of service already provided through the AMHS, will compete with other existing funding applications from around the state.

Many federal funding programs require a non-federal match. In some cases, state funds may be available as match, but localities often commit their own funds in order to access the larger share of federal funds. Localities in Prince William Sound already have fee structures and budgets in place to collect revenue and provide services. If increased local financial support for a regional ferry service were needed to maintain or improve ferry service, it would require analysis of how to collect additional revenue or re-prioritize.

One local revenue option could be that communities within Prince William Sound that have lodging facilities might consider whether applying revenue from a bed tax or increasing the bed tax rate might be appropriate. Such fees might capture some of the economic activity related to intercity travel in Prince William Sound and could return it to invest in the operation of the regional transportation network including local support for the ferry system. Bed taxes and other tourism-related fees are often used for tourism promotion activities, transportation, and tourism amenities such as parks. The Cities of Valdez and Cordova have adopted a bed tax already, at 8 percent and 6 percent respectively. ${ }^{30}$

Another possible course of action would be to pursue assistance from the Federal Highway Administration to consider options for implementing value capture techniques. Value capture represents a mechanism for generating revenue from the benefits that accrue in communities as a result of transportation investment. Several value capture mechanisms exist and have been applied in different types of community contexts with revenue that supports different kinds of transportation projects. Value capture techniques that may be worth considering in Prince William Sound communities could include transportation utility fee (utilized in small cities in Oregon, although the concept would

[^13]need to be adjusted to account for ferry service rather than roadway trip generation estimates), or naming rights of certain facilities. ${ }^{31}$

Other states have adopted some state-specific legislation that support various aspects of ports, working waterfronts, and related issues. These have been briefly reviewed in the publication State Funding for Ports: Selected State Summaries and Links to Resources. ${ }^{32}$

## Public Participation in Regional Rural Transportation Planning

As the region looks to develop a new comprehensive transportation plan, the Prince William Sound Economic Development District and local governments it serves are likely to play an important role in conducting outreach to stakeholders about opportunities to weigh in on transportation issues and priorities during the planning process and next steps.

Public participation plans guide the engagement effort to gather feedback from residents, business owners, communities, and interest groups from a region where a planning process is being conducted. The public participation plan, as an aid to other planning, is often a short document that describes the framework for planning including ongoing and periodic planning processes the public can participate in, as well as the goals of public outreach, strategies to conduct engagement, and measures of success as appropriate.

Public engagement represents an opportunity to educate stakeholders about transportation processes (including planning timelines, how projects are funded, and cost ranges for proposed projects) as well as ask them about needs. Traditional public involvement methods often include holding a special public meeting or requesting public comment during regularly scheduled meetings, as well as requesting comments in writing or online through a survey or in response to a draft document. These methods typically get some response, but often they are from people who are already well-connected in the community and know the importance of public processes.

Media placement can get the word out about opportunities to engage, including radio or television advertising. Social media advertising or search ads can be inexpensive or free for nonprofits (such as the Google ad words program for nonprofits), and can be targeted toward people based on their geographic location. Earned media, such as articles in local media outlets or mentions and shares on social media, can be inexpensive ways to get out the word about public participation or share websites, events, or online forms.

Other methods that may work well to engage more people include distributing surveys (or flyers with an invitation to online survey) at school for children to take home to parents, or using inserts in utility bills (particularly if a utility is locally owned and will not charge a fee for the service). Setting up a booth or a table at a special event can provide a space to talk with residents and ask them to share information by marking priorities with dot stickers on large paper or a poster, or writing their thoughts on sticky notes. Temporary public art, such as sidewalk chalk or washable window crayons used at a public facility or an empty storefront in a prominent location, can be used to get people to write or draw things of

[^14]importance to them in a fun and engaging way over the special event timeframe. Such special events could include community festivals (where visitors and residents could use different colors of sticky notes or dot stickers if desired), or school events including athletic games or tournaments, or anywhere else that people gather. With permission from business managers, signs or flyers about opportunities to provide input might be able to be posted in places used by many residents, including grocery stores, restaurants, or health clinics. AMHS staff might be willing to share printed information with ferry passengers for a period of time, or allow a sign about the planning process somewhere that passengers would see it.

