



Alaska Department of Transportation & Public Facilities

Senate Finance Subcommittee Alaska Marine Highway System / State Equipment Fleet

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March 3, 2021

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

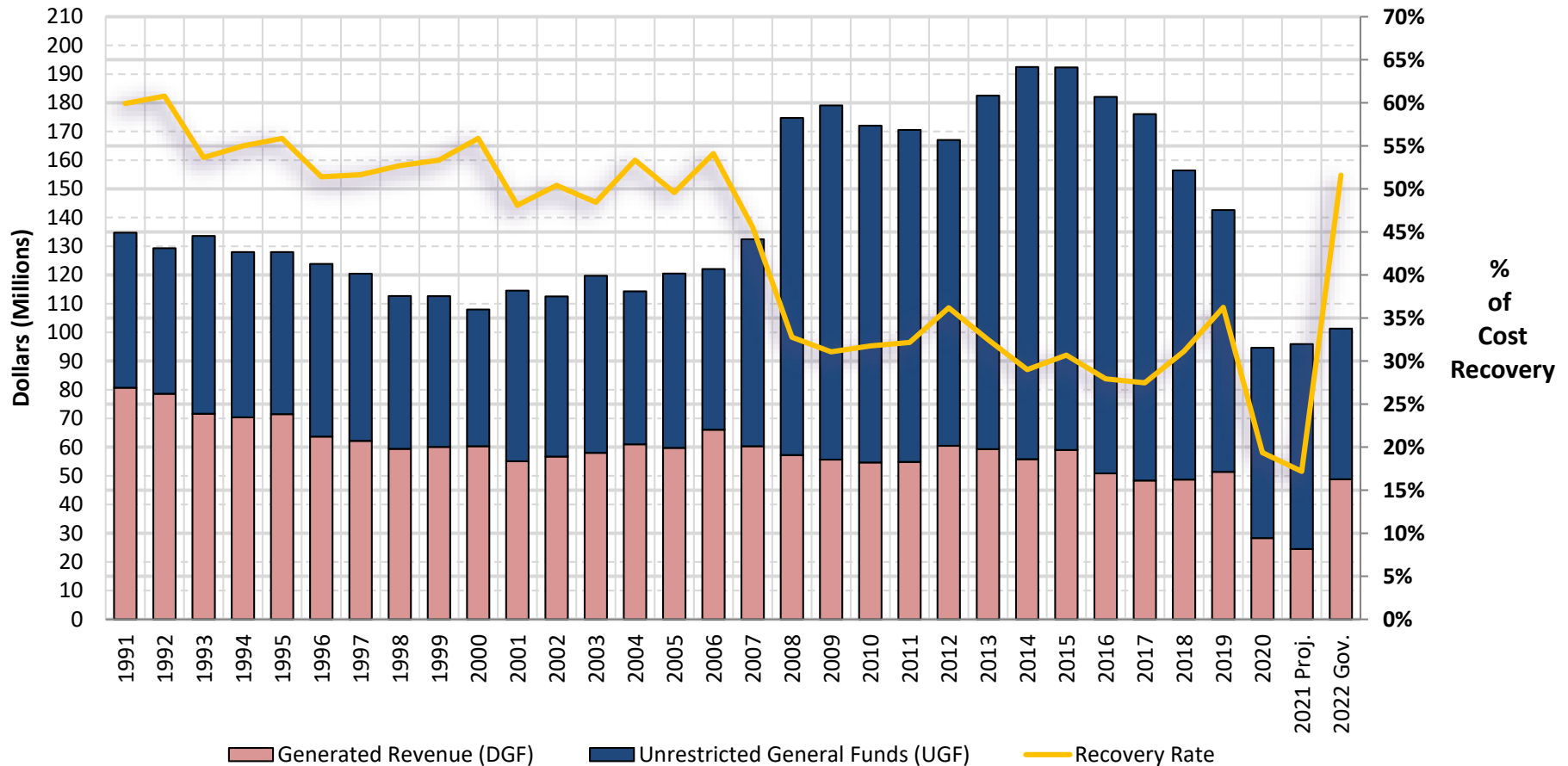
Alaska Marine Highway System (AMHS)



The M/V Matanuska sailing under the Northern Lights, Ketchikan Narrows. Photo by Christy Harrington, Alaska DOT&PF

Historical Revenues and Operating Costs

AMHS Fare Box Recovery Rate 1991-2022 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 2020 values. Source: U.S. Bureau of Labor Statistics Consumer Price Index.



