



Alaska Department of Transportation & Public Facilities

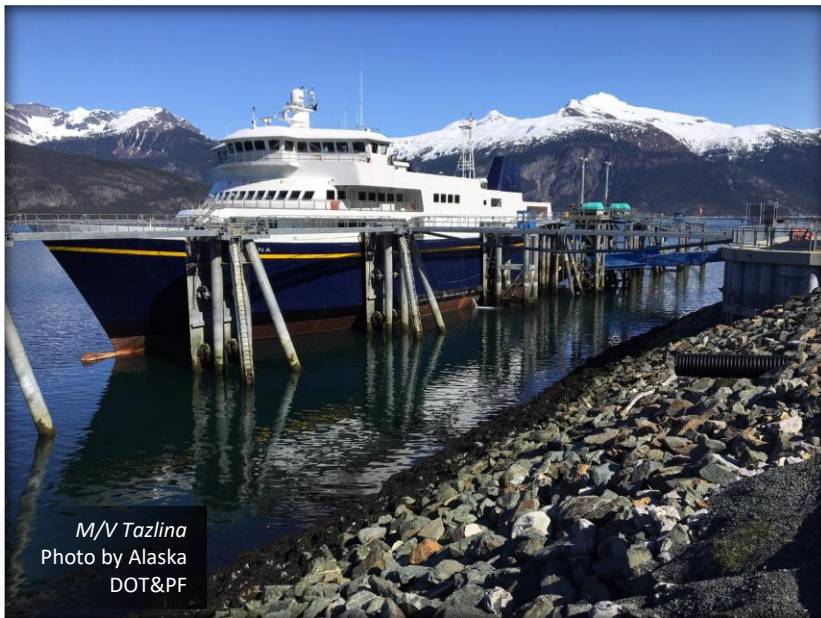
House Finance Subcommittee Alaska Marine Highway System

Rob Carpenter, Deputy Commissioner
Dom Pannone, Administrative Services Director
Matt McLaren, AMHS Business Development Manager
Katherine Keith, Change Management Director

February 8, 2022

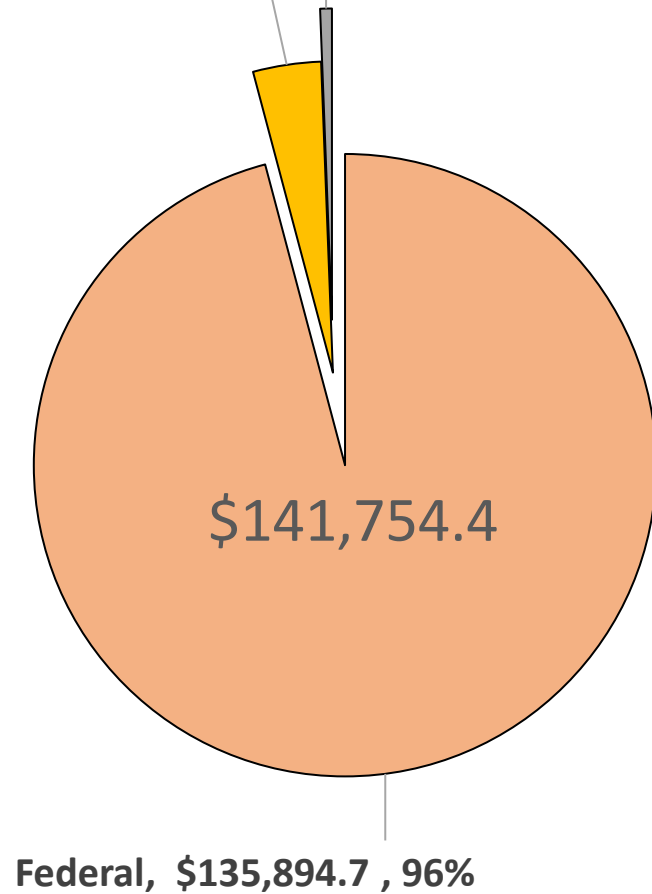
Our mission is to **Keep Alaska Moving** through service and infrastructure.

FY2023 Governor's Proposed



All ships, all the time.

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

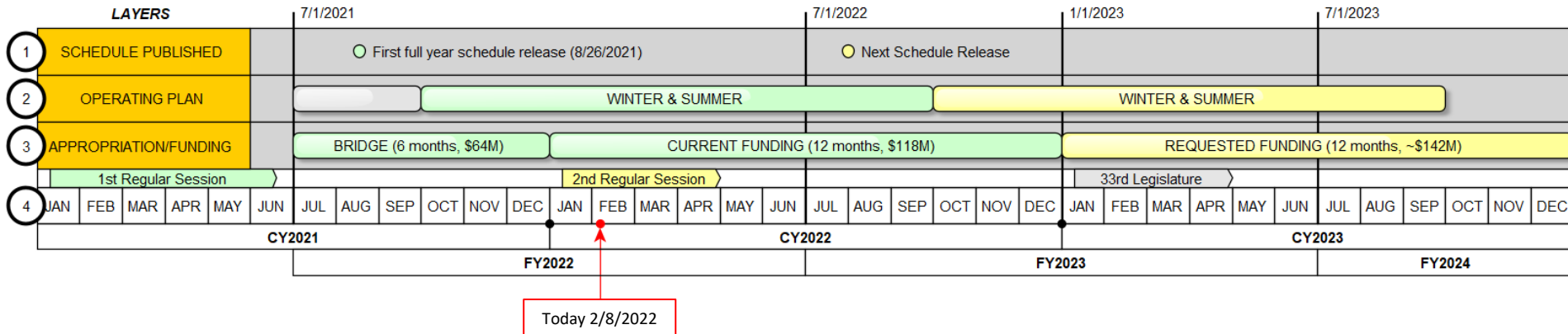


\$ in Thousands (1,000)

Forward Funded Budget Structure



AMHS OPERATIONAL LAYERS



FY2023 Governor's Proposed Budget



	FY2019 Final Authorized	FY2020 Final Authorized	FY2021 Final Authorized	FY2022 Management Plan	FY2023 Governor's Proposed Budget	Δ	Δ%
Planned Weeks of Service	345.9	254.3	286.7	249.5	362.7	113.2	45%
Planned Port Calls	5,914	4,399	4,959	4,166	6,311	2,145	51%
Projected Revenue	\$ 51,697.6	\$ 48,070.2	\$ 51,779.1	\$ 53,365.1	\$ 53,314.8	\$ (50.3)	0%
Projected Fare Box Recovery	36%	48%	47%	43%	37%	(6)	-14%

