

An Assessment of the Local Government's Capacity to Effectively Manage Alaska's Harbors

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Executive Summary

Port and harbor infrastructure is essential to the State of Alaska's transportation system and economy. The State constructed the majority of this infrastructure and maintained it on behalf of local communities. Following declining oil revenues in the mid-1980s, the State began the process of transferring harbor facilities to local governments, with many transfers occurring throughout the 1990s and early 2000s. Many of the facilities were at or nearing the end of their useful service life at the time of transfer.

This research adopted a Soft Systems Methodology (SSM) approach to determine how the capacity of local governments evolved to sustainably provision operations, maintenance, and improvements of harbor facilities since the transfer of ownership from the State. Additionally, the research defined the barriers local governments face in developing capacity. The research used precedent studies to develop criteria for measuring financial, technical, and institutional capacity of local governments in managing harbor operations, as well as to develop insights on the transfer of harbor facilities from the State to local governments and the economic and political context for the relationship between the State and local governments.

Five semi-structured, virtual interviews with various stakeholders were conducted; 27 grant applications were analyzed from a State-run grant program that was developed for harbor facilities following the transfer of ownership; and 16 surveys of harbor managers (or similar) were analyzed.

Results constructed historical information related to the harbor transfer, including harbor conditions, transfer timelines, purchase price, and deferred maintenance funds. Findings suggest that the infrastructure received in poor condition has improved marginally since the transfer and still requires considerable improvements. Key findings indicate that local governments have grown their financial, technical, and institutional capacity to more sustainably manage harbor infrastructure since the transfer, but that the governments face obstacles in becoming fully self-sufficient.

Developing sustainable user fees and financing major improvement and replacement projects are major barriers. Local governments additionally face challenges with harbor staffing and technical knowledge-building through both personnel experience and documented operation and maintenance (O&M) plans. Lastly, results indicate that there is a discrepancy in the local and State government perspectives about how to overcome barriers but also mutual understanding that they face similar challenges in managing public infrastructure.

The patterns and contradictions identified during this research present pathways for improving local capacity to sustainably provision services.

The strong, positive relationships between harbor departments and their local governments and users will aid in conversations about closing the gap between what users can afford and what harbors must charge for sustainable operations. Should subsidization of operations be necessary, these relationships are still valuable in developing additional local revenue streams for support of harbor facilities. Strong and positive regional relationships between harbors also provides opportunities to improve regional economic cooperation and development to support local governments.

Additionally, harbors are commonly staffed by those with a vested interest in supporting those they serve, whether due to a personal or family background in careers such as commercial fishing or the U.S. Coast Guard. This aids employee understanding of harbor operations and promotes meaningful employment. This research finds that development and execution of O&M plans should be prioritized to better support these staff and assist in valuable knowledge transfer, especially to counteract challenges in staff turnover, recruitment, and training.

Local governments find the Alaska Municipal Harbor Facility Grant Program to be incredibly valuable in supporting large and expensive harbor improvement and replacement projects that communities may not otherwise be able to afford. Suggested improvements to this program include an agreement for a minimum annual amount of State program funding; refocused scoring criteria to reflect the need for continued State support; increasing the funding cap amount to reflect the considerable increase in material costs since the program was introduced; and specific attention to supporting smaller or economically disadvantaged communities.

Lastly, this research suggests more candid, collaborative conversations between the local and State governments about mutual expectations for self-sustaining governance and support. Local governments have successfully progressed from fully state-subsidized harbor operations toward self-sustaining operations but face ongoing challenges. With declining oil revenues and uncertainty in reliable funding sources, the State of Alaska is also navigating challenges in sustainable infrastructure development and service provisioning. These shared challenges present a unique opportunity for collaboration, knowledge-sharing, and strategy development between the state and local governments.

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Introduction

The State of Alaska's (State) port and harbor infrastructure is vital to the State and local transportation system, as well as a catalyst for economic development (Alaska Municipal League [AML] 2023). Harbors serve as the homeport supporting commercial fisheries,¹ tourist charters, marine support services, and marine transportation services (Northern Economics, Inc. [NEI] 2011; Thomas et al. 2016; Alaska Section of the American Society of Civil Engineers [ASCE] 2025).

The State constructed port and harbor facilities and maintained them on behalf of local communities until the 1980s, when it could no longer afford to operate the harbors and began the process of divesting them to local communities, with many harbors nearing or at the end of their useful service life at the time of transfer (AML 2023; Ritchie 2016; ASCE 2025). More than 125 small boat harbors, boat launch ramps, and other port facilities were constructed and initially maintained by the State (ASCE 2025). Local governments agreed to take on infrastructure, acknowledging they were receiving infrastructure in a state of disrepair and were not prepared to sustainably maintain and operate it (AML 2023; Ritchie 2016; ASCE 2025).

While a number of major harbor improvement and replacement projects have occurred, many of them funded with the assistance of State and federal funds, local governments in Alaska continue to face challenges sustainably provisioning maintenance, management, and major improvement of the port and harbor infrastructure (Darrell 2024; ASL 2021; AML 2023).

As precedent studies have shown, divesting infrastructure to lower levels of government presents challenges and opportunities: On one hand, divestitures create concern over whether governments have the capacity to effectively manage their infrastructure; on the other hand, divestitures encourage governments to operate more self-sufficiently and more effectively manage infrastructure according to local needs (Stough 2005; Walter Honadle 2001).

Scope of Problem

The core problem being studied in this work is that local governments in charge of maintaining this vital transportation infrastructure are struggling to sustainably provision maintenance, operation, and major improvement of the facilities, with some communities struggling to keep pace with the rate at which the infrastructure continues to deteriorate. This research seeks to explore local governments' financial, technical, and institutional

¹ Fisheries include those fishing for economic purposes in Alaska's waters (Thomas et al. 2016).

capacity to sustainably provision operation and maintenance (O&M) services since the local government took ownership of the harbor facilities.

The main question this research proposes to answer is: How has the capacity of local governments in Alaska evolved to sustainably provision operations, maintenance, and improvements of harbor facilities since the transfer of ownership from the State? Additionally, what are the barriers these governments face in developing capacity?

Ports are areas where cargo can be loaded and unloaded by vessels, while harbors are sheltered areas of protection where vessels can moor, load/unload passengers and goods, or secure supplies (NEI 2011). While cities typically operate ports and harbors, this research intends to focus on harbor infrastructure. Because ports are part of the domestic and international supply chain and part of a broader network, they have significance statewide and may involve State-level strategic planning (NEI 2011). On the other hand, State support for harbors has focused more on providing resources at the local level to create self-sufficiency in management. Because this research proposes to focus on local capacity-building, a specific focus on harbors is more appropriate.

Methodology

A Soft Systems Methodology (SSM) approach using mixed methods that incorporate qualitative and quantitative analyses was adopted to address the research questions.

Criteria were developed to measure the financial, technical, and institutional capacity of Alaska's local governments based on precedent studies. The quantitative research included analysis of the relevant components of past grant applications for the statutory Alaska Municipal Harbor Facility Grant Program (Harbor Grant Program) – one of the main forms of assistance in harbor improvement and repair projects that was created following the transfer of ownership. The qualitative research included semi-structured phone/virtual interviews with relevant stakeholders, as well as the distribution of a survey to harbor managers (or similar).

Results of these data sources were analyzed to provide an understanding of how financial, technical, and institutional capacity have grown over time and what barriers exist in building such elements of capacity.

Anticipated Results

Previous literature on the topic of local capacity to manage harbor facilities in Alaska is limited, and this research proposes two related questions to provide additional literature for this research area. The first question – understanding how local capacity has evolved – is exploratory in nature. Results provide documentation for the range of existing financial,

technical, and institutional capacity measurements for local governments managing previously State-owned harbor facilities in Alaska. The second question seeks to identify barriers to building the capacity necessary to manage facilities, which the research results will also delineate.

This research anticipates a wide range of existing capacity levels for local governments, with the growth in capacity since the transfer of harbor facilities based on the net operating income of harbor facilities; average tenure of government and harbor staff and opportunities afforded to them; the health and diversification of the local economy; autonomy in harbor funding; the strength of their political connection with State government; the severity of local climate conditions; and the degree of the community's remoteness and ruralness – including the population size; distance to major urban areas/transportation hubs, and connection to the road system.

The research also anticipates shared institutional barriers to include weak relationships with influential external players. Shared financial barriers include small local populations and economies; harbor moorage rates that have changed incrementally since the transfer of ownership; and consistently rising/non-stabilizing maintenance and repair costs. Shared technical barriers include staff turnover and loss of knowledge transfer; the lack of adequate maintenance planning and follow-through; and high deferred maintenance backlogs with minimum levels of preventative maintenance. Most importantly, it is predicted that these issues are interlinked in a manner that makes a challenge in one element of capacity a barrier to addressing another.

Literature Review

The literature reviewed for this research shows how precedent studies have measured capacity levels of local governments in managing public infrastructure. The literature review also provides political and economic context for how local governments operate within the State. The literature review additionally provides historical insight into the harbor transfer and an assessment of infrastructure conditions.

Understanding Capacity in Local Government

Various researchers have sought to define the local capacity necessary to create adaptable, durable infrastructure systems and identified various criteria for measuring capacity. Three criteria for measuring capacity were identified from precedent studies and selected for further evaluation and discussion: financial capacity, technical capacity, and institutional capacity. Due to the limited available research specific to capacity-building of local governments in Alaska to manage their harbor infrastructure, the reviewed literature included evaluation of surface transportation, marine, and sewer and water infrastructure, as well as general rural local governance, in other states and countries.

Of note is the interlinked nature and interaction of these elements of capacity, with weaknesses in one area detracting from the overall system. Rosenhead and Minger argue that most systems managers operate within do not consist of problems that are “independent of each other” but which include “dynamic situations that consist of complex systems of changing problems that interact with each other” (2001, p. 4).

Financial Capacity

Inadequate financial resources can serve as a significant barrier to provisioning infrastructure services and include limited tax revenue generation capabilities, decreased level of financial support from state and federal sources, and state policies on tax expenditure limits (Helpap 2023). Signals of limited financial capacity include deferring expenditures and cutting services. Without additional financial resources, however, governments struggle to address the challenges often created by limited financial resources (Helpap 2023).

Measuring financial capacity involves evaluating both the quantity of financial resources – or the size of the budget and financial resources available – and the source of resources, such as if a city is sourcing funds from its local tax base or if it relies on external grant programs or agencies (De Loe et al. 2002; Alm et al. 2021). Financial capacity can be determined by a system provisioner’s ability to raise and manage finances necessary for

long-term system operation (Alaska Department of Environmental Conservation [ADEC] 2022).

Technical Capacity

The local government's role in monitoring, managing, and provisioning various services to residents requires adequate staff with specialized knowledge to perform day-to-day administrative functions and technical undertakings, as well as to interpret findings from external groups such as consultants (Alm et al. 2021; De Loe et al. 2002; Walter Honadle 2001). For highly regulated environments such as water and sewer infrastructure in Alaska, technical capacity includes having the skills and knowledge to construct, operate, and maintain the system to adhere to accepted standards (ADEC 2022). This extends to managerial capacity – or having the appropriate staffing to manage necessary personnel and relationships with external partners.

Through a survey of 236 rural local governments in Wisconsin, researchers found staff and management capacity to be constrained due to limited training, small staff sizes, and limited proficiency in areas of work (Helpap 2023).

Institutional Capacity

Institutional capacity of local governments can be assessed by the regulatory and non-regulatory agreements that exist within each municipality or the agreements which they are subject to from external players, such as state and federal agencies (De Loe et al. 2002). These can be some of the most influential barriers to local government adaptability (Stough 2005; De Loe et al. 2002).

Institutional capacity can be measured through the institutional arrangements local government create, such as plans, policies, and strategies, as well as how they operate within the context of state and federal systems, including state legislation and regulations (De Loe et al. 2002; Alm et al. 2021). Impacts of state-level policies on local revenues, such as the declining state support for local governments and state-imposed levy limits, were the second most-cited challenge by rural local governments in Wisconsin in overcoming the challenges they face (Helpap 2023).

Local Government Dependence on State Support, State Government Dependence on Federal Support

The following literature explores the State political and economic landscape, which provides an important perspective on infrastructure financing for local governments in Alaska.

The political culture in Alaska has historically been considered more pragmatic than following strict ideological lines, with weak party systems (Thomas and Sattler 2016). Despite the outward appearance of independence in lifestyle, there is a strong dependence on government aid to maintain the lifestyle Alaskans desire, creating a political culture of “dependent individualism” (Thomas and Sattler 2016, p. 68). This includes both the State’s dependence on the federal government and the local government’s dependence on the State government.

For example, the federal government exerts a great deal of influence over Alaska in the form of federal funding and control of State resources such as fisheries (Thomas and Savatgy 2016). Similarly, the State government provisions numerous services typically provided by local governments in other U.S. states and is more heavily involved in funding local governments than most states (Ritchie 2016). Federal funding is the major contributor to transportation development in Alaska, including initial construction and continued operation and maintenance of State and local projects (Connor et al. 2016).

The pragmatic and individualistic approach common to Alaska politics combined with the antitax attitude and lack of tax base in many “rural-bush communities”² creates a complex paternalistic relationship between the State and local governments. This complex relationship includes a persistent need for government funding and subsidization of local infrastructure, as well as consistent pursuit of new capital projects to support economic development (Thomas et al., 2016; Ritchie 2016).

Devolution of State Services and Funding

“Devolution” describes the transfer of service provisioning from states to local governments that emerged in the 1960s (Walter Honadle 2001). In the context of devolution, the desire of Alaska communities to operate independently while remaining dependent on State subsidies is especially important to consider.

Oil revenues have allowed the State and its residents to pursue infrastructure development without imposing high taxes (Turo et al. 2016). Additionally, the low population and isolated, geographically distant nature of many of Alaska’s communities requires State provisioning of services such as infrastructure, public education, and public welfare, which was recognized in the Alaska Statehood Act and the Alaska Constitution

² This research defines “rural-bush” according to Thomas et al., 2016, p. 48. “Rural” is defined broadly as small communities outside of urban areas but which are on the road system, primarily Caucasian/non-Native, and have a cash economy (i.e., Haines or Delta Junction). “Bush” is similarly broad and includes mainly Alaska Native communities that are typically not road-accessible and where subsistence lifestyle is dominant (i.e., Naknek and Kobuk). “Rural-bush” then generally describes any communities that are either on or off the road system but located outside of major urban areas.

(Ritchie 2016; AML 2023). State revenue sharing, now called “Community Assistance,” was a method for the State to provide services to communities from high resource yields (AML 2023).

The strong oil revenues the State experienced in the early 1980s allowed the State to establish many “rural-bush” communities, develop infrastructure, and provision services, with the understanding that these communities typically did not have a suitable funding base to maintain such systems – a challenge still present today (Ritchie 2016). This revenue sharing reached a peak in 1984 and 1985. Since the decline of oil revenues, the State has turned away from revenue sharing and service provisioning, placing more responsibility on local governments, including reducing funding for capital and operating expenditures as well as beginning to charge for previously free services (Ritchie 2016). For example, Community Assistance provides 16% of the funds it did in 1986 (AML 2023).

Divestiture of Alaska's Harbor Facilities

This research concerns the divestiture of harbor facilities from the State to local governments and local governments' capacity to manage them. The State began constructing ports and harbors, along with other transportation infrastructure, during World War II (Connor, Nakazawa, and Thomas 2016). More than 125 small boat harbors, boat launch ramps, and other port facilities were constructed and maintained by the State over the decades (ASCE 2025). Following the decline in oil revenues in the mid-1980s, the State began planning for the transfer of port and harbor facilities to local governments, aligning with the overall trend toward devolving State services (Ritchie 2016; AML 2023).

Of the 117 ports and harbors owned by local governments, 82 were transferred from State ownership to local governments (Andreassen 2021). Today, DOT&PF manages 19 harbor and dock facilities (DOT&PF 2024).

The urgent need to divest harbors from the State to local governments can be surmised from the purchase price, with harbors being sold for as low as \$1 (Darrell 2024). This low price is due to the majority of facilities being at the end of their service life and in generally poor condition at the time of transfer (ASL 1993; ASL 2021; AML 2024; ASCE 2025; Alaska Association of Harbormasters and Port Administrators [AAHPA] 2024).

Prior to the transfer of facilities, harbor deficiencies had not been adequately addressed, State-owned harbors were not being included in State budgets, and there was a backlog of deferred maintenance issues (ASL 1993; ASL 2021; AAHPA 2024; AML 2024). Due in part to the infrastructure condition, representatives from local governments expressed concern that they did not have the capacity to ensure harbors would be cost-effective operations in the future (ASL 1993).

Today, the State is contending with balancing a problematic budget caused by low oil prices and reduced federal support (Brooks 2025a). Legislators navigated the most recent budget session with substantial budget cuts and no tax increases, with little increased funding for most State services and no funding for local district projects (Brooks 2025a, 2025b). This includes reduced funding for roadway maintenance but setting aside significant matching funds for DOT&PF to use on federal aid for new capital projects (Brooks 2025c). The low oil prices and declining federal aid call the State's future funding of services or local projects into question, with one legislator describing Alaska's financial outlook as a "coming storm" (Brooks 2025d).

Managing Harbor Operations & Maintenance

In Alaska, operations, maintenance, and improvement strategies vary widely due to the discrepancy in available resources in communities, as well as the impact of the transfer of facility ownership from the State to municipalities (ASCE 2025). Harbor infrastructure must be constructed and maintained to withstand severe environmental conditions (Sorum 2006), and infrastructure improvement projects in Alaska are met with complex logistics, high transportation costs, long travel distances, and the high maintenance and repair costs due to harsh climate conditions (Cioni-Haywood 2016; NEI 2011).

Existing Infrastructure Conditions

Results from a survey of 27 port and harbor facilities, some of which were not previously State-owned, indicate lower confidence in existing and projected harbor funding sources, with somewhat higher confidence in funding operations and maintenance and overall facility condition (Table 1; AML 2020).

Table 1. Rating of Existing Port and Harbor Condition and Capacity Levels.

Question	Average	Median
How would you rate the capacity of your existing harbor/port facility(s) to meet current and future demand For example, if you believe your harbor/port is sufficient to meet 20 year demand projections, count 5 stars. If those capabilities (moorage, cranes, loading facilities, etc.) cannot meet even current demand, count 1 star.	2.8	3
What is your assessment of the overall condition (excellent=5 stars, poor=1 star and, second for your assessment of the level of current problems as exhibited by service disruptions, where the scoring would be 5 stars for zero disruptions per year, 1 star for an "unacceptable" level (by your determination). The overall rating should be an average of the two ratings described above.	2.7	3
What is the ongoing cost to operate and maintain your harbor/port facility(s)? (Consider future met/unmet dredging needs.) Rate 1-5 stars, 5 representing low and stable cost of maintenance relative to operation, 1 representing high and growing (or unstable) cost of maintenance relative to operations.	2.8	3

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20 Year Investment Shortfalls, Construction Spending (Yearly): How well does current funding meet current needs? Consider local funding sources and dependence upon state/other funding opportunities. Rate 1-5 stars, as 5 being we have all we need, to 1 being not at all.	2.1	2
Available Capacity to Meet Future Demand Projections: How well does forecasted funding meet projected future needs? Rate 1-5 stars, 5 stars being we have all we need, to 1 being not at all.	2.3	2

Note: This data was recreated from original data for presentation in this table; the average and median were calculated based on raw data provided by AML. Ratings are on a scale of 1 (lowest) to 5 (highest).

