



# **Alaska Department of Transportation & Public Facilities**

## **Alaska Marine Highway System Overview**

Katherine Keith, Deputy Commissioner  
Captain Tony Karvelas, Acting AMHS General Manager  
Matt McLaren, Business Development Manager

February 2, 2023

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



# ALASKA MARINE HIGHWAY OPERATIONS BOARD (AMHOB)

## Members:

Captain Ed Page

Captain Keith Hillard

Deputy Commissioner Katherine Keith

Alan Austerman

Wanetta Ayers

Cynthia Berns

Norm Carson

Paul Johnsen

Shirley Marquardt



## LAWS OF ALASKA

2021

Source  
SCS CSHB 63(TRA)

Chapter No.  
\_\_\_\_\_

### AN ACT

Relating to the duties of the Department of Transportation and Public Facilities; renaming the Alaska Marine Transportation Advisory Board the Alaska Marine Highway Operations Board; relating to the membership and duties of the Alaska Marine Highway Operations Board; and relating to the comprehensive, intermodal, long-range transportation plan for the state.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:


THE ACT FOLLOWS ON PAGE 1





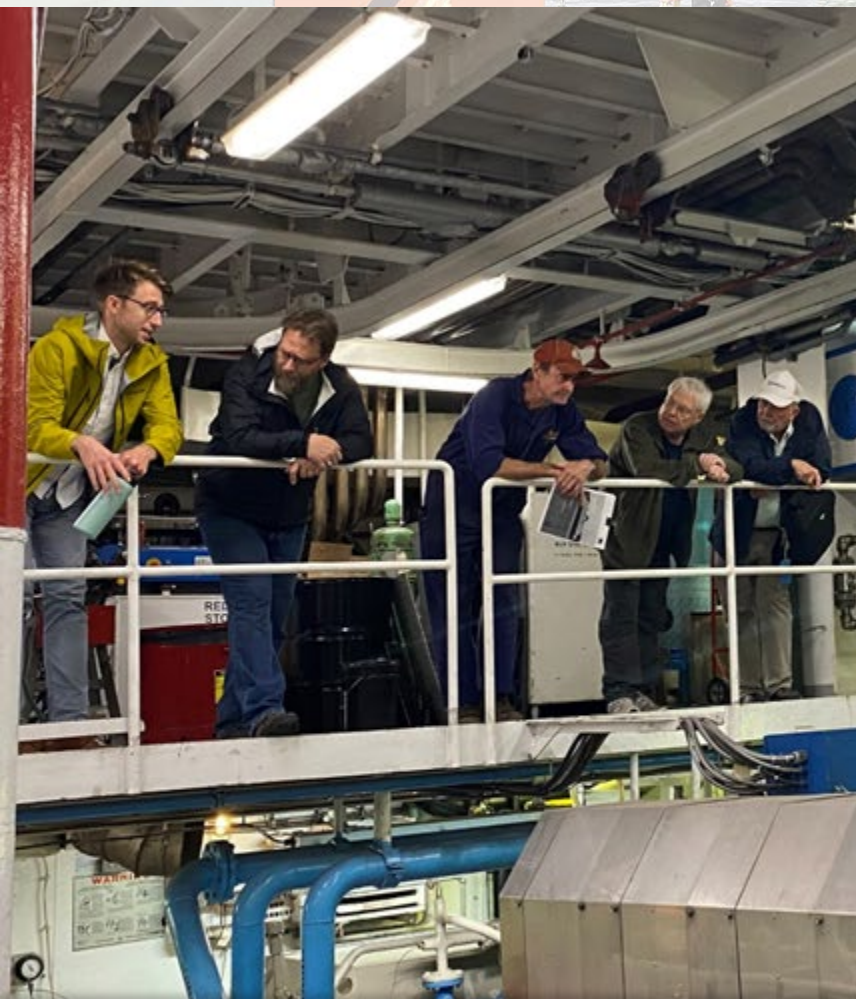


# **AMHOB TOPICS OF PURVIEW**

- 
- **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**



# AMHS COMPREHENSIVE EVALUATION



**Task 1:** Preliminary Survey and Project Work Plan

**Task 2:** Operational Resiliency and Efficiency Analysis

**Task 3:** Information Technology Analysis

**Task 4:** Fleet Maintenance Evaluation

**Task 5:** Financial Vitality and Resiliency Analysis



# 50+ INTERVIEWS, 100+ DOCUMENTS REVIEWED



Ship Staff



Terminal Staff



Operations



Engineering  
Staff



Business  
Enterprise &  
Development



DOT&PF  
Planners

## 8 Vessels Visited



M/V Kennicott



M/V Lituya



M/V LeConte



M/V Aurora



M/V Matanuska



M/V Tazlina



M/V Hubbard



M/V Columbia



# WHERE WE GO



*The mission of the Alaska Marine Highway System is to provide safe, reliable, and efficient transportation of people, goods, and vehicles.*