Fund Source

Unrestricted General Funds (UGF)	\$ 86,005.5	\$ 46,002.2	\$ 54,011.0	\$ 63,401.6	\$ -	\$ (63,401.6)	-100%
Designated General Funds (DGF)	\$ 52,070.1	\$ 55,492.6	\$ 53,151.4	\$ 5,425.7	\$ 5,000.0	\$ (425.7)	-8%
Other	\$ 2,167.7	\$ 8,071.3	\$ 2,150.0	\$ 1,308.3	\$ 859.7	\$ (448.6)	-34%
Federal- Relief Funding	\$ -	\$ -	\$ 1,122.4	\$ 112,768.0	\$ -	\$ (112,768.0)	-100%
Federal Funds (Including IIJA/BIL)	\$ -	\$ -	\$ -	\$ -	\$ 135,894.7	\$ 135,894.7	100%

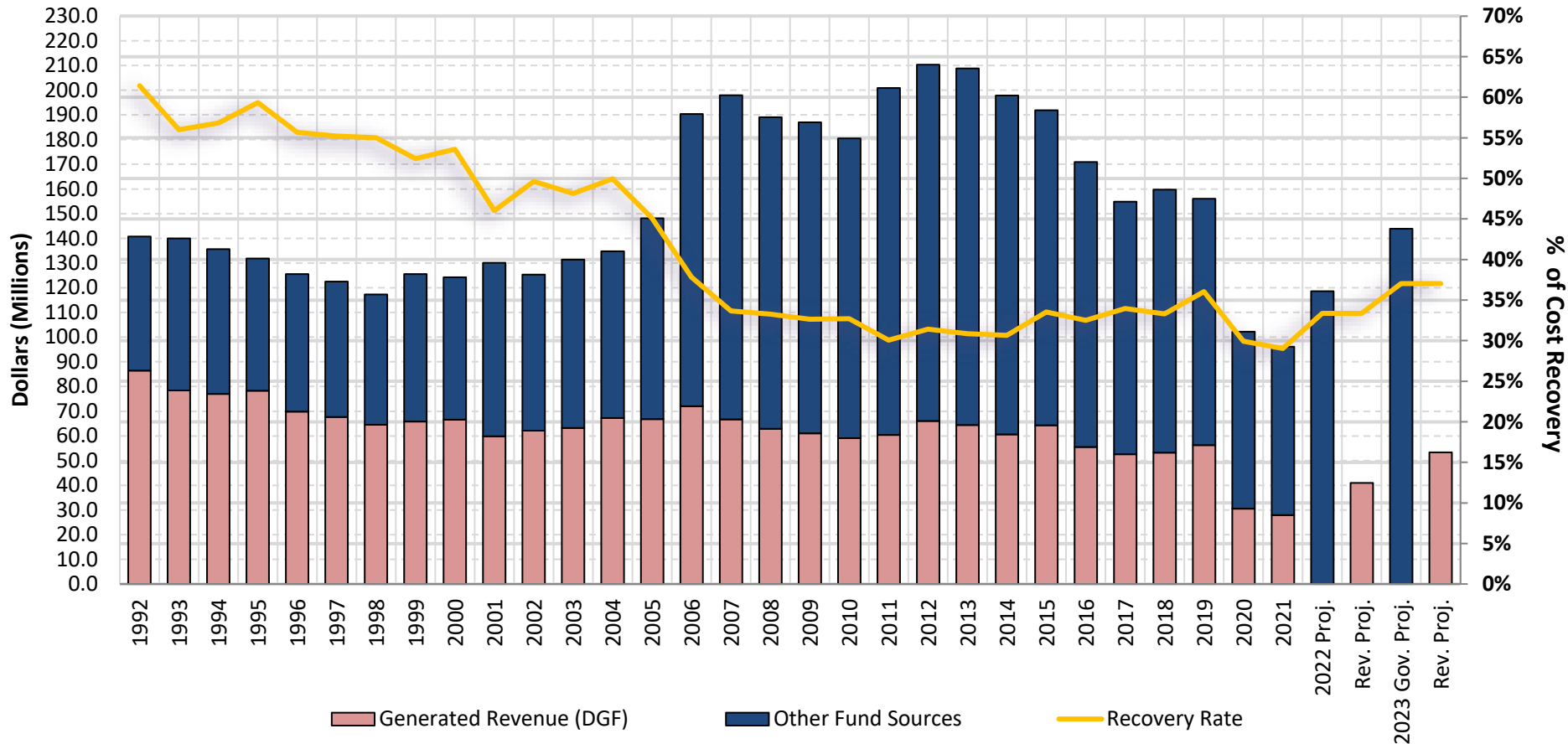
Operating Total	\$ 140,243.3	\$ 109,566.1	\$ 110,434.8	\$ 182,903.6	\$ 141,754.4	\$ (41,149.2)	-22%
				AMHS less Forward Funding	\$ 118,667.5	\$ 23,086.9	19%

\$ in Thousands (1,000)



Historical Revenues and Operating Costs

AMHS Fare Box Recovery Rate 1992-2023 Gov.