Source: AML 2020

ASCE's 2025 report card gave Alaska's Ports a grade of C-, which was an increase from the 2021 report card's grade of D+ for Ports and Harbors (ASCE 2025; ASCE 2021). One aspect of the grade raise included the number of improvement projects made possible with federal funding through the Infrastructure Investment and Jobs Act, signed into law in 2021. Federal funding has allowed for many harbor improvement projects that would not have otherwise been possible (ASCE 2025). Between fiscal year (FY) 2019 and 2024, various federal funding programs accounted for over \$340 million in Alaska maritime improvement projects, with most of communities funded not being urban areas (ASCE 2025; U.S. Census Bureau [USCB] 2023).

To address the burden associated with local governments taking ownership of the harbor facilities in disrepair, as well as to aid communities in developing self-sufficiency to manage harbor operations, Alaska Statute (AS) 29.60.800 created the Harbor Grant Program in 2006 (AAHPA 2024; AML 2023; ASL 2021; DOT&PF 2025). The program has been a major funder of harbor improvement and replacement projects, requiring a 50% match for construction costs from local governments, as well as 100% coverage of design costs (AAHPA 2024).

The Harbor Grant Program has Tier 1 and Tier 2 applicants; Tier 1 applicants are those with harbors formerly owned by the State; applicants can only receive funds under Tier 1 once (DOT&PF 2025). Tier 2 applicants include those that have previously been awarded grant funds under Tier 1, as well as those applicants with facilities that have never been State-owned. The grant applications require a considerable amount of information that includes a comprehensive assessment of a harbor's existing condition and documentation of the ability to sustainably manage operations should funding be secured. The complexity of the applications is a potential barrier to communities submitting for smaller but meaningful projects (NEI 2011).

Table 2 shows the eligible and non-eligible projects that can be funded under the Harbor Grant Program.

Table 2. Eligible and non-eligible projects for funding under Harbor Grant Program.

Eligibility	Project Type
Eligible projects	• Approach structures • Pilings and anchors • Access ramps and gangways • Float systems for permanent and transient moorage • Floating breakwaters • Utility systems integral to the float systems (specifically power, lights, fresh water, sewage pump out, and fire protection) • Launch ramps • Seaplane floats • Portable or trailer mounted equipment for firefighting, sewage pump out, oily bilge water, etc. • Other appurtenances necessary for the basic operation of the harbor facility • Third party contracts for construction management and inspection services
Non-eligible projects	• Dredging, blasting or mechanical removal of harbor basin materials • Rubble-mound breakwaters and revetments • Dikes, groins, and jetties • Wharfs and docks for large commercial or tourist marine vessels (greater than 125 feet LOA) • Seawalls, bulkheads, sheet pile walls, gabions, and quays • Access roads and upland improvements • Boat houses • Commercial or privately owned utility systems on the float systems • Fuel and oil distribution systems • Platform floats for small buildings, restrooms, or commercial retail space • Landscaping and facility amenities, e.g., trash receptacles, used oil collection tanks, storage/locker boxes, etc. • Security or close circuit television video (CCTV) systems • Utility system improvements beyond the harbor facility limits, e.g., electrical and water/sewer line extensions to bring those services to the harbor facility • Harbormaster offices, buildings, offices, shops, boat yards or storage structures • Vessel hoisting machinery and boat haul-out systems • Planning and engineering studies, land acquisition or bidding documents, i.e., Plans and Specifications

Note: Data was recreated from the original source for presentation in this table.

Source: Harbor Grant Program application (Appendix D)

Funding for the Harbor Grant Program has been inconsistent, and the program funding requests have only been fully funded three times since it was created (ASCE 2025). Figure

1 shows the discrepancy Harbor Grant Program in funding and applications between FY 2020 and 2025.

Figure 1. DOT&PF Harbor Facility Grant Program Demand and Awards.

Alaska (DOT& PF) Harbor Facility Grant Program	FY20	FY21	FY22	FY23	FY24	FY25
# Projects submitted	5	8	5	7	3	1
# Funded	0	0	1	5	2	1
Funds Requested	\$7.4M	\$12.1M	\$14M	\$20M	\$9.5M	\$5M
Funds Approved	\$0	\$0	\$5M	\$16.4M	\$5.5M	\$5M

Source: ASCE 2025, p. 68.

Existing Funding Mechanisms

In a 2020 survey of Alaska port and harbor facilities, 68% of the respondents were “very concerned” about the availability of government funding and 32% were “somewhat concerned,” not including the non-responses (AML 2020).

A 2020 survey of 27 port and harbor facilities found that the planned or underway capital improvement projects amounted to approximately \$1.6 billion, a 0.7% decrease for the same responses of NEI’s 2010 survey of port and harbor facilities (Andreassen 2021; NEI 2021; NEI 2011). The cost of capital projects needed, but not yet planned, amounted to approximately \$389 million, a 134.1% increase for those respondents from NEI’s 2010 survey. Extrapolating the 2020 survey data to estimate the expenditures for all 275 survey responses previously collected under NEI’s 2010 survey, the planned capital expenditures amounts to approximately \$2.6 billion and the needed but not planned expenditures is approximately \$588 million (NEI 2021).

As research has shown, consistent underinvestment in maintenance and repair due to a lack of long-term financial planning, as well as insufficient user fees for infrastructure services, leads to maintenance backlogs and declining infrastructure conditions (Alm et al. 2021; Dowall and Whittington 2003). Maintenance can be ignored so long as infrastructure remains invisible – and infrastructure only becomes visible when it breaks down (Graham and Thrift 2007; Alm et al. 2021; Gibson and Rioja 2024). Additionally, maintaining existing infrastructure is especially challenging for rural governments, with the ability to provision such services limited by financial resources and staff capacity (Helpap 2023).

Alaska’s port and harbor facilities are commonly run as enterprise operations, which involves charging for facility services to support operations (NEI 2011). Through the analysis of 298 surveys delivered to harbor administrators and facility managers, as well as various stakeholders, NEI found that the majority of port and harbor enterprise funds

incorporate depreciation expenses into operating costs and, in nearly every case, depreciation expenses outweighed revenues. Table 3 provides a summary of selected cases.

Table 3. Recorded Enterprise Funds, Operating Funds, and Expenses of Select Communities.

Functions/Programs	Operating Revenues (\$)	Operating Expenses and Depreciation (\$)	Net Operating Income (\$)
<i>Juneau Docks and Harbors Enterprise Funds, Operating Revenues and Expenses, Dollars, 2009*</i>			
Boat Harbors	2,630,220	3,445,202	(814,982)
Docks	1,762,619	2,126,482	(363,863)
<i>Sitka Harbor Enterprise Fund, Operating Revenues and Expenses, Dollars, 2009*</i>			
Harbors Enterprise Fund	1,698,769	2,274,947	(576,178)
<i>Whittier Small Boat Harbor Enterprise Fund, Operating Revenues and Expenses, Dollars, 2008</i>			
Small Boat Harbor	1,077,808	1,191,934	(114,126)
<i>Valdez Port and Harbor, Operating Revenues and Expenses, Dollars, 2008</i>			
Port	393,498	\$1,731,920**	(1,338,422)
Harbor	806,634	\$1,211,257***	(404,623)
<i>Cordova, Port Enterprise Fund, Operating Revenues and Expenses, Dollars, 2009</i>			
Port Enterprise Fund	931,498	1,459,834	(528,336)
<i>City of Homer, Port and Harbor Enterprise Fund Operating Revenues and Expenses, Dollars, 2009</i>			
Port of Homer	3,347,738	4,793,655	(1,445,917)
<i>City of Unalaska, Ports and Harbors Enterprise Funds, Operating Revenues and Expenses, Dollars, 2009</i>			
Ports and Harbors	3,681,207	4,062,778	(381,571)
<i>City of Kodiak, Select Enterprise Funds, Operating Revenues and Expenses, Dollars, 2009*</i>			
Boat Harbor	2,183,999	2,780,977	(596,978)

Note: Data was recreated from the original source for presentation in this table.

Source: NEI 2011, Appendix B, p. 13 to 30.

Note: Table includes only harbors known to be previously State-owned.

*Indicates communities identified as urban areas according to USCB 2023.

**Data specifically noted that, of the total operating expenses and depreciation, the depreciation value was \$1,227,829.

***Data specifically noted that, of the total operating expenses and depreciation, the depreciation value was \$423,094.

What is not captured through the net operating income losses – which show only the direct charge for goods and services – is that ports and harbors generate substantial indirect revenues for communities through the general sales tax, fisheries business tax, seafood sales tax, and fisheries landing tax (NEI 2011).

However, user fees in Alaska harbors are much lower than in other states (HDR 2024). For example, the City and Borough of Sitka's annual moorage rates (measured as dollar per

foot per year) are considered above average in Alaska, but they are not the highest in the State and are much lower than ports in Washington State. Sitka's annual moorage rate is \$55 per foot per year while Juneau's moorage rate at Statter Harbor – the highest in the State – is \$99. The majority of the Washington rates analyzed in the report range from \$105 to \$320, with four Washington ports with rates ranging from \$77 to \$86.

Attempts to raise harbor user fees, including following formal rate studies, have received pushback, with the need to create sustainable funding streams or healthy funding surplus at odds with users' ability or willingness to take on higher costs (Lopez 2025; Anastas 2023; Darrell 2024). Developing sustainable user fees is essential to supporting operations and improvements, and such fees should be calculated through a record of construction and maintenance costs and maintenance budgeting (Sorum 2006).

Key Findings

Prior research defined financial, technical, and institutional capacity criteria and ways to measure them, as well as painted the political and historical context for the transfer of harbor facilities and the current facility management practices and challenges.

Financial capacity includes self-sufficiency in funding infrastructure operations and improvements; technical capacity includes staff who can effectively manage the infrastructure and providing the training to support them; and institutional capacity includes successfully operating within regulatory/political constraints and developing plans and strategies to effectively guide operations (Helpap 2023; De Loe et al. 2002; Alm et al. 2021; ADEC 2022; Stough 2005; Walter Honadle 2001).

Local governments and the State government in Alaska are more dependent on infrastructure development subsidization and support for services than many other states in the U.S. (Ritchie 2016; Thomas et al., 2016; Thomas and Sattler 2016). This dependence in combination with independent and antitax attitudes has created a complex, paternalistic relationship between the local and State governments (Thomas and Sattler 2016; Thomas et al., 2016; Ritchie 2016).

The State constructed port and harbor facilities and managed them on behalf of communities; however, with the drop in oil revenues in the mid-1980s came the decline in State revenue sharing and the deferral of State service provisioning to local governments – which is not an uncommon trajectory for states in the U.S. (Walter Honadle 2001; Turo et al. 2016; AML 2023; Connor, Nakazawa, and Thomas 2016).

Local governments that were previously dependent on the State for funding and services were ill-prepared to receive harbor facilities, especially when many were received in a

state of disrepair and communities lacked sustainable funding mechanisms to support maintenance and improvements (ASL 1993; ASL 2021; AML 2024; ASCE 2025; AAHPA 2024). At the same time, local governments have an expectation of State service provisioning and funding, creating a rift in the relationship between local governments and the State (Thomas and Sattler 2016; Thomas et al., 2016; Ritchie 2016).

Today, harbor infrastructure is in generally poor to fair condition – improving over recent years due to an influx of federal infrastructure funding and somewhat inconsistent but valuable State funding (ASCE 2025; AAHPA 2024; AML 2020). However, there are considerable improvements to be made, amounting to over \$500 million in needed but unplanned expenditures and local concerns over the availability of government funding support (AML 2020; NEI 2021). While user fees are essential to effective harbor facility operations and eventual replacement (Sorum 2006), the user fees that support harbor enterprise operations in Alaska are lower compared to other states, but local governments face hurdles in raising them (HDR 2024; Lopez 2025; Anastas 2023; Darrell 2024).

Methodology

Research Context and Aim

This research explored local governments' financial, technical, and institutional capacity to adequately provision operation, maintenance, and improvement of harbor facilities since the local government took ownership of harbor facilities from the State. The research assessed the barriers governments face in developing such capacity.

This research analyzed data from communities in the Southeast, Southcentral, and Southwest Alaska Regions. Previous literature about local government capacity to manage harbors in Alaska following the transfer of facilities from the State to local governments is limited. As such, this research is exploratory in nature and instead documents and develops historical evidence, criteria for capacity measurement, existing capacity levels, and barriers to building capacity.

The research will define existing conditions that can be explored further in future research efforts. In the context of SSM, this includes developing provisional Root Definitions and associated conceptual models that will map the complexities of the research problem and reveal patterns in barriers to building capacity. Specific limitations associated with this research are noted in the Discussion chapter.

Research Components

A SSM approach that incorporates mixed methods was used to determine the inextricably linked components of local capacity to manage harbor infrastructure. Precedent literature assessing local capacity to manage infrastructure, challenges in rural governance, and infrastructure development in Alaska was used in defining local capacity and analyzing capacity building and barriers through quantitative and qualitative studies (i.e., Helpap 2023; De Loe et al. 2002; Alm et al. 2021; ADEC 2022; Taylor 2023).

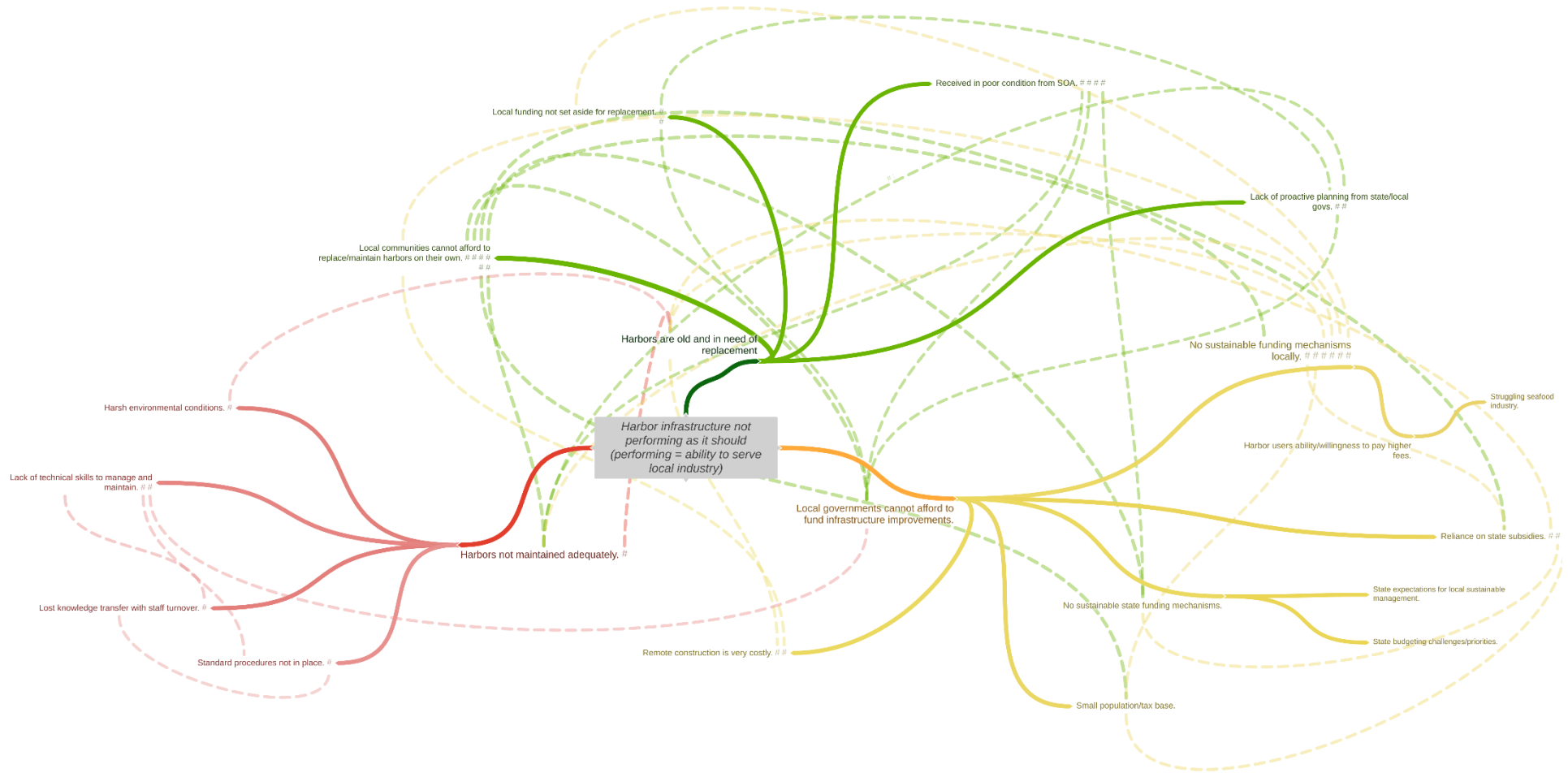
This approach includes quantitative analysis from screening criteria documented in previous Harbor Grant Program applications that assessed existing facility conditions and sustainable management practices. Qualitative analyses include a survey of harbor managers and interviews with various stakeholders. These qualitative sources are not intended to replace the diverse stakeholder perspectives that take shape in the participative process “intrinsically” linked to the SSM approach (Rosenhead and Mingers 2001, p. 70). However, the interviews with multiple types of participants related to harbor operations and the survey of harbor managers are intended to incorporate broader participation in assessing the problem situation.

Problem Statement Examination

The Literature Review chapter examined historical and existing harbor infrastructure condition; established an understanding of the political and economic landscape; discussed the local government structure and challenges in managing such infrastructure; and identified the various stakeholders. From this research, a preliminary semantic map of the messy, complex problem situation was developed to create a visual representation of the identified problems, as well as the differing perspectives of the problem at-hand (Figure 2).

An Assessment of the Local Government's Capacity to Effectively Manage Alaska's Harbors

Figure 2. Semantic Map of the Problem Situation.



Source: Developed using Coggle.

Constructing Historical Timeline and Infrastructure Conditions

An understanding of local governments' capacity to manage harbor facilities prior to the transfer of harbors from the State is important in determining the baseline for how governments have grown capacity over time. However, there is not consistent historical information regarding the harbor transfer timeline, harbor conditions at the time of transfer, the purchase price, and the deferred maintenance funds. This research constructed historical information in one document through a combination of the literature review, interviews, and grant application components, such as the project summaries or bills of sales attached to the Harbor Grant Program applications.

Measuring Financial, Technical, and Institutional Capacity

Based on the review of literature related both to infrastructure development in Alaska and broader literature studying local capacity building, the following criteria were developed to measure financial, technical, and institutional capacity necessary to sustainably provision operations, maintenance, and improvement of harbor facilities.

Financial Capacity

Measurements of financial capacity follow.