Cross-Gulf

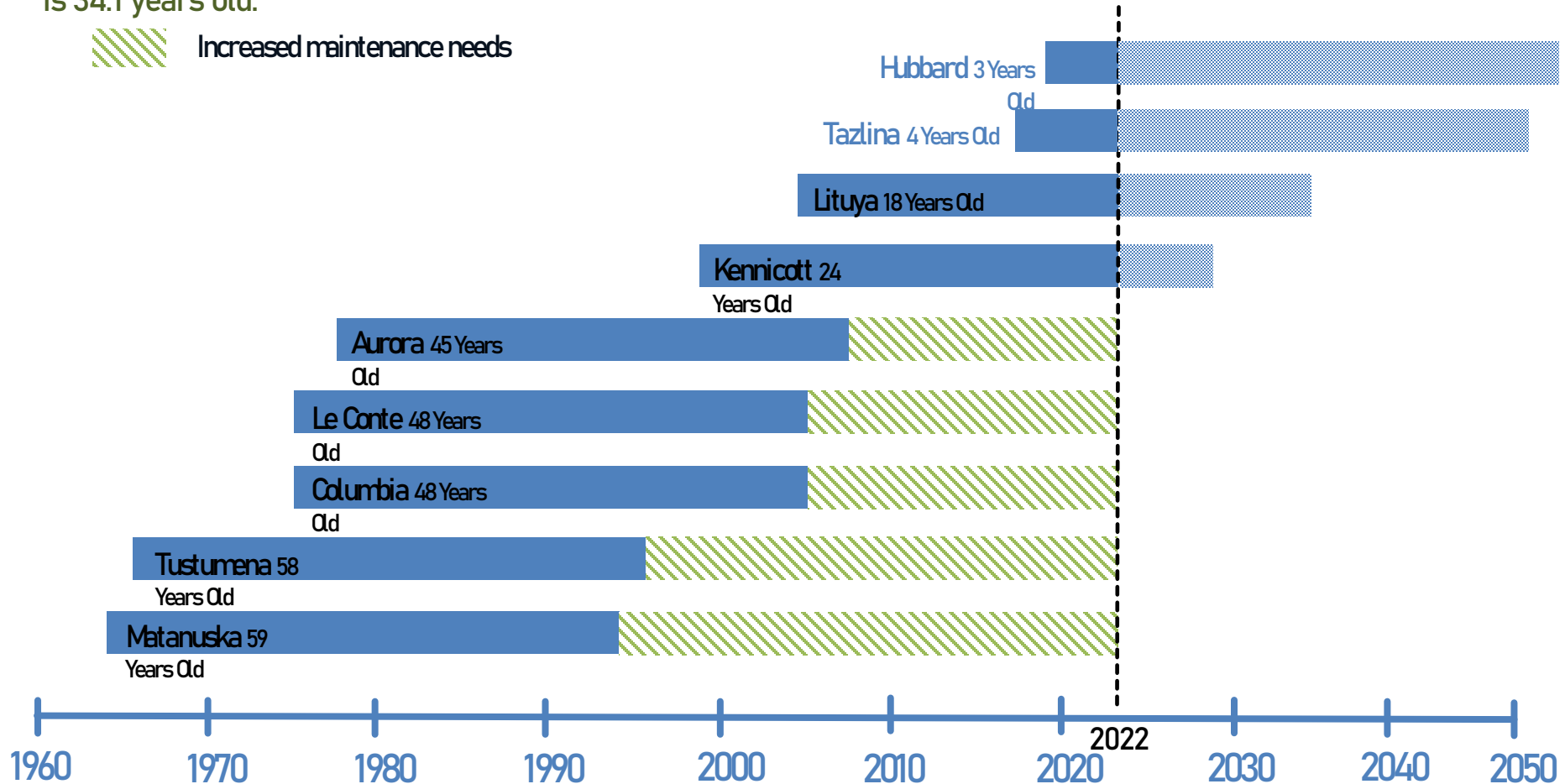


# AGING FLEET

Assumes 30 years to be end of “prime” vessel lifespan and thus more likely to require additional maintenance. The average vessel age is 34.1 years old.



Increased maintenance needs



# FLEET STATUS

Fleet Status – Last Update 1-28-2023



**MV Lituya | Awaiting Repairs**

[Click here to learn more about this vessel \(+\)](#)



**MV Aurora | Currently in Service**

[Click here to learn more about this vessel \(+\)](#)



**MV LeConte | Currently in Overhaul**

[Click here to learn more about this vessel \(+\)](#)



**MV Tazlina | Currently in Service**

[Click here to learn more about this vessel \(+\)](#)



**MV Kennicott | Currently in Overhaul**

[Click here to learn more about this vessel \(+\)](#)



**MV Hubbard | Currently in Overhaul**

[Click here to learn more about this vessel \(+\)](#)



**MV Tustumena | Currently in Overhaul**

[Click here to learn more about this vessel \(+\)](#)



**MV Columbia | Currently in Overhaul**

[Click here to learn more about this vessel \(+\)](#)



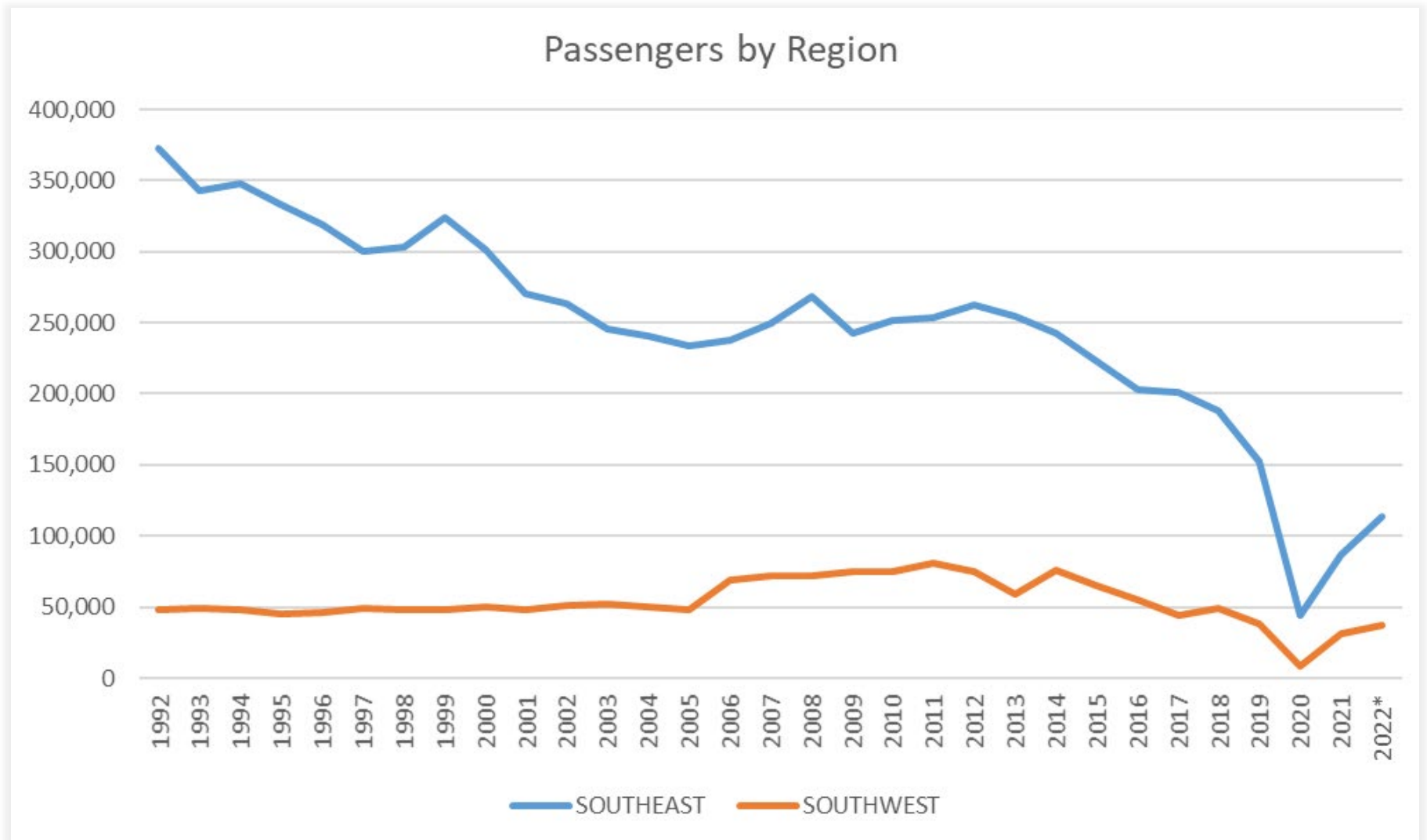
**MV Matanuska | Currently in Layup**

[Click here to learn more about this vessel \(+\)](#)



