



Alaska Department of Transportation & Public Facilities

Alaska Marine Highway System Southeast Conference

Katherine Keith, PMP, PMI-ACP, Change Management Director

Captain John Falvey, General Manager

February 10, 2022

Our mission is to *Keep Alaska Moving* through service and infrastructure.



“I want you to find a bold and innovative way to do everything exactly the same way it’s been done for 25 years.”



“Don’t be silly, the staff loves that we brought in a change management consultant.”

WE’RE HIRING A DIRECTOR OF CHANGE MANAGEMENT TO HELP EMPLOYEES EMBRACE STRATEGIC CHANGES.



Dilbert.com DilbertCartoonist@gmail.com

OR WE COULD COME UP WITH STRATEGIES THAT MAKE SENSE. THEN EMPLOYEES WOULD EMBRACE CHANGE.



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THAT SOUNDS HARDER.



Challenges



COVID (Direct and Indirect)

Vendor delays

Parts & Supplies Availability

Staff Availability (20 crew in shipyard in quarantine.)

Crew

Recruitment and Retention

Mechanical

Aging Ships and Wasted Steel



Image: [TinyPulse](#)



Staying the Course, Toward Reliability

PEOPLE:

- AMHOB Meeting February 11th
- Tazlina: Crewed, Sailing February 4th

<https://dot.alaska.gov/amhob/>

INFRASTRUCTURE

- First Full Year Advance Schedule Published
- Tustumena Replacement Vessel: CMGC
- Hubbard: Crew Quarters
- Prince Rupert: Working toward May 1st

PARTNERSHIPS

- Contingent Private Contract Service
- Low-Emission/EV Ferry Opportunities



AMHS Stakeholder Identified Issues

Aging ferry fleet

Insufficient Workforce

Not meeting community needs

Limited ability to adapt to changing circumstances

Costly labor agreements

Equipment breakdowns

Cumbersome procurement processes

Too dependent on GF (\$54m in FY21)

Reduced ridership

Covid-19 impacts

Farebox recovery falls short of operating cost

No long-term system view or strategy

Lack of stability due to changing decisions of different policy directions

Vessel assets misaligned with operational assets and customer demand.

Lack of clarity about long-term planning objectives

Lack of ferry service reliability

Budget cycle timing

Eliminating service needs to allow for alternative infrastructure and/or phasing

No or limited on board passenger services

Ferry efficiency ratio is very poor, no ferry route is net revenue positive

Labor contract provisions limit the ability to run fleet

Marine labor contracts are overly complicated

Poor system reliability

High system cost

Poor schedule predictability

AMHS: STRATEGY

AMHOB
Planning
Communication

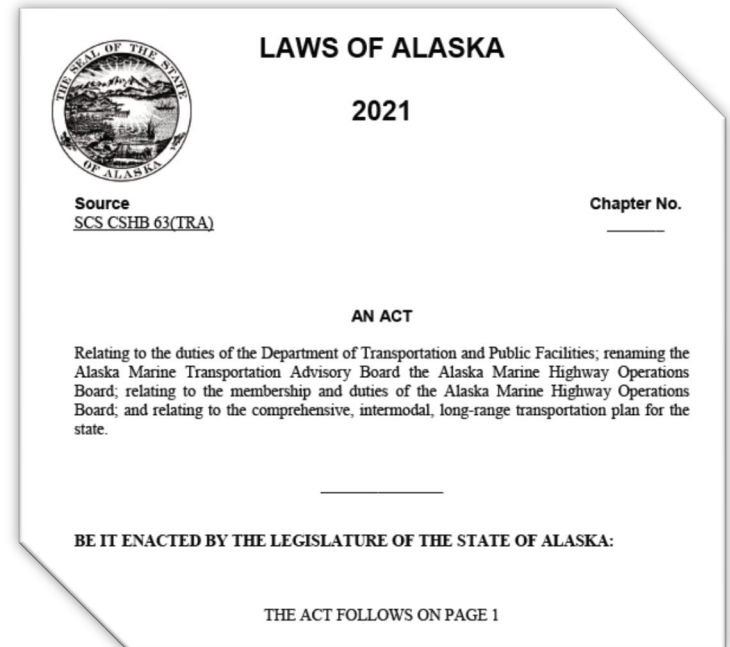


Photos by K. Keith (Columbia)

02/10/2022

AMHS AMHOB

- Kick-off Meeting Juneau Feb 11th, 2022 10:00-4:00
- Members:
 - Captain David Arzt, Captain Keith Hillard, Deputy Commissioner Rob Carpenter, Alan Austerman, Wanetta Ayers, Cynthia Berns, Norm Carson, Paul Johnsen, and Shirley Marquardt.
- Tasks:
 - Short Term Plan
 - Comprehensive Long-Range Plan
 - Performance Measures

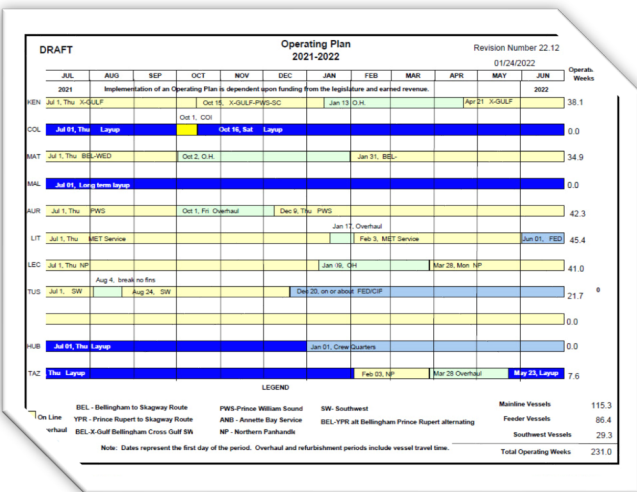


AMHOB Topics of Purview

- Operation and management of AMHS
- Business to enhance revenue and reduce costs
- Personnel management
- Commercial service options
- Ship maintenance, construction, and repair
- Fleet strategy
- Reliability
- Regulatory compliance
- Other service objectives

Planning

- Operating Plan
- 5-year Engineering Master Plan
- Workforce Action Plan
- In Progress
 - 20-year Optimization Plan
 - Communications Plan



AMHS Workforce Action Plan: A Phase Approach

Recommended Next Steps for Hiring and Retention

Objective: Develop a responsive workforce that enables AMHS to offer service levels that meet community needs.

Phase One: Increase collaboration and partnerships while addressing cultural and communication gaps.

Make it Easier to Get Hired and Stay Employed

- Reducing the MC's and lines of progression for Steward and Purser positions to speed up internal advancement.
- Employee support system online for MC's/Paperwork
- Online tutorials and support (partner with vocational school/unions for support)
 - o Offer mentorships to potential recruits and new hires

Team with Unions to Expand our Reach

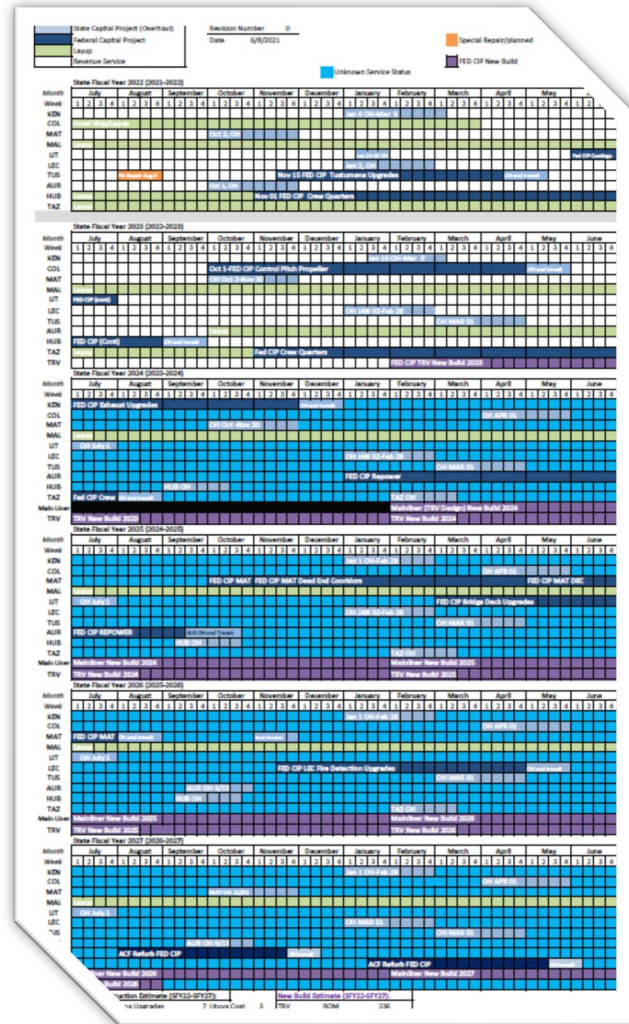
"Make sure we're prepared to make ourselves attractive to advance and train the next generation of mariners, especially minorities and women. We need to make sure we're telling the story of great opportunities of this industry and the opportunities that exist for advancement for someone who doesn't have a college degree." (Cristina Lina, Workboat)

- Post an RFP to secure a maritime job placement service to assist in hiring
- Develop an AMHS employment informational video
- Create Alaskan mariners targeting underrepresented groups: minorities and women
- Host a voluntary Hiring Hall in Juneau (online)
- Team with Union Steps to discover solutions
- Get support from national maritime industry expert for guidance (Workboat)

Improve Culture and Morale

"Culturally, institutionally, we have to reset ourselves to the next group of employees and position ourselves from a wage standpoint that's going to be more attractive" (Pamela Glass, Workboat).