1. Self-sufficiency in funding harbor operations and maintenance (i.e., the maintenance and repair tasks that are performed regularly to maintain functioning infrastructure). Self-sufficiency is measured as the proportion of local vs. non-local funding sources to perform such tasks.
2. Self-sufficiency in funding major harbor facility retrofit and replacement projects (i.e., the improvements necessary when a system has reached the end of its useful design life or and/or presents life-safety issues). Self-sufficiency is measured as the proportion of local vs. non-local funding sources to perform such tasks.
3. Adequate projected funding to cover at least 50% replacement costs at the end of its design life. Fifty percent was selected considering the likelihood of securing a 50% match for a major repair or replacement project under the statutory Harbor Grant Program.
4. The harbor facility has a sustainable business model with capital investment processes (i.e., follows processes that generate greater revenue than expenses, seeks to grow capital, and charges sustainable user fee rates).

Technical Capacity

Measurements of technical capacity follow.

1. Adequate number of staff to manage harbor operations.

2. Staff and management have the skills and experience to manage harbor operations, including routine operations and special/emergency issues.
3. There is a documented body of knowledge to aid in knowledge transfer and guide staff in managing operations, such as an O&M plan and/or a Preventative Maintenance Plan (PMP). These documents also indicate that maintenance and planning address current demands based on existing facility needs and predictive needs for the duration of its useful life.

Institutional Capacity

Measurements of institutional capacity follow.

1. Strategic planning documents and capital investment/improvement programs exist and guide goals and operations. These local plans for the harbor department align with local and State plans, as well as local business and user needs.
2. Positive working relationship with local, State, and federal stakeholders who impact the ability to manage operations effectively.
3. The community has political power/presence within the State.

Interviews

Semi-structured phone (virtual) interviews were performed with five individuals with differing perspectives and experiences on local government capacity and harbor operations and management. The goal of interviews was to acquire additional historical information on the transfer of harbor facilities; gain insight into the broader economic and political landscape local governments are operating in today; and identify varying perspectives on perceived capacity levels and barriers to developing capacity.

Interviewees were selected for their varying stakeholder perspectives. In order to maintain the anonymity of respondents and their communities (if applicable), interviewees are referenced only by title. Interviewees included a State Agency Employee (or Employee), Harbor Manager 1, Harbor Manager 2, Harbor User, and Local Government Subject-Matter Expert (SME, or SME).

The State Agency Employee was interviewed due to their experience with formerly State-owned and currently owned harbor facilities. Two Harbor Managers were interviewed due to their personal experience with the transfer of facility ownership and knowledge of existing capacity of the local government to manage harbor facilities and barriers to developing capacity. Harbor Manager 1 purchased multiple harbor facilities from the State (at different times) between 20 and 27 years ago, and Harbor Manager 2 purchased their facility from the State 26 years ago.

One Harbor User of a currently State-owned harbor facility that is being considered for transfer of management responsibilities to the local community was interviewed due to their experience with an ongoing aspect of divestiture and knowledge of the community's existing capacity to manage harbor facilities. The Local Government SME was interviewed due to their experience working with a wide range of Alaska communities on building local capacity and sustainably managing infrastructure, including harbor facilities.

Interview questions were developed prior to the interview and were adjusted based on the role of the interviewee; questions are provided in Appendix A. Interviewees were guided through the list of questions; however, natural follow-up questions arose throughout conversation. Interviews ran from 30 minutes to 2 hours. All interviews were recorded, transcribed, and analyzed for common trends in discussion, as well as important historical information.

Interviews with the Local Government SME and two Harbor Managers were conducted in the early stage of data collection in order to gain a deeper understanding of the technical aspects of harbor management, as well as to acquire in-depth insight on existing capacity levels and shared barriers. These discussions informed the survey development portion of the research methodology. The remaining interviews were performed concurrently with grant application analysis and survey collection.

Survey

Targeted interviews with the Harbor Managers and Local Government SME provided a greater technical understanding of harbor management, capacity levels, and existing barriers, as well as revealed emerging themes that could be analyzed against a larger group of communities. Following the interviews with these individuals, survey questions were developed to gain a broader understanding of existing financial, technical, and institutional capacity levels and barriers. The survey questions were developed from the Harbor Manager interview questions but were adapted to incorporate technical and experiential insight gained from interviews as well as allow for more concise (i.e., multiple choice) responses from survey respondents.

The survey consisted of 24 multiple-choice questions, as well as 4 open-ended questions. The survey was distributed through Qualtrics and ran from April 17 to May 3, 2025. Questions collected information on demographics, financial capacity, technical capacity, institutional capacity, supplementary management information, and historical information. The list of survey questions can be found in Appendix B.

The survey was delivered to 28 individuals identified as being familiar with harbor management and operations of formerly State-owned harbor facilities. Harbors in

Southwestern, Southeastern, and Southcentral Alaska (including the Prince William Sound area) were identified through the map of communities with port, harbor, and dock facilities on the AAHPA website. A large portion of communities were identified through AAHPA's membership directory, which was also run against information from Harbor Grant Program applications that documented previously State-owned facilities.

There were three challenges encountered in survey distribution. The challenges are included below with a note about how each challenge was addressed.

1. Not every community has submitted an application through the Harbor Grant Program, so previously State-owned facilities could not always be easily verified.
 - a. The survey was not sent to communities that the researcher determined did not operate formerly State-owned facilities from either previous knowledge or additional research.
 - b. Because this could not always be verified, a required question was included in the survey asking the respondent to indicate if they represented a formerly State-owned harbor facility.
2. Contact information was not available for every community in the AAHPA directory.
 - a. If a community had a website, contact was made by phone or contact form where possible. If no website was available, contact was not made.
3. Not every community operated a website, or those with a website did not indicate who managed port and harbor facilities.
 - a. These communities were not contacted.

Only one individual per community was contacted about the survey. Depending on the availability of contact information, the person the survey was sent to was prioritized as (1) port director, (2) harbormaster, (3) city manager, and (4) any individual for which contact information was available.

Survey results were aggregated, and community identifiers were removed from results to maintain anonymity of communities. Additionally, some communities manage more than one harbor facility, so some responses cover more than facility.

Grant Application Analysis

The literature review revealed uncertainty regarding the sustainability of local management of harbor infrastructure, as well as infrastructure condition concerns. The Harbor Grant Program is a statutory program (AS. 29.60.800) that was initially developed to aid local municipalities in building capacity to take on State-divested harbor facilities that were at the end of their useful life. Scoring criteria used in these applications is intended to

measure the existing infrastructure needs and conditions, as well as sustainable management practices of facility managers (scoring criteria is provided in Appendix D). This research analyzed applicant responses to the scoring criteria and compared it against the results of the interviews and survey questionnaire.

The applications were evaluated for the following information related to local capacity, infrastructure condition/needs, and sustainable management practices:

1. Demographic information.
 - a. Is the community a rural area or an urban area (according to USCB 2023 data)?
 - b. Is the community road connected or not?
 - c. Is the application Tier 1 or Tier 2?
2. Infrastructure condition/needs.
 - a. Is the project a major maintenance, major repair or replacement, new construction, or an expansion project? Note that these are the four categories a project can be submitted under.
 - b. Was the application listed as having public safety or emergency factors?
 - c. What was the range of past funds spent on harbor maintenance and repairs? What types of maintenance and repair projects were being performed?
 - d. How did applicants describe the existing harbor condition in project summaries?
3. Cost share for project.
 - a. How many of the projects are using local funds as their minimum 50% match amount?
 - b. What was the total project cost?
 - c. What was the project cost in relation to deferred maintenance funds provided by the State at the time of transfer?
4. Sustainable management practices.
 - a. How many applicants provide an existing PMP and provide proof they would follow one after the completion of a project?
 - b. How many projects were listed in a Capital Improvement Program?
 - c. How many applicants indicated they have adequate revenue streams to operate and maintain harbors without State assistance following improvements, including the total replacement cost of the harbor?
 - d. How many times has the same facility received a grant award under the same program?
5. Number of resubmittals and frequency of funding awards.

- a. How many projects were resubmitted before being funded?
- b. What was the cost of submitted projects vs awarded projects across all projects?
- c. What was the cost of requested funds from the program vs the total project cost across all projects?

While the grant program first accepted applications beginning in State FY 2009, DOT&PF could only supply applications recorded electronically due to record-keeping and staffing challenges. Electronic grant application recording began in 2016 for State FY 2018 funding. As such, grants selected for review were submitted in 2016 (FY 2018), 2017 (FY 2019), 2018 (FY 2020), 2019 (FY 2021), 2020 (FY 2022), 2021 (FY 2023), 2022 (FY 2024), and 2023 (FY 2025). Only applications submitted for previously State-owned harbor facilities were reviewed. Additionally, there were some projects awarded during the study period that applications were not provided for; these applications are listed in the grant analysis documented in Appendix C. An example of the grant application and scoring criteria is provided in Appendix D.

Pattern Analysis

The survey results and scoring criteria from the grant applications were analyzed for patterns and contradictions in existing financial, technical, and institutional capacity levels, as well as common barriers to building such capacity. The interviews were additionally assessed for differing perspectives on local governments' ability to manage harbor infrastructure.

Results

The following provides a summary of the results from the interview, survey, and grant application data analysis. Results are presented first for interviews, then surveys and grant applications.

Interviews

A total of five semi-structured phone (virtual) interviews were performed with the State Agency Employee (or Employee), Harbor Manager 1, Harbor Manager 2, Harbor User, and Local Government SME (or SME). Results are presented below.

Early Indicators of Capacity

The following describes the historical timeline and infrastructure conditions that provide a baseline for understanding how local capacity has grown over time.

Prior to Transfer

Interviewees noted that challenges managing harbor infrastructure were linked to the processes and strategies developed (or avoided) prior to the transfer of the facility. According to the State Agency Employee, following construction of the harbor facilities, DOT&PF provided repairs when communities requested it, otherwise the agency left the harbors unattended with no management or oversight. Harbor Manager 2 noted that this is where trouble began – communities did not take ownership of the quality of harbor facilities since they were not required to fund or manage them. Additionally, setting user fees was optional. Harbor Manager 2 said community harbor commissions and boards were typically volunteer-run, and nobody performed legitimate rate studies: “Unfortunately, we set ourselves up for some hard times that way speaking as the guy on the other end of it trying to keep it going.”

The State Agency Employee estimated that the State was in discussion with communities about the transfer of ownership for a 20-year time period. Still, the Local Government SME said that the State could have done a better job working with communities prior to divestiture to plan for the transfer of responsibilities. Some local governments were still accustomed to State support and required guidance to learn how to manage facilities, which is why some communities today feel their needs were left unaddressed by the State. Harbor Manager 2 emphasized this point, saying that the concept of sustainably managing infrastructure was not part of State or local planning efforts at the time. The Harbor Manager said the State did local governments a disservice by not working with them to create a sustainable operations plan and management strategy prior to divestiture: “Instead, they let the clock run, then they recognized the fact that they had probably

billions of dollars of infrastructure out there that was coming of age, and they made the decision to divest themselves of that problem by selling harbors to the communities.”

Deferred Maintenance Funding

With aging infrastructure and a lack of management and improvement, it was a matter of time before the harbor condition became an issue. As Harbor Manager 1 noted, when every constructed harbor was nearing the end of its design life, “The State DOT could see the handwriting on the wall. There was no way they were going to be able to afford to replace all these vintage harbors all coming due at the same time.”

The State Agency Employee said that while the State constructed harbors, it was never the intention of the State to manage them indefinitely: “While we built all these facilities, we never managed them to speak of. We built them and walked away.”

The State Agency Employee said there were not adequate State staff or resources to continue managing facilities across Alaska. Prior to the transfers, State funds supporting harbor maintenance and operations, including to address deferred maintenance, had already been declining. The Employee said that by the time the transfers began, DOT&PF had to strategically build enough funds to address deferred maintenance for transferred facilities. In some instances, the Employee said there were legislative appropriations given to a community willing to take over a harbor to address deferred maintenance. In other instances, DOT&PF would receive about \$1 million per year from the State Legislature for a harbor “Deferred Maintenance Fund,” and the agency would save up for a few years until it found a community willing to transfer ownership. Once DOT&PF had saved enough funds, the agency would use them to perform a harbor improvement and/or provide the funds to the community as a deferred maintenance allocation.

Local communities varied on the condition their infrastructure was received in. Harbor Manager 1 said the State replaced one harbor and provided funds for and expanded another. However, deferred maintenance funds provided for the third facility in poor condition were essentially seed money, amounting to approximately 21 percent of the eventual facility replacement cost. Harbor Manager 2 said deferred maintenance funds for their harbor facility, also in poor condition, did not come close to what the community required.

Management Journey

The two Harbor Managers also experienced different management journeys, which either set them back in developing capacity or aided them in building it faster. Harbor Manager 1, who felt they had received a relatively good deal on their transferred harbor infrastructure, also said the community was operating infrastructure services like a business prior to the

harbor transfer. Additionally, in preparation for the transfer, the harbor department “hit the grounding running” building funds for future infrastructure upgrades and working with their local government to renegotiate allocation of Raw Fish Tax funds to bolster revenue from harbor user fees.

Harbor Manager 2 did not receive harbor upgrades and did not receive adequate deferred maintenance funds, putting the community behind in funding infrastructure improvements and developing plans. The Harbor Manager felt they were stung by lack of planning and understanding of how to run a stable operation: “How do we go from where we started and no real effort toward sustainability to become stable so that we can pass this onto the next generations in good shape with a plan?” After over 20 years of managing the facility and a number of rate studies, the Harbor Manager feels the community is “just now becoming mature enough to understand what it really means to own this. It’s a long process.”

Despite the deferred maintenance challenges, both the State Agency Employee and Harbor Managers agree that transferring facilities to local governments and moving toward sustainable management was the correct course of action. The State Agency Employee said it is more appropriate for local communities to manage the facilities, as they understood local needs and could resolve issues more quickly than the DOT&PF could. Both Harbor Managers agreed with this perspective, adding that local ownership also required local governments to reassess how they managed infrastructure.

However, both Harbor Managers also had expectations that State support would remain due to the condition infrastructure was received in, the impact of the State transfer, and the challenges local governments face in Alaska. As Harbor Manager 1 said, “If there’s skin in the game, chances are you’re going to take better care of it. You’re going to build and design things that are better-suited for your location. You’re going to put money into a long-term maintenance program. So the premise made sense to me, as long as the State did not abandon us.”

Existing State-Owned Facilities

While this research focuses on previously State-owned harbor facilities, the management of currently State-owned facilities is discussed briefly below, as it provides an important perspective of the State’s own sustainable management strategy and ability to support local communities.

Today, 19 harbor and float facilities are still owned by the State (DOT&PF 2024). The State Agency Employee said these facilities are in communities that either cannot afford to take them over because they are typically unincorporated or second-class cities with no local tax base and/or because the State cannot legally transfer a State-owned asset to a non-

recognized community.

The State Agency Employee said the State DOT&PF is funded almost entirely by federal funding, which is not eligible to be used for small boat harbors. The Employee said that DOT&PF infrastructure development and management is typically funded on 90% federal funds with a 10% State match. This means the agency relies fully on State appropriations to fund maintenance or repair of State-owned harbor facilities; however, State funding is inconsistent, and DOT&PF has gone multiple years without receiving appropriations for the harbor program. The Employee noted that DOT&PF received \$1 million in 2024 after about 5 years without receiving funds. Most of the 19 facilities are rated by DOT&PF to be in poor condition and require nearly \$55,000,000 in facility improvements, with about \$47,000,000 of the costs anticipated to be funded by the State (DOT&PF 2024).

The Harbor User of a currently State-owned harbor facilities said that the State has not budgeted for maintenance for the facilities in their community for the past 7 years. Additionally, the State does not allow the community to perform maintenance or repairs on the facilities since there is no management agreement in place. The Harbor User said the status of a future management agreement is unclear, as the State has not communicated with them in several years. This has led the community to crowd-source funds for repairs and perform them without State approval.

The Harbor User of the existing State-owned harbor said user fees cannot be charged because there is no formal management agreement in place with the State. Due to the size of the community and the condition of the harbor facilities, the Harbor User said it would not be possible for the community to raise enough money to manage infrastructure on its own without a complete replacement: “There's no way we'll ever generate enough money to fund the kind of repairs that are necessary.”

The State Agency Employee says that the DOT&PF has made the Alaska Legislature aware of the condition of State-owned harbor facilities and the needed maintenance and improvements, but the agency has little room to aid communities without funding. The Employee said the DOT&PF strategy is to avoid maintenance and repair until the situation cannot be avoided anymore: “The bottom line is we just scrape money wherever we can. If it is super urgent, we'll use State maintenance money – the same State funds that go to plowing our roads and fixing potholes and things like that.”

Financial Capacity

Harbor Managers 1 and 2 run their harbor department as an enterprise fund, which are city-owned departments that have a standalone capital account. Enterprise funds charge user fees commiserate with the cost of operations and maintenance. Both Harbor

Managers operate ventures where revenue exceeds average annual expenditures and have a working capital that allows them to fund maintenance and operations while also contributing to reserve funds. Harbor Manager 1 structures user rates for the department to support maintenance and operations, closely tracking others' rates within the region and setting them on the higher side – but avoiding being the highest. Harbor Manager 2 operates similarly, adding that the community has performed rate studies and takes into consideration what other harbors within the region are charging but carefully sets fees so as to not price people out of the harbor, a difficult balance.

However, both Harbor Managers agree that user fees alone are not enough to generate enough money to fund major improvement or replacement projects, especially as setting user fees high enough to fully fund such projects would price out the majority of the users. As Harbor Manager 2 said: “If we were to raise our rates to have a bank big enough to be sustainable, and fund our own projects, then I wouldn’t have a job anymore, that’s for sure. People would leave if they have to.”

Harbor Manager 2 provided the following example of the challenge of setting rates when the department began examining rates and setting them to be more sustainable:

The department needed to start saving for harbor replacement with a 30-year design life and, based on the amount of time left before replacement and the anticipated cost of replacement, the department calculated required moorage rates to be \$122 per square foot. However, existing rates were \$32 per square foot – and the harbor could not make that jump without losing a large part of its user base. The department began to consider the Harbor Grant Program’s 50% match for a replacement project, which would be more attainable in the necessary timeframe, so the harbor instead set a goal for a \$62 per square foot rate (half of the estimated cost). However, the local government still could not justify doubling rates from \$32 to \$62 within one year, so it instead increased the rate to meet \$62 over 10 years while incorporating a 3.2% annual Consumer Price Index (CPI) increase into the fare each year.

The State Agency Employee agrees that user fees likely cannot be raised enough to support funding for major improvement or replacement projects, as most harbor users would not be able to afford those rates. While user fees can likely support operations and contribute toward larger capital projects, the Employee said harbor departments would still have to seek funds from the local government or sources outside of the community.

However, the Local Government SME noted that communities must recognize the competitive advantage their harbors have in order to charge more sustainable user fees.

The SME said the relationship between the industries the harbors support and the harbor itself should be mutually beneficial: “The value of these ports and harbors is that they’re local. The fish and tourist opportunities are there. As long as those things don’t go away, these ports and harbors have the competitive advantage to charge what they need to be sustainable. Anything else is just subsidizing an industry that is taking those resources out without leaving enough behind.”