FY2022 AMHS Requested Scenario

Description	FY2020 Authorized	FY2021 Authorized	FY2022 Governor's Proposed Budget	*FY2022 Scenario A Increased System-wide Service
Weeks of Service	254.3	286.7	241.9	274.9
Port Calls	4,272	4,959	4,175	4,910
Revenue	\$ 46,916.5	\$ 51,779.1	\$ 47,135.8	\$ 50,100.9
Fare Box Recovery	48%	47%	46%	45%
<u>Funding Sources</u>				
UGF	\$ 46,002.2	\$ 54,011.0	\$ 51,618.3	\$ 56,008.7
DGF	\$ 46,916.5	\$ 51,779.1	\$ 47,135.8	\$ 50,100.9
Motor Fuel Tax	\$ 3,617.1	\$ 3,617.1	\$ 3,617.1	\$ 3,617.1
CIP Receipts	\$ 1,921.9	\$ 850.0	\$ 852.7	\$ 852.7
Operating Total	\$ 98,457.7	\$ 110,257.2	\$ 103,223.9	\$ 110,579.4
UGF Increase (Compared to FY2022 Gov.)				\$ 4,390.4
DGF Increase (Compared to FY2022 Gov.)				\$ 2,965.1
Total Operating Increase				\$ 7,355.5

*Reflects Committee's requested scenario to increase system-wide frequency of service and reduce service gaps.
This scenario adds service to SE Alaska, PWS, and Homer – Kodiak Island.

\$ in Thousands (1,000)



FY2022 Governor's Proposed Budget Operating Plan

DRAFT

Operating Plan 2021-2022

Revision Number 22.gov

03/01/2021

Operating
Weeks

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	
	Implementation of an Operating Plan is dependent upon funding from the legislature and earned revenue.												2022
KEN	Jul 1, Thu	X-GULF				Oct 15, X-GULF-PWS-SC		Jan 16 O.H.		Mar 10 X-GULF			43.1
COL	Jul 01, Thu	Layup		Oct 01, Fri	Fed/CIP								0.0
MAT	Jul 1, Thu	BEL-Fri		Oct 3, O.H.		Nov 23, BEL-Fri							44.9
MAL	Jul 01, Long term layup												0.0
AUR	Jul 1, Thu	PWS			Oct 15, Layup		Jan 10, Overhaul		Mar 10, PWS				31.3
LIT	Jul 1, Thu	MET Service					Jan 10, Overhaul		Jan 26, MET Service				49.9
LEC	Jul 1, Thu	NP						Feb 15, OH		Apr 12, Tue NP			44.1
TUS	Jul 1, Thu	SW			Nov 01, Mon	Layup			Mar 01, Overhaul	Apr 15, SW			28.6
													0.0
HUB	Jul 01, Thu	Layup											0.0
TAZ	Jul 01, Thu	Layup											0.0

LEGEND

On Line	BEL - Bellingham to Skagway Route	PWS-Prince William Sound	SW- Southwest
Overhaul	YPR - Prince Rupert to Skagway Route	ANB - Annette Bay Service	BEL-YPR alt Bellingham Prince Rupert alternating
Layup	BEL-X-Gulf Bellingham Cross Gulf SW	NP - Northern Panhandle	

Note: Dates represent the first day of the period. Overhaul and refurbishment periods include vessel travel time.