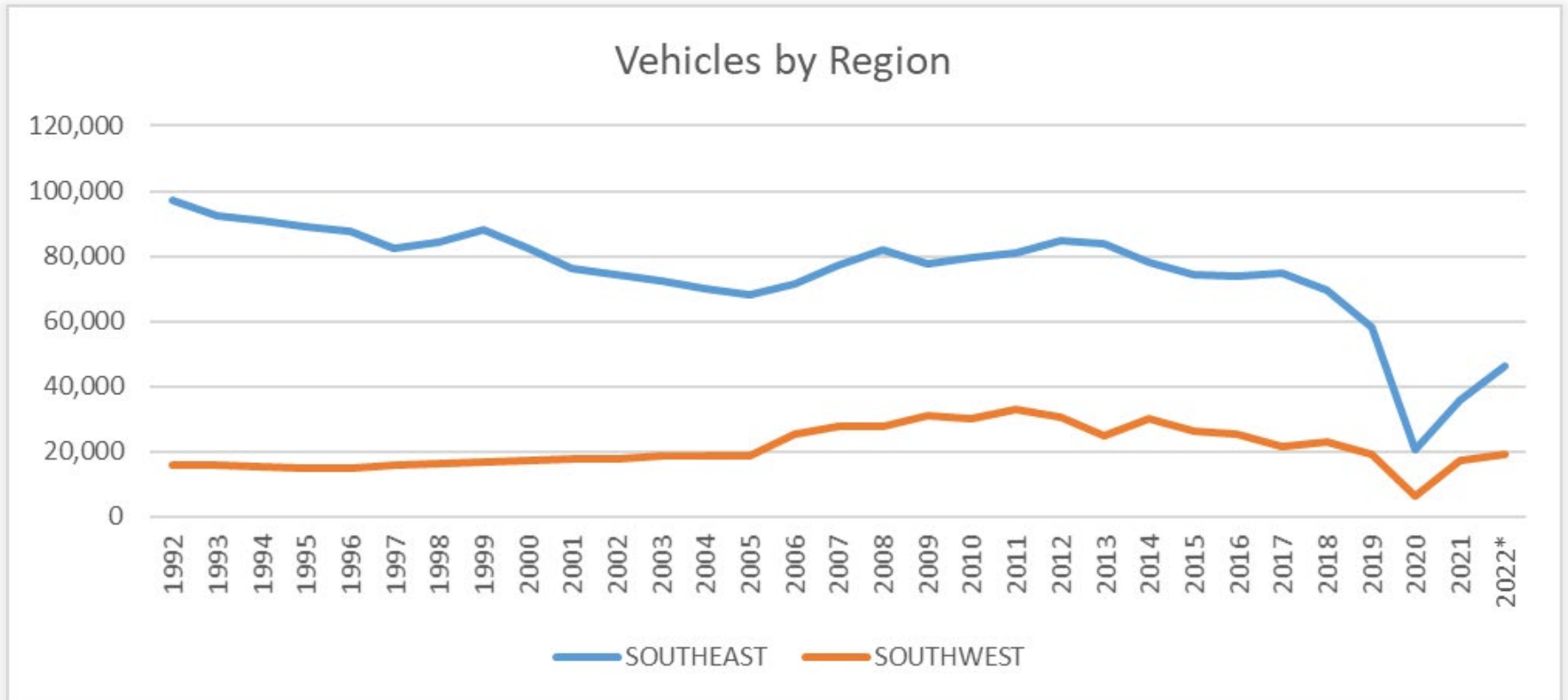


# STATISTICAL INFORMATION: PASSENGERS



\*2022 data is estimated since the final data is not yet completed.

# STATISTICAL INFORMATION: VEHICLES



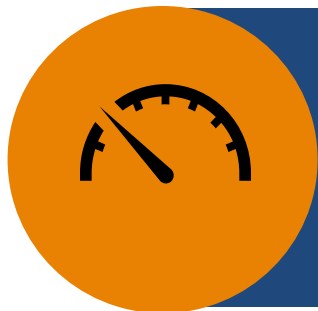
\*2022 data is estimated since the final data is not yet completed.





# CHARTING THE COURSE TOWARDS THRIVING COMMUNITIES

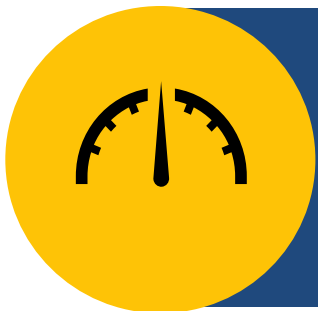
Reimagining AMHS



## STABILIZATION | All Hands On Deck!

GOAL: provide stable service with increased reliability.

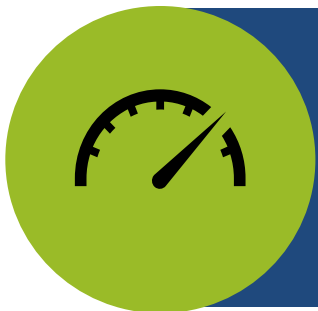
PHASE 1



## RECOVERY | Batten Down the Hatches!

GOAL: Add service while monitoring reliability.

PHASE 2



## FULL STEAM AHEAD | Ship Shape!

GOAL: Restored access, consistent service, and high employee morale.

