

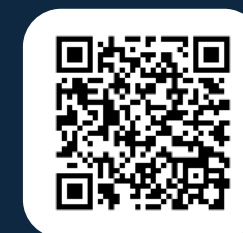
ALASKA MARINE HIGHWAY SYSTEM

2045 LONG-RANGE PLAN

Southeast Conference Mid-Session Summit
February 2025



[Link to LRP Webpage](https://dot.alaska.gov/amhs/operations/)



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

AGENDA

AMHS 2045 Long-Range Plan

- Project Purpose and Goals
- Timeline

Community Engagement

Plan Elements

- 2045 Service Scenario
- 2045 Fleet Configuration
- Terminal Infrastructure
- Workforce Development
- Financials

Next Steps



AMHS 2045 LONG-RANGE PLAN

PURPOSE

The AMHS Long-Range Plan sets out to guide the operation and management of AMHS fleet and terminal infrastructure for the next 20 years. The Plan does the following:

- Reviews existing planning initiatives and inputs.
- Highlights existing and future opportunities for engagement.
- Identifies future service scenarios for AMHS served communities - process elaborated upon in the section below.
- Identifies the supporting workforce and infrastructure needs to implement scenarios.
- Outlines a capital replacement plan for our fleet and shoreside facilities.
- Offers recommendations for future resiliency and sustainability efforts.

SEC. 19.65.011.

SHORT-TERM AND COMPREHENSIVE LONG-RANGE PLANS

The comprehensive long-range plan must include priorities and goals for the Alaska Marine Highway System and a proposed strategic maintenance and vessel replacement plan and may recommend performance measures, including output, efficiency, and effectiveness measures. The department shall submit both the short-term and the comprehensive long-range plans and revisions and updates of the plans to the legislature and the governor and make the plans available to the public.

Link to LRP Webpage



AMHS 2045 LONG-RANGE PLAN

SYSTEM GOALS

1

Provide a service that is safe, reliable, and connects our communities.

2

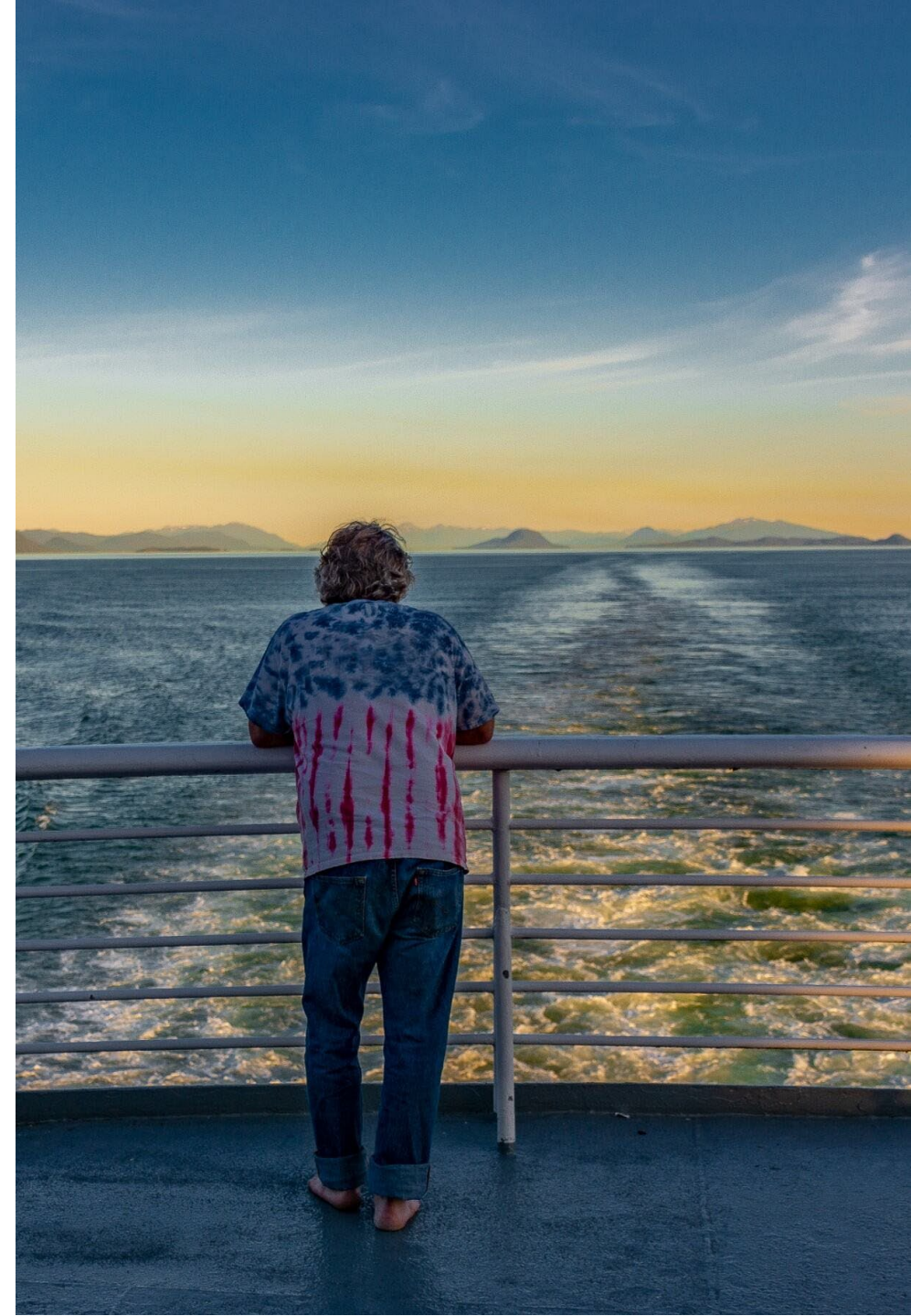
Modernize update our fleet and terminal assets to promote resiliency and standardization.