Mainline Vessels	119.3
Feeder Vessels	94.0
Southwest Vessels	28.6
Total Operating Weeks	241.9



FY2022 Scenario A

Sample Operating Plan

DRAFT

Operating Plan
2021-2022

Revision Number 22.A

03/01/2021

Operating
Weeks

	JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	
2021	Implementation of an Operating Plan is dependent upon funding from the legislature and earned revenue.											2022	
KEN	Jul 1, Thu X-GULF						Jan 16, Overhaul		Mar 10, X-GULF-PWS-SC				44.6
COL	Jul 01, Thu Layup			Oct 01, Fri Fed/CIP									0.0
MAT	Jul 1, Thu BEL-Fri			Oct 3, O.H.		Nov 23, BEL-Fri							44.9
MAL	Jul 01, Long term layup												0.0
AUR	Jul 1, Thu PWS						Jan 10, Overhaul		Mar 1, Tue Overhaul	Apr 15, Fri PWS			45.7
LIT	Jul 1, Thu MET Service						Jan 26, MET Service						49.9
LEC	Jul 1, Thu NP							Feb 15, OH		Apr 12, Tue NP			44.1
TUS	Jul 1, Thu SW								Mar 1, Overhaul	Apr 15, Fri SW			45.7
													0.0
HUB	Jul 01, Thu Layup												0.0
TAZ	Jul 01, Thu layup												0.0

LEGEND

- On Line
- Overhaul
- Layup

BEL - Bellingham to Skagway Route
YPR - Prince Rupert to Skagway Route
BEL-X-Gulf Bellingham Cross Gulf SW

PWS-Prince William Sound
ANB - Annette Bay Service
NP - Northern Panhandle

SW- Southwest

BEL-YPR alt Bellingham Prince Rupert alternating

Differences from Gov's Plan

Mainline Vessels 135.2
Feeder Vessels 94.0
Southwest Vessels 45.7
Total Operating Weeks 274.9

Note: Dates represent the first day of the period. Overhaul and refurbishment periods include vessel travel time.



03/03/2021

Winter Long-Term Layup vs. Operating Costs

Vessel (Layup Date)	Total Past Holding Costs*	Long-Term Layup Costs Per Week*	Projected FY2021 Layup Costs	Projected FY2022 Layup Costs	Winter Operations		
					Weekly Operating Costs	Weekly Operating Revenue	Net Weekly Profit/(Loss)
Fairweather (4/5/2019)	\$ 329.1	\$ 5.5	\$ 135.0	\$ 0.0	\$ 219.2	\$ 29.0	\$ (190.2)
Chenega (4/26/2018)	498.3	5.5	132.0	0.0	219.2	26.0	(193.2)
Malaspina (12/17/2019)	233.5	8.6	447.2	450.0	343.0	247.0	(96.0)
Aurora (11/1/2019)	<u>176.4</u>	<u>5.4</u>	<u>0.0</u>	<u>0.0</u>	<u>182.1</u>	<u>36.0</u>	<u>(146.1)</u>
TOTAL	\$ 1,237.3	\$ 25.0	\$ 714.2	\$ 450.0	\$ 963.5	\$ 338.0	\$ (625.5)

*Includes moorage, security, and shore power as needed.

\$ in Thousands (1,000)

FY2015 - FY2022 Governor's Proposed Budget

AMHS Service

Description	Actual FY15	Actual FY16	Actual FY17	Actual FY18	Actual FY19	Actual FY20	Projected FY21	Gov. Proposed FY22
Weeks of Service	378.3	355.9	329.6	317.5	329.1	203.0	204.8	241.9
Weeks of Service (less Metlakatla)	328	306	280	268	279	153	155	192
Ports of Call	6,478	6,504	5,891	5,570	5,695	3,182	3,402	4,175
Ports of Call (less Metlakatla)	5,991	6,023	5,370	5,101	5,191	2,728	2,899	3,675