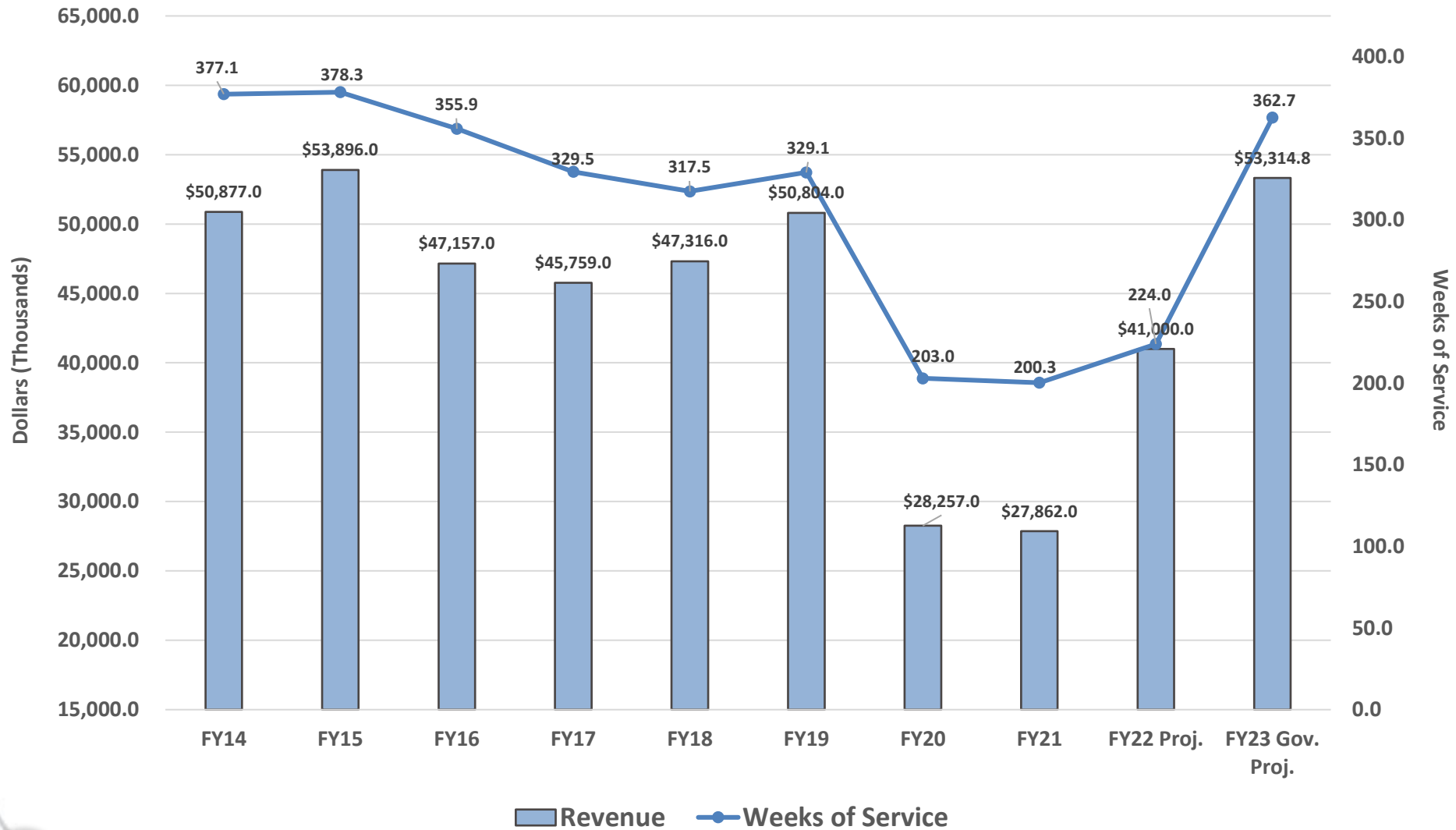
Significant Cost Increases

- FY2004 – FY2007: Added the FVF Fairweather and FVF Chenega. Vessel wage increases of 6%, 7%, and 8%.
- FY2012 – FY2013: Added ports and increased operating weeks

Note: Data is adjusted for inflation to 2021 values. Source: U.S. Bureau of Labor Statistics Consumer Price Index.



AMHS Revenue & Weeks of Service FY2014 – FY2023

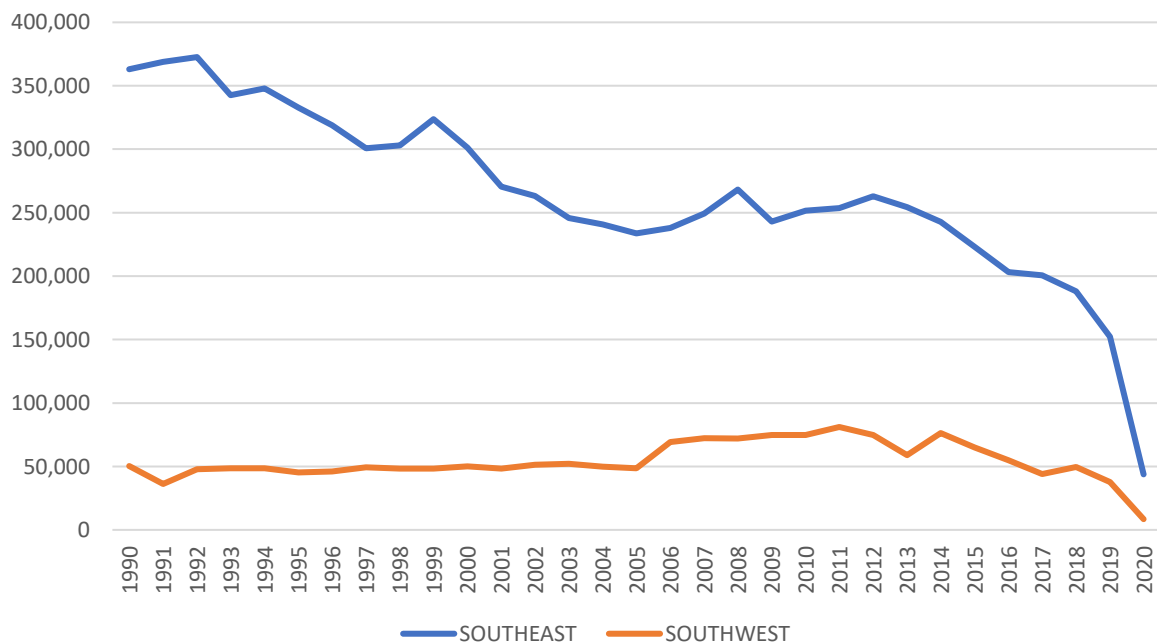


\$ in Thousands (1,000)



Statistical Information: Passengers

Passengers by Region

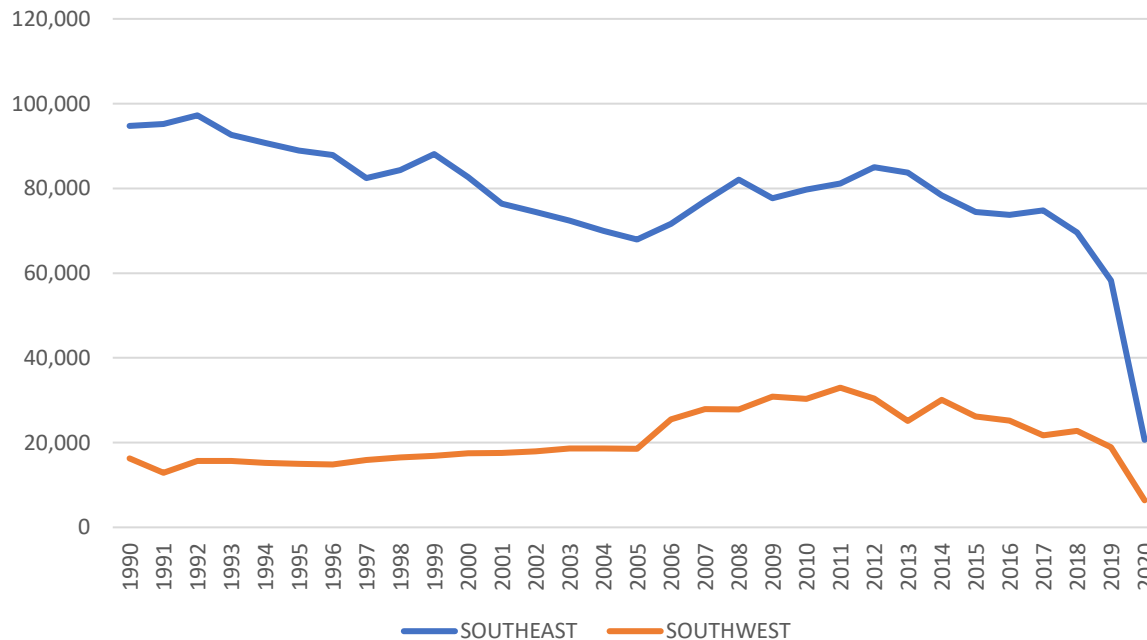


YEAR	SOUTHEAST	SOUTHWEST	TOTAL
1990	363,122	50,271	413,393
1991	368,780	36,248	405,028
1992	372,680	47,756	420,436
1993	342,613	48,678	391,291
1994	347,998	48,545	396,543
1995	332,712	45,373	378,085
1996	318,864	46,053	364,917
1997	300,653	49,450	350,103
1998	303,076	48,337	351,413
1999	323,608	48,437	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

