

Coastal Infrastructure Needs Survey

Alaska Municipal League
Annual Local Government Conference

November 16, 2021



Background

- **Alaska Regional Ports Study** conducted a survey in 2010
- **Alaska Municipal League** presented to **Alaska Association of Harbormasters and Port Administrators** in 2019 and launched its survey
- Northern Economics assisted with survey analysis in 2020
- Northern Economics analyzed additional facilities in 2021

Survey Responses by Region

Region	2010		2020		Change in Survey Representation from 2010 to 2020 (%)
	Count	Percent of Total (%)	Count	Percent of Total (%)	
Southcentral	26	9.5	2	6.7	-2.8
Southwest	73	26.5	8	26.7	0.1
Arctic	1	0.4	1	3.3	3.0
Southeast	115	41.8	13	43.3	1.5
Northwest	15	5.5	1	3.3	-2.1
Yukon-Kuskokwim	18	6.5	1	3.3	-3.2
Prince William Sound	27	9.8	4	13.3	-3.5
Total	275	100	30	100	

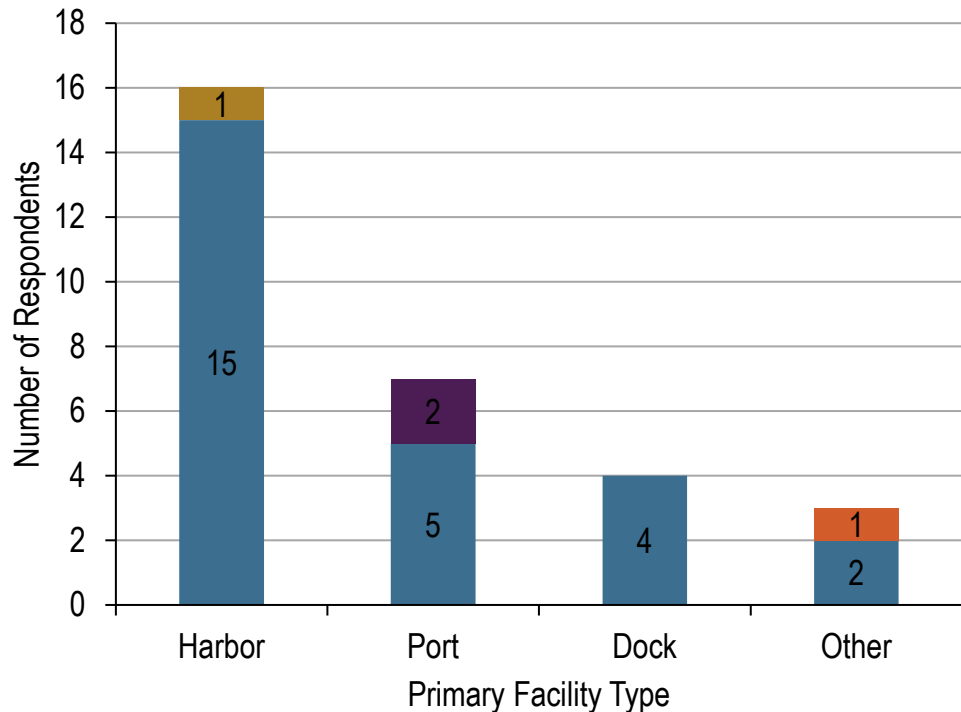
Sources: Northern Economics (2011), Andreassen (2020), Northern Economics analysis

Survey Responses by Facility Type

Type	2010		2020		Change in Survey Representation from 2010 to 2020 (%)
	Count	Percent of Total (%)	Count	Percent of Total (%)	
Port	48	9.5	7	23.3	13.8
Harbor	105	20.9	16	53.3	32.5
Dock	243	48.3	4	13.3	-35.0
Other	107	21.3	3	10.0	-11.3
Total	503	100.0	30	100.0	N/A

Sources: Northern Economics (2011), Andreassen (2020), Northern Economics analysis