FY2015 - FY2022 Governor's Proposed Budget

AMHS Cash Sources & Uses

Description	Actual FY15	Actual FY16	Actual FY17	Actual FY18	Actual FY19	Actual FY20	Projected FY21	Gov. Proposed FY22
Sources								
AMHS Generated Revenues	53,896.0	47,158.0	45,759.0	47,316.0	50,804.0	28,257.0	24,950.0	47,135.8
Restricted Revenues (CIP Rcpts)	896.0	603.0	659.0	977.0	399.0	734.0	850.0	852.7
UGF Appropriations (base budget)	107,781.6	94,958.0	89,263.0	41,949.0	85,991.0	45,821.0	54,011.0	51,618.3
DGF - Motor Fuel Tax (current statute)	-	-	-	3,552.4	3,617.1	3,617.1	3,617.1	3,617.1
Transfer from Capitalization	-	-	-	-	-	-	-	-
CARES Act Funding	-	-	-	-	-	6,500.0	3,500.0	-
Fuel Trigger Appropriation	4,808.4	-	-	-	-	-	-	-
Excess Fuel Trigger Appropriation	7,179.0	-	-	-	-	-	-	-
Total Sources	174,561.0	142,719.0	135,681.0	93,794.4	140,811.1	84,929.1	86,928.1	103,223.9
Uses								
Vessel Operations (less fuel)	112,120.0	106,661.0	99,029.0	102,272.0	102,849.0	71,969.0	70,082.7	72,606.7
Vessel Fuel Base	26,401.0	16,634.0	15,299.2	18,895.4	19,540.0	8,175.0	10,184.2	12,702.2
Fuel Trigger	-	-	-	-	-	-	-	-
Shoreside/ Other	19,845.0	18,606.0	17,320.0	17,556.2	15,279.0	12,410.0	15,608.6	15,969.9
Operating Expenses	158,366.0	141,901.0	131,648.2	138,723.6	137,668.0	92,554.0	95,875.5	101,278.8
Support Services-DOT/DOA	2,431.9	3,280.9	3,280.9	3,287.4	3,204.0	2,091.0	2,244.7	1,945.1
CARES Act Funding	-	-	-	-	-	6,500.0	3,500.0	-
Supplemental (Oper Bdgt)	-	-	-	-	-	-	-	-
Annual Vessel Overhaul (Cap Bud)	-	-	-	-	13,500.0	-	15,000.0	-
Annual Vessel Overhaul (Sup Cap)	-	-	-	-	1,400.0	5,000.0	-	-
Transfer to Capitalization Acct	-	-	-	-	-	-	-	-
Total Uses	160,797.9	145,181.9	134,929.1	142,011.0	155,772.0	106,145.0	116,620.2	103,223.9
Suplus/(Deficit)	13,763.1	(2,462.9)	751.9	(48,216.6)	(14,960.9)	(21,215.9)	(29,692.1)	-
Traditional Fund -Draw	-	2,462.9	-	48,216.6	14,960.9	21,215.9	20,419.4	-
Remaining Deficit	-	-	-	-	-	-	(9,272.7)	-
Capitalization Acct - Draw	-	-	-	-	-	-	2,630.1	-
Remaining Deficit	-	-	-	-	-	-	(6,642.6)	-