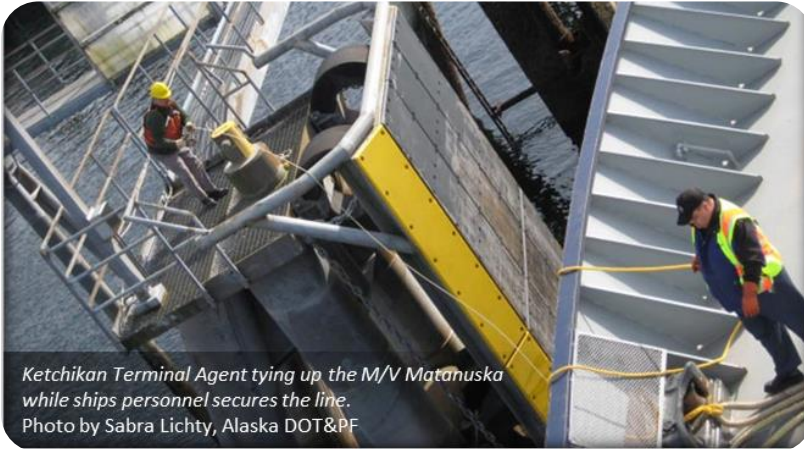
Vehicles by Region



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 Funds and Sweeps



**Alaska Marine Highway
System Fund (1076)**
AS 19.65.060, AS 37.05.550

Sweepable: Yes
Swept Amount: \$0

AMHS Vessel Replacement Fund (1082)
AS 37.05.550

Sweepable: Yes
Swept Amount: \$21,684.3

Capitalization Account (3225)
subaccount of AMHS Fund

Sweepable: Yes
Swept Amount: \$2,629.4

(*Preliminary Unaudited Sweep Numbers)

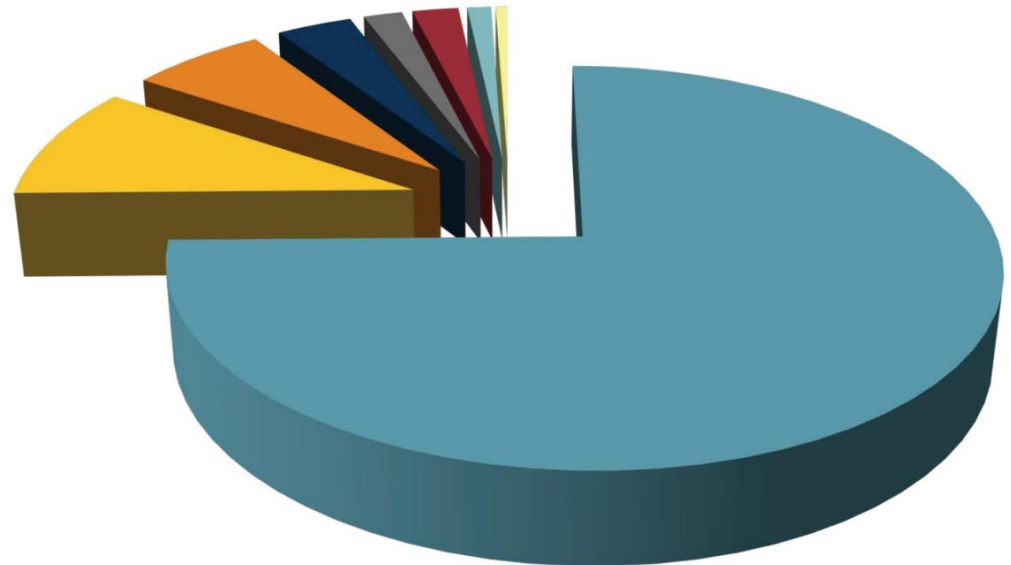
FY2021 Operating Expenditures

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

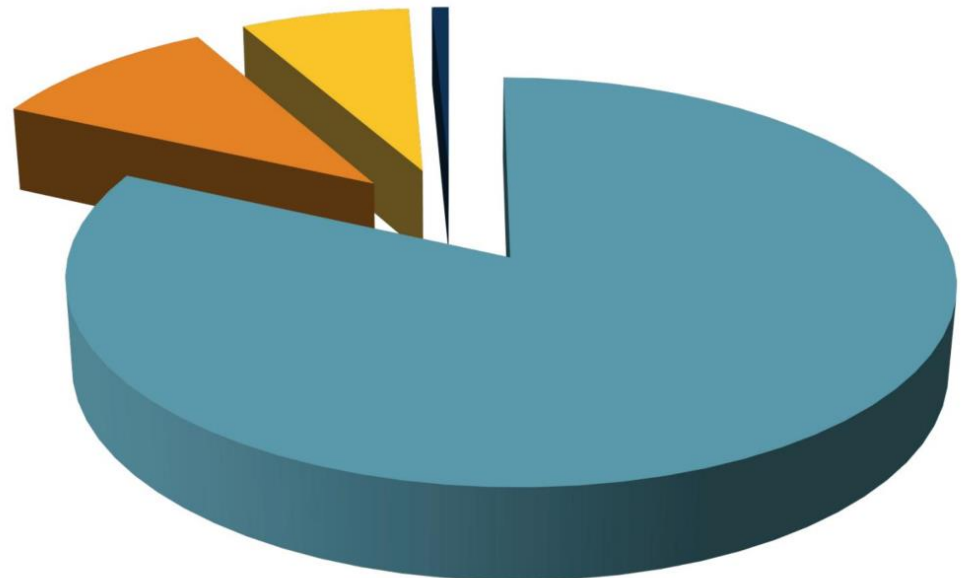
UNRESTRICTED OPERATING REVENUES

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>



Staying the Course, Toward Reliability

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

- Forward Funded Budget
- First Full Year Advance Schedule Published
- Tustumena Replacement Vessel: CMGC
- Hubbard: Crew Quarters
- Prince Rupert: Working toward May 1st
- Marine Highway Planner in Recruitment
- Contingent Private Contract Service
- Tazlina: Crewed, Sailing February 4th
- AMHOB Meeting February 11th
- New Change Management Director
 - *Katherine Keith, PMP, PMI-ACP*