Transportation intersects with economic development and other issues that already have a planning process. It can be useful to gather feedback on overall community and regional visions, as well as specific topic areas such as transportation concerns, to apply to multiple planning processes such as a regional transportation plan and the regional CEDS to the extent that it is practical. This can help to mitigate "planning fatigue" that stakeholders and regional leaders alike can feel.

Additional resources on public involvement include the Orton Family Foundation through its Community Heart and Soul process (https://www.orton.org/), FHWA public involvement resources (https://www.fhwa.dot.gov/planning/public involvement/ and https://www.fhwa.dot.gov/planning/public involvement/vpi/index.cfm), and the Transportation Research Board's Standing Committee on Public Involvement (https://sites.google.com/site/trbcommitteeada60/).

## Mapping Partner Relationships and Connecting to Economic Development

Any potential institutional changes or service changes for ferry travel in Prince William Sound should be based on a clear understanding of demand and the interests of stakeholders in supporting service. Analyzing stakeholder relationships through mapping can be a useful start for thinking through service delivery options.

A value chain is a type of network formation where parties are working toward common goals as well as their own interests. Value chains organize demand, supply, transactional partners, and support partners so that parts of the network get to know each other, which is different from a traditional supply chain. Value chains are most often used in private sector job creation strategies, to develop economic activity in a variety of sectors such as agriculture, manufacturing, tourism, arts and culture, and more.

However, increasingly value chain partners are working together to analyze how demand can be met for services, including public services such as equitable access to healthy foods and stable housing. Transportation is beginning to be considered from a demand-driven, value-chain orientation in some places. To support partner mapping, a draft value chain has been delivered to Prince William Sound Economic Development District to think through potential partnerships and opportunities to provide service. A stakeholder mapping exercise that can be used in group workshops is available online at https://www.wealthworks.org/sites/default/files/resources/Value\ Chain\ Mapping.pdf.

Stakeholder mapping begins by analyzing demand for a product or service, such as intercity travel in Prince William Sound. Demand includes all consumers or customers and potential customers. Local demand includes residents in Prince William Sound communities; business owners and managers located in or doing business in the Sound (seafood harvesting, production, and processing; hospitality and services; outdoor recreation, tourism, and arts and culture sites and organizations; healthcare
providers; retail; and other sectors); institutions such as schools, research facilities, churches, and other groups; and other locals that have a need for travel within Prince William Sound, to Anchorage, or to other destinations. Travelers to Prince William Sound communities include workers traveling to jobs and other types of business trips; tourists from elsewhere in Alaska or outside the state; groups and individuals traveling to events such as meetings, conferences, and school events; visitors making personal trips to maintain social ties; and other travelers.

These different types of potential intercity transportation customers have different reasons for traveling, but they all desire safe, affordable, and reliable transportation. Some customers have a choice of transportation mode, such as air, water, or roadway access for certain locations. As stakeholders in Prince William Sound map their stakeholder relationships, identify whether there are opportunities to increase demand. How can demand be cultivated, such as through tourism initiatives that emphasize the experience of traveling on the water? Are there barriers to local businesses or residents using the ferry more extensively?

The literature review shows that the function of providing ferry service could be fulfilled by multiple different entities. In the context of stakeholder mapping, regional leaders can ask whether different scenarios regarding who operates a ferry affect demand? It would be difficult for a private entity to provide service without a subsidy; a public-private partnership would provide more flexibility than a private sector firm on its own, and other public sector options would also be eligible for other combinations of capital or operating support in the form of federal or state grants and loans. Who are the potential operators of a ferry system identified in stakeholder mapping? Could more than one entity provide different types of functions that are essential to providing the service?

In a stakeholder mapping exercise, Prince William Sound regional leaders should also identify support partners, and how they would provide support. Support partners and investors might provide information, regulation and oversight, supportive policies, skill development, and research. Would support partner relationships change based on the institutional arrangements for providing or governing ferry service?

Beyond the travelers themselves, who else benefits from reliable, affordable ferry service? These are all potential investors. For instance, would firms whose business relies on reliable ferry service be willing to support the operation of the ferry in some way? This might include tourism-based businesses paying to advertise on the ferry or offering discounted services or experiences for ferry riders coming into Prince William Sound, to incentivize using the ferry over other modes. Financial services firms, insurance, or others that rely on a well-functioning economy might be interested in advertising or sponsoring the naming rights of some aspect of ferry service. Other public agencies and government offices might see ferry advertising as a way of marketing their programs to the public. If there were an opportunity to develop any services near the ferry terminals in Prince William Sound communities that provide a benefit to ferry system users, the development might represent an opportunity to raise revenue through a lease or sale of space in or near the terminal or a commission on goods and services sold there.