The Harbor Managers, Local Government SME, and State Agency Employee all said the Harbor Grant Program has been an important tool in addressing deferred maintenance needs from transferred facilities through Tier 1 grants while promoting sustainable management. Today, the Harbor Grant Program, especially the Tier 2 grant opportunities, have also come to be a source of State support that local governments rely on for harbor improvement and replacement projects.

As discussed previously, reliance on the Harbor Grant Program played a large role in how Harbor Manager 2 establish harbor rates. Harbor Manager 1 notes that their goal for the reserve fund (also used as a harbor replacement fund) is \$5 million to match the Harbor Grant Program cap and leverage a \$5 million project into a \$10 million project. Both managers advocated for raising the Harbor Grant Program maximum match amount from \$5 million to \$7.5 million, noting that the considerable rise of material and labor costs in recent years means that \$10 million does not go as far as it did in 2006 when the Harbor Grant Program was created.

Harbor Manager 2 said harbor replacement projects are so expensive, the Harbor Grant Program funds are sometimes used as seed money for federal grants, turning a \$7 million project funded under the Harbor Grant Program into a \$30 million replacement project funded under a federal program by using the local and State funds as matching funds for the federal program. Harbor Manager 1 adds that funding for large projects generally comes by federal means, a common strategy for Alaska: “Alaska is very dependent on earmarks; for every \$1 we put into the federal register, we get \$2 back.” The State Agency Employee noted that local and State governments face additional uncertainty over future federal infrastructure funding.

The Local Government SME noted that State officials that they have discussed the Harbor Grant Program with did not envision that it would function as a consistent measure of support for local governments, with officials saying the expectation was that a harbor would receive a major grant once and then be self-sustaining beyond the replacement. Additionally, the State Agency Employee and SME said that the program’s 50/50 funding match is challenging to achieve for smaller communities due to their limited means.

Technical Capacity

Both Harbor Managers interviewed considered their staff size and ability to be strong. While the staff sizes ranged – Harbor Manager 1 employs 7 people with an additional person in the summer and Harbor Manager 2 employs 19 people with 9 additional people in the summer – both managers staff their harbors for 24/7 operations. Both Harbor Managers have had success with people who have spent time at sea, either as a commercial fishermen or members of the U.S. Coast Guard, since they can anticipate facility and user needs.

Harbor Manager 1 said staff see their role as a career, with some people employed for more than 25 years. However, the Harbor Manager notes that a persistent challenge in staffing has been a retirement incentive, which is important for people to continue to see the harbor department as a career. The State retirement program benefits have declined over the years, which the Harbor Manager says has resulted in the loss of good employees. Harbor Manager 1 said their harbor does not have a documented O&M program since the Harbor Manager takes a hands-on approach and is involved in most of the day-to-day activities of the harbor. However, the manager understands the document is important to knowledge-transfer and considers budgeting and planning the biggest barriers to developing a formal O&M program.

Harbor Manager 2 has begun using an O&M program software, which provides reminders and timelines for when certain tasks need to be accomplished and tracks work orders. The harbor manager notes that the software is only as good as the information that is regularly inputted, and it takes a long time to get all of the different aspects of management built in. However, accessing the documented information on labor and material costs to perform certain tasks has been instrumental to budgeting and long-term maintenance planning, while its tracking of daily operations is important for retaining institutional knowledge.

Institutional Capacity

Both Harbor Managers consider the relationship between the harbor departments and local governments to be strong and especially important in navigating management of the facilities and funding mechanisms for projects. They also consider regional relationships with other harbors to be important in learning from each other, especially AAHPA. Harbor Manager 1 notes that they employ lobbyists to represent community needs to the State Legislature.

Both Harbor Managers operate within challenging regulatory constraints. Harbor Manager 2 discussed costly and time-consuming State and federal regulatory challenges, such as the Department of Homeland Security Facility Security Plan and Alaska Department of

Environmental Conservation permitting requirements, including for the disposal of fish carcasses. Harbor Manager 1 discussed challenges associated with dredging and working with federal players and funding to get the costly task accomplished.³ Harbor Manager 1 considers dredging a “looming” threat due to the immense cost of dredging and permitting for the material placement of dredge spoils. In order to receive federal funds for USACE dredging under Section 107 of the Ports and Harbors Act, the Harbor Manager had to prove the dredging constituted a federal project because the harbor vessels support federal fisheries.

An additional institutional constraint is the partnership required from the State or federal government to receive consistent support for projects local communities may not be able to accomplish on their own. However, the State divested the facilities with the expectation that they would manage their facilities independently. The SME said that the local government expectations and State expectations remain in contrast: “Both sides have very different expectations and there’s probably some truth to both. There are still needs at the local level that haven’t been met by the State and there’s a State who feels like it’s done its part for some of these, who expect a move toward sustainability.”

Additionally, as the State Agency Employee noted, State transportation funding is tight. The Employee does not consider it the responsibility of the DOT&PF to assist formerly State-owned harbors, noting that supporting local harbor facilities is in the hands of the State Legislature and politics. However, the Employee does acknowledge the challenges State and local governments face in managing public infrastructure are the same: “There's huge challenges, and it's the same challenge that we all have, and it's lack of resources and lack of funding. A harbor doesn't really pay for itself. If you think about it, all public infrastructure doesn't pay for itself.”

Survey

The survey of harbor managers received 22 responses in total, 17 of which were 100% completed. Thirteen responses were for formerly State-owned harbor facilities and 3 were recorded as “other” which included an unsure response, a formerly U.S. Army Corps of Engineers (USACE)-owned facility, and a formerly U.S. Navy-owned facility. These responses were included in the survey results due to the overlapping timelines and challenges between State and federal harbor infrastructure divestitures in Alaska.

³ Harbors sometimes require dredging to maintain a deep enough basin to accommodate vessels. However, isostatic rebound in Southeast Alaska is causing harbors and waterways to rise at a considerable rate, making dredging a more frequent necessity (Source: Interview with Harbor Manager 1).

Demographics

The majority of respondents were from the Southeast Region of Alaska (50%), with 19% from the Southcentral Region, 19% from the Southwest Region, and 13% from the Prince William Sound Region. Forty-four percent of respondents were not connected by road to any other communities, while 6% were connected to at least one other community by road, and 50% were connected to a State highway system (road or marine); note that some of these communities – especially in Southeast – are connected by marine highway but not a road highway.

Six of the communities surveyed recorded a population of less than 1,000 people; one community recorded a population of 5,000 to 8,000 people. The remaining population sizes were split evenly with three respondents each (1,000 to 3,000 people; 3,000 to 5,000 people; more than 8,000 people).

Figure 3, Figure 4, and Figure 5 provide a visual representation of the respondent demographics.

Figure 3. Demographic data – location of respondents.

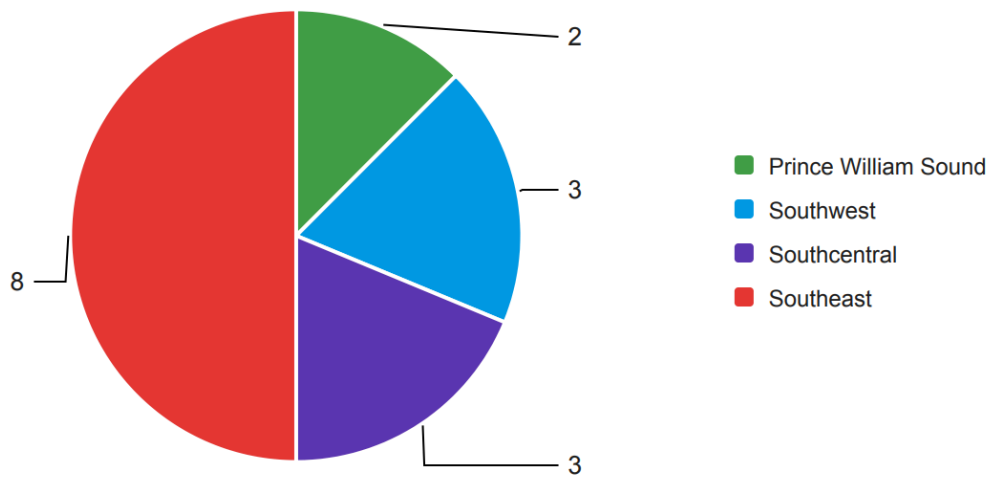


Figure 4. Demographic data – road connectivity.

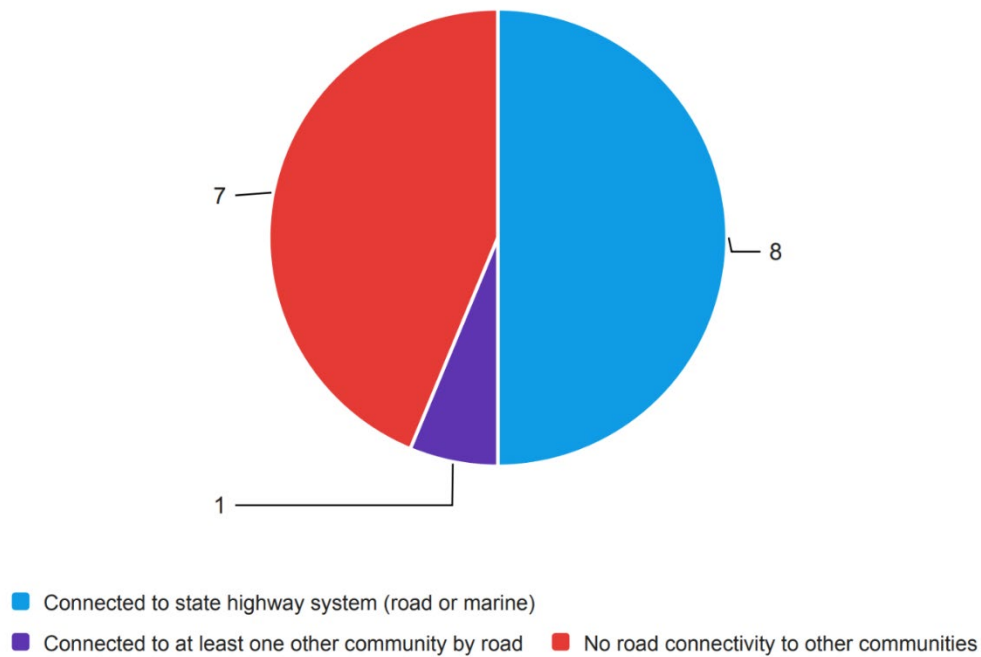
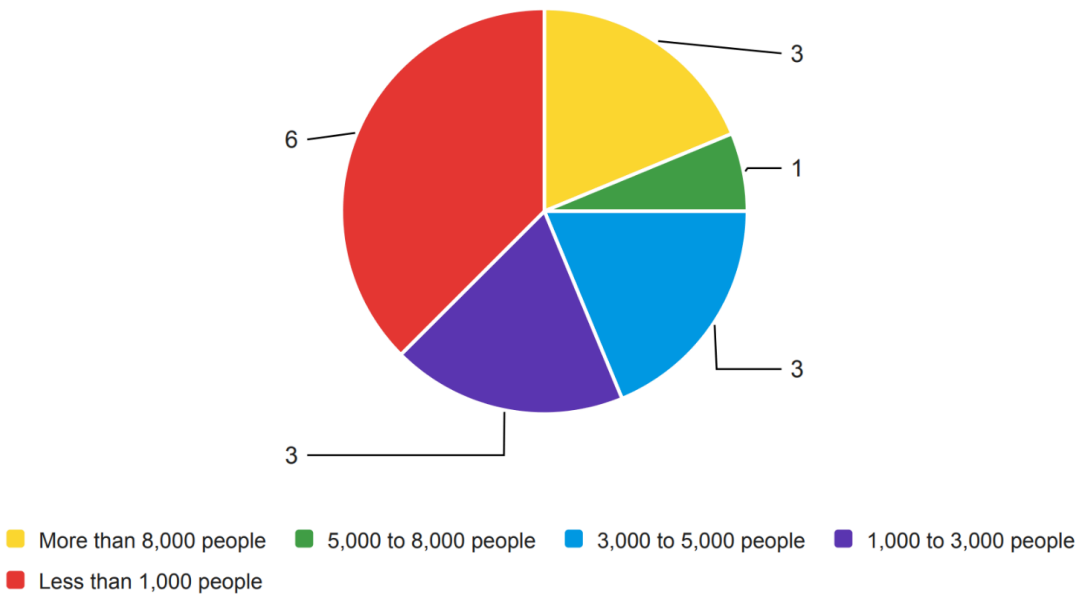


Figure 5. Demographic data – population size.



Infrastructure Condition/Needs

When asked how much respondents agreed with the following statement, “In any given year, harbor facility infrastructure deteriorates faster than can be maintained,” half of respondents either agreed or strongly agreed, while the other half were neutral.

Sixty percent of respondents replied that their harbor facility was in poor to very poor condition when received originally from the State, while 33% said it was in fair condition and 7% said it was in very good condition. When rating the same harbor facility infrastructure today, 50% of respondents reported it was in poor to very poor condition, while 25% reported fair condition, and 26% reported good or very good condition. Figure 6 and Figure 7 provide a visualization of this data.

Figure 6. How would you rate the condition of the harbor facility infrastructure at the time of the transfer of ownership from DOT&PF?

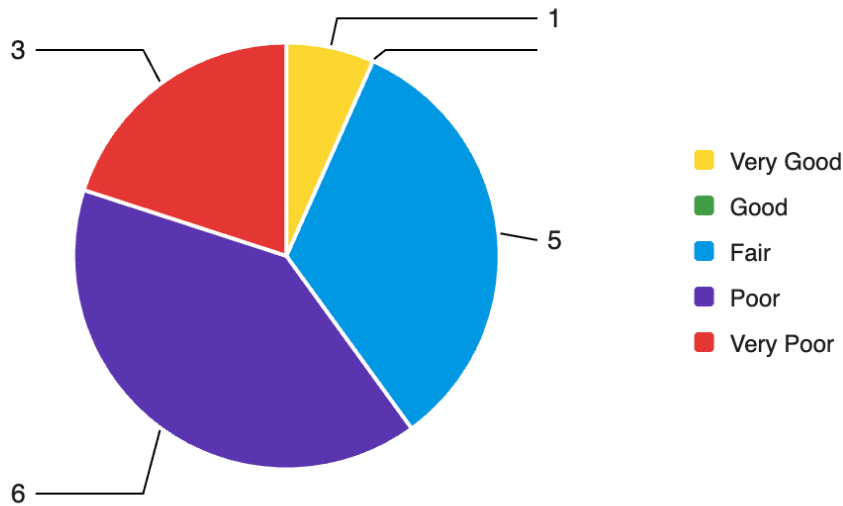
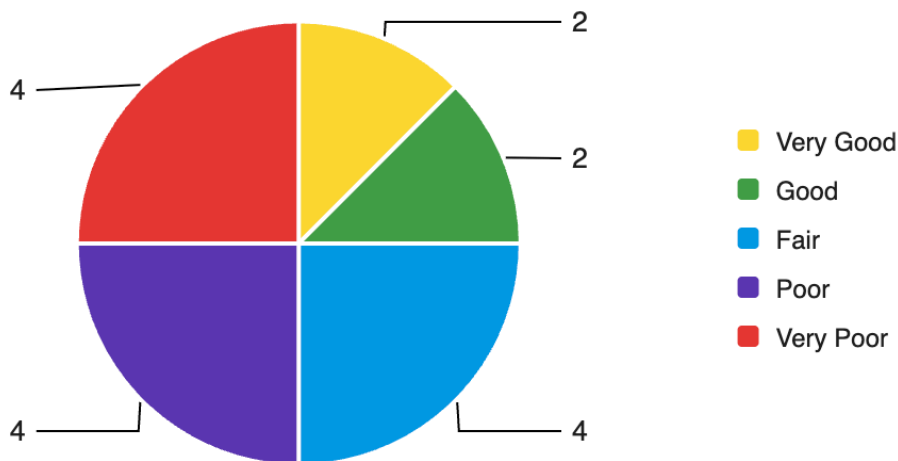


Figure 7. How would you rate the condition of this same harbor facility infrastructure today?



The following is a selection of feedback from respondents on challenges they face in managing harbor infrastructure.

- “Biggest challenge is the rising costs of materials are outpacing our harbor rates. it's not just a simple math problem when you have to look literally hundreds of customers in the eye and tell them their rates just increased...”
- “Lack of training and resources in a remote location.”
- “Rising costs have grossly outpaced our user fees. upcoming projects will need to be done in several stages as a possible solution.”
- “Escalating costs and lack of certainty of funding for the harbor grant program.”

- “Rising costs of repair and replacement. The federal requirement for GFCI electrical pedestals and the extreme expense in maintaining the electrical system and breakers. Finding staff in town is very difficult. Permitting time and costs for harbor rebuild. Finding contractors that will respond to conduct specialized work is difficult and expensive.”
- “Costs of work, cost of labor, and finding skilled employees”
- “Trying to build up reserve to qualify for matching grants or federal grants.”
- “Staffing, funding, and balancing the demand for additional new infrastructure with maintaining existing infrastructure.”
- “Handed over severely neglected infrastructure that we're now trying to replace.”
- “~11.5 miles of float systems. We recently hired an additional FTE maintenance person to decrease the ever growing to do list.”
- “Securing funding. I appreciate a level playing field though ie: communities must manage and maintain facilities and have skin in the game when it comes to replacement funding. Therefore, the best program the State of Alaska operates is the Municipal Harbor Match Grant program, it checks all the boxes and levels the playing field.”
- “We have a great relationship with State Representatives but they both represent larger communities with more voters and do not take our interest into consideration because the other communities are often at odds with our issues.”

Financial Capacity

The vast majority of harbor managers (75%) reported their harbor facility’s net operating income was positive (i.e., operations result in a financial profit). Additionally, the majority of harbor managers (69%) indicated the user fees they charged were reflective of the services they provide, while 25% indicated the user fees charged were not reflective of services provided. Adjusting user fees on an annual basis was most common (44%), followed by every 4 to 5 years (25%), “Other” (19%), and every 2 to 3 years (13%).

The following two tables show that a larger percentage of respondents rely on external (non-local) funding sources for major harbor improvement and replacement projects compared to routine maintenance and repair projects.

Table 4. Harbor major improvement/replacement funding sources.

On average, what percentage of the total funding for your major harbor improvement and replacement projects comes from external (non-local) sources?	Count
0-25%	6%
25-50%	19%

50-75%	13%
75-100%	63%

Table 5. Harbor maintenance/repair funding sources.

On average, what percentage of the total funding for your routine harbor maintenance and repair projects comes from external (non-local) sources?	Count
0-25%	69%
25-50%	6%
50-75%	0%
75-100%	25%

The following table shows the key sources of external (non-local funding) used for harbor projects. “Other” responses typically referred to local sources of funding, such as bonds and city sales tax revenue.

Table 6. Key sources of external (non-local) project funding.

What are the key sources of external (non-local) funding that you use for harbor projects?	Count
Alaska Municipal Harbor Facility grant program	69%
Other state grant program	31%
Shared Fisheries Business Tax and/or Fishery Resource Landing Tax	44%
Federal grant program	69%
Other. Please describe.	38%

Note: Respondents could respond to more than one option.