PHASE 3



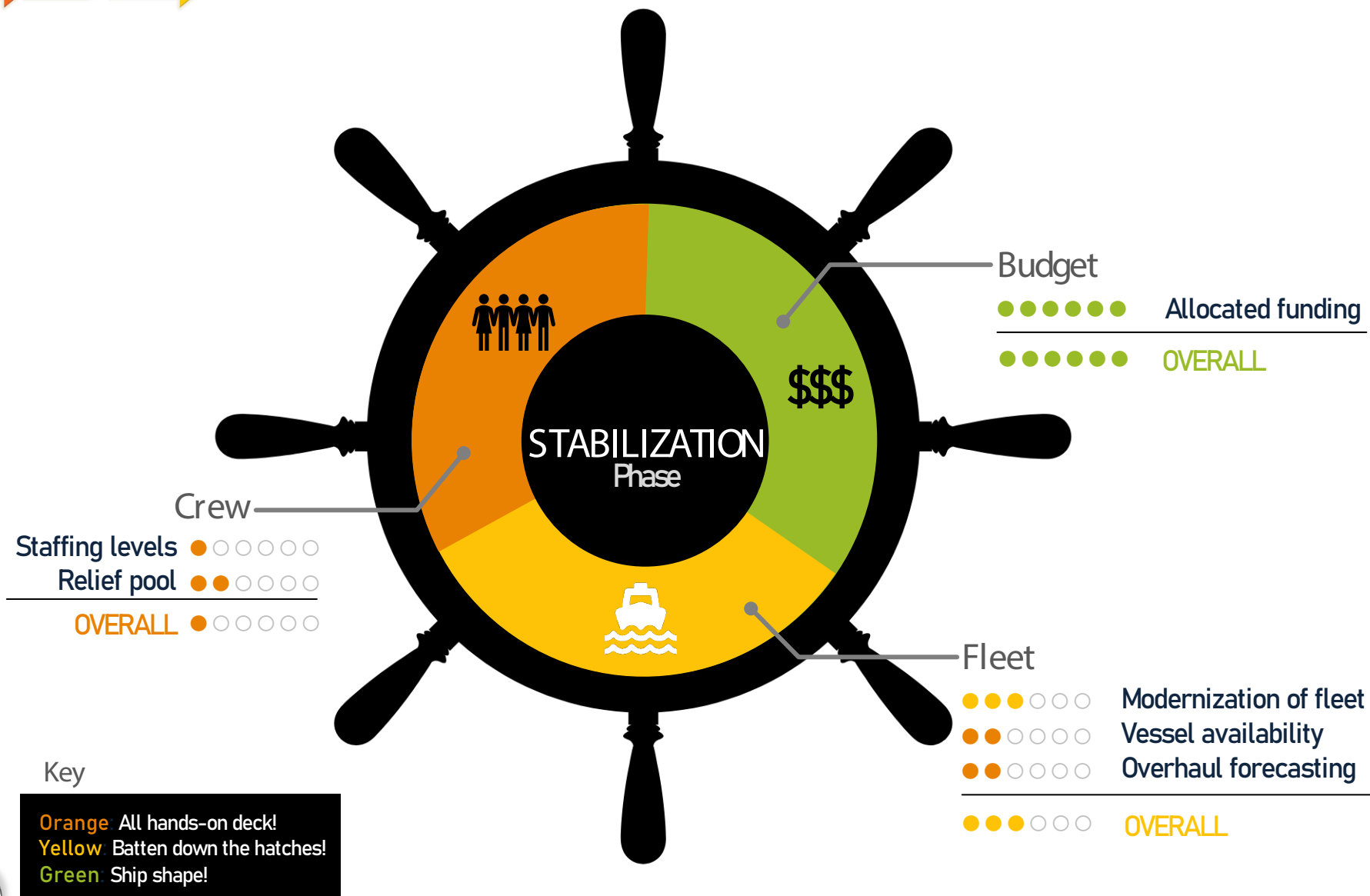
Accountability, Engagement, and Reporting





# CHARTING THE COURSE TOWARDS THRIVING COMMUNITIES

Reimagining AMHS





# CHARTING THE COURSE TOWARDS THRIVING COMMUNITIES

Reimagining AMHS



## Budget Health Check ●●●●●

- Allocated Funding: The state has allocated sufficient funds to provide current service levels and to meet the 2022-2023 Winter Operating Plan. Providing service to meet budgeted levels is currently not possible due to crew and vessels



# CY24 GOVERNOR'S PROPOSED OPERATING BUDGET

|                                       | FY2020 Final<br>Authorized | FY2021 Final<br>Authorized | CY2022<br>(Includes 6 Month<br>Bridge Authority) | CY2023      | CY2024<br>Governor's<br>Proposed | Δ       | Δ%  |
|---------------------------------------|----------------------------|----------------------------|--|-------------|----------------------------------|---------|-----|
| <b>Total Planned Weeks of Service</b> | 254.3                      | 286.7                      | 221.9  | 362.7       | 336.0                            | (27)    | -7% |
| <b>Planned Port Calls</b>             | 4,399                      | 4,959                      | 3,794  | 6,238       | 5,813                            | (425)   | -7% |
| <b>Projected Revenue</b>              | \$ 48,070.2                | \$ 51,779.1                | \$ 53,365.1                                      | \$ 53,314.8 | \$ 51,859.1                      | (1,456) | -3% |
| Actual Revenue                        | \$ 28,257.0                | \$ 27,862.0                | \$ 39,623.0                                      |             |                                  |         |     |
| <b>Planned Fare Box Recovery</b>      | 44%                        | 47%                        | 33%  | 38%         | 34%                              |         |     |
| Actual Fare Box Recovery              | 29%                        | 29%                        | 33%  |             |                                  |         |     |

## Fund Source

|                                    |             |             |              |             |             |             |    |
|------------------------------------|-------------|-------------|--------------|-------------|-------------|-------------|----|
| Unrestricted General Funds (UGF)   | \$ 46,002.2 | \$ 54,011.0 | \$ 62,738.6  | \$ 60,063.0 | \$ 60,417.5 | \$ 354.5    | 1% |
| Designated General Funds (DGF)     | \$ 55,492.6 | \$ 53,151.4 | \$ 5,425.7   | \$ -        | \$ 13,564.6 | \$ 13,564.6 | 0% |
| Other                              | \$ 8,071.3  | \$ 2,150.0  | \$ 1,308.3   | \$ 868.7    | \$ 885.6    | \$ 16.9     | 2% |
| Federal- Relief Funding            | \$ -        | \$ 1,122.4  | \$ 112,673.1 | \$ -        | \$ -        | \$ -        | 0% |
| Federal Funds (Including IIJA/BIL) | \$ -        | \$ -        | \$ -         | \$ 82,899.5 | \$ 83,240.1 | \$ 340.6    | 0% |

|                                  |                     |                     |                     |                     |                     |                    |            |
|----------------------------------|---------------------|---------------------|---------------------|---------------------|---------------------|--------------------|------------|
| <b>Operating Total</b>           | <b>\$ 109,566.1</b> | <b>\$ 110,434.8</b> | <b>\$ 182,145.6</b> | <b>\$ 143,831.2</b> | <b>\$ 158,107.8</b> | <b>\$ 14,276.6</b> | <b>10%</b> |
| <i>AMHS less Forward Funding</i> |                     |                     | <b>\$ 118,667.5</b> |                     |                     |                    |            |