FY2014 - FY2022 Governor's Proposed Budget

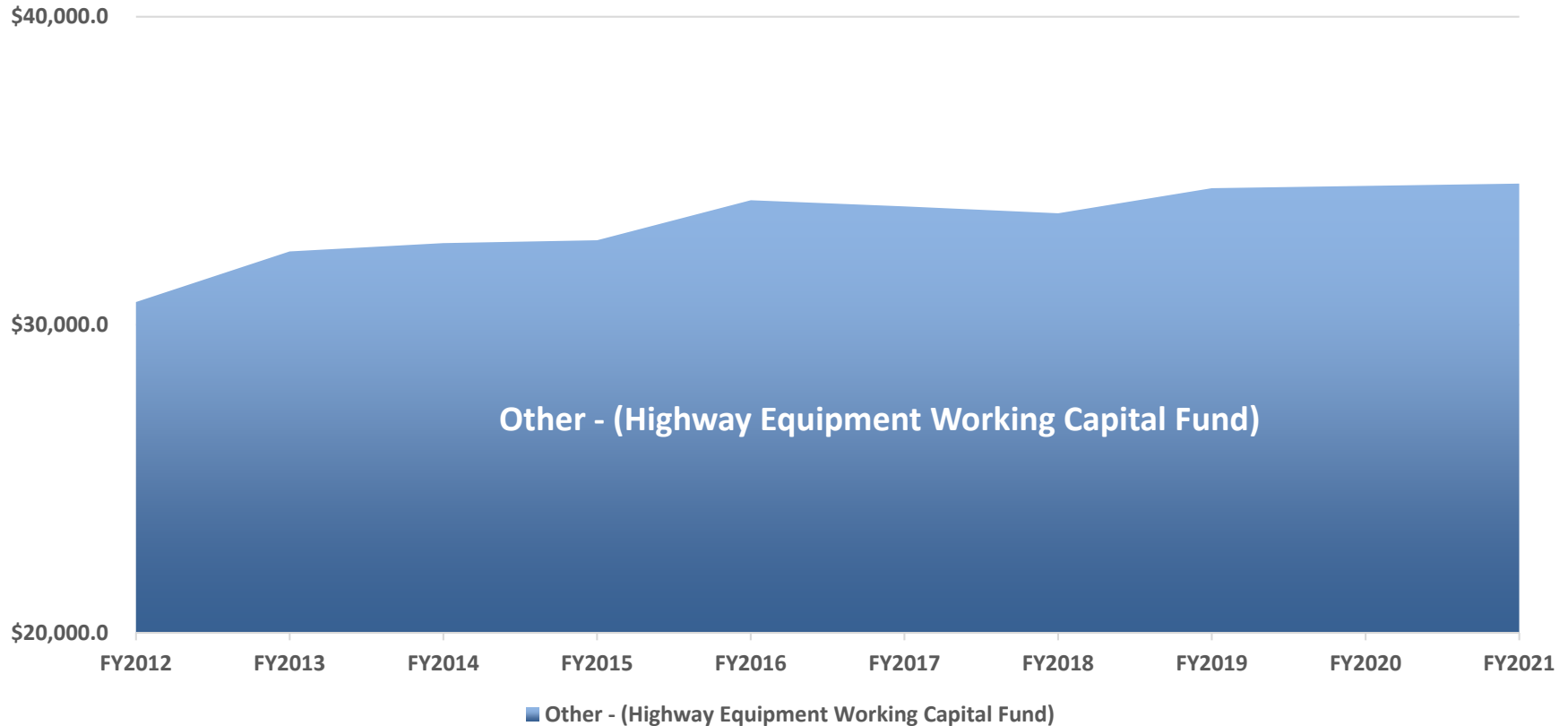
AMHS Fund Balance

Description	Actual FY15	Actual FY16	Actual FY17	Actual FY18	Actual FY19	Actual FY20	Projected FY21	Gov. Proposed FY22
Traditional Fund								
BOY Balance	7,144.0	20,907.1	18,444.2	28,660.9	10,444.3	25,546.4	5,944.4	-
Deposits	13,763.1	-	751.9	6,081.8	10,063.0	-	14,475.0	-
Supplemental Deposits	-	-	9,464.8	23,918.2	20,000.0	1,613.9		
Subtotal	20,907.1	20,907.1	28,660.9	58,660.9	40,507.3	27,160.3	20,419.4	-
Withdrawals	-	(2,462.9)	-	(48,216.6)	(14,960.9)	(21,215.9)	(20,419.4)	-
EOY Balance	20,907.1	18,444.2	28,660.9	10,444.3	25,546.4	5,944.4	-	-
Capitalization Acct								
BOY Balance	2,644.0	2,644.0	2,630.1	2,630.1	2,630.1	2,630.1	2,630.1	-
Deposits	-	-	-	-	-	-	-	-
Withdrawals	-	(13.9)	-	-	-	-	(2,630.1)	-
EOY Balance	2,644.0	2,630.1	2,630.1	2,630.1	2,630.1	2,630.1	-	-
Total Fund Balance	23,551.1	21,074.3	31,291.0	13,074.4	28,176.5	8,574.5	-	-

State Equipment Fleet (SEF)