- Form an Operations Steering Committee with the vessel and shore side department heads tasked with improving morale
- Identify how AMHS work life can empower non-work life to be more attractive to Gen Z/millennials
- "require ongoing Respect training for sexual harassment"



Communication

- Internal
 - Staff advisory committee
 - Internal web-based engagement portal that offers the opportunity to comment via phone, text, or website.
 - Commissioner visits to the shipyard and vessels.
- External
 - Social media
 - Indepth and frequent public releases
 - AMHOB website



Photos by K. Keith (Tazlina Captain Jahrig, 3rd Mate Oswald, Commissioner Anderson)

AMHS: ENGINEERING

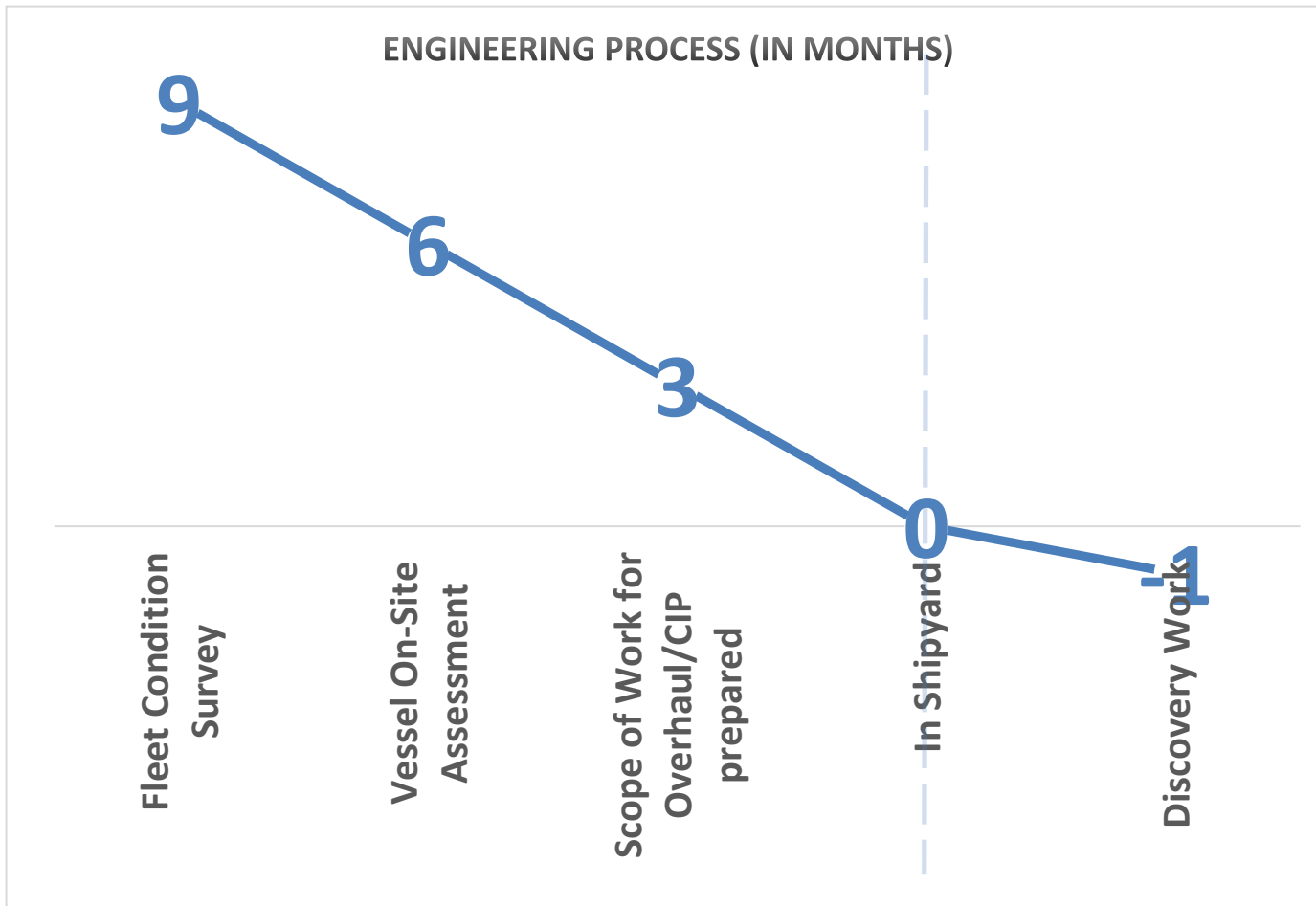
- Fleet Status
- 5-year Engineering Master Plan
- Recommended Work
- Current Capital Projects
- TRV



Photos by K. Keith (Hubbard)



Engineering Process

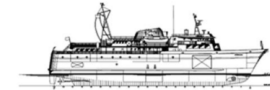


Weekly Vessel Status and Construction Reports
Plan of Day Reports “PODs”
835 Logs and SMR Reports

Fleet Condition Survey: Priority Matrix



M/V Matanuska						
COST	\$1M+		3	1		1
	\$750K - \$1M					1
	\$500K - \$750K		1		1	1
	\$250K - \$500K		3	1		1
	\$0 - \$250K	3	3	8	2	8
		UPGRADES	LIFECYCLE	PREVENTATIVE	PROBLEMATIC	IMMEDIATE
		PRIORITY				