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

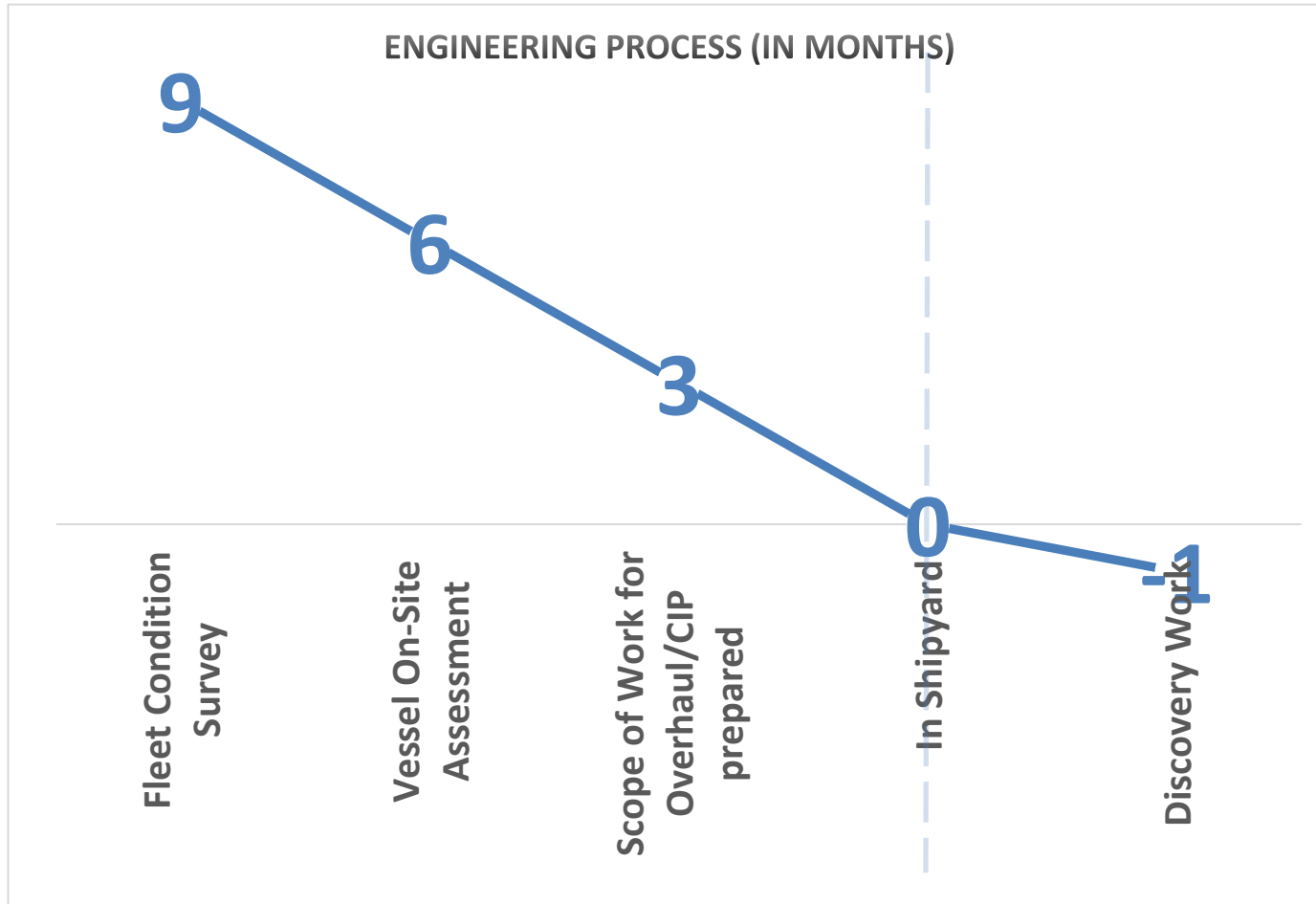
Marine labor
contracts are
overly
complicated

Poor system
reliability

High system
cost

Poor schedule
predictability

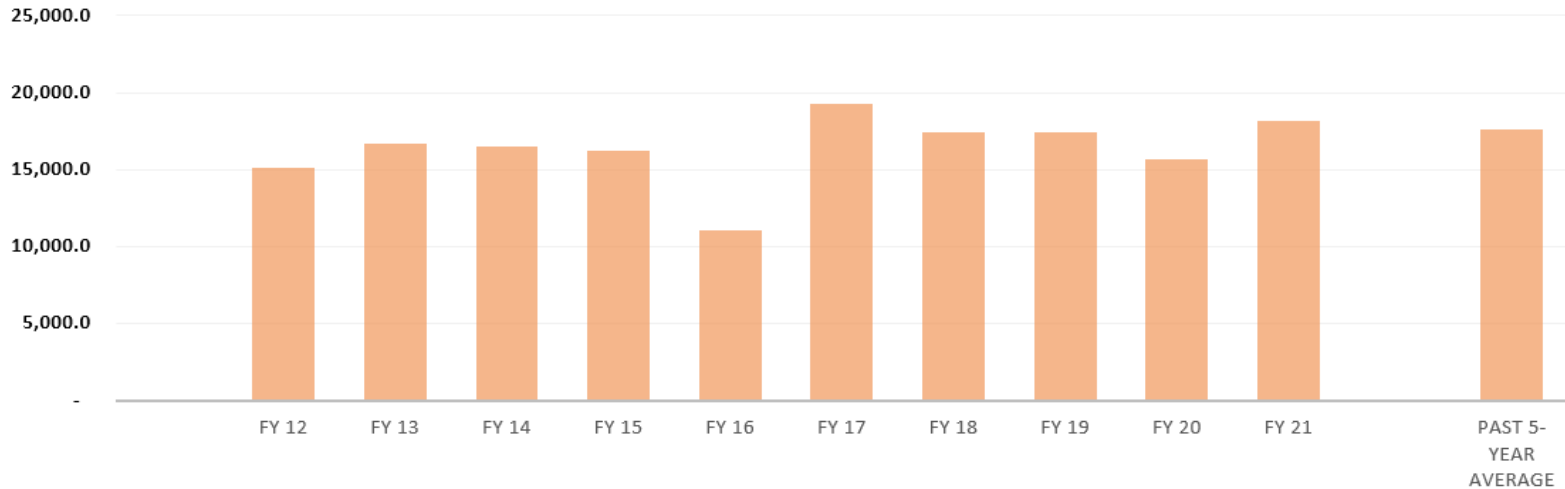
Engineering Process



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

State Overhauls

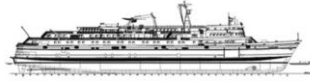
Actual State Overhaul Expenditures FY12-FY21