Half of the respondents noted that their harbor replacement reserve fund would not cover at least 50% of the estimated project cost at the time of replacement, while 13% responded that it would and 25% responded that they do not currently operate a replacement reserve fund.

Technical Capacity

A slight majority of respondents recorded staff tenure of 3 to 5 years (38 percent) followed by less than 3 years (31 percent). Additionally, just over half of respondents considered their staff size to be adequate to effectively manage harbor operations (56%). One “other” respondent noted that the staff size would be adequate “if the harbor were in better condition.”

Table 7 shows how harbor managers rated their staff’s ability to perform various O&M functions.

Table 7. Rating of department staff's ability to perform harbor management functions.

How would you rate your department staff's ability to perform the following functions:	Median	Mean	Standard Deviation
Day-to-day operations.	4.00	3.81	1.01
Routine inspections.	3.00	3.25	1.25
Special inspections.	3.00	2.81	1.33
Routine repair and maintenance tasks.	3.00	3.25	1.09
Special repair and maintenance tasks.	3.00	2.75	1.25
Evaluating and incorporating consultant feedback.	3.00	2.88	1.22

Note: The average is based on the numeric score attached to each rating respondents selected. These include not effective at all (1); slightly effective (2); moderately effective (3); very effective (4); and extremely effective (5).

Respondents' relationship with following a documented operations and maintenance (O&M) program was mixed, with 38% responding they do follow a documented O&M program, 31% responding they do not, and 31% responding "Other." Some of the "Other" responses include that an O&M program is "in progress;" that "crisis management better describes the implementation of a maintenance program;" and that they "try but fall behind on inspections."

Institutional Capacity

The majority of respondents indicated they relied on long-term planning documents (63%).

Respondents reported having the strongest relationships with other harbors within the region and local government officials, followed by harbor users and businesses supporting harbor operations (Table 8).

Table 8. Strength of harbor department relationships with stakeholders.

How would you rate your harbor department's relationship with the following groups?	Median	Mean	Standard Deviation
Other harbors within the region.	4.00	4.06	0.97
Local government officials.	4.00	4.06	1.03
Your state representative.	4.00	3.5	1.12
Your federal representative.	4.00	3.8	1.28
Businesses supporting harbor operations.	4.00	3.81	1.01
Harbor users.	4.00	3.94	0.83
Alaska DOT&PF.	4.00	3.47	1.02

Note: The average is based on the numeric score attached to each rating respondents selected. These include very poor (1); poor (2); fair (3); good (4); and very good (5).

Of the relationships that were rated to be the strongest, local government officials and harbor users were additionally rated as having the highest levels of influence on the ability to effectively manage harbor operations (Table 9).

Table 9. Influence of stakeholders on harbor operations.

How much influence do each of these groups have on your ability to effectively manage harbor operations?	Median	Mean	Standard Deviation
Other harbors within the region.	2.50	2.31	0.77
Local government officials.	3.00	3.00	1.12
Your state representative.	2.50	2.31	0.77
Your federal representative.	2.50	2.44	0.93
Businesses supporting harbor operations.	3.00	2.81	0.81
Harbor users.	4.00	3.38	0.78
Alaska DOT&PF.	2.00	2.27	0.85

Note: The average is based on the numeric score attached to each rating respondents selected. These include no influence (1); little influence (2); moderate influence (3); and significant influence (4).

Grant Application Analysis

A total of 27 grant applications for formerly State-owned harbors were analyzed for data related to demographic information; infrastructure condition/needs; cost share for projects; sustainable management practices; and the number of resubmittals and frequency of funding awards.

All of this information was pulled into a spreadsheet, cleaned, and organized. An additional sheet of supplementary data related to each of the applications was included with background/contextual information. The spreadsheet was analyzed according to the questions in the Methods chapter. The data and analysis can be viewed in Appendix C.

Demographics

According to USCB 2023 data, 48% of applicants were from rural areas and 52% of applicants were from urbanized area census entities. Seventy-eight percent of applicants do not have road connectivity and 22% do. There were 18 Tier 2 applications (67%) and 9 Tier 1 applications (33%).

Infrastructure Condition/Needs

The vast majority of applications were for major repair and replacement projects (85%), while major maintenance projects were the next-highest type of project (11%). Expansion projects represented 4% of applications analyzed, and there were no new construction applications projects.

Every application analyzed except one (26 applications) indicated that projects addressed public safety or emergency factors. Additionally, the median funds spent on facility maintenance the previous year are \$242,306, while the median funds spent on the previous five years are \$401,817 (Table 10).

Table 10. Range of Maintenance Funds Spent on Harbor Facilities.

Cost	Maintenance Spent on Facility in Previous Year	Maintenance Spend on Facility in Previous 5 Years
Mean	\$251,165	\$1,201,643
Median	\$242,306	\$401,817

Tier 1 and Tier 2 applicants describe maintenance projects to replace deteriorated infrastructure components, including rotted timber piles, corroded water service, broken float framing, pile hoops, spalled sections of concrete deck, and connecting rods. One applicant noted they spent over \$46,000 on snow removal at the harbor over the past 5 years, and another applicant noted they spent over 25% of the harbor operating budget on harbor facilities maintenance. In one instance, an engineering consultant concluded in a report that, "Based on the current condition of the harbor float system, the recurring costs for continued maintenance and repairs necessary to keep up with the deterioration of the harbor have likely reached a point where the net return from repairs are no longer cost effective."

Project Summaries in Tier 1 and Tier 2 projects (Appendix C, Supplementary Data - Combined sheet) include replacing/improving "aging" and "failing" infrastructure at "the end of its useful life" or in "an advanced state of disrepair" – often float systems. Some projects describe the lengthy phased reconstruction process, as well as improving ADA-compliance, especially for gangways; lack of appropriate cathodic protection; and aged or undersized electrical utilities.

Table 11 shows the year of the harbor facility transfer, along with the deferred maintenance funds granted to the facility by DOT&PF to address deferred maintenance at the time of transfer. The table also shows the proposed total project cost for comparison to deferred maintenance funds, as well as the application tier. The median percentage of deferred maintenance funds as a percentage of the total project cost is 61%.

Table 11. Transfer Year and Deferred Maintenance Funds.

Application Submittal Year ^a	Facility	Year of Transfer	Deferred Maintenance Amount	Application Project Cost	Percentage of Total Project Cost	Tier
2018	Bar Harbor North, Ketchikan	2004	\$3,292,772	\$1,254,110	263%	2

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2016	Skagway Small Boat Harbor, Skagway	2004	\$1,068,852	\$2,000,000	53%	2
2016	Shoemaker Bay Harbor, Wrangell	2003	\$3,492,000.00	\$10,969,926	32%	1
2017	Crescent Harbor, Sitka	2004	\$2,234,500.00	\$12,206,161	18%	1
2017	Harris Harbor, Juneau	2003	\$7,119,000 ^b	\$255,438	2,787%	2
2022	Whittier Small Boat Harbor, Whittier	2004	\$2,449,000	\$9,450,100	26%	2
2021, 2023	Aurora Harbor, Juneau	2003	\$7,119,000 ^b	\$4,271,200, \$11,500,000	167%, 62%	2, 2
2018	Angoon Harbor, Angoon	2005	\$1,490,000	\$2,345,287	64%	1
2019	Thomsen Harbor, Sitka	2004	Unknown	\$438,250	N/A	2
2019	Kake Portage Cove Harbor, Kake	2006	\$2,970,000	\$1,010,726	294%	2
2021	Homer Port and Harbor, Homer	1999	Unknown	\$768,000	N/A	2
2020	Cordova Port and Harbor, Cordova	2003	\$4,876,000	\$10,000,000	49%	1
2020	Seward Boat Harbor, Seward	1999	\$3,134,200	\$3,459,975	91%	2
2021	Yakutat Small Boat Harbor, Yakutat	2005	\$526,000.00	\$7,701,334	7%	1
2021	Valdez Small Boat Harbor, Valdez	2003	\$3,013,500 ^c	\$17,650,050	17%	1
2022	Meyers Chuck Float, Wrangell	2014	\$1,400,000	\$2,293,490	61%	1

^a Project costs may have changed over time for resubmitted projects; the year used represents the project cost for that year.

^b Across all harbor facilities in Juneau transfer.

^c Reimbursement costs; AS 29.60.700(b) replace B, C, D floats and B and E gangways.

Note: Resubmitted projects analyzed are included only once. Facilities that submitted more than one project have multiple costs listed in "Application Project Total."

Project Cost Share

Nearly every applicant (93%) used local funds to provide their 50% match required under the grant program, with an average local cost share of \$3.2 million (median local cost share of \$1.9 million), not including resubmitted projects. Local sources of funding included the following:

- General obligation bonds

- Municipal sales tax reserves
- Port/harbor reserves/major maintenance/replacement fund
- Port/harbor department working capital fund
- City working capital fund
- Loans (including interdepartmental city loans)
- Funds from cruise ship traffic (charges/taxes on cruise traffic)
- Voter-approved sales tax initiative
- Deferred maintenance account
- Fish Tax
- Increase in user fees

Sustainable Management Practices

All applicants provided proof they would follow a PMP after project completion; all proposed projects were listed in Capital Improvement Programs; and all applicants indicated they have an adequate revenue stream to operate and maintain harbors without State assistance following improvements, including future replacement.

Frequency of Funding

Nine of the projects (33%) were resubmittals, while 13 (48%) were not resubmittals, and 5 were unknown (19%). Six of the 9 resubmitted projects were eventually awarded funds.

Fifteen of the 27 projects analyzed resulted in award funding, 7 of which were awarded under Tier 1 grants and 8 awarded under Tier 2 grants. The following table provides a breakdown of the total project cost submitted across all applications, the requested State match, the proposed local match, and the awarded fees.

Table 12. Breakdown of total submitted costs, requested match, and awarded funds.

Type of Cost	Amount
Total Submitted Project Costs	\$140,633,868
Total Proposed Local Funds	\$75,111,147
Total Requested State Funds	\$60,491,501
Total Awarded Funds	\$40,310,483

Note: Totals are across all applications, including resubmittals.

Discussion

This research provides insight into local government financial, technical, and institutional capacity to sustainably manage harbor infrastructure, presented against the backdrop of the State political and economic landscape. The research documents the harbor transfer history and infrastructure conditions, as well as develops criteria to measure capacity and assess capacity levels – and discusses the barriers to building it.

Local governments and their port and harbor departments can use the research for insight into shared infrastructure challenges and capacity-building barriers. The research will provide State agencies with an understanding of the challenges faced by local governments in sustainably managing harbor infrastructure. Additionally, the research will provide both these local and State players with an understanding of each other's perspective on their role in addressing challenges. Lastly, this research will improve harbor users' understanding of the challenges local governments face in managing harbor infrastructure and provide context for the existing physical condition of the facilities.

System Components

Similarly to what Helpap (2023) described, the backdrop to successful harbor operation is financial – the ability for local governments to fund long-term strategic planning efforts as well as O&M planning; regulatory compliance; lobbying; staff (and training opportunities); consultants; and materials. The ability for local governments to fund these elements and repair, maintenance, and major harbor improvement and replacement projects is measured under financial capacity. Findings of this research will aid in understanding the self-sufficiency of local governments in financing harbor operations.

The physical infrastructure itself is measured through the improvement or decline of infrastructure condition over the years, as well as the evaluation of the technical capacity of the people tasked with effectively managing and operating such infrastructure. Technical capacity findings will aid in determining the current state of infrastructure and the confidence of infrastructure managers in effectively managing and maintaining it.

Institutional components are measured as the system the infrastructure operates within and the ability to develop long-term, strategic planning accordingly. Institutional capacity also describes the relationships of key stakeholders and their impacts on management of harbor infrastructure. Research findings will aid in understanding the role each stakeholder plays in adding to or detracting from the ability of local governments to sustainably provision harbor services, as well as the political, economic, and regulatory constraints harbors operate within.

Most importantly is the interaction of each of these system components – strengths or weaknesses in one area of the system will grow or detract from the overall outcome. Research results show the patterns and contradictions that emerged throughout analysis to aid our understanding of this system.

Revisiting Previous Research

As Alaska has matured and oil revenues that supported the majority of the economy declined over recent decades, the State moved away from its role supporting local governments, instead asking them to improve self-reliance (Ritchie 2016; AML 2023). Previous research indicates that local governments are still adjusting to their role independently managing transferred harbor infrastructure, as well as contending with the severely degraded infrastructure they received (Ritchie 2016; AML 2023; ASL 1993).

This research reflects prior findings and shows that infrastructure condition has improved marginally over time. Additionally, the reoccurring costs for repairs and maintenance of deteriorating infrastructure will continue to outpace the value of the infrastructure unless major improvements or replacements are made. The majority of surveyed harbor departments noted they received harbor infrastructure from the State in “poor” or “very poor” condition (60%), while only slightly less indicated the same infrastructure was “poor” or “very poor” today (50%). Nearly all grant applications indicated projects would address public safety or emergency factors, which shows that over the 7-year study period ending in 2023, infrastructure condition is in serious enough condition to pose such hazards. Survey respondents and interviewees indicated they are contending with rising material costs, infrastructure that deteriorates faster than can be maintained, and playing catch-up since the State transfer due to poor infrastructure condition and poor planning prior to the harbor transfer.

The Harbor Managers, State Agency Employee, and Local Government SME all noted the importance of the statutory Harbor Grant Program as a source of funding for major improvement and replacement projects. Indeed, the program was developed to fill the gap between self-sufficiency and severely degraded infrastructure by supporting local governments in their move toward self-reliance and addressing deferred maintenance (AAHPA 2024; DOT&PF 2025).

However, the funding program has not always been a reliable source of funding for communities and rising materials costs require a larger match amount (AAHPA 2024; ASCE 2025), findings confirmed by this research. Just over half (15) of the 27 grant applications analyzed during the study period were funded, which included 6 resubmitted projects. Harbor Managers both discussed the inconsistent funding of the program and the need to

increase the match amount by \$2.5 million to accommodate the rising cost of materials. The State Agency employee and Local Government SME both noted that attaining a 50 percent match for major harbor renovation was likely unattainable for smaller communities with smaller tax bases or economic output.

While previous research (NEI 2011) and this research's interviews indicated that the criteria used to rank Projects under the grant program is effective, the grant analysis found many applicants applied under the same project category and responded to rating criteria similarly. With more than half (8) of the 15 awarded funds going toward Tier 2 applications, findings suggest that the original purpose of the Harbor Grant Program has shifted to focus on continued support of harbor infrastructure improvements. Findings indicate that changes to the grant program should include refocusing the goal of the rating criteria to more accurately assess the need for continued State support; increasing the match amount to support increased material costs and index the funds to match future inflation; and assessing how to adapt the program to work for smaller and/or economically disadvantaged communities.

This research also shows contradiction between State expectations for local management of infrastructure vs. the State's own management of infrastructure. Previous research showed that while the State expects local governments to gain self-sufficiency in managing harbor infrastructure, the State itself remains highly dependent on federal funding for transportation infrastructure development, operation, and maintenance (Connor et al. 2016). The State Agency Employee confirmed this finding, noting that the DOT&PF budget relies almost entirely on federal aid that is not eligible for small boat harbor infrastructure funding. Importantly, the State was recently challenged with balancing a budget deficit linked to low oil prices, creating concerns around the State's ability to fund various services or provide funding support in the future (Brooks 2025a, 2025b). Prior to the majority of the facility transfers in the 1990s and early 2000s, funding to support State-run harbor infrastructure was dwindling; today, the Employee said there is essentially no funding stream for harbors still owned by the State.

Major Findings

The primary purpose of this research is to measure how the capacity of local governments has evolved since the transfer of harbor facilities, as well as address the barriers to building capacity. The discussion of these findings follows.

Financial Capacity

This research first measures financial capacity based on the self-sufficiency of local governments to fund harbor O&M. Both Harbor Managers interviewed indicated they

typically have a healthy working capital to fund O&M, and 69% of respondents indicated that 0-25% of funding for routine maintenance and repairs came from external (non-local sources). These findings indicate that local harbor departments have generally built capacity to successfully support themselves and fund O&M of harbor facilities.

However, the ability to fund such work becomes strained by growing repair and maintenance costs associated with harsh environmental conditions and poor infrastructure condition. The grant application analysis found that maintenance costs are generally rising (Table 10); annualizing the median cost of maintenance spending over the previous 5 years (\$401,817) results in approximately \$80,363 spent each year on maintenance. However, the previous-year median maintenance spending cost of \$242,306 is more than triple the average cost of \$80,363, indicating that annual maintenance costs have increased substantially in recent years. Additionally, the Harbor Managers interviewed and those surveyed commonly noted that a major financial barrier is simultaneously funding the increasing O&M costs as harbor infrastructure deteriorates while setting aside savings for large improvement and replacement projects.

Research findings indicate that the final three measurements of financial capacity are closely intertwined: self-sufficiency in funding major retrofit or replacement projects; whether or not a harbor department keeps a reserve fund to cover at least 50% of the harbor replacement cost at the end of its useful design life; and whether or not a harbor facility operates a sustainable business model.

The majority of those surveyed reported their harbor facility's net operating income was positive (75%). However, a major barrier to building financial capacity is setting fair user fees that will allow harbors to not only fund day-to-day O&M but also build reserves for major improvement and replacement projects. The Harbor Managers, State Agency Employee, and Harbor User are in agreement that major improvement and replacement costs are not currently possible on user fees alone – and raising user fees to a level that could fund such projects would make harbors unaffordable to many users. Due to the challenge in building reserves with user fees, as well as the poor condition of the infrastructure, the Harbor Managers and State Agency Employee consider grant-funding support for major improvement or replacement projects a necessity. Additionally, 63% of respondents indicate that 75 to 100% of project funding for harbor improvement or replacement projects comes from external (non-local) sources.

Understanding these challenges, this research considers current harbor user fees set below the necessary rate to fund major improvement or replacement projects to be unsustainable. Interestingly, 69% of survey respondents indicated the user fees they

charged were reflective of the services they provide. This contradiction indicates that harbor departments undervalue the services they provide and do not realize their competitive advantage – or avoid imposing the higher fees for the sake of their users. These findings reflect comments from the local Government SME, who said the relationship between harbors and the industries they supports should be mutually beneficial, because “...anything else is just subsidizing an industry that is taking those resources out without leaving enough behind.”

Most survey respondents (75%) indicated they did not have a sustainable replacement reserve strategy – with most saying they either did not operate a replacement reserve fund or that the fund would not cover at least 50% of the project cost. Interestingly, all grant applicants indicated they have an adequate revenue stream to operate and maintain harbors without State assistance following improvements, including future replacement. This contradiction could be due to the pressure applicants feel to respond as expected to secure grant funds.

Despite these local challenges in funding major projects, nearly every applicant for the grant program (93%) used local funds to match the project cost under the grant fund, mixing funds inside and outside of the harbor department, such as bonds, harbor reserve funds, harbor working capital funds, municipal sales tax, and increased user fees, among other means. These findings show that despite the challenges experienced within the harbor department, local governments have built financial capacity to support funding major infrastructure needs without depending solely on user fees; this finding additionally demonstrates the importance of institutional support of the local government.