Facility Ownership



■ No Response

■ Public & Private

■ Private

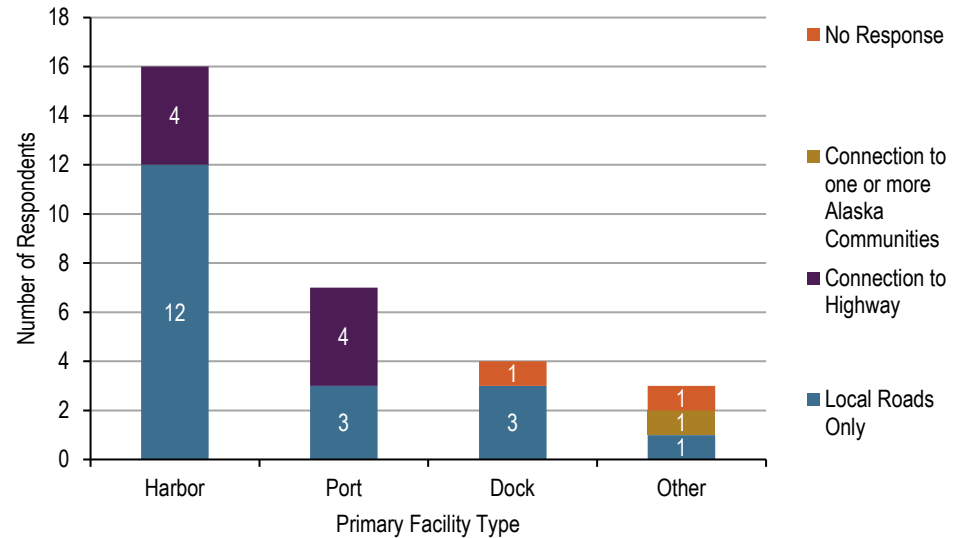
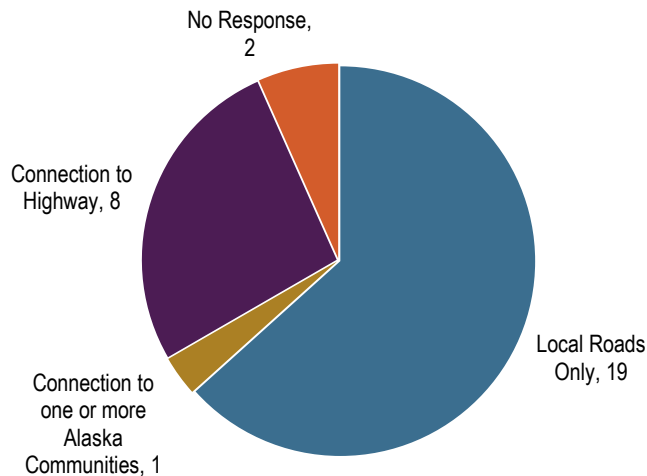
■ Public

- Total of **30** Survey Responses
- **6.7%** Public & Private Facilities
- **3.3%** Private Facility Only
- **86.7%** Public Facility Only

Facilities Scorecard

Category		GPA	Grade
Capacity to Meet Current and Future Demand How would you rate the capacity of your existing harbor/port facility(s) to meet current and future demand? For example, (moorage, cranes, loading facilities, etc.) cannot meet even current demand, or are your capabilities	How would you rate the capacity of your existing harbor/port facility(s) to meet current and future demand? For example,	2.8	B-
Overall Facility Condition 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.	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.	2.8	B-
Operations What is the ongoing cost (growing (or unstable) cost) Rate 1-3 stars with 1	Consider the number of causalities/accidents Rate 1-3 stars with 1	2.7	B-
Safety Consider the number of people being		2.6	B-
Adequacy of Funding 20 Year Investment Shortfalls, Construction Spending (Yearly have all we need, to 1 being not at all.		2.1	C
Available Capacity to Meet Future Demand How well does forecasted funding meet projected future needs?		2.3	C+
Natural Disaster Preparedness How well is your facility(s) prepared for natural catastrophes? Rate 1-5 stars (from never given it any thought to being foremost in every project.)	Is your facility(s) design and construction? Rate 1-5 stars (from never given it any thought to being foremost in every project.)	2.5	C+
Sustainable Practices Is your facility(s) incorporating sustainable practices in design and construction? Rate 1-5 stars (from never given it any thought to being foremost in every project.)		3.3	B+