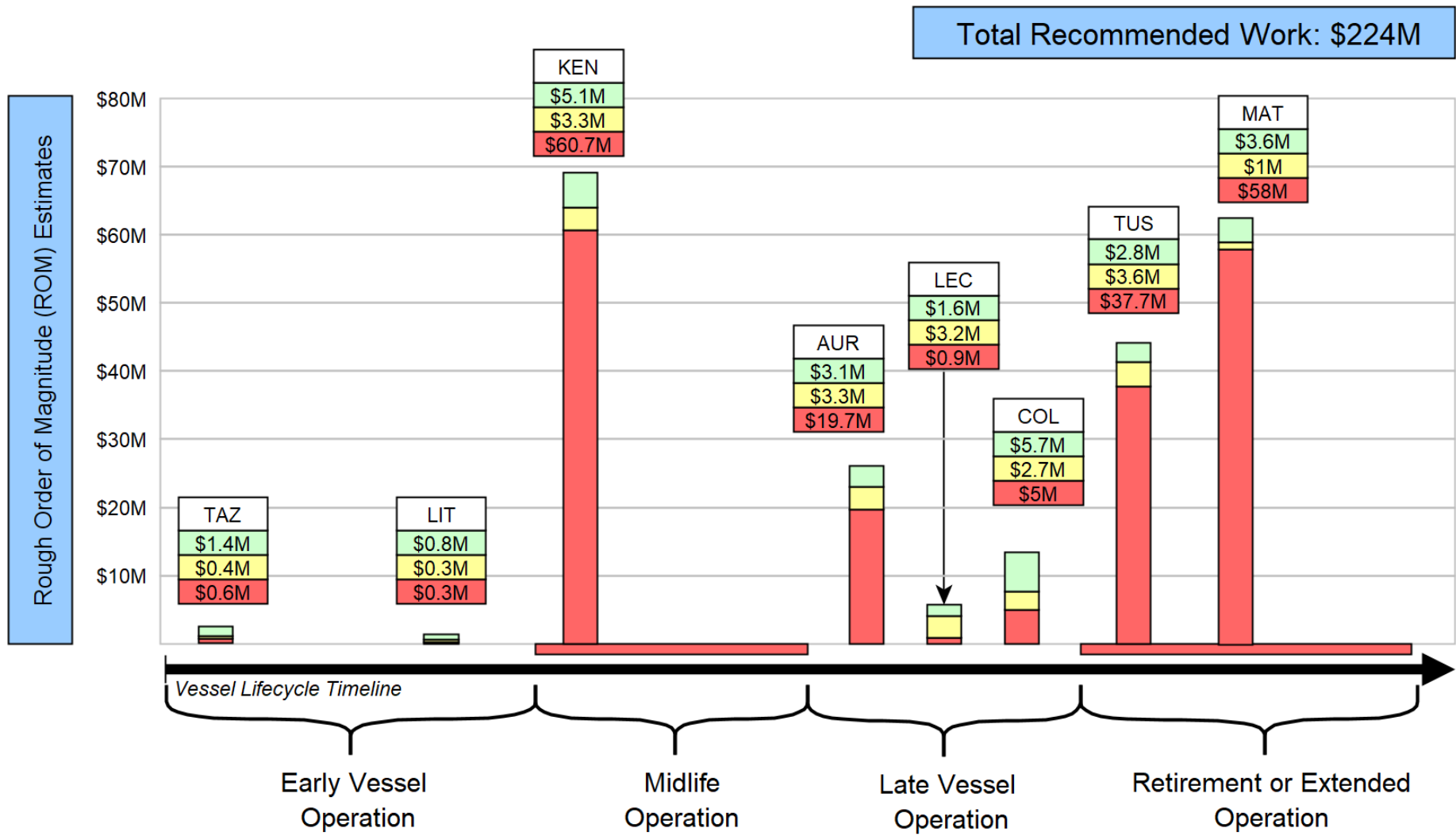


M/V Aurora						
COST	\$1M+					1
	\$750K - \$1M					
	\$500K - \$750K			2	2	
	\$250K - \$500K			2	1	
	\$0 - \$250K	5	4	8	4	1
		UPGRADES	LIFECYCLE	PREVENTATIVE	PROBLEMATIC	IMMEDIATE
		PRIORITY				

Rating/ID	Type	Description
1	Immediate	Mission critical, regulatory and/or safety
2	Problematic	Recurring problem areas or equipment
3	Preventative	Item needs to be overhauled, or repaired
4	Life Cycle	Outdated, or item has reached the recommended service life
5	Upgrades	Recommendation (non-immediate)



Cost per Vessel by Urgency



Cost per Vessel by H

Rough Order of Magnitude (ROM) Estimates

\$80M
\$70M
\$60M
\$50M
\$40M
\$30M
\$20M
\$10M

TOTAL	\$1.4M
	\$0.4M
	\$0.6M

Vessel Life

As we get older,
we're a lot like
vintage cars.....
Maintenance costs
get higher and
used parts are
hard to find.