Investors also might be entities that are able to provide grants, loans, operating subsidies, sponsorships, or other financial support. Some entities might serve multiple functions in the transportation network, as both support partners and investors. This could include state agencies that are a conduit for funding
as well as provide information and technical assistance, or legislators that make decisions about state appropriations and supportive state policy.

Other outside partners might also be a part of the value chain, even entities that might be considered "competitors" to successful ferry service in the region, such as transportation on other modes. There may be opportunities to consider how "coopetition" (cooperation among competitors) can increase the success of multiple parties. For instance, could initiatives aimed at increasing overall travel demand in Prince William Sound improve outcomes for ferry ridership, airline passenger enplanements, or services provided to users of other modes?

As the statewide system considers reforms and regional stakeholders consider how best to ensure that mobility needs are met, selecting strategies to improve regional ferry service might involve starting up a new service. As regional leaders move forward with considering institutional and operational arrangements for ferry service in Prince William Sound, consider questions such as: What institutional and operational arrangements offer access to funding streams and expertise? Do some operator options offer relationships with value chain stakeholders that others do not? What governance arrangement builds local ownership and control into the ferry service (this can include institutionalizing feedback mechanisms into non-local ownership and operation of the ferry)? How can broad benefits to communities be generated and tracked?

In a service that provides a public good such as public transportation, subsidy is often required to ensure the financial stability of the service. Grants may be available to assist, but most grants require a state or local match, and the desired level of service might require raising funds beyond the minimum required for matching funds. Beyond farebox recovery, what public benefits are provided to the region, how are those benefits being tracked, and how do they relate to issues that generate public support for continued operating assistance? In addition to more traditional metrics such as passengers, vehicles, and the amount or value of cargo, ferry stakeholders can adopt metrics related to forms of community capital, such as individual capital (health and wellness, skill development, job access); social capital; political capital (this can include the policies of businesses and institutions, beyond forms of government policy); intellectual capital (how mobility affects the transfer and adoption of new ideas); natural capital (preserving the quality of working water, air, and land assets); cultural capital (celebrating the evolving regional identity, community gatherings, special events, or festivals); financial capital (supporting family economic success and business resilience); and built capital (providing a mobility option for the region).

## Conclusions

Due to budget constraints in transportation and other funding at the federal and state levels, communities and municipalities face significant challenges in adequately addressing their residents' needs, including for mobility and other public services. Ferry service in Prince William Sound was documented by stakeholders as being essential to quality of life and commerce. There are no simple steps for moving forward with improving ferry service; however AMHS reform and options for regionalizing service may both provide opportunities to ensure that ferry service meets needs in an affordable and reliable way.

Robust engagement processes can gather valuable information from stakeholders as well as provide an opportunity to educate about transportation processes and funding. This might lead to a productive public discussion about trade-offs of different funding, operational, and ownership or institutional governance scenarios. Stakeholder mapping can be a useful way to identify who has an interest in ferry service in the region, what their interest is, and what they may be able to invest in the service in terms of expertise, ridership, financial support, or other resources.


[^0]:    ${ }^{1}$ U.S. Census Bureau. Census 2010. American FactFinder, factfinder.census.gov.
    ${ }^{2}$ U.S. Census Bureau. 2013 - 2017 American Communities Survey Estimates 5-year Estimates, https://factfinder.census.gov
    ${ }^{3}$ Prince William Sound Economic Development District (PWSEDD) (2016). Sound Opportunities: Economic Growth in the Prince William Sound Region.
    ${ }^{4}$ Copper River Prince William Sound Marketing Association, https://www.copperrivermarketing.org/
    ${ }^{5}$ Trident Seafoods (n.d.). "Our Plants: Trident Seafoods Shoreside Processing Facilities,"
    https://www.tridentseafoods.com/Our-Story/Our-Plants