3

Promote financial efficiency and sustainability.

4

Continue to build and support a reliable workforce.



The AMHS 2045 Long-Range Plan envisions a thriving Alaska Marine Highway System that is maintainable, reliable, and provides connections to support the mobility of the *residents, communities, and businesses* of coastal Alaska.

AMHS 2045 LONG-RANGE PLAN

PROJECT TIMELINE

Stakeholder engagement occurred throughout entire project duration.

2022	2023 - 2024	2024	2024	2025	2025	2025 - 2045
Project Launch	Data Gathering and Conditions Analysis	Service Scenario Development	Report Development	Draft Report In Review	30-Day Review Period	Plan Adoption + Interim Updates
	Vessels Terminals Demographics & Ridership Workforce Needs Assessment Public Survey		Vessel Replacement Plan Operations Model Cost and Revenue Projections Terminal Improvements Goals and Strategies			

ENGAGEMENT

ACTIVITIES AND FINDINGS



PUBLIC ENGAGEMENT ACTIVITIES

Public Survey

The Community Needs Public Survey sought to gain specific insight into the communities that the Alaska Marine Highway System serves as the LRP was developed.

AMHOB

The Long-Range Planning Team reported to and sought input on the plan's progress from the Alaska Marine Highway Operations Board on a quarterly basis.

Ferry Focus Groups

The planning group initiated a series of Ferry Focus Groups to engage directly with community leaders, notably in early project phases, to better understand community conditions and needs.

Public Open House

Throughout the process, the team held four virtual public meetings to report on the Plan's development and open a forum for public comment.

Regional Planning and Economic Development Organization Briefings

Throughout the process, the team engaged with regional planning and economic development organizations to share Plan progress and understand how the LRP can work to support existing community goals.

Business Calls

The LRP Planning Team conducted a series of interviews with businesses across the AMHS service area to understand this specific group's interest in the system and their needs for the system to allow for economic growth.

DOT Advisory Groups

AMHS and DOT&PF advisory groups provided initial feedback and ensured that the project remained in line with larger agency goals and existing initiatives.

'Boots on Steel'

Marine Director Craig Tornga was on AMHS vessels periodically, speaking with crew and staff regularly.