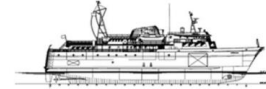
Vessel	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20	FY 21	Vessel Total
Aurora	\$ 645.1	\$ 688.0	\$ 924.2	\$ 980.4	\$ 947.0	\$ 884.3	\$ 805.1	\$ 1,984.1	\$ 856.4	\$ 4,646.7	\$ 13,361.3
Chenega	\$ 548.6	\$ 1,030.0	\$ 1,286.0	\$ 669.5	\$ 877.0	\$ 1,286.0	\$ 769.5	\$ 14.0	\$ -	\$ -	\$ 6,480.6
Columbia	\$ 1,530.0	\$ 2,008.0	\$ 1,919.9	\$ 1,408.4	\$ 1,390.5	\$ 2,319.9	\$ 2,108.4	\$ 3,706.6	\$ 2,363.1	\$ 1,036.3	\$ 19,791.1
Kennicott	\$ 1,459.0	\$ 2,123.5	\$ 2,531.3	\$ 2,782.8	\$ 1,544.5	\$ 2,931.3	\$ 2,582.8	\$ 4,181.0	\$ 2,578.7	\$ 2,023.6	\$ 24,738.5
LeConte	\$ 563.5	\$ 1,361.2	\$ 1,736.8	\$ 1,324.5	\$ 944.0	\$ 2,136.8	\$ 1,564.5	\$ 1,684.0	\$ 5,620.1	\$ 1,280.3	\$ 18,215.7
Malaspina	\$ 2,594.3	\$ 1,985.6	\$ 1,911.8	\$ 763.0	\$ 920.5	\$ 2,411.8	\$ 863.0	\$ 2,316.3	\$ 171.6	\$ -	\$ 13,937.9
Matanuska	\$ 2,548.6	\$ 1,543.3	\$ 1,712.2	\$ 3,949.7	\$ 1,105.5	\$ 2,112.2	\$ 3,949.7	\$ 94.5	\$ 1,299.6	\$ 5,107.6	\$ 23,422.9
Taku	\$ 1,828.8	\$ 2,398.8	\$ 952.7	\$ 696.8	\$ 578.5	\$ 1,052.7	\$ 796.8	\$ -	\$ -	\$ -	\$ 8,305.1
Tustumena	\$ 1,879.3	\$ 1,562.8	\$ 1,953.1	\$ 2,208.9	\$ 1,862.5	\$ 2,353.5	\$ 2,508.9	\$ 2,301.1	\$ 1,954.7	\$ 2,962.9	\$ 21,547.7
Fairweather	\$ 994.4	\$ 1,412.5	\$ 912.0	\$ 923.9	\$ 435.7	\$ 912.0	\$ 1,006.6	\$ 272.8	\$ 36.8	\$ -	\$ 6,906.7
Tazlina	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19.5	\$ 196.0	\$ 853.9	\$ 1,069.4
Hubbard	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 0.8	\$ 58.2	\$ 49.1	\$ 108.1
Lituya	\$ 539.3	\$ 610.7	\$ 698.6	\$ 476.4	\$ 396.5	\$ 898.6	\$ 476.4	\$ 798.6	\$ 510.2	\$ 238.6	\$ 5,643.9
TOTAL *	\$ 15,130.9	\$ 16,724.4	\$ 16,538.6	\$ 16,184.3	\$ 11,002.2	\$ 19,299.1	\$ 17,431.7	\$ 17,373.3	\$ 15,645.4	\$ 18,199.0	\$ 163,528.9

\$ in Thousands (1,000)

Fleet Condition Survey: Priority Matrix



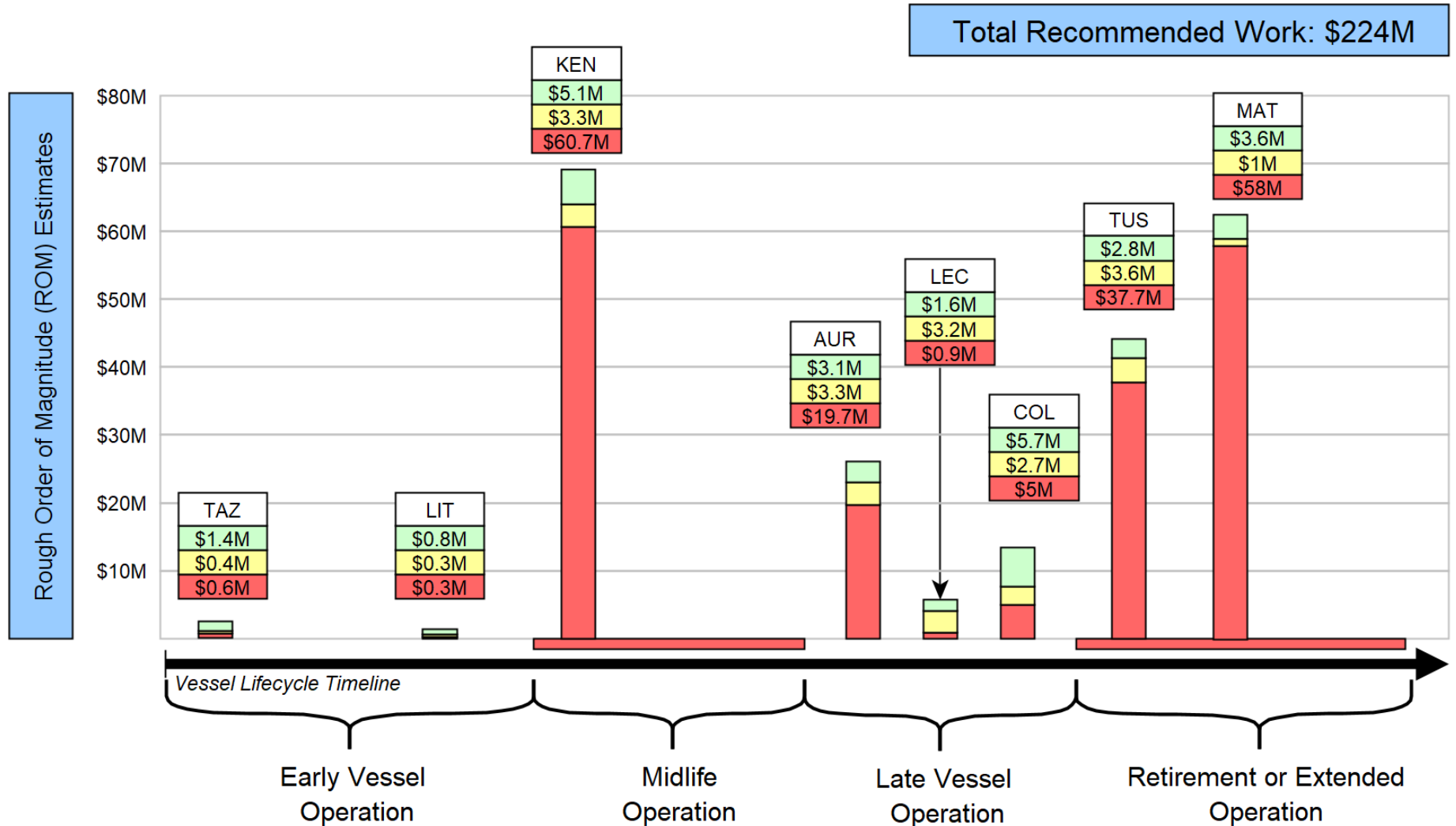
M/V Matanuska						
COST	\$1M+		3	1		1
	\$750K - \$1M					1
	\$500K - \$750K		1		1	1
	\$250K - \$500K		3	1		1
	\$0 - \$250K	3	3	8	2	8
		UPGRADES	LIFECYCLE	PREVENTATIVE	PROBLEMATIC	IMMEDIATE
PRIORITY						