Intermodal Connections – Road Connectivity

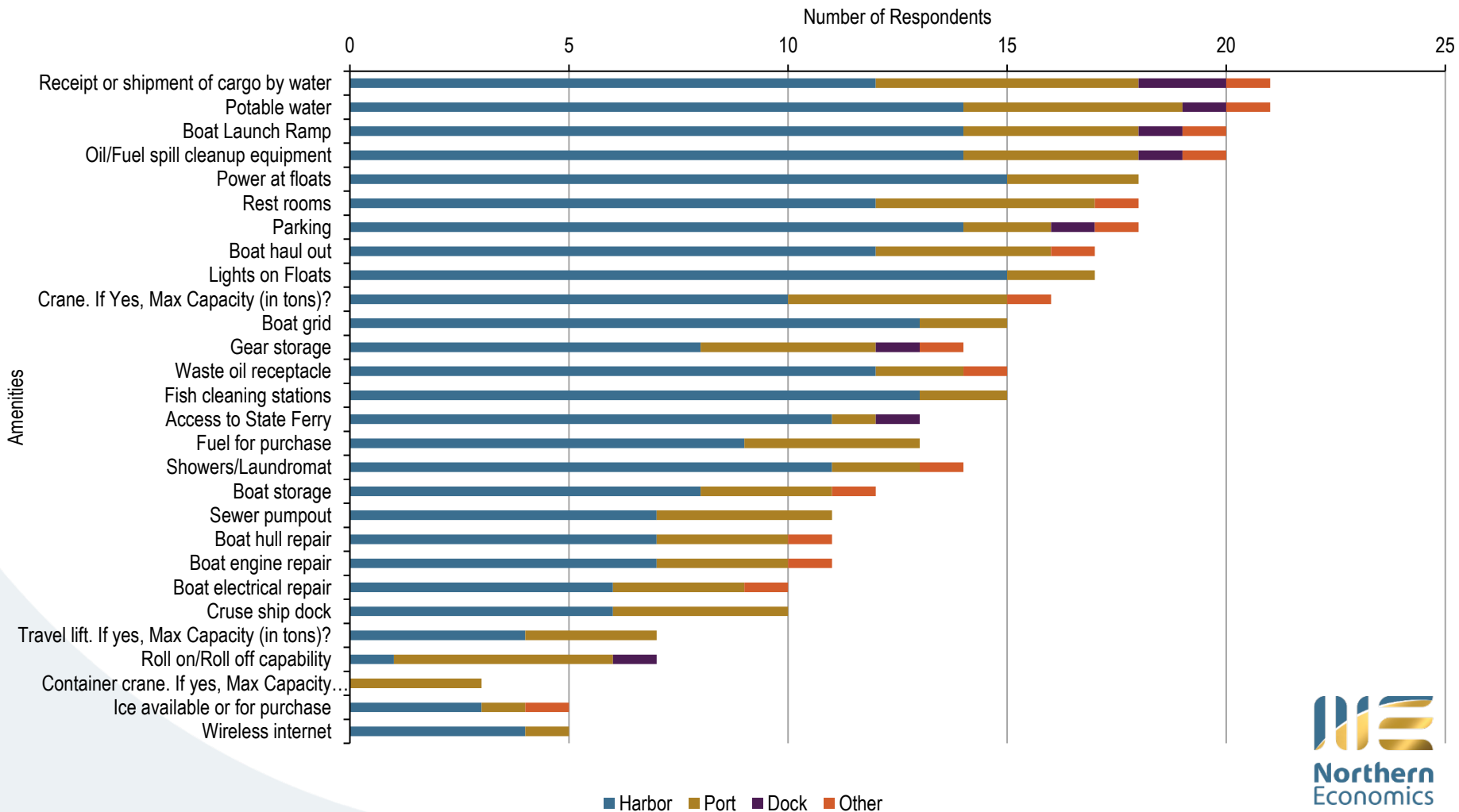


- Follow-up Question: *If the facility is not directly connected by road, how many miles is the facility(s) from the nearest road system?*
- **3** answered *less than 1 mile*, **13** answered *greater than 25 miles*

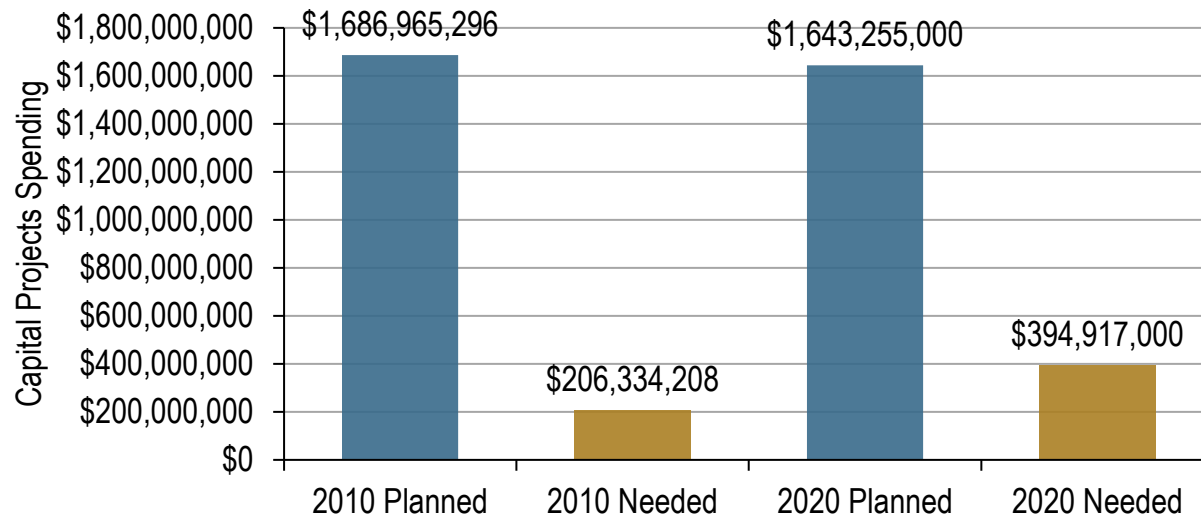
Intermodal Connections – Railroad and Airports