There are two important considerations for the overall understanding of local financial capacity. The first is that many local governments are still contending with harbor infrastructure challenges originating from the transfer and small deferred maintenance payments in relation to the infrastructure condition. The second consideration is that, according to interviewees, public infrastructure is not necessarily meant to be a profitable venture but an affordable public service, and both Harbor Managers considered their departments to operate similarly to non-profits. As the State Agency Employee said, “A harbor doesn't really pay for itself. If you think about it, all public infrastructure doesn't pay for itself.”

These two considerations provide important insight into local governments striking a balance between developing funding streams to bring harbors into a state of good repair and sustainably manage them, while maintaining the value of affordable public infrastructure to the harbor users.

Technical Capacity

The first measurement of technical capacity is having an adequate staff size to manage operations, while the second is that the staff has the skills and experience to perform routine and complex tasks. Those interviewed said they had an adequately sized and experienced staff, noting that staff consisted of former commercial fishermen or retired members of the U.S. Coast Guard, giving employees a deep understanding of harbor infrastructure needs and facility operations to support vessel traffic and/or harbor users.

Survey responses were more mixed, as just over half of respondents considered their staff size to be adequate to effectively manage harbor operations (56%). As Table 7 showed, most harbor managers rated their harbor staff higher in performing routine tasks compared to special or potentially more complex tasks that require coordination with consultants. Some survey respondents expressed challenges in lack of resources and training due to remote locations, as well as finding and affording skilled employees.

A documented O&M plan is a guiding document for effective day-to-day operations and knowledge transfer (Sorum 2006). This research identified the presence of a documented O&M plan or PMP as a measurement of technical capacity, as well as important to managing current demands while proactively planning for future ones. Findings on this element of capacity were mixed. Every grant application analyzed provided a documented PMP intended to proactively address harbor maintenance needs, but it is unclear how closely the plans are followed. O&M plans are harder to come by, according to interviewees and survey respondents, with 38% of respondents saying they follow one and 50% of interviewees saying they have one.

Considering many harbor departments became more formalized since the transfer of ownership, these results show that harbors have grown technical capacity to manage operations, although they still face challenges in staffing, training, and formalized methods of proactive O&M planning.

Institutional Capacity

Survey responses, interviews, and grant application analysis indicate that harbor departments generally follow some form of planning document and participate in capital improvement programming, which is the first measurement of institutional capacity. All grant applications were listed in a capital improvement program, and 63% of respondents said they relied on long-term planning documents. However, it is unclear if the type of planning being performed is creating effective management and financial planning strategies.

The additional measurements of institutional capacity included the relationship with local, state, and federal stakeholders who impact the ability to manage operations effectively, and the community's political power/presence within the State.

Interviewees and survey respondents noted both the strength of the working relationship between the harbor department and local governments and the strong influence of the local government on operations, indicating a strong and positive local support base for harbor operations. Additionally, results indicate positive relationships with harbor users, who are vital to the success of harbor operations; Harbor Managers are expected to provide 24/7 service while keeping user fees low. Survey respondents indicated a generally fair relationship with State or federal representatives, which respondents consider to be moderately impactful on operations. Still, lobbying and organizations such as AAHPA are considered important to keep a voice within the State. As one survey respondent noted, smaller communities struggle when representatives also represent larger communities with differing interests.

Research findings indicate that relationships with State players will be increasingly important to building institutional capacity if harbors remain dependent on the State for major project funding, including continued funding of the Harbor Grant Program. Additionally, this research finds that the State's own struggles in sustainable infrastructure development and management presents unique opportunities. The State Agency Employee and the Harbor Managers recognized that both local and State infrastructure managers face the same predicaments at different levels of government. When asked about the challenges local governments face in managing harbor infrastructure, the State Agency Employee said, "There's huge challenges, and it's the same challenge that we all have, and it's lack of resources and lack of funding."

Harbor Manager 2 noted the shared budget challenges and shared commitment to public infrastructure could provide an opportunity for the State and local governments to find solutions together, saying that DOT&PF has "experienced some serious budget challenges, which have helped open the conversation about ways to get things done. It's challenging because nobody has any money but we're rolling and moving the ball ahead...In these troubled times of budget, the people that are left standing are trying to keep the wheels on the wagon."

Progress Toward Building Capacity

This research has found that local governments have indeed absorbed harbors in poor condition from the State with deferred maintenance funding that did little to support major improvement or replacement. At the same time, the lack of planning and preparation on both the State and local government side prior to the transfer has resulted in many local communities still trying to catch up in managing facilities responsibly.

How harbor managers received their infrastructure indicates some of the struggles they have today, as shown through the experience of Harbor Manager 1, where the community was operating infrastructure services like a business prior to the transfer and received a relatively good deal from the harbor transfer. Harbor Manager 2, who did not receive harbor upgrades or adequate deferred maintenance funds to address needs of the harbor, said the department started from “no real effort toward sustainability.” After over 20 years, Harbor Manager 2 thinks the department has learned enough to be on the path toward more sustainable infrastructure management.

This research also finds that most harbor managers believe harbor facility needs have not been adequately met by the State and that consistent State support is necessary to fund major improvement/replacement projects, while the State has divested itself of the responsibility of the local harbor facilities. As the Local Government SME put it: “Both sides have very different expectations and there’s probably some truth to both. There are still needs at the local level that haven’t been met by the state and there’s a state who feels like it’s done its part for some of these, who expect a move toward sustainability.”

Additionally, the State is experiencing challenges with its own unpredictable revenue stream and reliance on federal funding, putting State funding allocations for both formerly owned and currently owned harbor facilities into question (i.e., funding the Harbor Grant Program for formerly owned harbors and the “Deferred Maintenance Fund” for currently owned harbors).

Despite the capacity-building challenges addressed above, local governments have grown financial, technical, and institutional capacity to more sustainably manage harbor infrastructure. However, there is a long way to go toward self-sufficiency, and local governments are faced with obstacles in building each element of capacity. Additionally, these findings consider the State expectation for local governments to achieve self-sufficiency in managing harbor infrastructure contradictory to the State’s own lack of self-sufficiency. However, as noted above, this may provide an opportunity for more candid discussion between local governments and the State about support mechanisms.

Barriers to Building Capacity

The following provides a summary of the barriers identified to building capacity, discussed in detail in the previous sections.

Financial Capacity

Some harbor managers are dealing with deficient infrastructure conditions outpacing maintenance and repair costs. Harbor managers are also challenged with how much O&M costs for deficient infrastructure detract from saving for larger improvement and replacement projects. Funding for major improvement or replacement projects still requires State or federal funding support – and most harbor facilities do not have a sustainable replacement reserve strategy or sustainable user rates.

Technical Capacity

Some barriers exist around staff size and ability to perform more complex, specialized tasks, as well as finding and paying skilled employees, especially in remote locations. There is additionally a lack of documented O&M plans.

Institutional Capacity

It is unclear if the type of planning being performed is creating effective management and financial planning strategies at harbor facilities. Additionally, there is a mismatch between local and State expectations for support – with local governments feeling the State should provide financial support for facility improvement projects and the State feeling it has played its role. The State's own financial challenges add a layer of complexity to this barrier, making it an unreliable partner for future funding support.

Limitations

Previous literature that documents the history of the transfer of harbor facilities from the State to local governments, as well as identifies the local capacity of communities managing formerly State-owned harbor facilities in Alaska, is limited. However, during this research effort, historical information on the formerly State-owned facilities was collected through interviews, literature review, and transfer agreement documents attached to grant applications. This research also used a range of precedent studies focused on local government capacity building, including in small and rural communities, to develop criteria for measuring capacity.

Additionally, surveys may not have addressed needs in smaller, more remote communities due to challenges in accessing staff during survey distribution. Surveys were not distributed to every community that owns a formerly State-owned facility.

Conclusion

The conclusion presents a summary of research, as well as the path forward to building capacity based on research findings. Finally, future research needs based on these findings and suggested pathways are presented.

Summary of Research

This research sought to answer the question: How has the capacity of local governments in Alaska evolved to sustainably provision operations, maintenance, and improvements of harbor facilities since the transfer of ownership from the State? Additionally, what are the barriers these governments face in developing capacity?

The literature review provided broad insight on the transfer of harbor facilities from the State to local governments, including rationale, infrastructure condition, and the means to support management of facilities prior to and following the transfer. The literature review also showed that Alaska harbors are an important component of the State's and local government's economies and transportation system, as well provided economic and political context for the relationship between the State and local governments.

Precedent studies on local government capacity were introduced and criteria to measure financial, technical, and institutional capacity of local governments in managing harbor operations were developed based on this work. The research adopted an SSM approach that incorporated mixed methods to assess financial, technical, and institutional capacity. As part of this approach, five semi-structured, virtual interviews were conducted; 27 grant applications from formerly State-owned harbors for a State-run grant program were analyzed; and 22 surveys of harbor managers (or similar) were collected, 16 of which were analyzed. Research constructed historical information related to the harbor transfer, including harbor conditions, transfer timelines, purchase price, and deferred maintenance funds, in order to better understand the current condition of facilities and provide a baseline for measuring capacity against. This historical information was collected through literature review, interviews, and grant application attachments.

Findings suggest that the infrastructure received in poor condition has improved marginally since the transfer, but the majority still requires considerable improvements or complete replacement. Harbor departments have built local self-sufficiency to fund day-to-day O&M tasks but require external funding support for major improvement and replacement projects. Rising material costs and the increasing rate of maintenance and repair due to poor infrastructure condition are detracting from the ability to contribute to major improvement and replacement funds.

Additionally, there is a misalignment between the perceived and actual value of harbors, which allows users and harbor managers to justify unsustainable user fees that do not provide adequate funds for major improvement or replacement projects. However, this research emphasizes that setting sustainable user fees is not a black-and-white issue: Harbor departments have long been working toward striking the appropriate balance between provisioning an affordable public good that supports transportation systems and the economy and building financial sustainability of infrastructure that is expensive and technically challenging to maintain in Alaska.

Findings also show that most departments have competent staff to support operations, but ongoing challenges remain in securing and maintaining additional staff, especially when harbors are located in more remote communities. Harbor departments additionally lack formalized O&M planning and execution due to the costs associated with plan development, challenges prioritizing planning due to ongoing repair/maintenance needs, and lack of existing documentation related to harbor functions.

Results suggest harbor departments have strong relationships at the local and regional level with local governments, harbor users, and other regional harbors. Additionally, there is a discrepancy between local and State perspectives on how to address challenges faced in managing harbor operations, with local governments requesting consistent State support and the State expecting local self-sufficiency. Despite disagreements in how to solve the problem, local and State players acknowledge that they face similar challenges.

Overall, findings indicate that while local governments received harbor infrastructure in poor condition with limited support for improvements, they have grown their financial, technical, and institutional capacity to more sustainably manage harbor infrastructure since the transfer. However, there is a long way to go toward sustainability, and local governments are faced with major obstacles in addressing challenges.

Pathways to Building Capacity

Based on the above findings, this research has identified pathways to support local governments in improving capacity to sustainably provision operations, maintenance, and improvements of harbor facilities.

Increasing Local Funding Sources & Regional Economic Cooperation

Harbor managers face a challenge that is not uncommon to local infrastructure operators in striking a balance between provisioning affordable public infrastructure and building financial sustainability. However, the results of this research regarding user fees are clear. Without raising user fees to more sustainable levels – which are below the market value

due to harbors historically being subsidized – harbors will not be able to operate without some form of subsidization. Further assessment of the discrepancy between the fees that users can afford and the true cost of harbor operations should be performed. Additionally, local governments have been important financial contributors to major harbor improvement and replacement efforts and may need to consider how to increase their revenue stream to support these projects should raising user fees to sustainable rates not be a realistic option. The strong, positive relationships between harbor departments and their local governments and users assures that progress is possible.

Additionally, strong regional relationships between harbors provides opportunities to hold discussions regarding regional economic cooperation and development that supports local governments.

O&M Prioritization

O&M is instrumental to effective management of day-to-day operations, knowledge transfer, and proactive maintenance. Improving O&M planning and execution will serve communities better in the long term. Understanding that many harbor departments face challenges in keeping up with deferred maintenance and a backlog of repairs, the results of this research show that harbor departments need to prioritize documenting and following through on O&M efforts, as it takes time to build a body of knowledge that will be beneficial to harbor staff. Identifying effective O&M strategies will be important in prolonging the service life of facilities, supporting staff, and counteracting staff turnover, recruitment, and training challenges.

Harbor Grant Program Updates

Bringing infrastructure into a good state of repair is critical to running sustainable operations, as maintaining deficient infrastructure is detracting from harbor managers' ability to focus on longer-term planning efforts or contribute to reserve funds for large projects. The Harbor Grant Program plays a crucial role in supporting major infrastructure improvements, and the program has provided significant contributions to close the deferred maintenance gap from the initial harbor transfer. However, inconsistent funding of the Harbor Grant Program by the State continues to be a barrier, and the State should consider measures for providing consistent funding, such as determining a minimum annual funding amount.

The Harbor Grant Program should additionally refocus scoring criteria to reflect changing community needs since the initial transfer. While communities are working toward building sustainable management practices, the State must acknowledge that communities, especially those still addressing deferred maintenance challenges, will require continued

State support in the short-term. Without this support, the State risks infrastructure continuing to fall into disrepair until it cannot support local industry that benefits the State economy, or risks local governments raising user fees too drastically, too quickly and pricing out the users and businesses that contribute to the local and State economy.

This research also concludes that the harbor funding cap amount must be increased to address the significant increase in material costs since the grant program was introduced in 2006. Lastly, the Harbor Grant Program should consider how it can better address smaller or economically disadvantaged communities with formerly State-owned facilities, especially those that are still eligible for a Tier 1 grant.

Local and State Government Collaboration

Funding of the Harbor Grant Program leads to a final important conclusion that is beyond the scope of this research: The State is experiencing – and will continue to experience – significant challenges in provisioning State funding and services due to declining oil revenues and lack of alternative reliable funding sources.

Instead of holding expectations for local self-reliance without State intervention, the State should consider the opportunity for mutual learning about capacity development under limiting circumstances. Challenges experienced by the local and State governments present a unique opportunity for collaboration, knowledge-sharing, and strategy development to build solutions to more sustainably manage public infrastructure.

It will also be important to develop planning and management strategies for those local communities with currently State-owned facilities, whether through collaboration with the State or other local governments. This ensures communities have a head-start in their understanding of effectively managing infrastructure well before future facility transfers.

Further Research Needs

As Stough (2005) and Walter Honadle (2001) discuss – as well as multiple interviewees noted – local governments value local ownership of harbor facilities and the ability to effectively address community needs and potentially develop community-led solutions, as opposed to relying on the State for support. However, the results of this research form new questions: Despite progress in building local capacity to sustainably manage harbor infrastructure, can local harbor facilities operate independently? Or is some form of subsidization necessary? Is this subsidization necessary only for the short-term, as local governments continue to work toward sustainability, or is subsidization necessary indefinitely? Additionally, who subsidizes local harbor infrastructure when State funding is not available?

Case Studies, Surveys, and Dredging

Case studies of local governments and their harbor facilities would provide an in-depth assessment of local government needs and strategies, which would delineate barriers and potential solutions to the challenges presented in this research. The case study research would include in-depth observations on historical harbor user fees, the amount necessary for sustainable operation, and economic studies to determine the ability of industry to afford these rates. Regional economic cooperative studies may also be beneficial.

An additional survey following up on the findings of this research distributed to a larger group of harbor operators would be beneficial to increasing the understanding of local capacity.

Dredging will become an increasingly challenging issue, especially for Southeast Alaska communities experiencing isostatic rebound; however, an in-depth discussion of dredging was beyond the scope of this research. Further research is needed to assess how local governments can work with USACE to fund such projects.

Economic Analysis/Planning Study

An economic overview and planning study of Alaska's port and harbor infrastructure was developed by NEI in 2011. The research was funded by the State and was intended to determine challenges in managing facilities; build strategies to solve systemic problems; and delineate the State's role in supporting port facilities. However, it appears this endeavor stopped with the study, and further discussions or publications on the subject have not occurred. Although the study has aged, NEI's report was instrumental to this researcher's understanding of the existing and future infrastructure and economic conditions and challenges in managing port and harbor facilities.

In determining whether or not consistent State or federal support for harbor facilities is necessary, Alaska's harbors would benefit from a more recent, similar study to the 2011 NEI one. The updated study would be an important factor in the State's consideration of supporting facilities it is no longer has responsibility for, as well as the federal government's understanding of the role of harbors in the State supply chain and economy.

The NEI report (2011) argued that because local port facilities (such as cargo-loading facilities) are part of the domestic and international supply chain and a broader network, they have significance Statewide and may require State-level strategic planning and funding; harbors are not necessarily considered to have the same Statewide significance and instead provide a means for local transportation and economic development.

However, based on the findings of this research, further research should be performed to assess the role of harbors within the broader State economic and transportation system.

As one Harbor Manager noted, while it may not be apparent, Alaska's harbors serve a valuable role that extends beyond the local facility: "The average person looks at the harbor and it's a snapshot point in time; boats in a harbor and boats in a slip. In the instance of a commercial harbor, that's only the beginning of the story. What you really need to think about is where those boats go and what they do."

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Appendix A: Interview Questions

Some interview questions have been altered slightly to retain the anonymity of participants.

Harbor Managers

Harbor manager interview questions were combined.

1. Describe background/harbor; transfer information.
2. What are the primary industries that support your local economy?
3. What year was your harbor transferred from DOT&PF?
 - a. What was the purchase cost of the harbor?
4. Can you describe the condition of the harbor(s) received through the transfer?
 - a. How would you describe the conditions of the harbor(s) today?
5. What kind of funding program is in place for your harbor? Please describe how it is structured.
 - a. Does this funding program adequately support repair/maintenance and management/operations? Why or why not?
6. How are major harbor improvement and replacement projects funded?
7. How are your user fees developed?
 - a. Would you consider your user fees reflective of the services you provide? Why or why not?
8. What are the most persistent challenges in securing or developing sustainable funding for harbor repair/maintenance projects?
 - a. For major harbor improvement/replacement projects?
9. What is your personal tenure in your role? What is the average tenure of your department staff?
10. Do you have an operations and maintenance (O&M) program in place?
 - a. How was it developed? How closely is it followed?
11. Please describe the most persistent challenges in adequate department staffing, if any.
12. Please describe the most persistent challenges in developing and incorporating O&M programs, if any.
13. How confident do you feel in securing consistent state/federal funding support?
14. Do you currently have existing planning documents for your harbor? Do you rely on these planning documents?

15. Outside of your department, what would you consider the entities with the greatest impact on your ability to effectively manage harbor operations? These may be local, non-local, or both.
 - a. What are the barriers – if any – to building relationships or partnerships with these groups?
16. How does the regulatory environment impact your ability to effectively manage harbor operations?
 - a. What are the barriers to overcoming regulatory constraints, if any?
17. What has AAHPA's role been in working with local communities since the transfer of harbor facilities from DOT&PF?
18. What do you find are some of the major challenges communities are experiencing with effective management and operation of these harbor facilities?
19. What are some advantages certain communities have in successfully developing their capacity to manage harbor operations?
20. What role has the Shared Fisheries Business Tax/Fishery Resource Landing Tax [Raw Fish Tax] played in supporting communities managing harbor facilities?
 - a. Are there aspects of this program communities would generally like to see changes to?
21. What role has the Marine Fuel Tax played in supporting communities managing harbor facilities?
 - a. Are there aspects of this program communities would generally like to see changes to?
22. What role has the Alaska Municipal Harbor Facility grant program played in supporting communities managing harbor facilities?
 - a. Are there aspects of this program communities would generally like to see changes to?