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



Fleet Condition Survey Recommendations



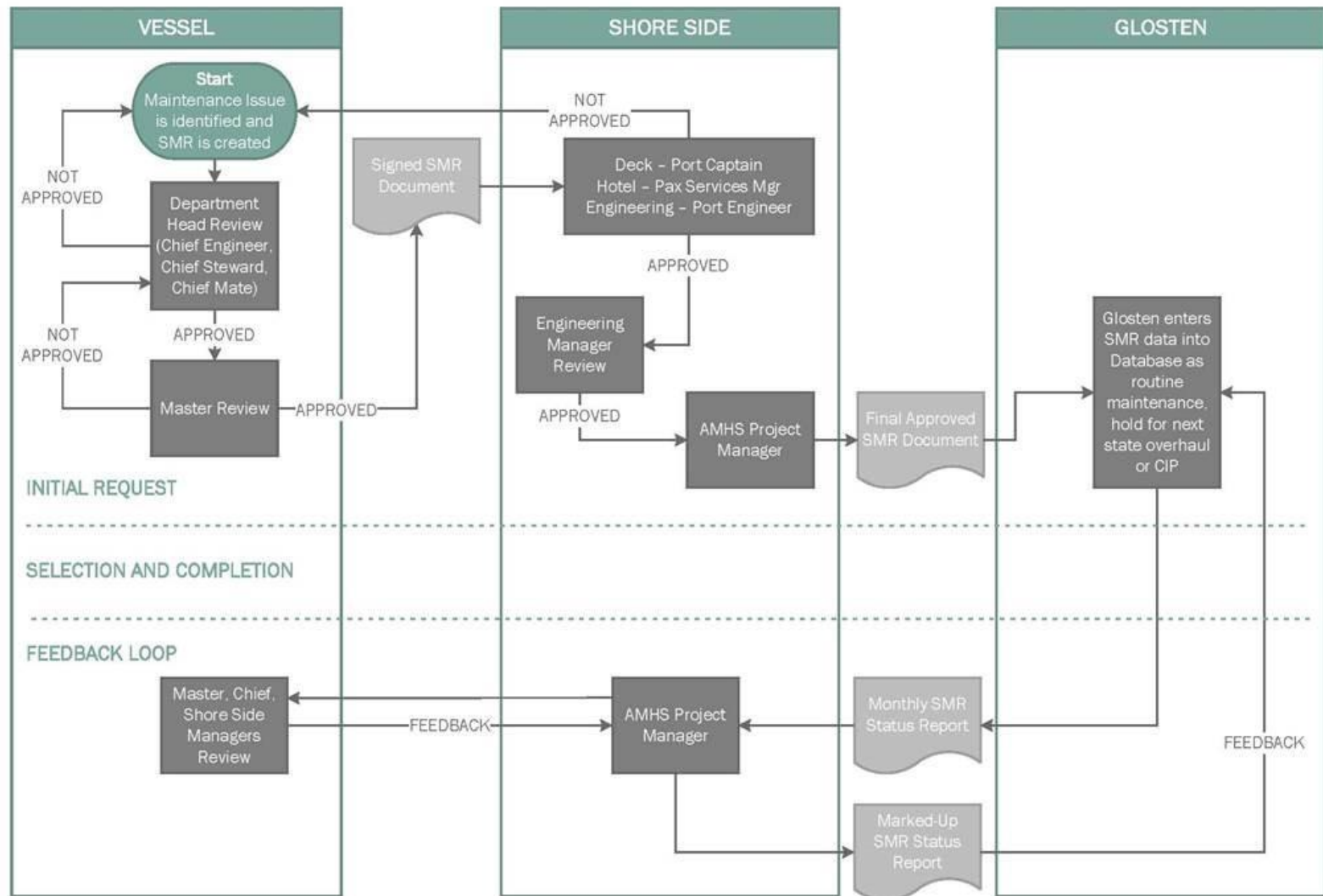
Photo by K. Keith (Tazlina)

	Recommended Work (ROM)	Unfunded Planned CIP Work	Outstanding Recommended Work
Aurora	\$ 20,127.0	\$ 15,125.0	\$ 5,002.0
Columbia	\$ 18,672.0	\$ 12,000.0	\$ 6,672.0
Kennicott	\$ 53,131.5	\$ -	\$ 53,131.5
LeConte	\$ 4,354.5	\$ 303.8	\$ 4,050.8
Lituya	\$ 1,013.3	\$ -	\$ 1,013.3
Matanuska	\$ 48,095.0	\$ 33,275.0	\$ 14,820.0
Tazlina	\$ 1,825.0	\$ -	\$ 1,825.0
Tustumena	\$ 33,947.3	\$ -	\$ 33,947.3
TOTAL	\$ 181,165.5	\$ 60,703.8	\$ 120,461.8

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

\$ in Thousands (1,000)

Ship Maintenance Requests (SMR)



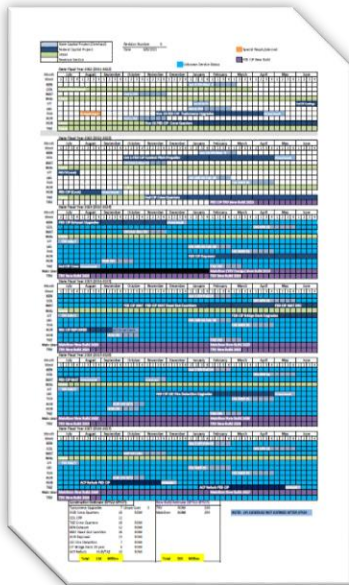
Ship Maintenance Requests (SMR)