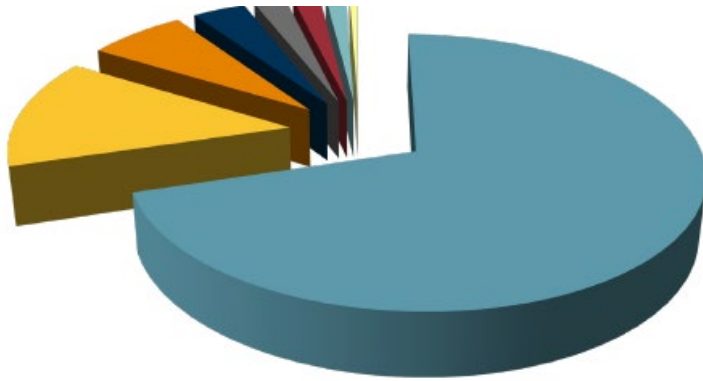










# FY2022 OPERATING EXPENDITURES

## OPERATING EXPENDITURES

For the fiscal year ended June 30, 2022

**\$106.4 MILLION**

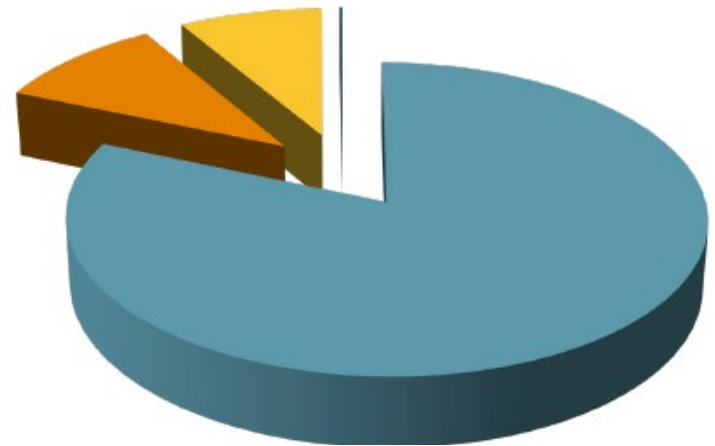






|  |                          |       |   |                            |      |
|--|--------------------------|-------|---|----------------------------|------|
|    | Marine Vessel Operations | 70.3% |    | Marine Engineering         | 2.2% |
|  | Marine Fuel              | 13.4% |  | Support Services           | 1.8% |
|  | Shore Operations         | 6.7%  |  | Reservations and Marketing | 1.4% |
|  | Operations Management    | 3.6%  |  | Overhaul                   | 0.6% |

## UNRESTRICTED OPERATING REVENUES

For the fiscal year ended June 30, 2022

**\$31.3 MILLION**



|   |                            |       |
|---|----------------------------|-------|
|    | Ticket Sales               | 81.4% |
|  | Stateroom Sales            | 10.1% |
|  | Passenger Services Sales   | 8.4%  |
|  | Other Unrestricted Revenue | 0.1%  |

# FEDERAL TRANSIT AUTHORITY (FTA) AWARDS DISCRETIONARY GRANTS

| Title  | Total Project        | Federal Request      | Match                |
|--|----------------------|----------------------|----------------------|
| <b>Infrastructure Upgrades/Repairs: 49% of Capital Request (39% docks/31% vessels)</b>                               |                      |                      |                      |
| Critical Upgrades to Ferry Dock Infrastructure in Five Rural Alaska Communities                                      | \$56,848,018         | \$45,478,414         | \$17,122,096         |
| Modernization of Four Critical AMHS Vessels Necessary for Service and Environmental Benefits                         | \$90,081,932         | \$72,065,546         | \$18,016,386         |
| <b>New Builds: 51% of Capital Request</b>  |                      |                      |                      |
| Replacement of the M/V Tustumena Vessel Serving Rural Southwest Alaska   | \$85,610,480         | \$68,488,384         | \$17,122,096         |
| Cultivating a Systems Approach to Sustainable Transportation by Implementing Climate Responsive Ferry Vessel Options | \$57,767,509         | \$46,214,008         | \$11,553,502         |
| Anticipating Future Service & Replacement Needs: Designing a New Alaska Mainliner                                    | \$10,739,520         | \$8,591,616          | \$2,147,904          |
| <b>Operational Support</b>   |                      |                      |                      |
| Restoring the Health of the AMHS for Sustainable Operations to Rural Communities                                     | \$89,647,600         | \$44,823,800         | \$44,823,800         |
| <b>Total All Awards</b>  | <b>\$390,695,059</b> | <b>\$285,661,768</b> | <b>\$110,785,784</b> |
| Total Capital  | \$301,047,459        | \$240,837,968        | \$65,961,984         |
| Total Operating  | \$89,647,600         | \$44,823,800         | \$44,823,800         |



# FTA AWARDS: VESSELS



## Vessel Modernization—\$72 million award

- Columbia – modernization
- Matanuska—modernization
- Tazlina—increased route options
- Kennicott—improved environmental considerations

## Vessel Replacement— Tustumena Replacement Vessel—\$68.5 million award

- Includes design updates of propulsion system, for safer, more efficient, public transportation

## Design of a New Alaska Mainliner--\$8.5 million award

Supports the early steps for capital replacement of a mainliner for continued service to SE Alaska

## Climate Responsive Ferry Vessel Options—\$46 million award

Increase service, efficiency, and sustainability of Alaska Ferry System for rural port communities.



