
June 2023

Prince William Sound Ferry Authority Feasibility Study

PREPARED FOR:

Prince William Sound Economic Development District



McKINLEY RESEARCH
GROUP, LLC

Celebrating 50 Years

Purpose

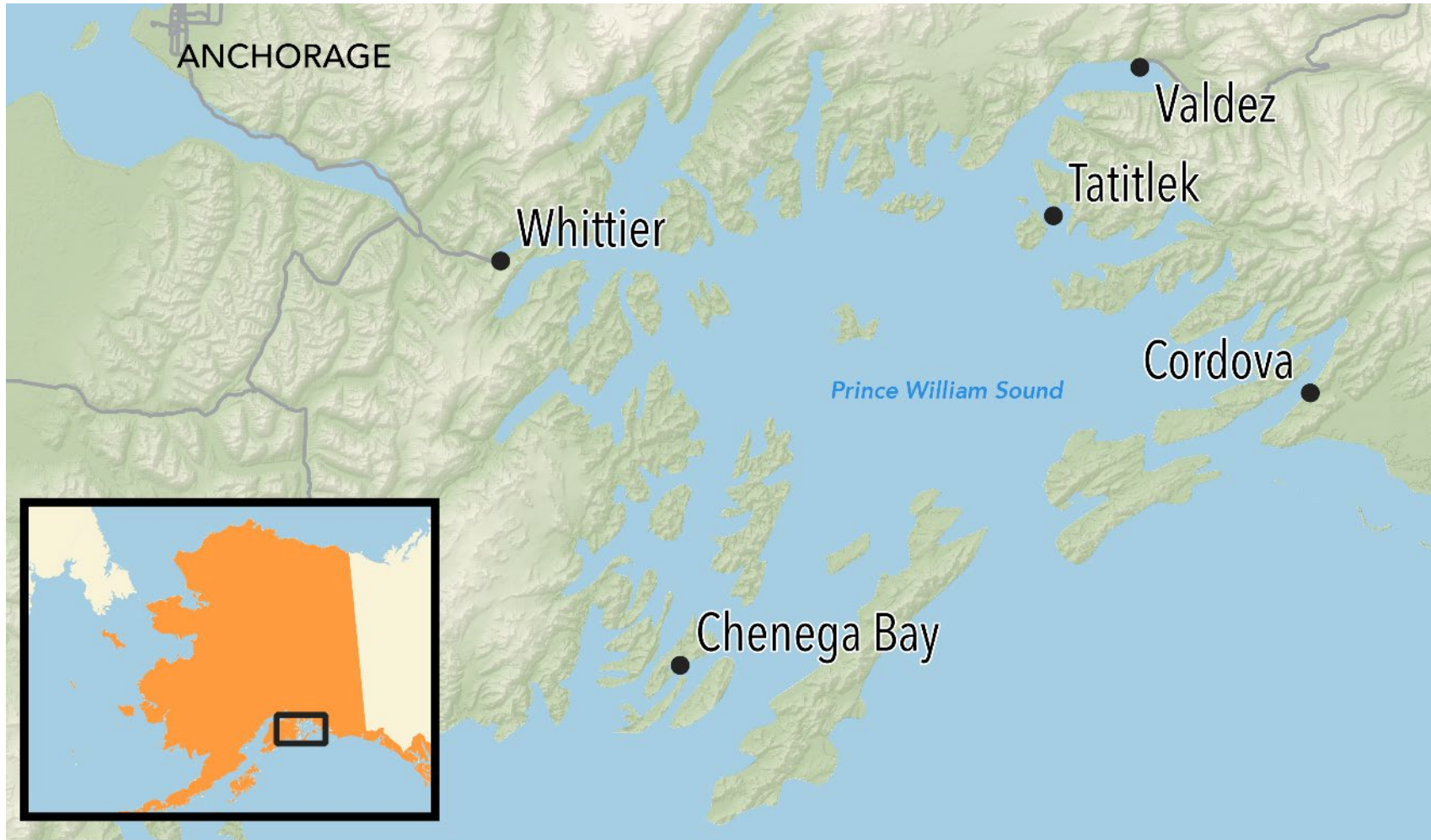
- To assess the viability of a regional ferry authority to provide reliable and sustainable ferry service in the Prince William Sound that meets community needs.
- Context:
 - Declining state support for AMHS
 - Increasing service disruptions



Scope of Work

- Analysis of historical AMHS traffic and revenue data for PWS
- Analysis of PWS ferry service operating costs
- Vessel construction/acquisition costs
- Analysis of operating and non-operating revenues
- Pro forma annual cash flow and risk analysis
- Public engagement
 - Stakeholder interviews
 - Community and Tribal council meetings
 - PWSEDD guidance