www.facebook.com/occupylaughter

Early
Operation

Operation

Late Vessel
Operation

Retirement or Extended
Operation

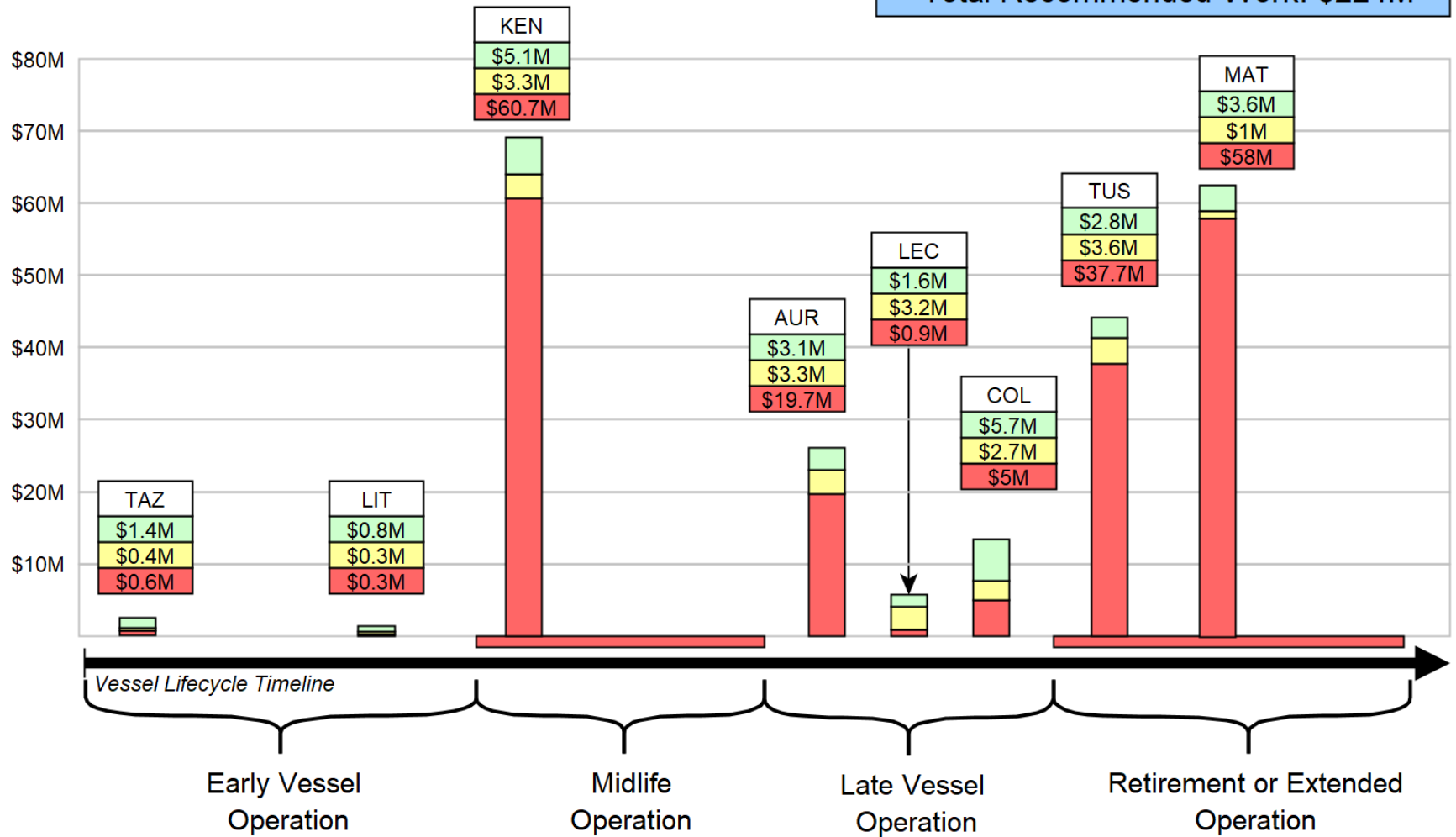
Work: \$224M



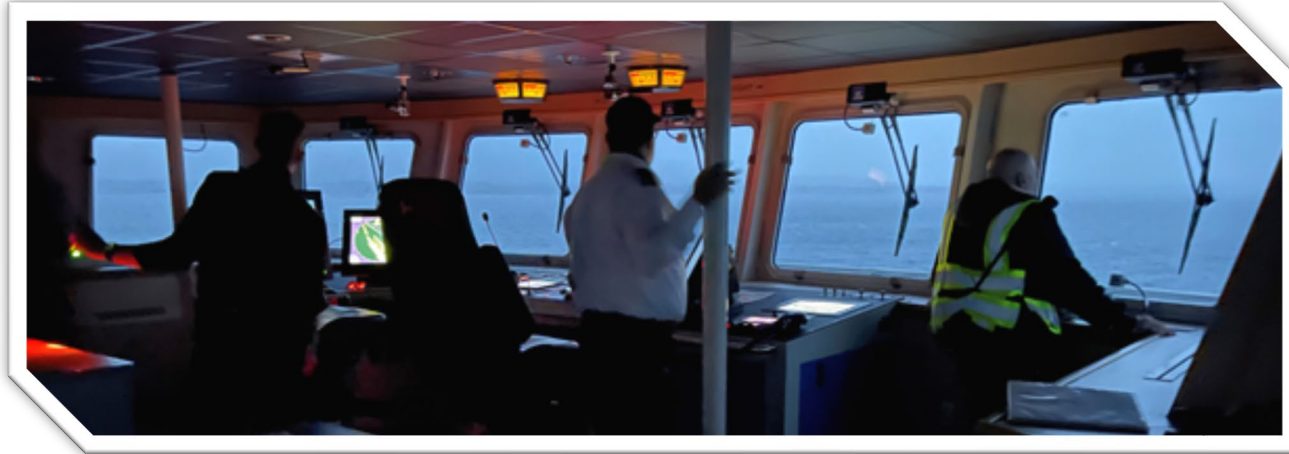
Cost per Vessel by Urgency

Total Recommended Work: \$224M

Rough Order of Magnitude (ROM) Estimates



Fleet Condition Survey Recommendations



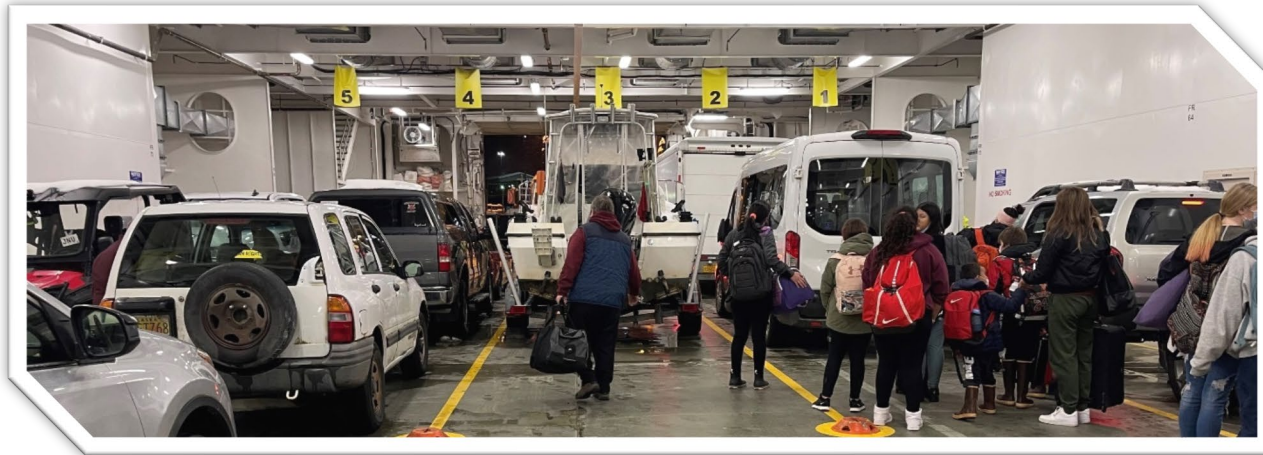
	Recommended Work (ROM)	Priority 1 Work (High Urgency and Investment)	% High Urgency & Investment	Planned CIP Work	Outstanding Recommended Work
Aurora	\$ 20,127.0	\$15,170,000	75%	\$ 15,125.0	\$ 5,002.0
Columbia	\$ 18,672.0	\$10,665,000	57%	\$ 12,000.0	\$ 6,672.0
Kennicott	\$ 53,131.5	\$1,385,000	3%	\$ -	\$ 53,131.5
LeConte	\$ 4,354.5	\$676,250	16%	\$ 303.8	\$ 4,050.8
Lituya	\$ 1,013.3	\$215,000	21%	\$ -	\$ 1,013.3
Matanuska	\$ 48,095.0	\$35,775,000	74%	\$ 33,275.0	\$ 14,820.0
Tazlina	\$ 1,825.0	\$440,000	24%	\$ -	\$ 1,825.0
Tustumena	\$ 33,947.3	\$29,025,000	86%	\$ -	\$ 33,947.3
TOTAL	\$ 181,165.5	\$ 93,351,250	52%	\$ 60,703.8	\$ 120,461.8

\$156m in outstanding work (with 30% non-construction costs)

Photos by K. Keith (Tazlina)
\$ in Thousands (1,000)



Ship Maintenance Requests (SMR)



	Total ROM SMR	Total Items	Average Age in Days
Aurora	\$ 547.5	13	407
Columbia	\$ 930.0	25	221
Hubbard	\$ 10.0	1	28
Kennicott	\$ 1,816.0	38	315
LeConte	\$ 250.0	13	224
Lituya	\$ 131.5	6	363
Matanuska	\$ 270.0	23	197
Tazlina	\$ 370.0	22	445
Tustumena	\$ 373.0	11	334
Subtotal	\$ 4,698.0	152	281

Photos by K. Keith (Tazlina)

\$ in Thousands (1,000)



Engineering 5-year Master Plan

State Fiscal Year 2026 (2025-2026)

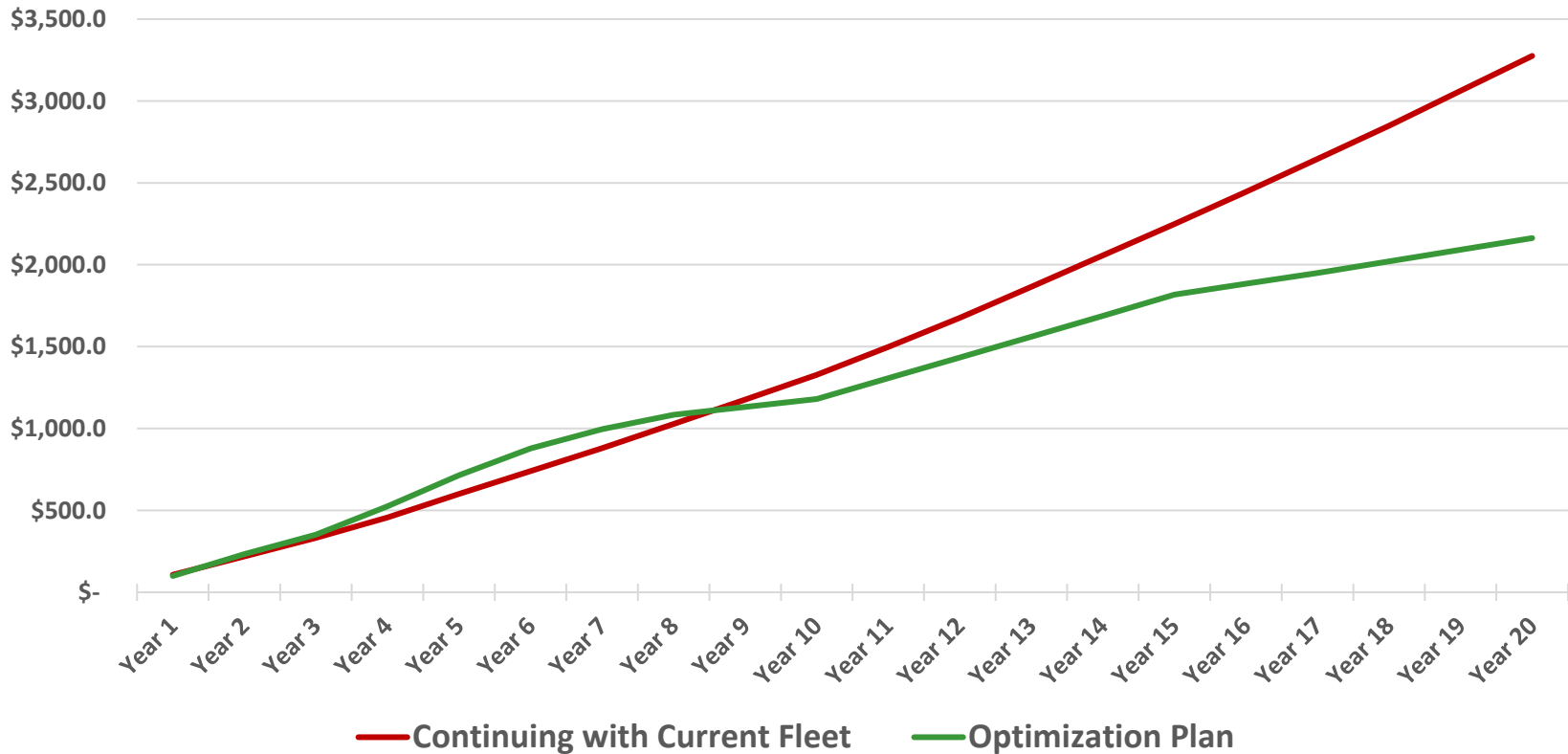
Month	July				August				September				October				November				December				January				February				March				April				May				June																																																																							
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State Fiscal Year 2027 (2026-2027)

Month	July				August				September				October				November				December				January				February				March				April				May				June																																																							
	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4																																																								
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Scenario Planning for Infrastructure Bill



\$ in Millions (1,000,000)

Vessel Capital Projects

- Hubbard, Vigor Shipyard
 - \$15m Complete: August 19th, 2022
- Tustumena, Jag Shipyard
 - \$9.4m Complete: July 15, 2022
- Lituya
 - During June and July 2022

As of 1/15/22

Programmed: \$144m

Balance: \$75m

	Programmed	Balance Remaining	% Work Complete
Planning	\$2,723,032	\$2,334,884	14%
Design	\$39,198,166	\$34,060,817	13%
Construction	\$102,561,763	\$38,269,153	63%

Shoreside Capital Projects

- Auke Bay Ferry Terminal
- Ketchikan Terminal
- Prince Rupert
- System-wide Terminal Improvements

As of 1/15/22

Programmed: \$63.5m

Balance: \$38m

	Programmed	Balance Remaining	% Work Complete
Planning	\$300,000	\$109,332	64%
Design	\$16,175,471	\$16,001,922	1%
Construction	\$23,653,670	\$1,531,433	94%

TRV Construction

- Public notice release January 15th, 2022
- Design by Glosten
- CMGC RFP to be released mid-March 2022
- Public comments occurred in 2014 but truncated comment period will be underway soon.