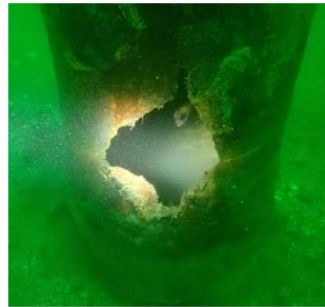


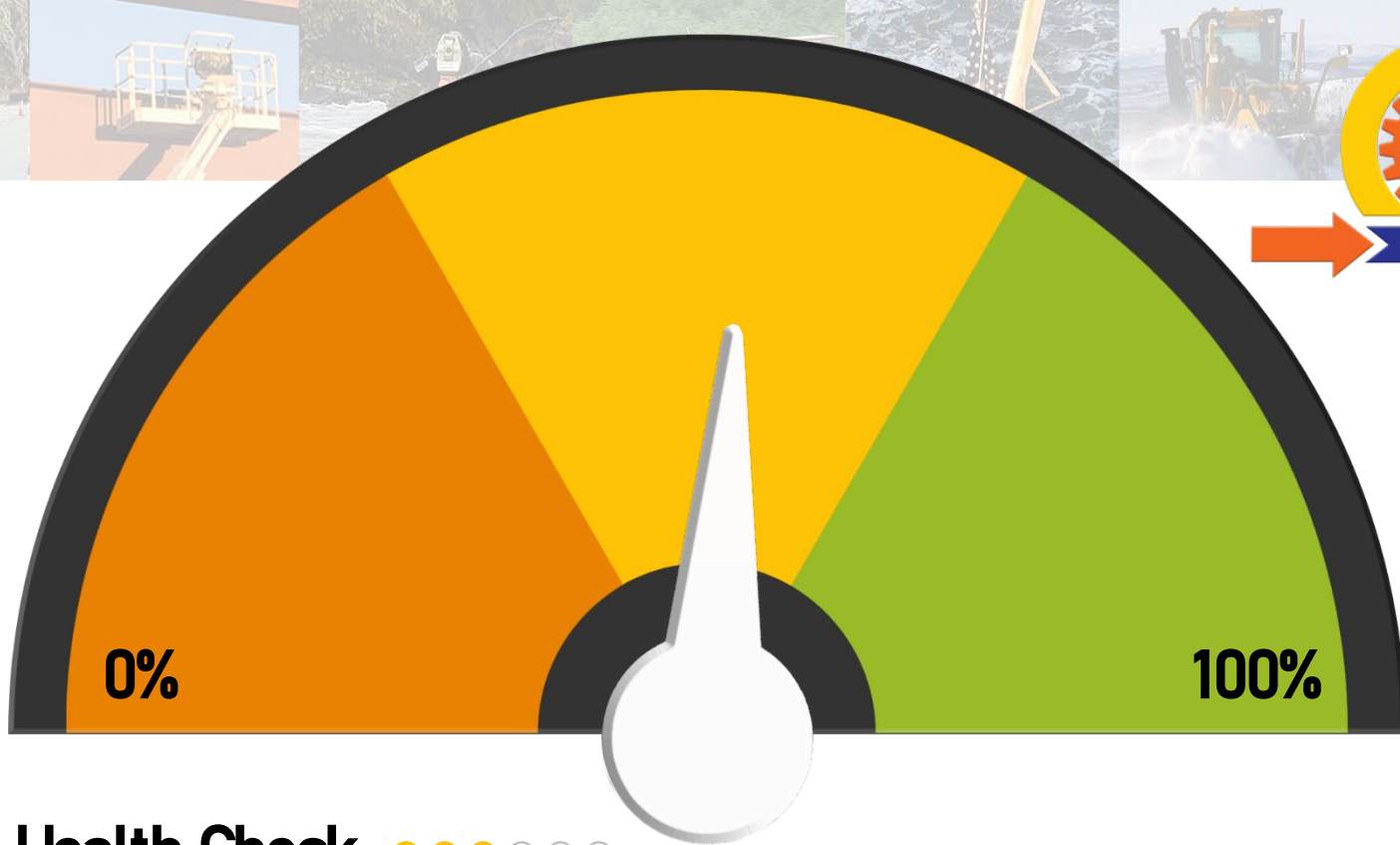
# FTA AWARDS: DOCKS

## Ferry Dock Infrastructure in Five Rural Alaska Communities— \$45.5 million award

Increase the sustainability of five current rural AMHS port operations, project will upgrade dock infrastructure in Juneau and Cordova, and replace current docks in Pelican, Tatitlek, and Chenega.

- Prince William Sound Dock Modifications—\$29.3 million award
- Prince William Sound Economic Development District is primary, DOT&PF assisted in partnerships
- Tatitlek \$10.5m
- Chenega \$12.6m
- Cordova \$6.2 million