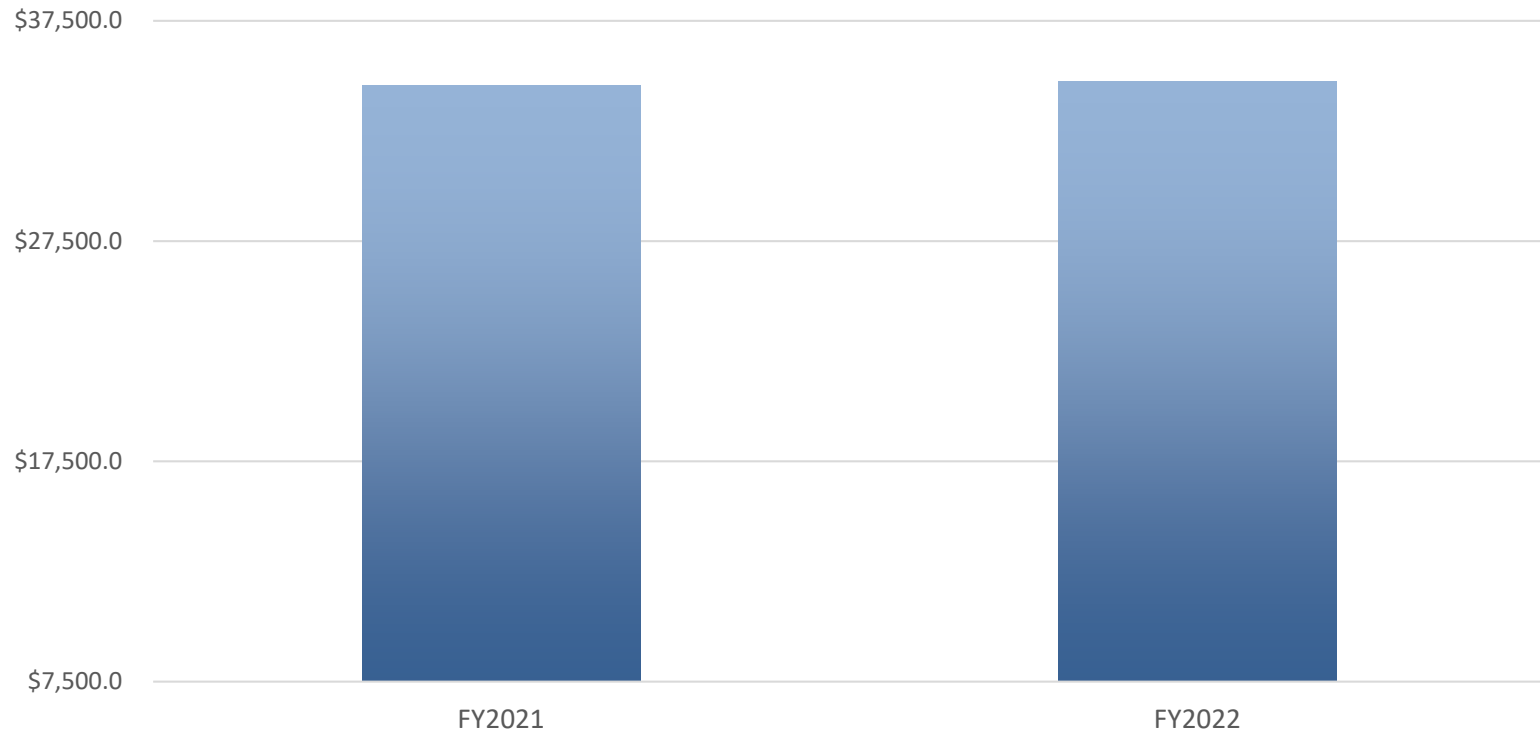


State Equipment Fleet (SEF) 10-year Operating Budget History



Fund Source	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021
Other - (Highway Equipment Working Capital Fund)	\$ 30,736.4	\$ 32,380.7	\$32,648.6	\$ 32,743.3	\$ 34,040.6	\$ 33,841.7	\$ 33,615.5	\$34,433.2	\$ 34,506.9	\$ 34,582.8
TOTAL	\$ 30,736.4	\$ 32,380.7	\$32,648.6	\$ 32,743.3	\$ 34,040.6	\$ 33,841.7	\$ 33,615.5	\$34,433.2	\$ 34,506.9	\$ 34,582.8

SEF Funding Comparisons



Fund Source	FY2021	FY2022	\$ Difference	% Difference
Other - (Highway Equipment Working Capital Fund)	\$ 34,582.8	\$ 34,752.3	\$ 169.5	0.49%
TOTAL	\$ 34,582.8	\$ 34,752.3	\$ 169.5	0.49%

Who We Are and What We Do

158 Positions

**126 mechanics
in 54 shops
located from
Kotzebue to Ketchikan**

**32 support staff:
contracting, parts,
administration and
technical support,
managers**

Shared Service supporting all departments

- **Contracting, Procurement, Disposal**
- **Maintenance, Repair, Modification**
- **Fuel Card Management and Billing**
- **Labor Resource Pool:**
 - **Maintenance and Operations
7,548 hours in 2020**
 - **DNR Forestry Support 4,140 hours
in 2020**