Design by Glosten



TUSTUMENA

AMHS: BUSINESS











- Finance
- Infrastructure Bill
- Dynamic Pricing

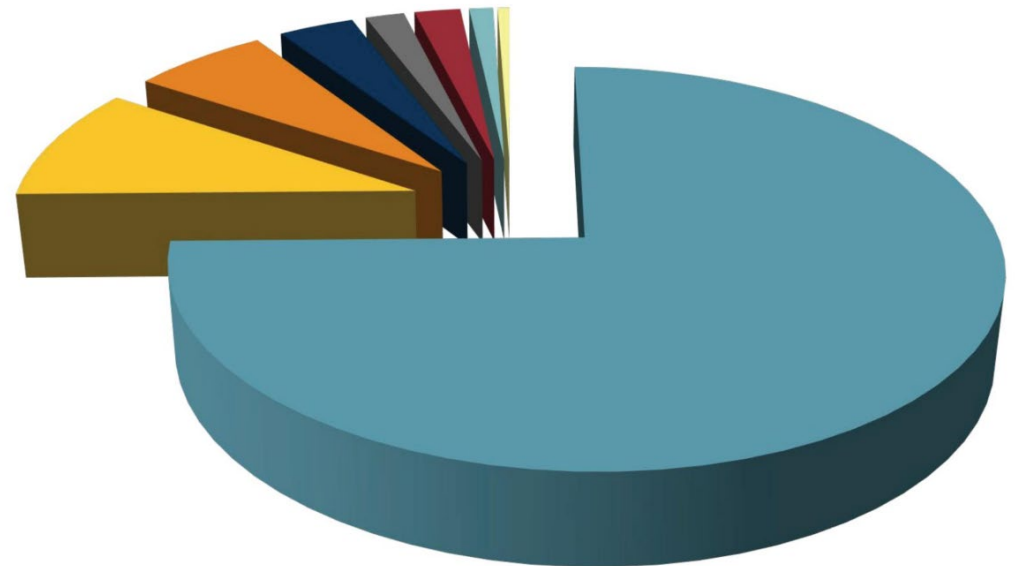
FY2021 Operating Expenditures

Alaska Marine Highway System Fund OPERATING EXPENDITURES

For the fiscal year ended June 30, 2021
\$96.1 MILLION

	Marine Vessel Operations	74.7%		Operations Management	3.6%
	Marine Fuel	9.6%		Overhaul	0.6%
	Shore Operations	6.4%		Marine Engineering	1.8%
	Reservations and Marketing	1.1%		Support Services	2.2%

<https://dot.alaska.gov/amhs/reports.shtml>







FY2021 Operating Revenues

Alaska Marine Highway System Fund

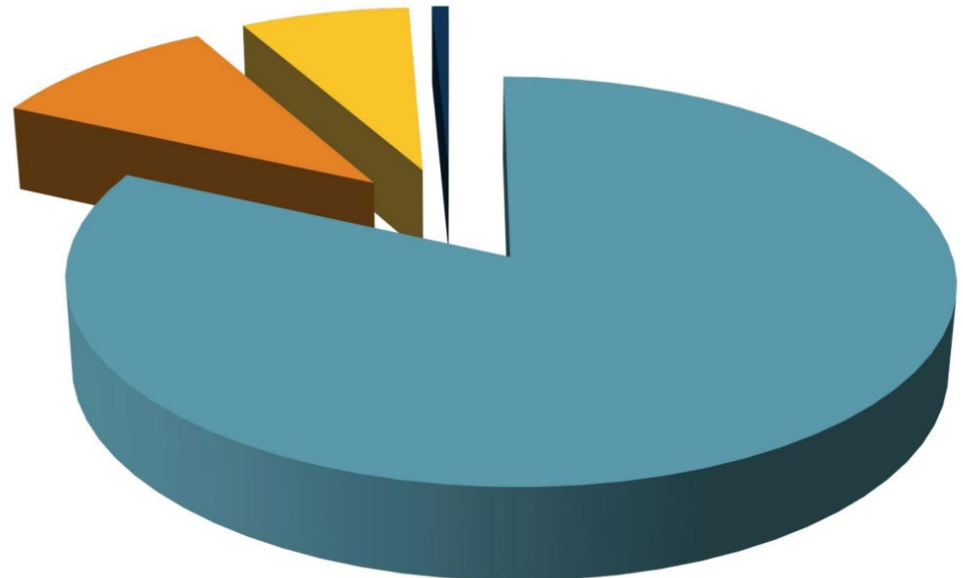
UNRESTRICTED OPERATING REVENUES

For the fiscal year ended June 30, 2021

\$27.9 MILLION

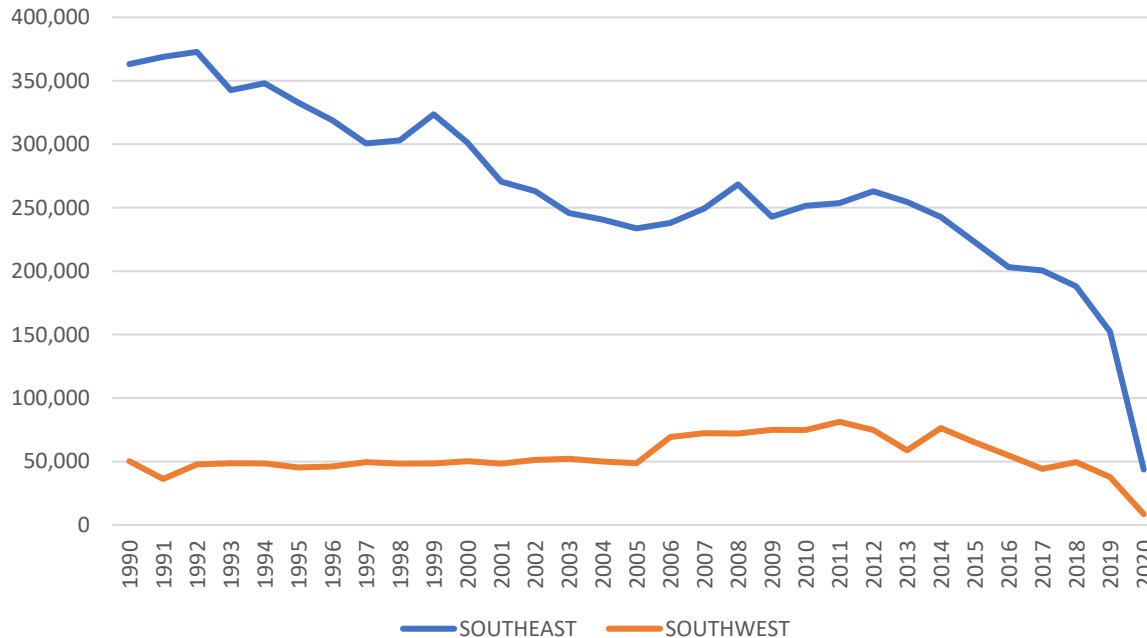
	Ticket Sales	82.0%
	Stateroom Sales	10.0%
	Passenger Services Sales	7.2%
	Other Unrestricted Revenue	0.7%