Study Area



Route Distances, PWS

Port Pair	Nautical Miles
Cordova-Whittier	97
Valdez Whittier	78
Cordova-Valdez	74
Chenega Bay-Whittier	67
Tatitlek-Valdez	22
Tatitlek-Cordova	50

Study Area

Prince William Sound Community Populations and Trends, 2022

Year	Chenega Bay	Cordova	Tatitlek	Valdez	Whittier	Total
2022	59	2,566	81	3,950	253	6,709
Change since 2010	-22%	+15%	-8.0%	-0.1%	+13%	+1.7%

- Regional population almost 7,000
- Overall slight growth over last decade
- AK Dept. of Labor projects long-term population decline in the region (0.5% loss over 20 years)

Route Duration

PWS Ferry Route Service Durations

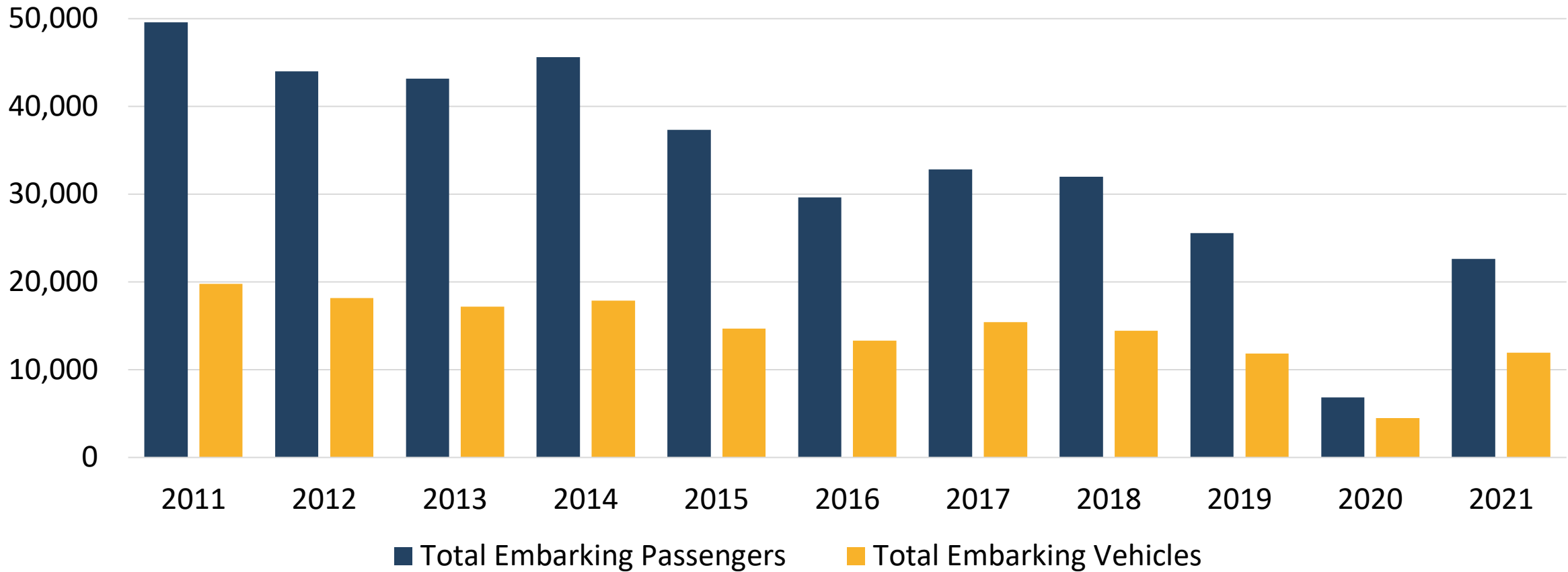
	Round Trip Hours
Whittier to Cordova	15.24
Whittier to Valdez	12.14
Whittier to Tatitlek	10.36
Whittier to <u>Chenega Bay</u>	11.38