Survey Question	Yes (count/percentage)	No (count/percentage)	No Response (count/percentage)	
<i>Is the facility(s) directly connected to a rail line?</i>	3 / 10.0%	26 / 86.7%	1 / 3.3%	
	Less than 1 mile (count/percentage)	Greater than 25 Miles (count/percentage)	No Response (count/percentage)	
<i>If the facility(s) is not directly connected to a rail line, how many miles is the facility(s) from the nearest rail line?</i>	1 / 3.7%	22 / 81.5%	4 / 14.8%	
	Average			
<i>Approximately how many miles is the nearest public airport to your facility(s) (in miles)?</i>	8.3 miles			
	Yes (count/percentage)	No (count/percentage)	No Response (count/percentage)	
<i>Is there an alternative aircraft landing facility that is nearer to the marine facility(s) than the public airport that you listed above?</i>	13 / 43.3%	16 / 53.3%	1 / 3.3%	
	Conventional Landing Gear (count/percentage)	Seaplane/Floatplane (count/percentage)	Both (count/percentage)	No Response (count/percentage)
<i>If yes, which type of aircraft does it support?</i>	6 / 30.0%	12 / 60.0%	2 / 10%	10 / 33.0%

Facility Amenities and Services

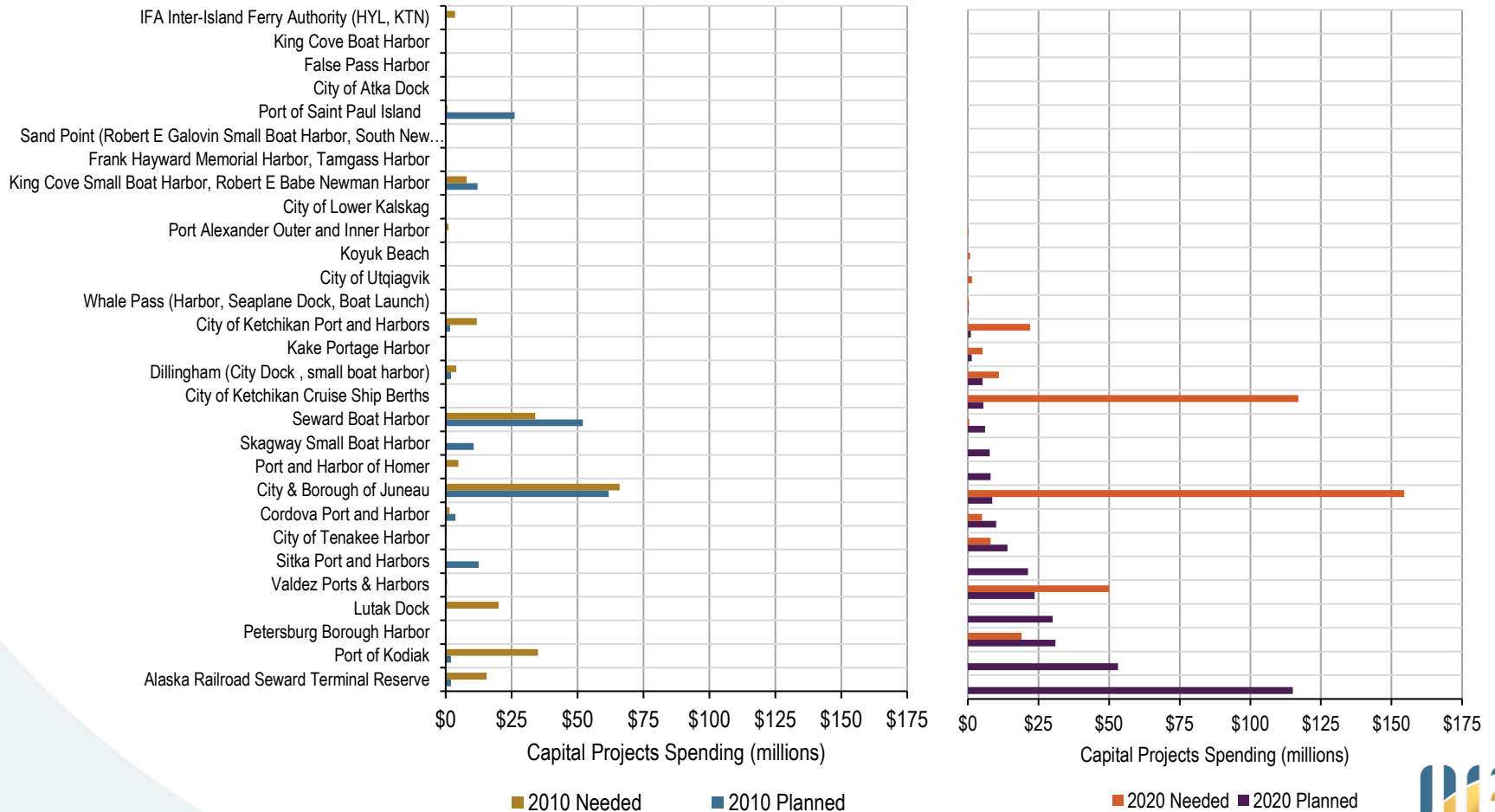


Capital Projects Costs



- The survey respondents had \$1.6 billion in planned or underway projects
 - Decreased by 0.7% since 2010 (for those respondents)
- The survey respondents had \$389 million in projects that are needed but not planned
 - Increased by 134.1% since 2010 (for those respondents)

Detailed Capital Project Costs



Not shown in above figure: Port of Alaska planned spending of \$1.5 billion in 2010 and \$1.3 billion in 2020

Expenditures, 2010

2010 Port and Harbor Facilities Expenditures

Region	Comparison Sample		All Respondents Total	
	Planned Expenditures	Needed Expenditures	Planned Expenditures	Needed Expenditures
	(\$)			
Southcentral	1,500,100,000	4,760,000	1,871,516,300	60,965,000