<https://dot.alaska.gov/amhs/reports.shtml>



Statistical Information: Passengers

Passengers by Region



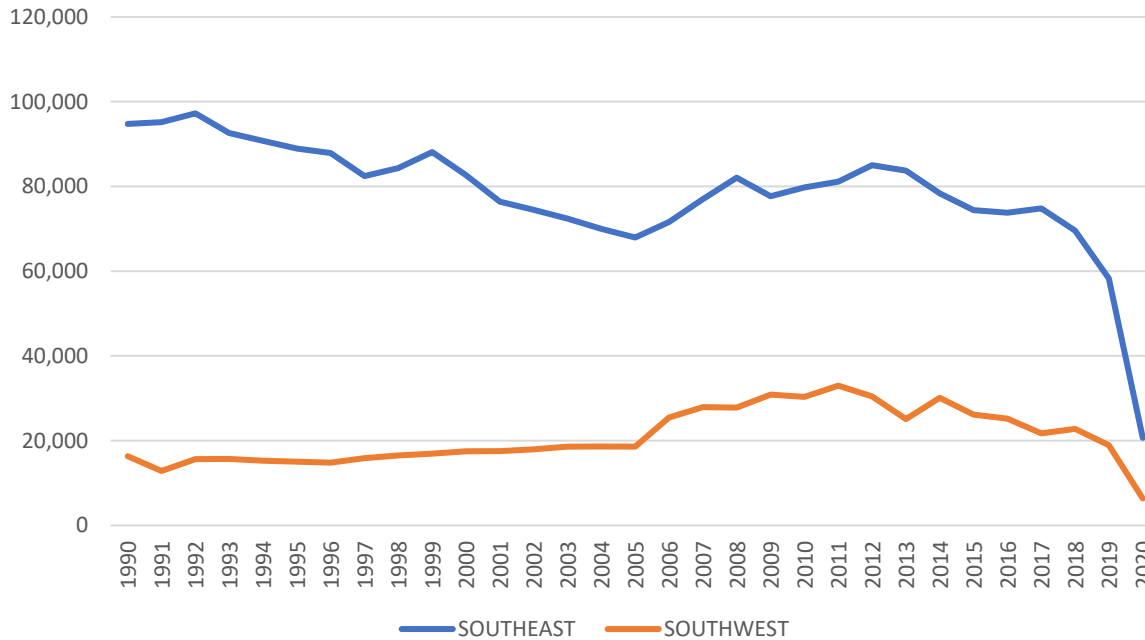
YEAR	SOUTHEAST	SOUTHWEST	TOTAL
1990	363,122	50,271	413,393
1991	368,780	36,248	405,028
1992	372,680	47,756	420,436
1993	342,613	48,678	391,291
1994	347,998	48,545	396,543
1995	332,712	45,373	378,085
1996	318,864	46,053	364,917
1997	300,653	49,450	350,103
1998	303,076	48,337	351,413
1999	323,608	48,437	372,045
2000	301,244	50,216	351,460
2001	270,507	48,384	318,891
2002	263,105	51,304	314,409
2003	245,818	52,147	297,965
2004	240,666	49,959	290,625
2005	233,667	48,569	282,236
2006	237,965	69,255	307,220
2007	249,310	72,299	321,609
2008	268,335	72,077	340,412
2009	242,940	74,951	317,891
2010	251,503	74,810	326,313
2011	253,554	81,224	334,778
2012	262,931	74,843	337,774
2013	254,437	58,874	313,311
2014	242,648	76,356	319,004
2015	223,000	65,133	288,133
2016	203,237	54,805	258,042
2017	200,559	44,189	244,748
2018	188,054	49,555	237,609
2019	152,310	37,808	190,118
2020	43,723	8,473	52,196

Traffic is reported on the calendar year.



Statistical Information: Vehicles

Vehicles by Region

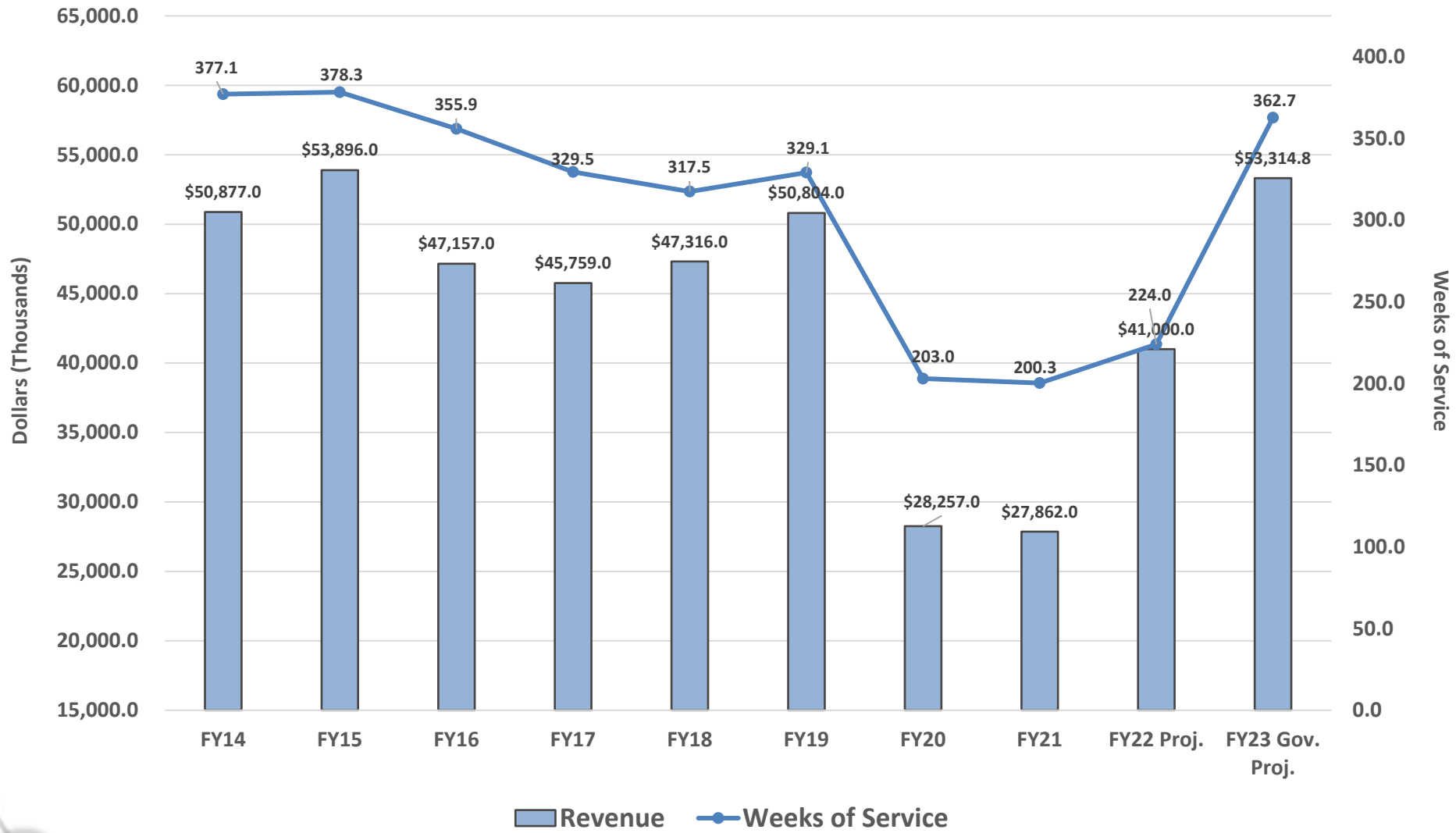


YEAR	SOUTHEAST	SOUTHWEST	TOTAL
1990	94,730	16,310	111,040
1991	95,173	12,860	108,033
1992	97,239	15,656	112,895
1993	92,598	15,696	108,294
1994	90,758	15,245	106,003
1995	88,942	15,031	103,973
1996	87,863	14,809	102,672
1997	82,451	15,878	98,329
1998	84,328	16,490	100,818
1999	88,101	16,921	105,022
2000	82,651	17,484	100,135
2001	76,413	17,533	93,946
2002	74,460	17,943	92,403
2003	72,386	18,586	90,972
2004	69,993	18,620	88,613
2005	67,938	18,580	86,518
2006	71,609	25,461	97,070
2007	77,000	27,913	104,913
2008	82,040	27,799	109,839
2009	77,671	30,870	108,541
2010	79,745	30,330	110,075
2011	81,118	32,982	114,100
2012	85,009	30,439	115,448
2013	83,707	25,090	108,797
2014	78,372	30,106	108,478
2015	74,399	26,148	100,547
2016	73,787	25,182	98,969
2017	74,818	21,708	96,526
2018	69,562	22,787	92,349
2019	58,268	18,935	77,203
2020	20,653	6,353	27,006

Traffic is reported on the calendar year.