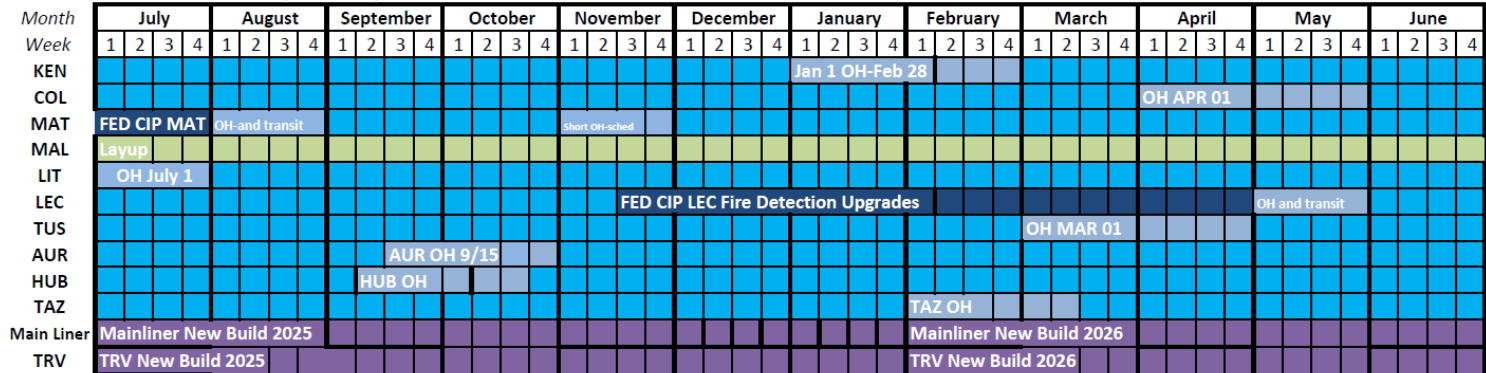
	Total ROM SMR	Total Items	Average Age in Days
Aurora	\$ 547.5	13	407
Columbia	\$ 930.0	25	221
Hubbard	\$ 10.0	1	28
Kennicott	\$ 1,816.0	38	315
LeConte	\$ 250.0	13	224
Lituya	\$ 131.5	6	363
Matanuska	\$ 270.0	23	197
Tazlina	\$ 370.0	22	445
Tustumena	\$ 373.0	11	334
Subtotal	\$ 4,698.0	152	281

\$ in Thousands (1,000)

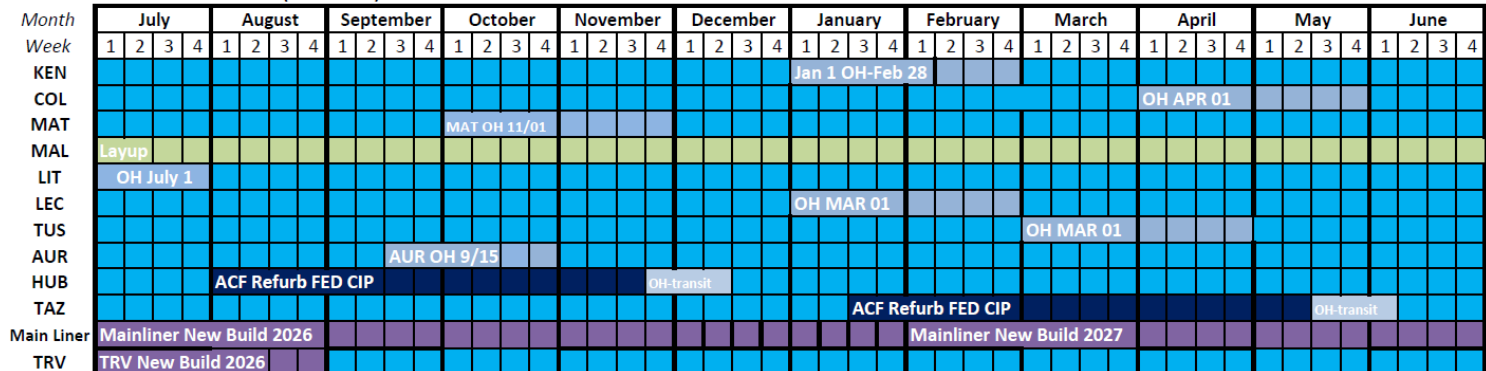
Engineering 5-year Master Plan



State Fiscal Year 2026 (2025-2026)

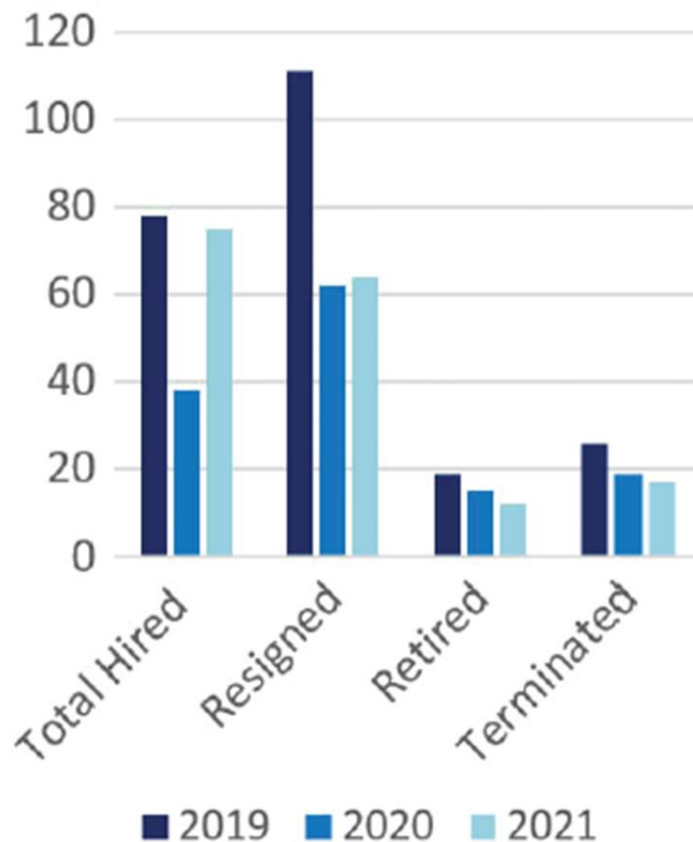


State Fiscal Year 2027 (2026-2027)



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 Targets

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).

Working to increase recruitment rates for summer season staffing goals to be met.

*Staffing goals must be met by March 1
for Columbia to be available for operations on May 1.*

Questions?

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Development Manager

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Appendix A: DOT&PF Use of AMHS



Amounts paid to AMHS from other DOT&PF components, deposited into the AMHS fund.

Fiscal Year	2016	2017	2018	2019	2020	2021	2022
Capital	\$ 42.3	\$ 49.0	\$ 67.1	\$ 90.8	\$ 28.0	\$ 63.0	\$ 20.2
Operating	\$ 35.2	\$ 42.6	\$ 37.8	\$ 48.0	\$ 34.1	\$ 46.3	\$ 20.1
Total	\$ 77.5	\$ 91.6	\$ 104.9	\$ 138.8	\$ 62.1	\$ 109.3	\$ 40.3

\$ in Thousands (1,000)