Local Government SME

1. Can you describe your role in working with municipalities?
2. What has been your experience with the local community ownership of harbor facilities? When did you first become familiar with this topic?
3. What is your understanding of some of the challenges communities are facing in dealing with the harbor infrastructure?
4. Are there similarities to challenges communities are facing in managing harbor facilities that are similar to other areas of city management?

5. How have communities asked you to assist them in addressing these needs? What kind of work have you done to assist here?
6. Is it possible for local governments to be self-sufficient in operation and management of harbor facilities in the future?
7. What are some advantages that some communities have over others in succeeding in sustainability managing harbor operations?
8. Do you have historical data on the communities and timelines that were part of the facility transfer?

State Agency Employee

1. Please provide some background on your relationship/familiarity with the harbor transfer program?
2. Prior to the early transfers of facilities (1990s/2000s), can you describe the challenges the state was experiencing in managing harbor infrastructure?
 - a. How would you describe your relationship with local governments prior to and during the time of the transfer?
3. When the state owned/operated the harbor facilities, they did not charge user fees/slip fees but allowed the local community to charge if desired. Were fees used to support state maintenance and repair?
4. When harbors were transferred to local governments, how were deferred maintenance costs calculated?
 - a. How were the purchase prices calculated?
5. Today, what do you consider to be the state's expectations of local communities with formerly state-owned harbors?
 - a. What are the biggest challenges local governments face in managing this infrastructure self-sufficiently, if any?
 - b. What ways can local governments improve in order to more self-sufficiently manage harbor infrastructure, if any?
6. Today, what do you consider to be the state's role in assisting local governments with formerly state-owned harbor facilities? Has this role changed over time?
 - a. What ways can the state improve in assisting local governments with managing harbor infrastructure, if any?
7. Do you think the Alaska Municipal Harbor Facility grant program has been successfully serving its purpose? Why or why not?
 - o Are there any changes to the program you think should be made?
8. How would you describe the DOT&PF's relationship today with managers of these harbor facilities?

- a. What kinds of factors contribute to a positive (or negative) working relationship?
9. To date, do you know how many facilities have been transferred through this program?
 - a. How many State-owned harbor facilities remain?
 - b. Are there challenges in staffing/funding maintenance and repair of these facilities?
10. What are state expectations of local communities with currently state-owned harbor facilities?

Harbor User

1. Please describe your relationship with your community's harbor facilities.
2. What are the primary industries in your community?
 - a. What is the main mode of transportation?
3. How many vessel slips does the harbor have? What kind of vessels does the harbor support (i.e., recreational, tourism, commercial fishing, etc.)?
4. How long has your harbor been managed by DOT&PF?
5. What condition is the current condition of the harbor facility? (1=poor, 5=excellent)
6. What does your maintenance agreements with DOT&PF generally consist of?
7. How much does annual maintenance and repairs cost for the harbor facility?
8. Is the community considering paying user fees while the facility is being managed by DOT&PF? Why or why not?
9. Why/when did maintenance stop?
 - a. What did this mean for your maintenance agreements?
10. How long until the harbor is no longer viable/functional (i.e. meeting the needs of the community/users)?
11. What kind of agreement has DOT&PF offered in exchange for your community purchasing or managing the harbor facility?
 - a. Is the community considering? Why or why not?
12. What entity would DOT&PF sell the harbor to?
13. If your community takes ownership of the facility -- how would you build moorage rates?
 - a. What local sources of funding would be used to support maintenance and operations?
 - b. How would the harbor department be staffed? Are there local people who have skills to support operations and maintenance?
14. Are there any existing community planning documents that can be relied upon?

15. Are there other local departments managing aspects of community governance?
16. What are the community's next steps?

Appendix B: Survey Questions

The following survey will assess local governments' capacity to manage operations and improvements of harbor facilities that were formerly owned by the Alaska Department of Transportation & Public Facilities (DOT&PF) and transferred to local governments. The results of this survey will be published as part of a student research effort. The survey should be filled out by a person who is familiar with management and operation of your harbor facility.

Results will be aggregated to maintain the anonymity of your community.

The survey consists of 24 multiple choice questions followed by 4 optional, open-ended questions. The survey will take approximately 10 to 15 minutes to complete. The deadline to complete this survey is May 3, 2025.

Thank you for your contributions to this research. If you prefer to receive this survey via telephone or have any questions, please reach out to Stephanie Hernandez McGavin at smcgavin@uw.edu.

1. Was your harbor facility previously owned by the Alaska Department of Transportation & Public Facilities (DOT&PF)? Required.
 - a. Yes
 - b. No
 - c. Other. Please describe.
2. Please select the region where your community is located in Alaska.
 - a. Southeast
 - b. Southcentral
 - c. Prince William Sound
 - d. Southwest
 - e. Yukon-Kuskokwim
 - f. Northwest
 - g. Arctic
3. Please describe your community connectivity.
 - a. No road connectivity to other communities
 - b. Connected to at least one other community by road
 - c. Connected to state highway system (road or marine)
4. Please describe your population size.
 - a. Less than 1,000 people
 - b. 1,000 to 3,000 people
 - c. 3,000 to 5,000 people

- d. 5,000 to 8,000 people
 - e. More than 8,000 people
5. What is the **average tenure** of your department staff?
- a. Less than 3 years
 - b. 3 to 5 years
 - c. 5 to 8 years
 - d. More than 8 years
6. Do you consider your staff size to be adequate to effectively manage harbor operations?
- a. Yes
 - b. No
 - c. Other. Please describe.
7. How would you rate your department staff's ability to perform the following functions? (Likert scale: Not effective at all, slightly effective, moderately effective, very effective, extremely effective).
- a. Day-to-day operations.
 - b. Routine inspections.
 - c. Special inspections.
 - d. Routine repair and maintenance tasks.
 - e. Special repair and maintenance tasks.
 - f. Evaluating consultant feedback and incorporating it into operations/planning.
8. Is your harbor facility's average annual net operating income **positive** (your operations result in a financial profit) or **negative** (your operations result in a financial loss)?
- a. Positive
 - b. Negative
 - c. Other. Please describe.
9. On average, how often do you adjust user fees for harbor facilities?
- a. Annually
 - b. Every 2 to 3 years
 - c. 3 years or more
 - d. Other. Please describe.
10. Do you consider your user fees reflective of the services you provide?
- a. Yes
 - b. No
 - c. Other. Please describe.

11. What are the key sources of **external** (non-local) funding for harbor projects? Select all that apply.
- a. Alaska Municipal Harbor Facility grant program
 - b. Other state grant program
 - c. State loan program
 - d. Shared Fisheries Business Tax and/or Fishery Resource Landing Tax
 - e. Federal grant program
 - f. Federal loan program
 - g. Other. Please describe.
12. On average, what percentage of the total funding for your **major harbor improvement and replacement projects** comes from **external** (non-local) sources?
- a. 0-25%
 - b. 25-50%
 - c. 50-75%
 - d. 75-100%
13. On average, what percentage of the total funding for your **routine harbor maintenance and repair projects** comes from **external** (non-local) sources?
- a. 0-25%
 - b. 25-50%
 - c. 50-75%
 - d. 75-100%
14. Will your harbor replacement reserve fund cover at least 50% of the estimated project cost at the time of replacement?
- a. Yes
 - b. No
 - c. Not applicable. We don't operate a replacement reserve fund.
 - d. Other. Please describe.
15. Do you follow a documented Operations and Maintenance (O&M) program?
- a. Yes
 - b. No
 - c. Other. Please describe.
16. Do you rely on long-term planning documents to manage and plan harbor operations? These may include strategic plans, master plans, and comprehensive plans for your harbor department or the broader community.
- a. Yes
 - b. No
 - c. Other. Please describe.
17. How would you rate your harbor department's relationship with the following groups? (Likert scale: very poor, poor, fair, good, very good)
- a. Other harbors within the region.

- b. Local government officials.
 - c. Your state representative.
 - d. Your federal representative.
 - e. Businesses supporting harbor operations.
 - f. Harbor users.
 - g. Alaska DOT&PF.
18. How much influence do each of these groups have on your ability to effectively manage harbor operations? (Likert scale: no influence, little influence, moderate influence, significant influence)
- a. Other harbors within the region.
 - b. Local government officials.
 - c. Your state representative.
 - d. Your federal representative.
 - e. Businesses supporting harbor operations.
 - f. Harbor users.
 - g. Alaska DOT&PF.
19. Please rate how much you agree with the following statement: In any given year, harbor facility infrastructure deteriorates faster than can be maintained.
- a. Disagree strongly
 - b. Disagree
 - c. Neutral
 - d. Agree
 - e. Agree Strongly
20. Describe the frequency of dredging required for your harbor facilities.
- a. Annually
 - b. 2 to 5 years
 - c. 5 years or more
 - d. Once at the time of construction. Maintenance dredging is not required.
 - e. Never
 - f. Other. Please describe.
21. What are your primary sources of funding for maintenance dredging of the harbor? Select all that apply. (Question only appears if respondents answer A, B, C, or F in Question 20.)
- a. Local funds
 - b. State grant
 - c. Federal grant
 - d. U.S. Army Corps of Engineers
 - e. Other. Please describe.

22. How would you rate the condition of the harbor facility infrastructure at the time of the transfer of ownership from DOT&PF?
- a. Very Poor
 - b. Poor
 - c. Fair
 - d. Good
 - e. Very Good
23. How would you rate the condition of this same harbor facility infrastructure today?
- a. Very Poor
 - b. Poor
 - c. Fair
 - d. Good
 - e. Very Good
24. What are the primary economic activities that support your local economy? Select all that apply.
- a. Commercial Fishing
 - b. Seafood processing
 - c. Marine support services
 - d. Freight/cargo movement
 - e. Tourism (cruise traffic)
 - f. Tourism (non-cruise traffic)
 - g. Recreation (sportfishing, outdoor access, etc.)
 - h. State/federal agencies
 - i. Resource development (noncommercial fishing, including mining, oil, and timber)
 - j. Other. Please describe.

Optional open-ended questions; you may end the survey now or proceed to open-ended questions. *Community identifiers will be removed from responses to maintain the anonymity of your community.*

25. What was the purchase price of your harbor(s) in the transaction with DOT&PF?
26. What was the purchase year of your harbor(s) in the transaction with DOT&PF?
27. What are the biggest challenges you've faced in managing harbor infrastructure?
- You may share any additional information you think is important to this research.
28. Please share the name of your community. **This information is for internal use only and will not be a part of the final results.**

For any questions or additional information, please reach out to Stephanie Hernandez McGavin at smcgavin@uw.edu.

Appendix C: Grant Application Analysis

Demographic Information.**How many applicants represented a rural area or an urban area (according to USC8 2020 data)?**

Urbanized Area Census Entity	13	48%
Rural	14	52%
Total	27	100%

How many applicants have road connectivity?

Yes	6	22%
No	21	78%
Total	27	100%

How many Tier 1 and Tier 2 applicants are there?

Tier 1	9	33%
Tier 2	18	67%
Total	27	100%

Infrastructure Needs/Condition.**How many of each project type was submitted?**

Major Maintenance	3	11%
Major Repair or Replacement	23	85%
Expansion Project	1	4%
New Construction	0	0%
Total	27	100%

How many applicants indicated the project addressed public safety or emergency factors?

Yes	26	96%
No	1	4%
Total	27	100%

What was the range of past funds spent on harbor maintenance and repairs in the previous year?

Total	\$6,279,114
Mean	\$251,165
Median	\$242,306

What was the range of past funds spent on harbor maintenance and repairs in the previous 5 years?

Total	\$28,839,429
Mean	\$1,201,643
Median	\$401,817
	\$80,363

How did applicants describe the existing harbor condition in project summaries?

Common themes across Tier 1 and 2 projects that can be discerned from the Project Summaries (Supplementary Data - Combined sheet) include replacing/improving "aging" and "failing" infrastructure at "the end of its useful life" or in "an advanced state of disrepair" -- especially floats. Some projects describe the lengthy phased reconstruction process, as well as improving ADA-compliance, especially for gangways; lack of appropriate cathodic protection, and aged or undersized electrical utilities.

Cost share for project.**How many of the projects are using local funds as their minimum 50% match amount?**

Yes	25	93%
No	2	7%
	27	100%

What was the total local cost share?

Not including resubmittals All

Total	\$57,864,037	\$75,111,147
Mean	\$3,214,669	\$2,781,894
Median	\$1,864,994	\$4,000,000

Sustainable management practices.**How many applicants provide provide proof they would follow a PMP after the completion of a project?**

Yes	27	100%
No	0	0%
Total	27	100%

How many projects were listed in a Capital Improvement Program?

Yes	27	100%
No	0	0%
Total	27	100%

How many applicants indicated they have adequate revenue streams to operate and maintain harbors without State assistance following improvements, including the total replacement cost of the harbor?

Yes	27	100%
No	0	0%
Total	27	100%

How many grants were previously awarded for applicant facilities under the same program? Each facility's previous award(s) is only counted once.

Total	6
Average	0.3

Number of resubmittals and frequency of funding awards.**Was the project a resubmittal?**

Yes	9	33%
No	13	48%
Unknown	5	19%
Total	27	100%

How many times was a resubmittal (or non-known) awarded?

Total	6
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What was the cost of submitted projects vs awarded projects across all projects?

Total Submitted Project Cost (all)	\$140,633,868
Total Awarded Funds (all)	\$40,310,483
Percentage of Total Awarded Funds/Submitted Project Cost	28.66%

What was the cost of requested funds from the program vs the total project cost across all projects?

Total Submitted Project Cost (all)	\$140,633,868
Total Requested Funds (all)	\$60,491,501

Percentage of Total Requested Funds/Project Cost 43.01%

What was the cost of requested funds from the program vs awarded funds across all projects?

Total Requested Funds (all)	\$60,491,501
Total Awarded Funds (all)	\$40,310,483
Percentage of Total Awarded Funds/ Requested Funds	66.64%

Number of Awarded vs Submitted Projects

Number of Awarded Projects	15
Number of Submitted Projects	27

How many Tier 1 vs Tier 2 applicants were awarded?

Tier 1	7
Tier 2	8
Total	15

How many Tier 1 and Tier 2 applicants are there?

Tier 1	9	33%
Tier 2	18	67%
Total	27	100%

Submitted Year	State Fiscal Year	City	Facility	Tier 1	Tier 2	Year of Disaster	Resubmitted				At least 50% Match	State Match (\$)	State Match %	Federal Match (\$)	Federal Match %	Other Match (\$)	Other Match %	No. of Positions Administered Grants for Same Facility	Proof of Adherence to PPP after contract execution	Sufficient resources to operate and maintain the facility by the State without further state assistance, including state reimbursement of the cost of the device (if applicable)	Used in Capital Improvement Program?	Previous year reimbursement costs (based on submitted report)	Previous 5 years reimbursement costs (based on submitted report)	Emergency Facility?	Public Safety Agency	Total pages in justification	IGAP Account
							Disaster	Disaster	Disaster	Disaster																	
2016	2016	Kentham	Dee Harbor North	0	1	2004	\$3,292,732	\$1,214,110	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2016	2016	Shenandoah	Shenandoah Small Boat Harbor	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	\$224,300	40%	0	0	0	0	1	1	1	\$18,120	\$75,624	0	56	NA
2016	2016	Woodward	Shenandoah Bay Harbor	1	0	2003	\$1,462,000.00	\$1,466,864.00	0	\$1,368,000	94%	1	0	0	0	0	0	0	1	1	1	\$14,000	\$75,000	1	237	NA	
2016	2016	Shenandoah	Conococheague	1	0	2006	\$1,212,000.00	\$1,216,000.00	0	\$1,216,000	100%	1	0	0	0	0	0	0	1	1	1	\$10,000.00	\$100,000.00	1	114	NA	
2017	2016	Shenandoah	Conococheague**	1	0	2006	\$1,212,000.00	\$1,216,000.00	0	\$1,216,000	100%	1	0	0	0	0	0	0	1	1	1	\$10,000.00	\$100,000.00	1	114	NA	
2017	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2017	2016	Kentham	Dee Harbor North	0	1	2003	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2017	2016	Whitaker	Whitaker Small Boat Harbor	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0	\$622,055	50%	1	0	0	0	0	0	0	1	1	1	\$17,000	\$100,640	1	146	NA	
2018	2016	Kentham	Dee Harbor North	0	1	2006	\$1,282,732	\$1,284,140	0</																		

[illegible]

[illegible]

Submittal	City	Facility	Tier 1	Tier 2	Year of Transfer	DOT&PF deferred maintenance funds	Total Project Cost	Deferred Maintenance Funds as a Percentage of Requested Project Cost			Median of Percentages (Excluding Resubmittals)
								a Percentage of Requested Project Cost	Average of Percentages (Excluding Resubmittals)	266%	
2016	Ketchikan	Bar Harbor	0	1	2004	\$3,292,772	\$1,254,110	263%			
2016	Skagway	Skagway St	0	1	2004	\$1,068,852	\$2,000,000	53%			61%
2016	Wrangell	Shoemake	1	0	2003	\$3,492,000.00	\$10,969,926	32%			
2016	Sitka	Crescent H	1	0	2004	\$2,234,500.00	\$12,206,161	18%			
2017	Sitka	Crescent H	1	0	2004	\$2,234,500.00	\$12,206,161	18%			
2017	Ketchikan	Bar Harbor	0	1	2004	\$3,292,772.00	\$1,254,110	263%			
2017	Juneau	Harris Hart	0	1	2003	\$7,119,000.00	\$255,438	2787%			
2017	Whittier	Whittier Sn	0	1	2004	\$2,449,000	\$5,381,200	46%			
2018	Ketchikan	Bar Harbor	0	1	2004	\$3,292,772.00	\$1,254,110	263%			
2018	Juneau	Aurora Har	0	1	2003	\$7,119,000	\$4,000,000	178%			
2018	Juneau	Harris Hart	0	1	2003	\$7,119,000.00	\$250,000	2848%			
2018	Angoon	Angoon Ha	1	0	2005	\$1,490,000	\$2,345,287	64%			
2019	Sitka	Thomsen F	0	1	2004	Unknown	\$438,250	N/A			
2019	Kake	Kake Porta	0	1	2006	\$2,970,000	\$1,010,726	294%			
2019	Juneau	Aurora Har	0	1	2003	\$7,119,000	\$4,000,000	178%			
2019	Homer	Homer Por	0	1	1999	Unknown	\$714,240	N/A			
2019	Cordova	Cordova Pt	1	0	2003	\$4,876,000	\$10,000,000	49%			
2020	Juneau	Aurora Har	0	1	2003	\$7,119,000	\$4,000,000	178%			
2020	Cordova	Cordova Pt	1	0	2003	\$4,876,000	\$10,000,000	49%			
2020	Seward	Seward Bo	0	1	1999	\$3,134,200	\$3,459,975	91%			
2021	Juneau	Aurora Har	0	1	2003	\$7,119,000	\$4,271,200	167%			
2021	Homer	Homer Por	0	1	1999	Unknown	\$768,000	N/A			
2021	Yakutat	Yakutat Srr	1	0	2005	\$526,000.00	\$7,701,334.20	7%			
2021	Valdez	Valdez Srr	1	0	2003	\$3,013,500	\$17,650,050	17%			
2022	Whittier	Whittier Sn	0	1	2004	\$2,449,000	\$9,450,100	26%			
2022	Wrangell	Meyers Ch	1	0	2014	\$1,400,000	\$2,293,490	61%			
2023	Juneau	Aurora Har	0	1	2003	\$7,119,000	\$11,500,000	62%			
								8009%			

Notes from Combined Data Sheet

*Across all harbor facilities in Juneau transfer

**No application, numbers assumed from previous year

***A FY 2021 application was resubmitted; however, the project was funded for FY 2020 for a different amount. There was no application provided and the application is not being counted as a resubmittal but the FY 2021 information will be used.