AMHS Revenue & Weeks of Service FY2014 – FY2023



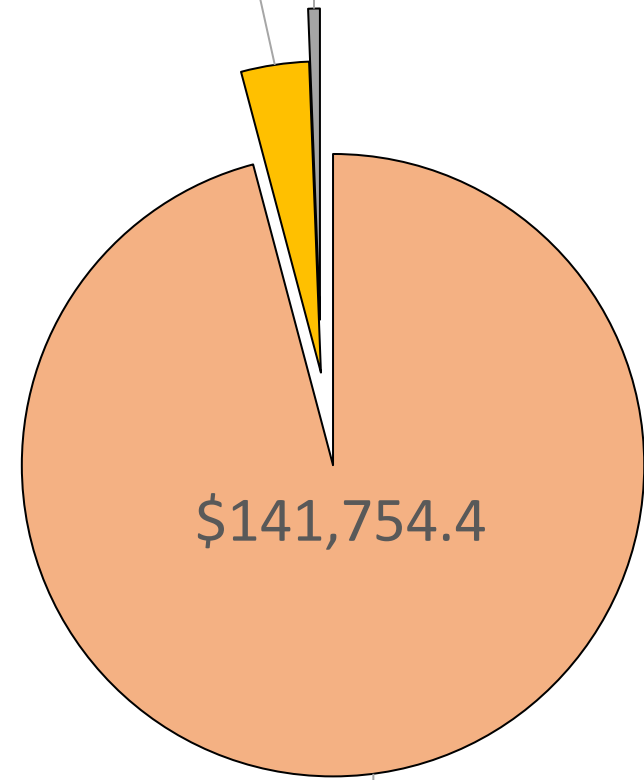
\$ in Thousands (1,000)

FY2023 Governor's Proposed



All ships, all the time.

DGF, \$5,000.0 , 3% Other, \$859.7 , 1%



Federal, \$135,894.7 , 96%

\$ in Thousands (1,000)



Infrastructure Bill (IIJA)

- **\$250 million over five years** for an electric or low-emitting ferry pilot program, with at least one pilot conducted in the state with the most Marine Highway System miles.
- A proposed 1.9% increase to Ferry Boat and Terminal Formula, ~\$15M per year.
- **\$1 billion over five years** for funding to States to provide essential ferry service in rural communities.

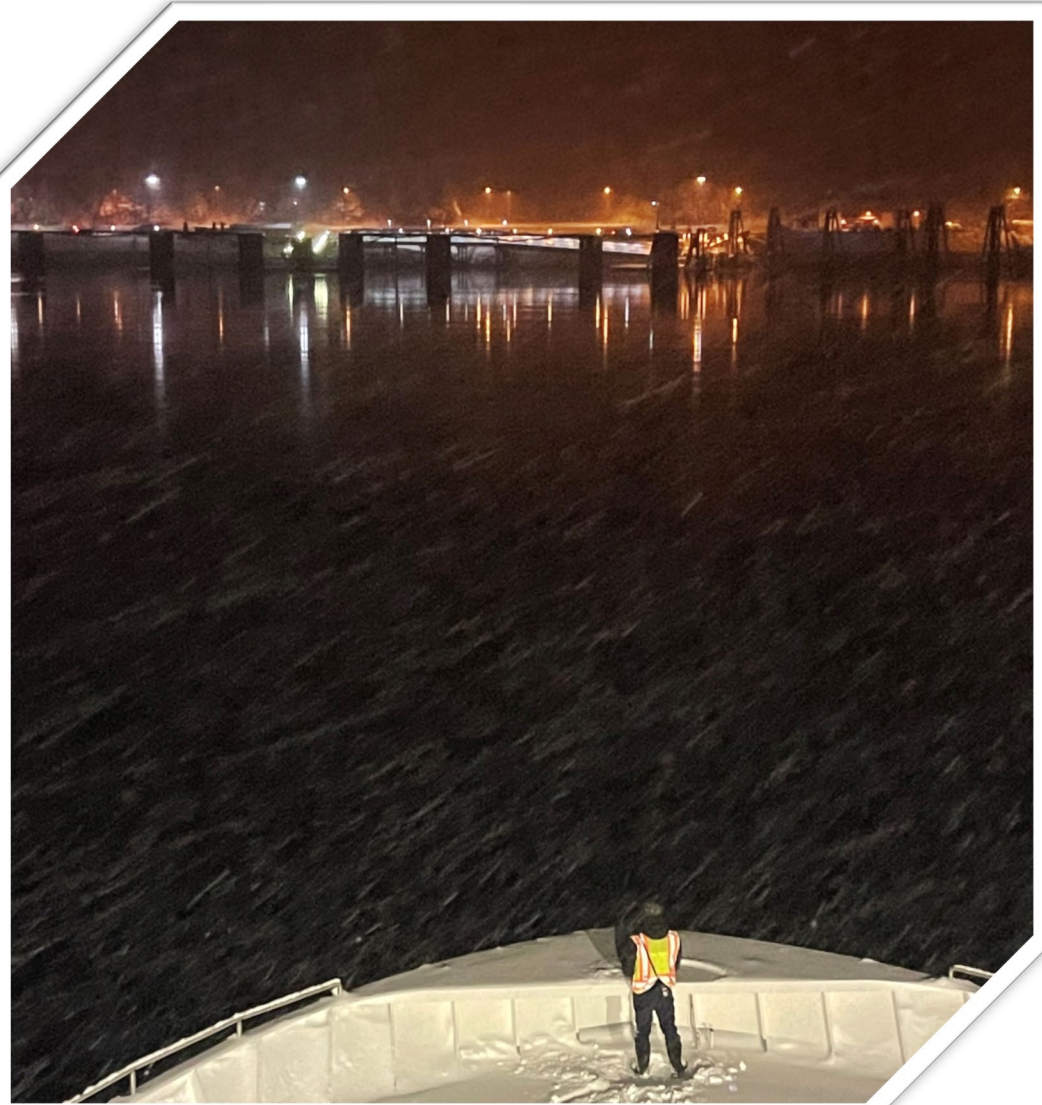
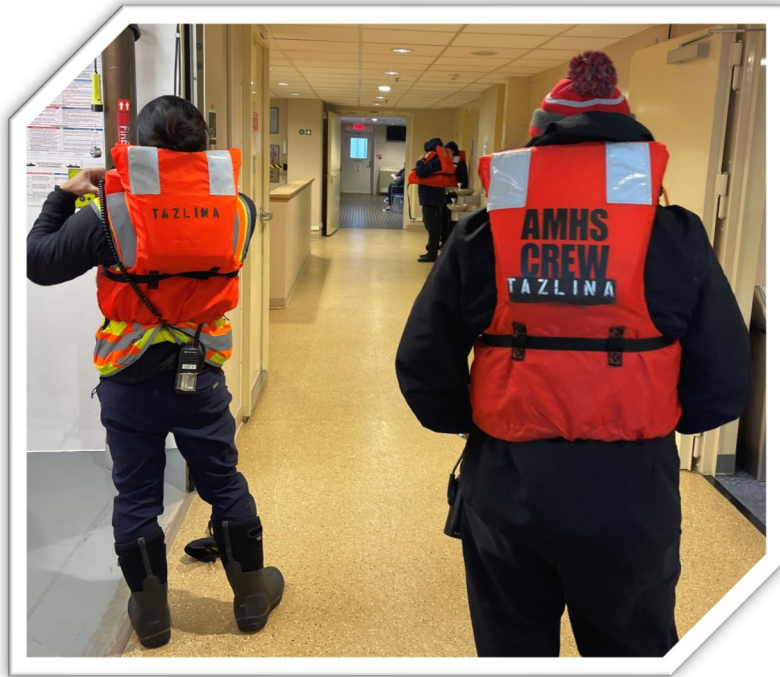
How are we preparing?