450
Total comments to date

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Rounds of Ferry Focus Groups

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Business interviews conducted

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Project Webpage Clicks
Since September 2023

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Virtual Open Houses

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AMHOB Meetings

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Community Survey Responses
Representing Communities

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Scenario Development Workshops held with AMHS and DOT&PF Advisors

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Presentations made at Conferences

WHAT WE'VE HEARD

Public comment has been open for the duration of this project. In addition to collecting community input in this way, we have solicited public comment at public open houses, through our public survey, and in exit surveys following select ferry focus groups. Sentiments were also gathered as a part of the business interview effort.



"The ferry is a lifeline to otherwise isolated communities."

- Cold Bay

"AMHS provides critical access to important cultural gatherings."

- Cordova

"Our bed and breakfast looks forward to the business that the ferry brings."

- Petersburg

"Visitors express the desire to travel with AMHS and are often disappointed when sailings are full or unavailable."

- Ketchikan

"The ferry is important for shipping and transport for business in SE Alaska."

- Juneau

PLAN ELEMENTS

REPORT DEVELOPMENT



LRP FOCUS AREAS



SERVICE

Provide a service that is safe, reliable, and connects our communities.



FLEET & TERMINAL INFRASTRUCTURE

Modernize update our fleet and terminal assets to promote resiliency and standardization.



WORKFORCE

Continue to build and support a reliable workforce.



FINANCIAL EFFICIENCY & SUSTAINABILITY

Promote financial efficiency and sustainability.

LRP PLANNING HORIZONS

Efforts within each focus area will occur in three key timeframes.

SHORT TERM 2025 - 2028	MID TERM 2029 - 2035	LONG TERM 2036 - 2045
PERIOD OF VARIABILITY	INITIAL SUCCESSES	RELIABLE EXPANSION
<ul style="list-style-type: none">✓ Begin making investments✓ Focus on stabilization & return to previous service levels✓ Transition & scale up of workforce	<ul style="list-style-type: none">✓ Investments begin to payoff✓ Increased port calls to AMHS communities✓ Expanded reliability	<ul style="list-style-type: none">✓ Service goals are met✓ Further expansions to reliability✓ Stable crew



Focus Area 1

**PROVIDE A SERVICE
THAT IS SAFE,
RELIABLE, AND
CONNECTS OUR
COMMUNITIES**

- 1 Invest to establish a service that is safe and reliable.
- 2 Provide service that prioritizes community needs and connections.
- 3 Improve customer experience from booking to completion of voyage.
- 4 Promote transparency and increase access to information.