****Reimbursement costs; AS 29.60.700(b) replace B,C,D floats and B and E gangways.

Additional Notes

1. In 2021 (FY 2023 submittal), DOT&PF began incorporating ICAP costs into total project cost. These are included in the data for those years. In the application from 2023 (FY 2025), no ICAP fee was recorded.

2. Due to funding cycle timing between application submittals and FY funding award, some applications were resubmitted for the following year but were awarded funds for the previous year's application. In these instances, resubmitted applications were not analyzed in the following year, with the exception of Thomsen Harbor submitted in 2019 (FY 2021), for which no application was provided by DOT&PF for the previous year.

3. In applications, the type of project was submitted as a percentage to indicate the percentage of the total project cost; however, all applications were submitted as 100% under various project types. Here, 1 and 0 were used instead of percentages.

4. Note that the only allowable project types submitted under Tier 1 are Major Maintenance and Major Repair or Replacement.

5. Rural and Urban area data came from USCB 2020 data (last updated July 2023):
https://www2.census.gov/geo/docs/reference/ua/2020_Census_ua_list_all.xlsx

6. Only applications for formerly state-owned facilities were analyzed.

7. There were some projects awarded during the study period that applications were not provided for. These include:

2017 Awardees (SFY18)

Wrangell, City and Borough of

Kake, City of

2018 Awardees (SFY19)

Whale Pass, City of

Juneau, City and Borough of

2019 Awardees (SFY20)

Sitka Thomsen

2022 Awardees (SFY23)

City of Sand Point

Tier	Harbor Grant Amount
I	\$5,000,000.00
II	\$450,000.00
Tier	Harbor Grant Amount
II	\$90,000.00
II	\$140,000.00
Tier	Harbor Grant Amount
II	\$203,000.00
Tier	Harbor Grant Amount
II	\$4,125,000.00

Appendix D: Example Grant Application

Alaska Department of Transportation & Public Facilities



Application for a Harbor Facility Grant

SFY2027

*Please read the entire Grant Program's Instructions (Form DOT&PF H-27268) carefully before attempting to fill out this application to ensure full consideration. For each funding request, **submit one (1) original and one (1) complete copies of this application with all attachments.***

Harbor Facility Name:

Municipality or Regional
Housing Authority:

Address:

Principle Contact:

Phone & Email:

TYPE OF PROJECT AND FUNDING REQUEST

Eligible harbor facility items of work	Non-eligible harbor facility items of work
• Approach structures • Pilings and anchors • Access ramps and gangways • Float systems for permanent and transient moorage • Floating breakwaters • Utility systems integral to the float systems (specifically power, lights, fresh water, sewage pump out, and fire protection) • Launch ramps • Seaplane floats • Portable or trailer mounted equipment for firefighting, sewage pump out, oily bilge water, etc. • Other appurtenances necessary for the basic operation of the harbor facility • Third party contracts for construction management and inspection services • Safety ladder purchases and installation.	• Dredging, blasting or mechanical removal of harbor basin materials • Rubble-mound breakwaters and revetments • Dikes, groins, and jetties • Wharfs and docks for large commercial or tourist marine vessels (greater than 125 feet LOA) • Seawalls, bulkheads, sheet pile walls, gabions, and quays • Access roads and upland improvements • Boat houses • Commercial or privately owned utility systems on the float systems • Fuel and oil distribution systems • Platform floats for small buildings, restrooms, or commercial retail space • Landscaping and facility amenities, e.g., trash receptacles, used oil collection tanks, storage/locker boxes, etc. • Security or close circuit television video (CCTV) systems • Utility system improvements beyond the harbor facility limits, e.g., electrical and water/sewer line extensions to bring those services to the harbor facility • Harbormaster offices, buildings, offices, shops, boat yards or storage structures • Vessel hoisting machinery and boat haul-out systems • Planning and engineering studies, land acquisition or bidding documents, i.e. Plans and Specifications • Port or Barge Facilities

Alaska Department of Transportation & Public Facilities

REFERENCE THE INSTRUCTIONS (DOT&PF FORM H-27268)

(Block 1)

PROJECT SUMMARY – This is a brief summary describing the purpose and need for the project in a supportive narrative.

(Block 2)

a. Indicate if this application is for a Tier I or a Tier II grant.

b. Indicate the type of work project (check all that apply and indicate % of total project construction cost)

☐ <u>Tier I application</u>	☐ <u>Tier II application</u>														
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">☐ Major Maintenance</td> <td style="width: 40%; text-align: center;">%</td> </tr> <tr> <td>☐ Major Repair or Replacement</td> <td style="text-align: center;">%</td> </tr> <tr style="background-color: #cccccc;"> <td colspan="2" style="height: 30px;"></td> </tr> </table>	☐ Major Maintenance	%	☐ Major Repair or Replacement	%			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 60%;">☐ Major Maintenance</td> <td style="width: 40%; text-align: center;">%</td> </tr> <tr> <td>☐ Major Repair or Replacement</td> <td style="text-align: center;">%</td> </tr> <tr> <td>☐ Expansion</td> <td style="text-align: center;">%</td> </tr> <tr> <td>☐ New Construction</td> <td style="text-align: center;">%</td> </tr> </table>	☐ Major Maintenance	%	☐ Major Repair or Replacement	%	☐ Expansion	%	☐ New Construction	%
☐ Major Maintenance	%														
☐ Major Repair or Replacement	%														
☐ Major Maintenance	%														
☐ Major Repair or Replacement	%														
☐ Expansion	%														
☐ New Construction	%														

(Block 3)

Cost Apportionment: Submit a breakdown of the amount and source of project funds for the construction phase of the project. The maximum amount for the proposed harbor grant amount is 50% of the total estimated project cost.

	AMOUNT	% of TOTAL	SOURCE OF FUNDS
a. Proposed harbor grant amount		%	Harbor Facility Grant Program (minimum amount is \$50,000)
b. Applicant's share of cost		%	
c. Amounts from state sources		%	Only four state sources eligible
d. Amounts from federal sources		%	
e. Amounts from other sources		%	
f. Total estimated project cost		100 %	

Note: The maximum amount on Line 3a is **\$5 million per municipality or regional housing authority per fiscal year** [Ref: AS 29.60.820(a)]. Applications for two or more harbor facilities in the same year are acceptable as long as the maximum amount is not exceeded by the applicant.

(Block 4)

Scope, Schedule and Cost Estimate: Attach a detailed project scope (including general layout drawing), schedule and construction cost estimate.

Anticipated Project Dates for the construction phase:

Start Date:		Complete Work:	
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Alaska Department of Transportation & Public Facilities

PAST HARBOR FACILITY GRANT FUNDING

(Block 5)

What AS 29.60.800 administered harbor grant(s) were previously made toward this harbor facility?

DOT&PF Harbor Grant No.	Date the grant was awarded	Date the grant was closed

BASIC ELIGIBILITY REQUIREMENTS (Attach documentation supporting each response)

(Block 6)

Does the municipality or regional housing authority legally own the harbor facility?

[Ref: AS 29.60.810]

☐ yes ☐ no

(Block 7)

Is the project a capital improvement project and not part of a preventive maintenance program or regular custodial care program?

[Ref: AS 29.60.810(1)]

☐ yes ☐ no

(Block 8)

Does the municipality or regional housing authority have the required 50% local matching funds for construction of the project? [Ref: AS 29.60.810(2)]

☐ yes ☐ no

(Block 9)

Does the municipality or regional housing authority have adequate Property Loss Insurance or an adequate program of insurance for the harbor facility?

[Ref: AS 29.60.810(3)]

☐ yes ☐ no

(Block 10)

Does the municipality or regional housing authority have an existing Preventive Maintenance Plan? [Ref: AS 29.60.810(4)]

☐ yes ☐ no

(Block 11)

Is there documentation that the municipality or regional housing authority will adhere adequately to the preventive maintenance plan after completion of the proposed project?

☐ yes ☐ no

(Block 12) – To establish Tier I eligibility

a. Was the harbor facility once state-owned? [Ref: AS 29.60.820(b)]

☐ yes ☐ no

b. If yes, please include a copy of the Bill of Sale (or a Deed) and fill in the date when the state transferred the harbor facility to the municipality or regional housing authority

Date _____

Alaska Department of Transportation & Public Facilities

MINIMUM REQUIRED RATING CRITERIA (Attach documentation supporting each response)

(Block 13)

Does the municipality or regional housing authority have sufficient revenues to operate and maintain the harbor facility in the future without further state assistance; including total replacement at the end of its design life?

☐ yes ☐ no

[Ref: AS 29.60.820(c)(1)]

(Block 14)

Does this project address public safety or emergency factors?

☐ yes ☐ no

[Ref: AS 29.60.820(c)(2)]

(Block 15)

How much money has the municipality or regional housing authority spent on maintenance of this harbor facility and what were the funds used for?

In 2022 \$ _____

[Ref: AS 29.60.820(c)(3)]

Last 5 yrs. \$ _____

(Block 16)

Has the municipality or regional housing authority explored options that would reduce or eliminate the need for the proposed project?

☐ yes ☐ no

[Ref: AS 29.60.820(c)(4)]

(Block 17)

Does this project include the installation of new safety ladders?

☐ yes ☐ no

If no, do safety ladders already exist on the structure and are currently in serviceable condition?

☐ yes ☐ no

ATTACHMENTS CHECKLIST

(Block 18)

Please review the application to see that it is complete, and that a minimum of one copy is provided, digital copies are acceptable. Please ensure that all attachments are provided and clearly identified (see Section B of the Grant Program's Instructions). Answers to questions 13 through 16 are scored; failure to provide attached responses to these questions will influence the ranking of your grant application.

- ☐ Indicated the kind of tier that this application for a Tier I or II grant (Block 2)
- ☐ Amount of Harbor Facility Grant (Block 3)
- ☐ Source(s) of local match (Block 3)
- ☐ Plan view drawing (Block 4)
- ☐ Detailed project scope, schedule and budget (Block 4)
- ☐ Proof of harbor facility ownership (Block 6)
- ☐ Documentation that project is a capital improvement (Block 7)
- ☐ Municipality or regional housing authority has the required 50% local match (Block 8)
- ☐ Proof of adequate Property Loss Insurance (Block 9)
- ☐ Documentation of the Preventive Maintenance Plan (Block 10)
- ☐ Proof that harbor facility was once state-owned (Block 12)

Alaska Department of Transportation & Public Facilities

- ☐ Documentation that lists the sources and amounts of the Finance Plan, including backup documentation such as letters of award from eligible federal, state, local and private sources (Block 13)
- ☐ Documentation of public safety or emergency factors (Block 14)
- ☐ Documentation of past maintenance expenditures (Block 15)
- ☐ Documentation of options explored (Block 16)
- ☐ Map of Safety Ladder locations (Block 17)
- ☐ Application signed by an authorized representative (Block 19)
- ☐ Resolution of support (optional but encouraged)

CERTIFICATION

(Block 19)

I hereby certify that I am an authorized municipal or regional housing authority representative, that this application's information is true and correct to the best of my knowledge, that the application has been prepared under the direction of the appropriate local or municipal governing agency, and that this application is submitted in accordance with law. In addition, by signing this application, I agree that I have reviewed and will abide by the Department of Transportation & Public Facilities' "Instructions for completing the Harbor Facility Matching Grant Application" (Form DOT&PF H-27268) and AS 29.60.800 et seq. I understand that failure to comply with this certification will be cause for the Department to withhold a grant award or withdraw a grant offer that may have been extended.

X

Signature of Authorized Representative

(Typed Name and Title of Authorized Representative)

Alaska Department of Transportation & Public Facilities

Sample Resolution for a Harbor Facility Grant:

[MUNICIPALITY/CITY/ BOROUGH/REGIONAL HOUSING AUTHORITY]

RESOLUTION NO. _____

A RESOLUTION OF THE [ASSEMBLY/COUNCIL] OF THE [MUNICIPALITY/CITY/ BOROUGH/REGIONAL HOUSING AUTHORITY], FORMALLY SUBMITS A HARBOR FACILITY GRANT APPLICATION TO THE STATE OF ALASKA, DEPARTMENT OF TRANSPORTATION AND PUBLIC FACILITIES (DOT&PF) IN THE AMOUNT OF [GRANT AMOUNT] FOR THE PROJECT ENTITLED [PROJECT NAME].

WHEREAS, the State of Alaska, Department of Transportation and Public Facilities administers the Harbor Facility Grant Program; and

WHEREAS, the [MUNICIPALITY/CITY/ BOROUGH/REGIONAL HOUSING AUTHORITY] owns and maintains the [HARBOR NAME] and the [HARBOR NAME] is eligible for a Harbor Facility Grant; and

WHEREAS, the [MUNICIPALITY/CITY/ BOROUGH/REGIONAL HOUSING AUTHORITY] has the required 50% in local matching funds for construction of the [PROJECT NAME] per the Harbor Facility Grant Program; and

WHEREAS, the [MUNICIPALITY/CITY/ BOROUGH/REGIONAL HOUSING AUTHORITY] is capable of completing the [PROJECT NAME] within eighteen (18) months after award of a Harbor Facility Grant; and

WHEREAS, the [HARBOR NAME] is critical to the [MUNICIPALITY/CITY/ BOROUGH/REGIONAL HOUSING AUTHORITY];

NOW, THEREFORE, BE IT RESOLVED by the [ASSEMBLY/COUNCIL] of the [MUNICIPALITY/CITY/ BOROUGH/REGIONAL HOUSING AUTHORITY] that the [MUNICIPALITY/CITY/ BOROUGH/REGIONAL HOUSING AUTHORITY] supports the project entitled [PROJECT NAME] and agrees, subject to available Alaska Legislative funding and selection by DOT&PF, to enter into a grant agreement with the State of Alaska, Department of Transportation and Public Facilities for a Harbor Facility Grant.

Mayor/City Manager/Official (Authorizing Signature)

Attested by _____
City Clerk/Secretary

FFY2027 Harbor Facility Grant Program - Scoring Criteria

Scoring Criteria Guidance							
	STANDARDS	Weight	(5)	(4)	(3)	(2)	(1)
1	Does the applicant have sufficient revenues and a fee structure to operate and maintain the harbor facility in the future without state aid? [Ref: AS 29.60.820(c)(1)] See Block 13	5	Project has solid financial plan and preventive maintenance plan with secure source of revenues for facility operation and maintenance.	N/A	Project has marginally acceptable financial plan and preventive maintenance plan with identified source of revenues for facility operation and maintenance.	N/A	Financial or preventive maintenance plan is incomplete. Plans could be dependent on pending actions/decisions.
2	Safety or Emergency factors - Primary purpose is to improve operational safety, to respond to an emergency situation or a change in safety guidelines (for example, ADA or electrical code compliance). [Ref: AS 29.60.820(c)(2)] See Block 14	5	Project improves critical safety features and/or corrects hazards and deficiencies; or project is considered an emergency and is required to bring the existing facility up to minimum safety standards; or project is urgently needed to preserve an existing facility in imminent risk of failure.	N/A	Reduces potential hazards, corrects a situation which could become a safety hazard, or preserves an existing facility that is expected to fail in near future.	N/A	No impact on safety or potential loss of facility.
3	Tier I applicants only. Annual average amount spent on maintenance of the harbor facility by the applicant. Harbor facility replacement cost will be determined by DOT&PF. [Ref: AS 29.60.820(c)(3)] See Block 15	5	Equal or greater than 5% of harbor facility replacement cost	Equal or greater than 3% and less than 5% of harbor facility replacement cost	Equal or greater than 1% and less than 3% of harbor facility replacement cost	Less than 1% of harbor facility replacement cost	Zero funds spent on maintenance
4	Other options that would reduce or eliminate the need for the proposed project. [Ref: AS 29.60.820(c)(4)] See Block 16	5	Applicant determined a preferred engineering alternative as part of a comprehensive harbor plan or engineering report.	N/A	Applicant considered some alternative means of achieving project goals as part of an engineering report. Project replaces in-kind an existing harbor.	N/A	No alternatives were considered in the formulation of the project.

FFY2026 Harbor Facility Grant Program - Scoring Criteria

	STANDARDS	Weight	(5)	(4)	(3)	(2)	(1)
5	Project serves the best public interest -Each Harbor Panel member rates the one project which serves the best public interest with a rating of "5", all other projects receive a rating of "0". [Ref: AS 29.60.820(c)(5)]	5	Serves best public interest.	N/A	N/A	N/A	N/A
6	Maintenance - Reduces maintenance costs or addresses preventive maintenance needs	4	Harbor facility needing major repair or maintenance that substantially reduces maintenance costs to local government.	Harbor facility needing major repair or maintenance that moderately reduces maintenance costs to local government.	Project does not increase or reduce maintenance costs to local government.	Project results in moderate increase in maintenance costs to local government. There may be offsetting economic or safety benefits.	Project results in significant increase in local government maintenance costs without offsetting economic or safety benefits.
7	Operational Importance -Harbor component to be repaired or rehabilitated as related to function.	3	Repair or replacement of deficient harbor facility components of a safety or emergency nature.	Components critical to operation of harbor facility such as pilings, floats, approach structures, and safety lighting.	Improvements to components that significantly change function or provide more capacity, including new construction.	Moderately important components such as launch ramps, grids, water and sewer utilities. Improvements result in limited functional change or moorage capacity.	Upland facilities and other appurtenances necessary for the basic harbor operation. Improvements that do not change the function or do not increase moorage capacity.
8	Importance of the applicant's harbor facility	3	Applicant has one existing harbor facility. It is not connected by road to another community.	Applicant has one harbor facility. There is a road connection to another community with one or more harbor facilities.	Applicant has more than one harbor facility but the community is not connected by road to another community.	Applicant has one or more harbor facilities. There is a road connection to another community with one or more harbor facilities.	Application is for construction of a new harbor.
9	Tier I applications shall be scored ahead of Tier II applications [Ref AS 29.60.820(b)]	20	This is a Tier I application	N/A	N/A	N/A	N/A
10	Local resolution of support	1	Applicant has a resolution of support for the project. Resolution must be signed and dated before the application deadline.	N/A	N/A	N/A	N/A

Total Weight 56

*