Source: Coastwise Corporation

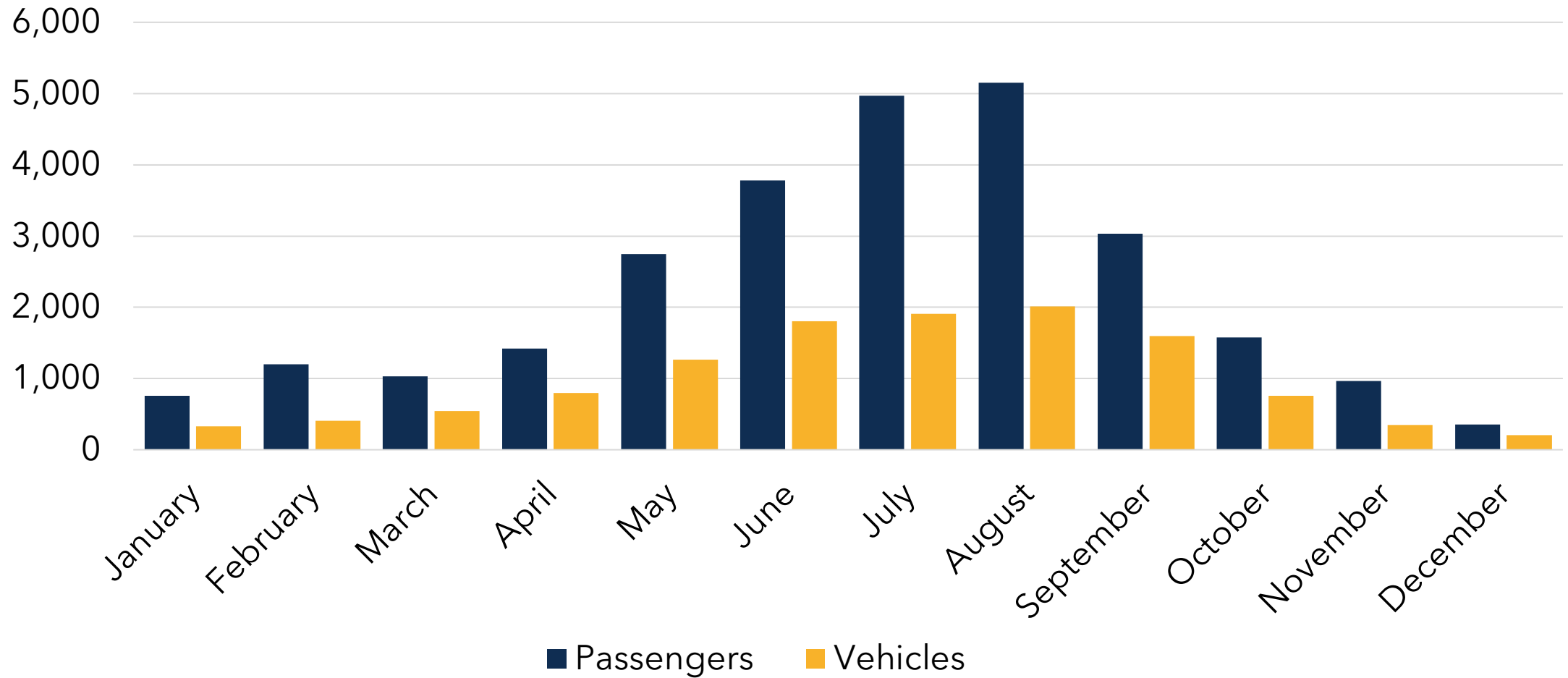
Note: Assumptions include a vessel speed of 15 knots and 60-minute turnaround time.

- US Coast Guard regulations limit a single crew to a 12-hour shift
- Whittier-Cordova round-trip exceeds 12 hours
- Whittier-Valdez round-trip may be eligible for an exemption

PWS Ferry Traffic History



Monthly PWS Embarking Passengers and Vehicles, 2018



AMHS Revenue in Prince William Sound

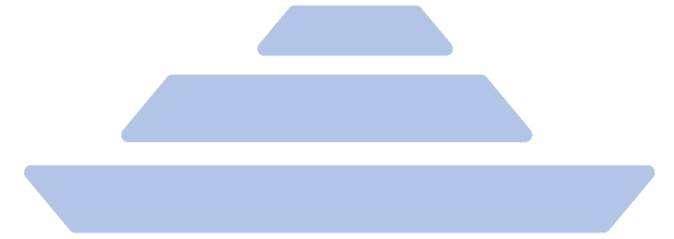
Port Pair	2011	2014	2015	2017	2019	2021
WTR-CDV	\$1,177,785	\$1,316,702	\$1,156,735	\$958,868	\$675,079	\$686,465
CDV-WTR	\$1,179,458	\$1,321,725	\$1,152,031	\$931,498	\$699,393	\$650,720
VDZ-WTR	\$1,362,189	\$1,377,461	\$1,034,817	\$621,862	\$443,764	\$510,342
WTR-VDZ	\$905,928	\$961,622	\$683,026	\$532,736	\$514,196	\$335,951
CDV-VDZ	\$220,644	\$140,818	\$158,583	\$100,650	\$50,451	\$30,200
VDZ-CDV	\$232,978	\$142,626	\$138,575	\$102,149	\$57,114	\$37,868
All Other	\$77,280	\$69,016	\$64,608	\$44,790	\$51,547	\$24,893
PWS Total	\$5,156,262	\$5,329,970	\$4,388,375	\$3,292,553	\$2,491,544	\$2,276,439

What is a Ferry Authority?