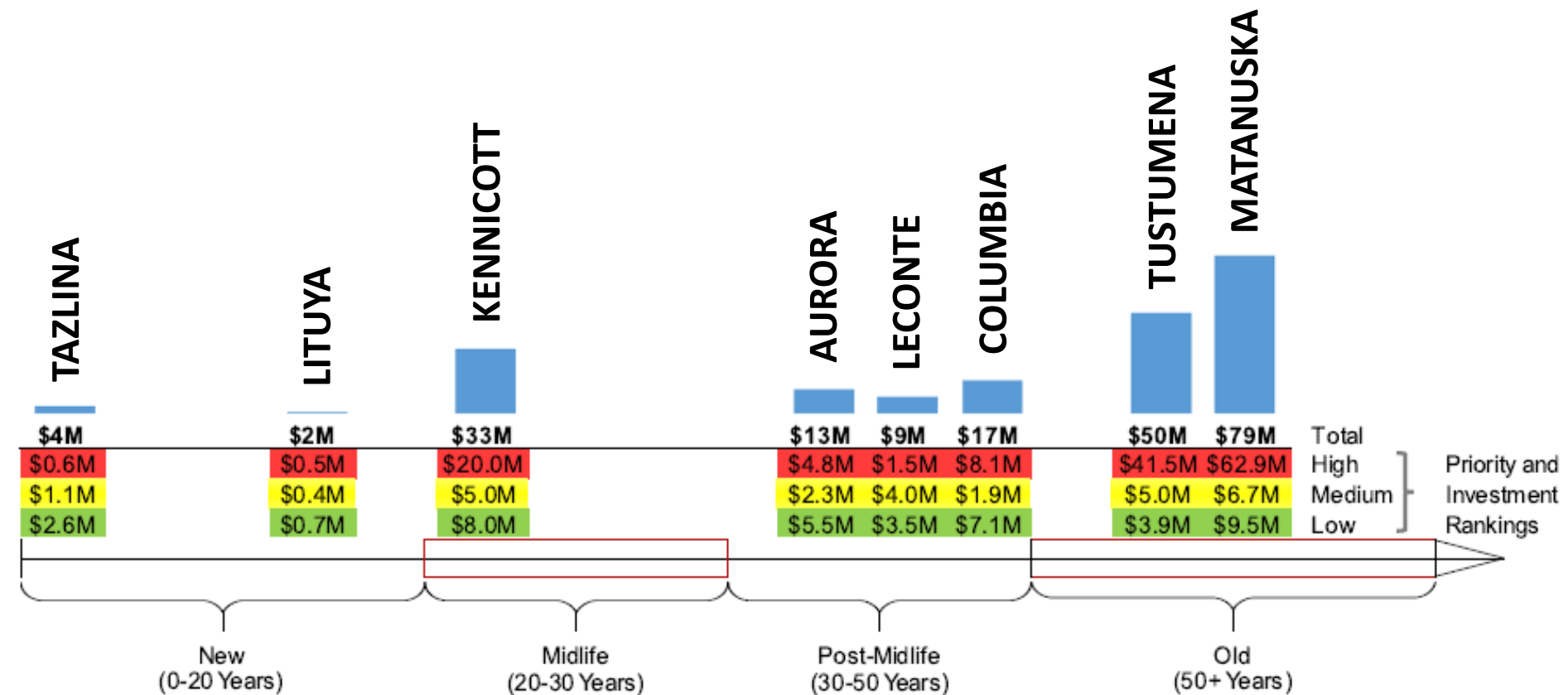


## Fleet Health Check ●●●○○○

- **Modernization of Fleet:** As a vessel ages, reliability risks increase. The average age of a vessel in the current fleet is **34.1** years old, which means that the fleet's overall reliability risk is medium.
- **Vessel Availability:** Some of the vessels in the fleet will be unavailable at times for routine overhauls. This is to be expected as we invest in maintaining our fleet. periods of unavailability are planned with the intent of minimizing overall impact on the system. However, if overhaul periods extend beyond plan or unplanned and urgent maintenance needs manifest, the ability to maintain schedule may be impacted.



# COST PER VESSEL BY URGENCY



# AMHS RELIABILITY: NEXT STEPS



**Solutions:** Capital investment; IIJA;  
Discretionary Grants

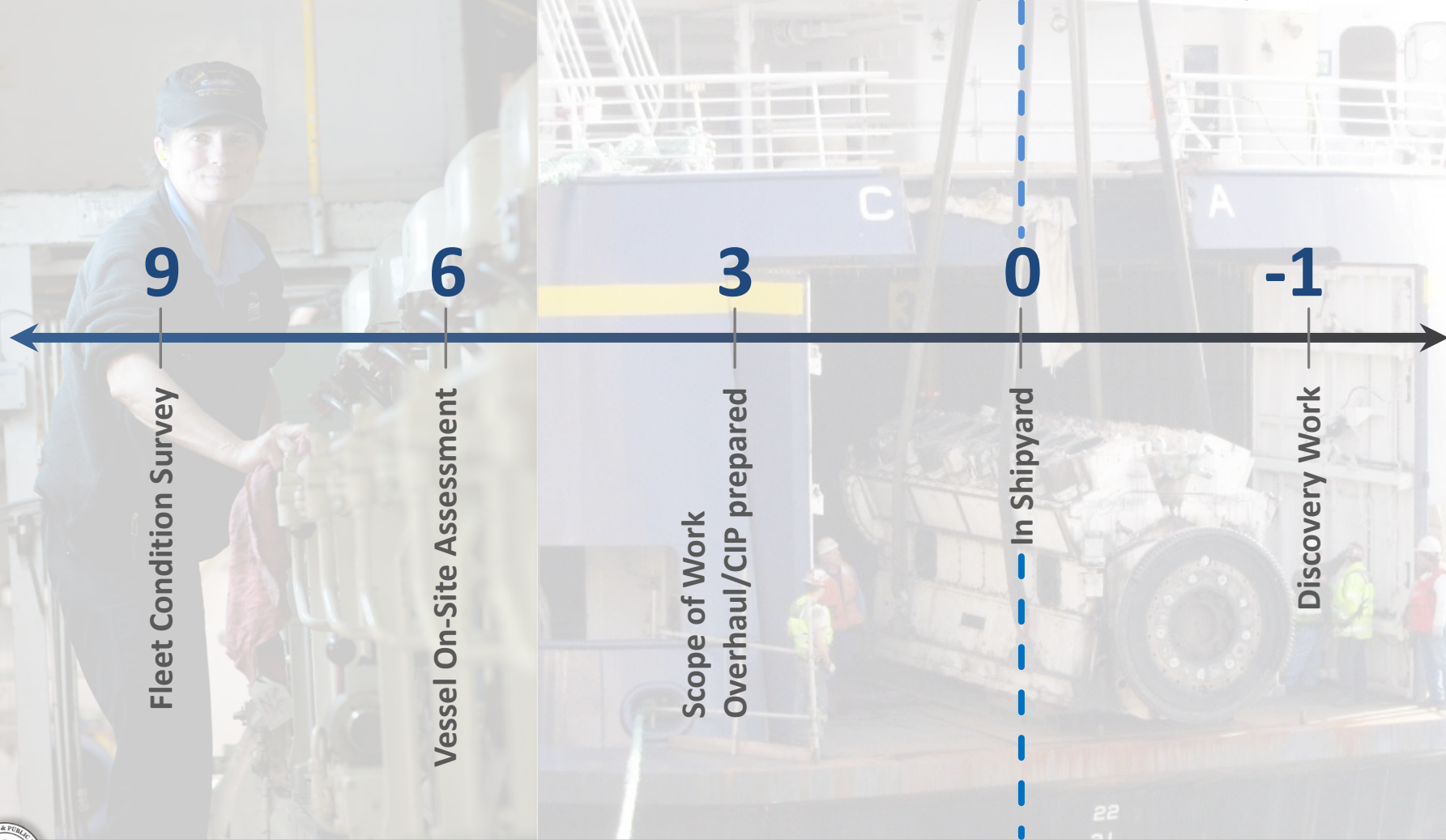
- Charting the Course Initiative
- Operational Audit
- Review of maintenance and overhaul practices
- Leverage younger ships in the fleet
- Pursue capital program for vessel replacement via IIJA funding, discretionary grants



# ENGINEERING PROCESS GOALS



## PROPOSED ENGINEERING PROCESS (IN MONTHS)







## Crew Health Check ●○○○○○

- Staffing Levels: Each vessel crew is made up of multiple types of positions, and a certain number of crew are needed for each position to provide service. To meet current systemwide staffing needs, **about 14 additional crew are needed** to ensure sufficient staff for all types of crew positions.
- Relief Pool: Relief crew fill in when a regularly-scheduled crew member calls in sick or takes vacation. Having enough relief crew is vital to preventing service disruptions. Currently, relief crew is only available for **1 of the 5** types of crew positions.