Southwest	70,100,000	52,100,000	188,193,544	64,900,000
Arctic	109,208	109,208	109,208	109,208
Southeast	91,211,088	132,330,000	415,041,088	404,427,400
Northwest	0	0	1,085,000	5,700,000
Yukon-Kuskokwim	0	0	27,300,000	16,600,000
Prince William Sound	55,635,000	35,735,000	59,635,000	35,735,000
Total	1,717,155,296	225,034,208	2,562,880,140	588,436,608

Sources: Northern Economics (2011), Andreassen (2020), Northern Economics analysis

Expenditures, 2010

Sample Group Contribution to 2010 Total Expenditures

Region	Comparison Sample Percent (%) of 2010 Planned Expenditures Total	Comparison Sample Percent (%) of 2010 Needed Expenditures Total
Southcentral	58.5	0.8
Southwest	2.7	8.9
Arctic	<0.1	0.0
Southeast	3.6	22.5
Northwest	0.0	0.0
Yukon-Kuskokwim	0.0	0.0
Prince William Sound	2.2	6.1
Total	67.0	38.2

Expenditures, 2020

2020 Port and Harbor Facilities Expenditures

Region	Comparison Group		Statewide Total Estimate	
	Planned Expenditures	Needed Expenditures	Planned Expenditures	Needed Expenditures
	(\$)			
Southcentral	1,309,750,000	0	2,016,775,561	13,489,737
Southwest	58,310,000	11,000,000	91,349,459	158,650,275
Arctic	0	1,450,000	51,472	1,759,493
Southeast	120,545,000	326,217,000	163,534,514	701,237,363
Northwest	0	750,000	0	750,000
Yukon-Kuskokwim	0	0	0	0
Prince William Sound	154,650,000	55,500,000	180,871,830	156,772,219
Total	1,643,255,000	394,917,000	2,452,582,835	1,032,659,088

Sources: Northern Economics (2011), Andreassen (2020), Northern Economics analysis

Key Takeaways

- A substantial demand exists for coastal infrastructure
- Planned expenditures have been steady over the last decade
 - Communities are completing projects and backfilling with the next
- Needs have almost doubled over the last decade
 - Needs have grown, costs have increased, and funding has varied

Thank you!

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