Shared Service for all Departments

<u>Assets by Department</u>	
01 Governor's Office	11
02 Administration	19
03 Law	13
04 Revenue	2
05 Education	10
06 Health & Social Services	254
07 Labor	77
08 Commerce & Econ Dev	17
09 Military & Veterans Affairs	115
10 Natural Resources	623
11 Fish & Game	922
12 Public Safety	745
18 Environmental Conservation	66
20 Corrections	641
25 Transportation	4,184
31 Legislative Affairs	9
41 Court System	5
99 UA, AHFC, AEA, AIDEA	874
Total Fleet Assets	8,587



No direct GF appropriation

Fleet services to all departments

**Procurement and assets
management services for UA,
AHFC, AK Aerospace**



SEF Challenges New & Old

Staffing Challenges

- Difficult to recruit statewide – Shifting to a more hub-style staffing model
 - Valdez shop now week on week off using mechanics from other shops

Pandemic has delayed manufacturing across the industry

- Many manufacturers already shutting off Model Year 2021 orders
- Longer lead times for new equipment

Aging facilities create difficulties maintaining equipment

Challenges – Solutions

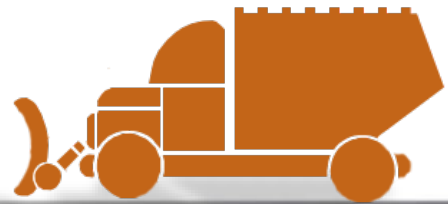
Equipment involved in accidents or major component failures

- Significant loss of auction value/no auction value
 - Motor Grader – rolled
 - Rear tandem, transmission, radiator \$50k
 - Plow truck chassis replacement-blown engine
 - Transmission, oil pan, differential/suspension \$30k
 - Trooper SUV – Accident total loss
 - Engine, LE equipment \$10k

Savings from used parts greater than expected auction revenue for damaged assets



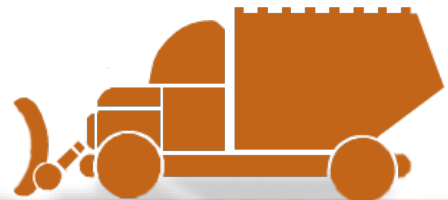
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SEF Challenges - Solutions

Warranty & Recall difficulties with a large fleet across the state

- Renewed warranty agreements with vehicle manufacturers
 - \$100k annual warranty reimbursement from one manufacturer
 - Faster process to clear safety and other recalls
 - Less downtime waiting for dealer warranty
 - Less travel time to deliver vehicles to dealer for warranty service





Consultant Review

Mercury Associates

- Draft report received
- Reviewing findings with DOT&PF Leadership and consultants to produce final report
- Nine major, 55 minor recommendations
 - Evaluating for revision and implementation for capital and operating savings and improved service
 - Evaluating minor recommendations for immediate implementation



Consultant Review

Strategic Improvements

- Rightsizing plan- reduce unneeded assets
 - Collaborate with all department's budget/decision makers
- Replacement plan based on cash flow
 - 20 year plan, FY2023 \$30M, gradual increase to \$60M
- Revise chargeback rate structure
 - Direct cost chargeback for maintenance
- Revise/Update Procedures Manual
- Replacement Cycle Analysis
 - Identify & review replacement cycles for all equipment



Consultant Review

Strategic Improvements

- Develop/update Service Level Agreements
 - Update agreements with all user groups
- Salary/Wage analysis for maintenance staff
 - LTC Negotiations ongoing
- Increase training time and resources
 - Double current training hours; create training coordinator
- Fleet Advisory Committee
 - End user buy in/collaboration on fleet policy



Consultant Review

Recommend use of HEWCF Balance Reserve

- Increased annual replacement
- Plan replacement of WX front line equipment

X-Class Asset Review

- In depth analysis of X-Class usage as front line assets
- X-Class assets have already been replaced/not included in current replacement plan
 - 1300 X-Class assets, estimated 50% used as front line assets
 - Develop a plan for future replacement of front line X-class, using HEWCF reserves



Thank You. Questions?

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