# CREW METRICS

## Fleetwide Staffing Levels

### 2023 Winter Operating Schedule

The bars represent available crew of minimum crew required for service. Please note, required crew accounts for 2 full crews per vessel plus relief

#### DECK

Licensed

81 of 72



Unlicensed

72 of 119

#### ENGINE

Licensed

67 of 72

Unlicensed

34 of 60

#### PASSENGER SERVICES

Steward

101 of 88



Cook

9 of 21

Purser

16 of 19



**MV AURORA**

Operating

### 2023 Summer Operating Staffing Levels

*\*Accounts for one full crew per vessel*

#### DECK

Licensed



Unlicensed



#### ENGINE

Licensed



Unlicensed



#### PASSENGER SERVICES

Steward



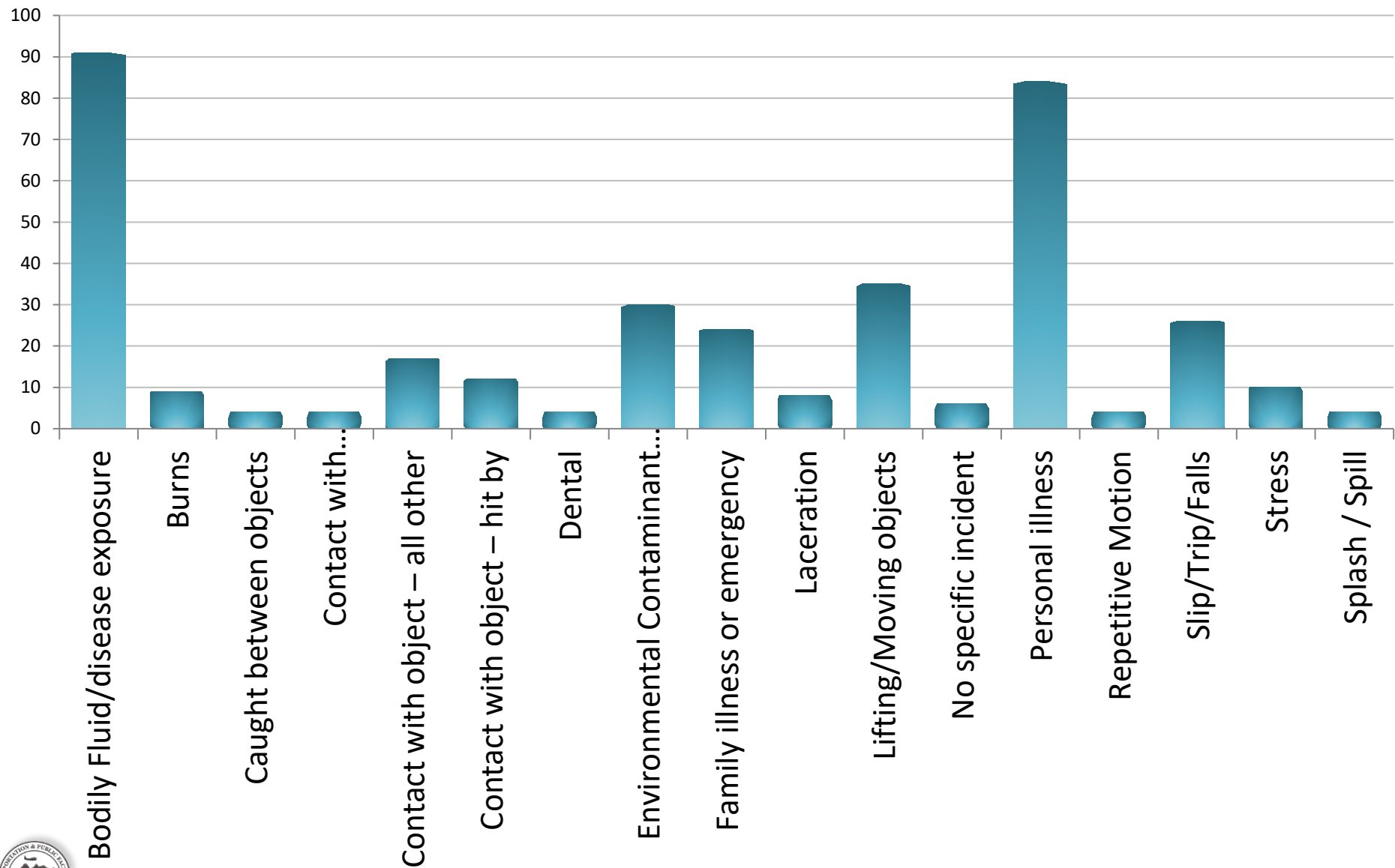
Cook



Purser

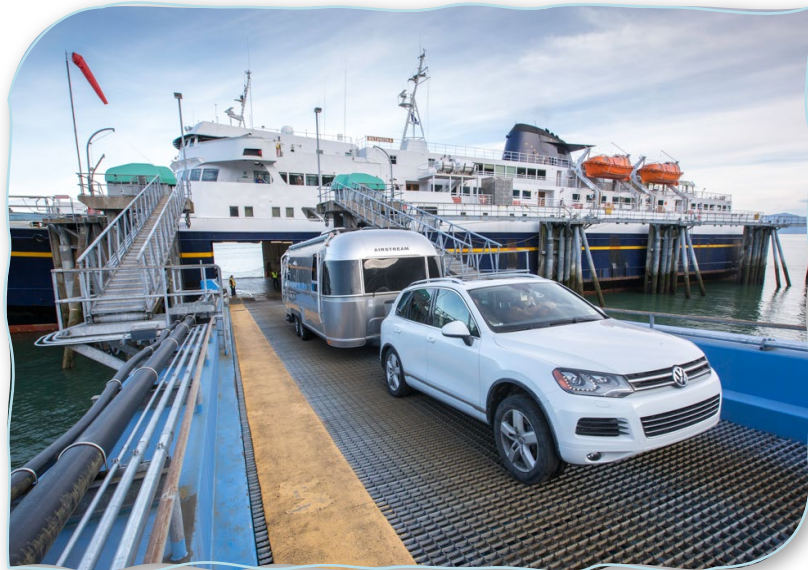


# AMHS OCCUPATIONAL INJURY & ILLNESS STATISTICS FOR 2020





# THE LAST “FUNTier”





# THANK YOU.

**Katherine Keith**  
**Deputy Commissioner**  
907-465-3900  
[Katherine.Keith@Alaska.gov](mailto:Katherine.Keith@Alaska.gov)