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Ferry Authority Overview



Alaska Municipal Port Authority Act (AS 29.35.600-730)

- Muni government(s) create authority by ordinance as political subdivision of municipality, requires voter approval - parallel ordinances if multiple munis

Provisions include:

- Governed by board of directors
- Power to borrow money, issue bonds, eminent domain
- Access to public funds
- Subject to open meetings act
- Development plan must be approved by all participating municipalities

Potential Advantages

- May be more responsive to local needs
- May offer operational/management autonomy - innovation, flexibility
- Responsibility shared across munis
- Munis are shielded from liability
- Eligible for public funding, tax exempt
- IFA provides model and lessons

Potential Challenges

- Enormous up-front investment of time, money, and effort
- Only munis are eligible - excludes partners like Tribes (unless change statute)
- Time and political effort to maintain alignment among partners
- Uncertainty about state and federal aid
- Potentially weaken AMHS



Potential Opportunities for Innovation: Examples

Partnership Ideas

- Backhaul waste and recyclables
- Freight delivery
- Ground transportation (especially Whittier-ANC)

Operational Improvements

- Establish schedules with more lead-time
- Flexible cancellation policies and/or ticketing
- Driver-rides-free winter promotion

Management Improvements

- Proactive planning for scheduled and unscheduled vessel maintenance
- Holistic ferry infrastructure planning



Service Models

- **Single Dayboat**
 - Basic service at lowest cost
 - No regular back-up service (potentially contracted - likely passenger-only)
- **Two Dayboat Fleet**
 - Better service capacity, flexibility
 - Allows for planned and unplanned service back-up
 - Slightly higher operating costs

Service Model Overview

Service Model	Est. Annual Operating Costs	Key Advantages	Key Disadvantages
Single Large Dayboat	\$7.6 million	<ul style="list-style-type: none"> Least expensive to operate Lowest vessel construction costs 	<ul style="list-style-type: none"> May not meet peak demand No backup for maintenance and other service disruptions
Two Dayboats	\$7.7 million	<ul style="list-style-type: none"> Better meet peak demand Flexibility to meet fluctuating demand Provides back-up service Likely generate more revenue 	<ul style="list-style-type: none"> Slightly more expensive to operate than single dayboat Higher vessel construction costs
24-Hour Boat	\$15.6 million	<ul style="list-style-type: none"> Can operate beyond 12-hour day 	<ul style="list-style-type: none"> Most expensive to operate No backup for maintenance and other service disruptions

Vessel Acquisition

- New construction
 - Very high cost
 - Infrastructure Act funds
 - Funds for low-emission ferries
- Lease or purchase AMHS vessel
 - Aurora (45 years old)
 - ACFs (Southeast deployment)



Potential Outside Funding Sources

Federal

- Formula funds (e.g., Formula Grants for Rural Areas)
- Special funds (e.g., low-emission ferries)
- Competitive grants

State

- Assumption: general fund support less than or equal to savings to AMHS
- *Significant uncertainty/potential volatility*

Other

- Local aid
- Private partnerships
- Tribal partnerships
- *Requires strong relationships/collaboration, possible statutory changes*

Potential Pathway to a Ferry Authority

Phase	Estimated Timeline	Key Tasks
Groundwork	Years 1-2	Planning, information gathering, building support
Establishment of ferry authority	Years 2-5	Passage of enabling ordinances, appointment of board
Establishment of ferry service	Years 5-10 or beyond	Securing funds, assets, and staff; launching service

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Preliminary Cost Analysis

Operations Costs - Inter-Island Ferry Authority Example

Operating Budget Cost Category	FY2023
Vessel Operational Expense	\$2,420,126
Administrative Activities	\$945,331
Engineering & Maintenance Activities	\$775,587
Terminal Activities	\$373,842
Marketing Activities	\$25,059
Contracted Services Activities	\$27,235
Total Expenses	\$4,567,180

- IFA provides daily round-trip dayboat service between Hollis and Ketchikan
- Route is 31 nautical miles each way
- Operates at 70-75% cost recovery
- PWS system more complex with multiple ports and longer route distances

Vessel Profiles

Vessel	Length (ft)	Vehicle Capacity	Passenger Capacity	Service Speed (knots)	Crew	Weekly Operating Cost
Aurora	235	33	300	14.5	24	\$208,000
Tazlina/Hubbard	280	53	300	16.5	10-14	\$180,000
Lituya	181	15	149	11.5	5	\$22,000
IFA Vessels	198	30	160-190	15	5	\$47,000