[^1]:    ${ }^{6}$ McDowell Group (2019). The Economic Impacts of the Alaska Marine Highway System, http://www.amhsreform.com/sites/amhsreform.com/files/House\%20Informational SEC McDowell\%20Group\%20 AMHS\%20Impacts\%202.5.19.pdf

[^2]:    ${ }^{7}$ Elliott Bay Design Group (2017). AMHS Reform Phase Two Report, http://www.amhsreform.com/sites/amhsreform.com/files/AMHS\%20Reform\%20Phase\%202\%20Report\%20Rev\%20\%28wAppendices2\%29.pdf
    ${ }^{8}$ Elliott Bay Design Group (2017).
    ${ }^{9}$ State of Alaska, Department of Transportation \& Public Facilities (2019). Informal Request for Proposals: Alaska Marine Highway System Economic Reshaping Consultant, http://www.amhsreform.com/sites/amhsreform.com/files/RFP\%202519S079\%20AMHS\%20Economic\%20Reshapi ng\%20Consultant\%20\%26\%20Attachments.pdf

[^3]:    ${ }^{10}$ Dennis Watson (2012). "The Inter-Island Ferry Authority from concept to the present"
    ${ }^{11}$ Personal communication with Dennis Watson
    ${ }^{12}$ Inter-Island Ferry Authority By the Numbers 2016, http://www.raincoastdata.com/sites/default/files/IFA\%20publication\%202016\%20Final\%20Feb\%208.pdf
    ${ }^{13}$ Personal communication with Dennis Watson

[^4]:    ${ }^{14}$ AS 29.35.600-29.35.730
    ${ }^{15}$ AS 29.35.600-29.35.730
    ${ }^{16}$ AS 29.35.600-29.35.730
    ${ }^{17}$ Dennis Watson (n.d.) "The Inter-Island Ferry Authority from concept to the present"

[^5]:    ${ }^{18}$ Personal communication with Dennis Watson
    ${ }^{19}$ AS 29.35.600-29.35.730

[^6]:    ${ }^{20}$ Public Transportation in Sitka, Alaska: https://ridesitka.wordpress.com; Sitka Public Transit-Human Services Transportation Coordinated Plan for 2015 - 2019; and http://www.cityofsitka.com/government/departments/finance/index.html
    ${ }^{21}$ Personal communication with Pierce County Transit Staff; also https://www.co.pierce.wa.us/1793/Ferry

[^7]:    ${ }^{22}$ Personal communication with Darell Brian and Sanjay Bhatt; also http://www.kitsaptransit.com/agency-information/about-us

[^8]:    ${ }^{23}$ Personal communication with BIBCO staff; also https://www.beaverislandtransportationauthority.com/; https://www.bibco.com/about-us/our-history/

[^9]:    ${ }^{24}$ https://www.fhwa.dot.gov/tribal/tribalprgm/govts/colville.htm; https://www.colvilletribes.com/transit-inchelium-ferry/
    ${ }^{25}$ Personal communication with Human Resources of Havasu Landing Resort and Casino; also http://www.havasulanding.com/ferry.html; https://nativetimes.com/current-news/49-life/people/3536-ferry-eases-commute-for-students-in-lake-havasu

[^10]:    ${ }^{26}$ https://www.mbta.com/

[^11]:    ${ }^{27}$ Personal communication with Sean Driscoll; also https://www.steamshipauthority.com/; http://www.capecodtimes.com/news/20180619/seattle-consulting-firm-hired-for-steamship-authority-review
    ${ }^{28}$ Personal communication with Fishers Island Ferry staff; also https://www.fiferry.com/

[^12]:    29 https://weta.sanfranciscobayferry.com/

[^13]:    ${ }^{30}$ Office of the State Assessor. Alaska Taxable 2018, https://dcced.maps.arcgis.com/apps/MapJournal/index.html?appid=3bfb4237e6304f9aa4029a01715e15f9

[^14]:    ${ }^{31}$ FHWA (2019). Value Capture: Capitalizing on the Value Created by Transportation, https://www.fhwa.dot.gov/innovation/everydaycounts/edc 5/value capture.cfm
    ${ }^{32}$ Boswell-Ebersole, Alexander and Thomas T. Ankerson (2013). State Funding for Ports: Selected State Summaries and Links to Resources, https://digitalcommons.library.umaine.edu/seagrant pub/62/.