Low-Emission Ferry Partnerships

Scenario forecasting based on the 20-year modernization plan

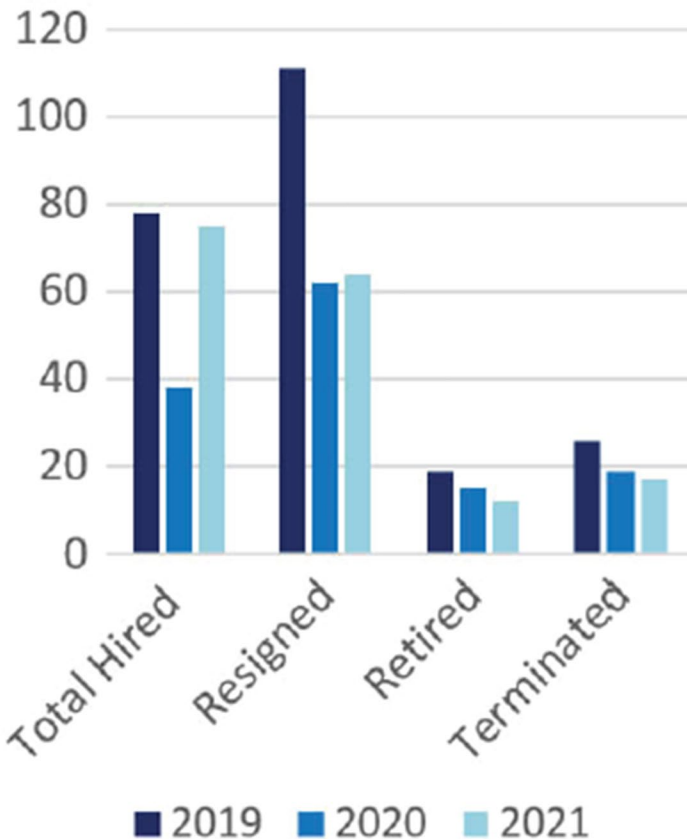
AMHS: OPERATIONS

- People
- Contracting



AMHS Staffing Shortages

HIRED vs SEPARATED
2019-2021



Position	% Vacant (# of vacancies)
Entry-level Steward	71% (255)
Wiper	75% (6)
3rd Engineers	63% (12)
2nd Cook	61% (14)
Oilers	55% (21)
3rd Mates	41% (21)
2nd Steward	60% (6)
Chief Pursers	41% (8)
Jr Engineer	35% (6)
Chief Engineers	31% (8)



AMHS Staffing Shortages

STAFFING SHORTFALL

Vessel Configuration

New Hires

Minimum Number

Main fleet (AUR, MAT, LEC, LIT, KEN, TUS) only

24

Adding Tazlina

68

Adding Columbia with no Tazlina

125

Adding both Tazlina and Columbia

166

Staffing goals for all eight ferries over the summer of 2022 are:

IBU-634 (current 315) / MMP-112 (current 81) / MEBA-80 (current 55).

Staffing goals for the summer season will not be met at current recruitment rates.

*If staffing goals are not met by March 1,
the Columbia will not be available for operations on May 1.*

AMHS Staffing Crisis

STAFFING SHORTFALL

Vessel Configuration

Main fleet (AUR, MAT, LEC)

Adding Tazlina

Adding Columbia

Adding

New Hires
Minimum Number

4

**WE'RE
HIRING!**

Staffing goals for the fleet are: 22 are:
IBU-634 (current 22) BA-80 (current 55).
Staffing goals for the fleet at current recruitment rates.

*If staffing goals are not met by March 1,
the Columbia will not be available for operations on May 1.*

Supplemental Transportation Contracts

We believe that the **best service** is provided by our regular employees sailing one of our vessels; however, we will pursue **creative solutions** in order to provide service to our coastal communities, including extending other AMHS vessel schedules or contracting private vessels to fill service gaps.

Scheduled Village Service

NLC and Southern SE as-needed trips

CONTRACTED LOTS	LOTS	AMHS Contract	Service	Routes
	LOT 1	Goldbelt	4 Passenger Only Trips	Juneau – Hoonah – Gustavus – Juneau
	LOT 2	Goldbelt	4 Passenger Only Trips	Juneau – Angoon – Tenakee – Juneau
	LOT 3	Allen Marine	3 Passenger Only Trips	Juneau – Hoonah – Pelican – Juneau

SCHEDULED TRIPS	Schedule	AMHS Contract	Service	Routes
	1/19/22	Allen Marine	Passenger Only	Juneau – Hoonah – Pelican – Juneau
	1/26/22	Goldbelt	Passenger Only	Juneau – Hoonah – Gustavus – Juneau
	1/27/22	Goldbelt	Passenger Only	Juneau – Angoon – Tenakee – Juneau

CONTRACTED LOTS	LOTS	AMHS Contract	Service	Routes
	LOT 1	Goldbelt	Passenger Only	Juneau-Haines-Skagway-Juneau
	LOT 2	Allen Marine	Passenger Only	Juneau-Sitka-Juneau
	LOT 3	Allen Marine	Passenger Only	Ketchikan-Wrangell-Petersburg-Ketchikan

SCHEDULED TRIPS	Schedule	AMHS Contract	Service	Routes
	1/24/22	Goldbelt	Passenger Only	Juneau – Haines – Skagway – Juneau
	1/29/22	Goldbelt	Passenger Only	Juneau – Haines – Skagway – Juneau



Change: From Challenge to Opportunity



COVID (Direct and Indirect)

Vendor delays

Parts & Supplies Availability

Staff Availability (20 crew in shipyard in quarantine.)

Crew

Recruitment and Retention

Mechanical

Aging Ships and Wasted Steel

Modernize the Fleet

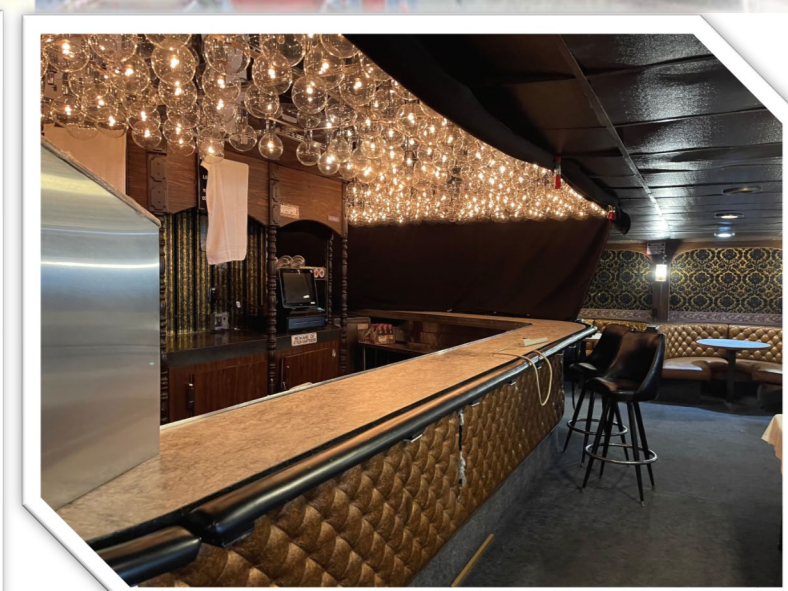
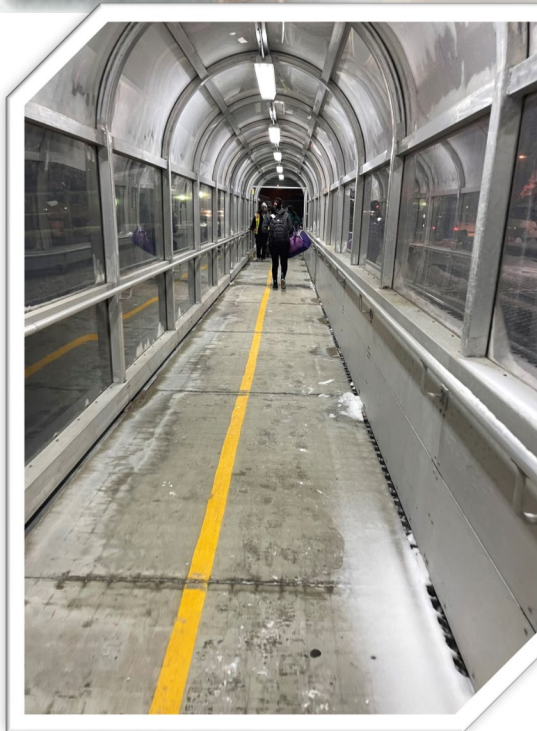
Improve Morale

Transparent Communication & Increased Engagement

Increase Partnerships for Workforce Development

Redefine Service Levels Based on Current Need

Engage!



For More Information:

<https://dot.alaska.gov/amhob/>

<https://dot.alaska.gov/amhs/>

To Engage:

<https://publicinput.com/amhobpublic>



Thank You.



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