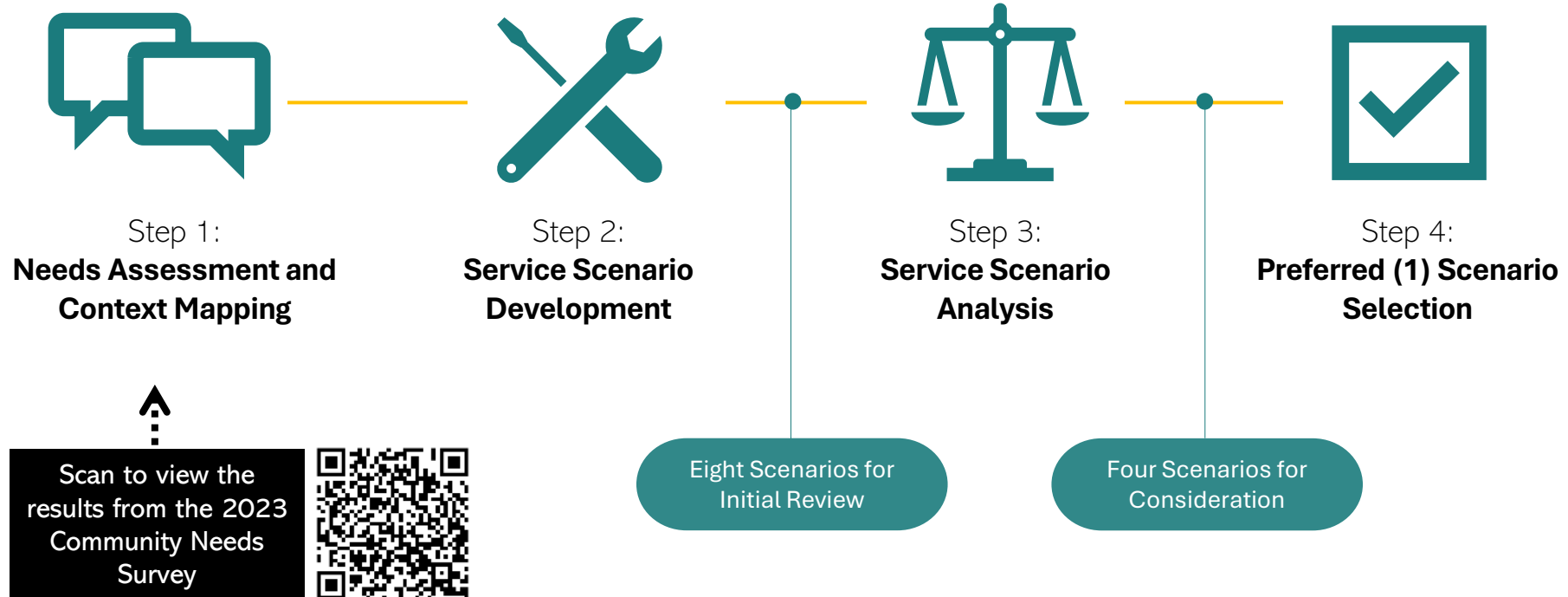
The LRP envisions increased service in 2045, with a focus on improved reliability and flexibility of key assets, with a focus on community connections.

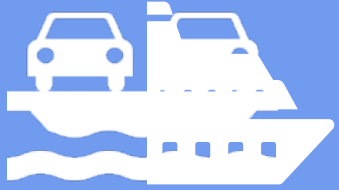
2045 target service levels aim to provide communities with at least as much service, if not more than they received in 2022, resulting in an overall system return to pre-pandemic service levels.

CALENDAR YEAR	PORT CALLS
2018	5,500
2022	3,900
2025	4,600
2035	6,500
2045	6,600



LRP 2045 SERVICE SCENARIO DEVELOPMENT





Focus Area 2

UPDATE OUR FLEET AND TERMINAL ASSETS TO PROMOTE RESILIENCY AND STANDARDIZATION

- 1 Modernize the fleet through new-builds and renovations.
- 2 Promote system efficiency through planning and management systems.
- 3 Standardize fleet and terminal assets to increase uniformity and consistency.
- 4 Reduce environmental impact in infrastructure design and construction.

FLEET



AN AGING FLEET

MODERNIZATION & STANDARDIZATION

AMHS fleet is comprised of older vessels. Modernizing and replacing vessels will provide updated systems and can decrease the likelihood of unplanned service outages.


Standardization increases uniformity and consistency of vessels in the fleet. A standard fleet also improves flexibility and reliability in the event of vessel technical issues, as more vessels can serve more routes

Recommended Standardization

- Loading Door Locations
- Pilothouse Design
- Power & Propulsion Systems
- Berthing and Mooring Structures

Benefits

- Interoperability
- Schedule Flexibility
- Easier Crew Training
- Simpler Procurement
- Reliability



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Target age of vessel
maintenance life

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Vessels
over the age of 30

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Average age of
vessels over 30

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Oldest AMHS
vessel

COMPONENTS OF FLEET ANALYSIS

Model included considerations/inputs such as:

Capacity

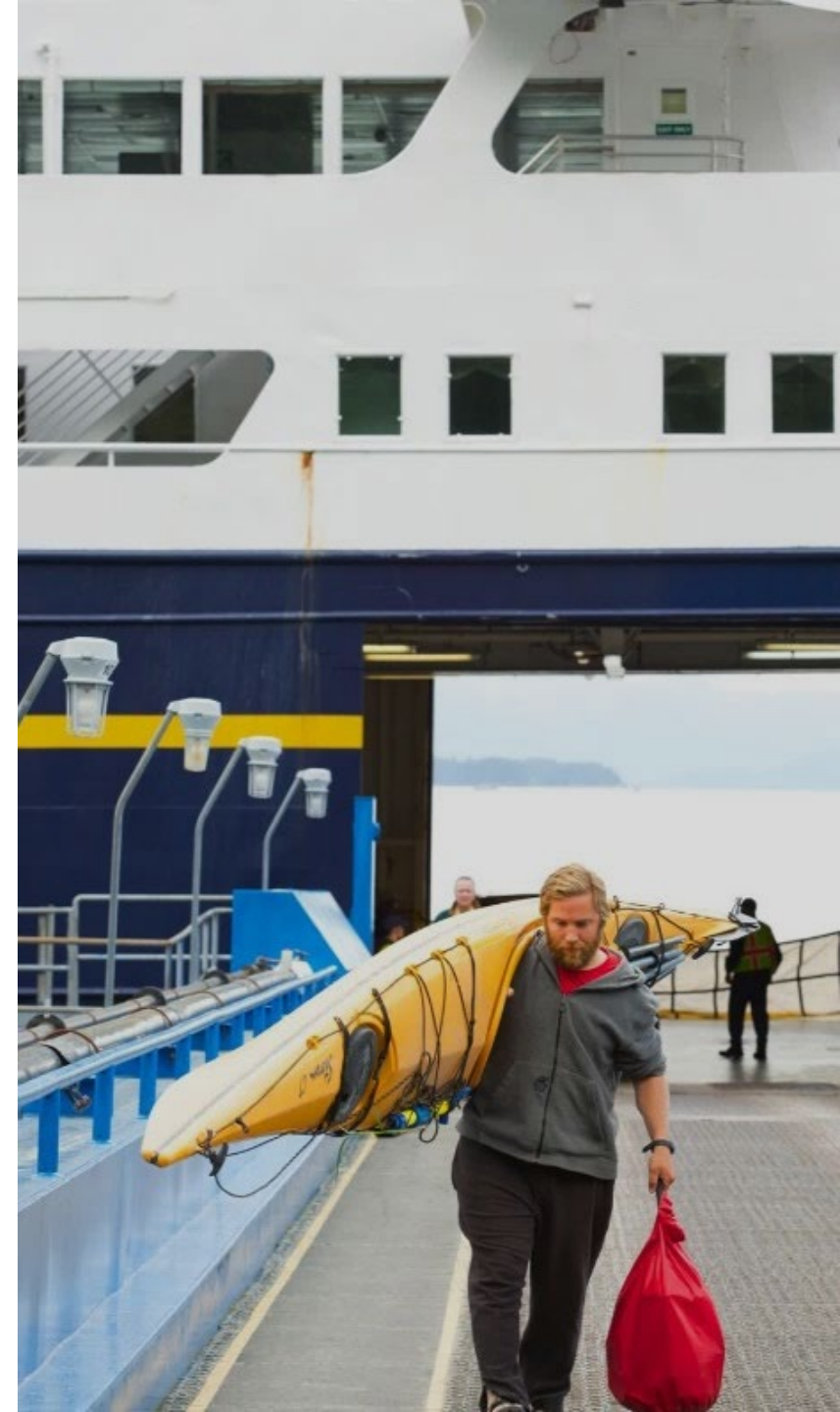
- Vehicle Capacity
- Passenger Capacity

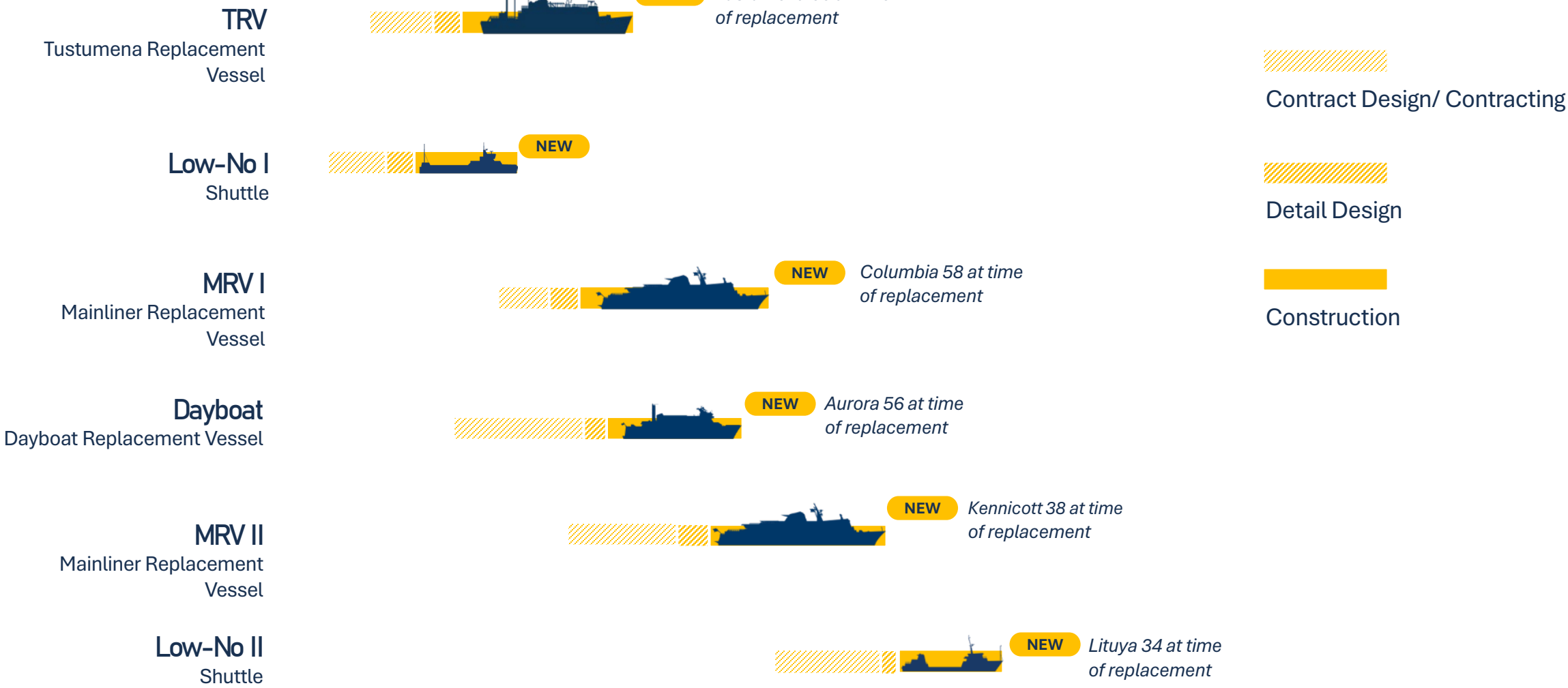
Cost

- Fleet Capital Cost
- Fleet Operational Cost
- Farebox Recovery Rate

Route Profile

- Distance/Travel time between ports
- Total Workforce Size
- Vessel Crewing Requirements
- Level of Service
- Fleet Redundancy
- Maintenance Weeks





Note: Vessel silhouettes are representations only, new vessels may be different.



2045 FLEET CONFIGURATION

The 2045 fleet is a mix of (2) existing vessels and (6) new builds to create a standardized, reliable, and efficient system.

Low-No I
Shuttle



TRV
(Tustumena Replacement
Vessel)



Hubbard
Dayboat



Low-No II
Shuttle



MRV I
(Mainliner Replacement Vessel)



Tazlina
Dayboat



MRV II
(Mainliner Replacement Vessel)



DB
(Dayboat
Replacement
Vessel)



NOTE: Vessel silhouettes are representations only, new vessels may be different.

TERMINAL INFRASTRUCTURE



TERMINAL INFRASTRUCTURE ANALYSIS



Analysis considerations

Existing Conditions Data

- Quantities and Types
- Conditions Assessment Rating Data

Terminals Improvements Project References

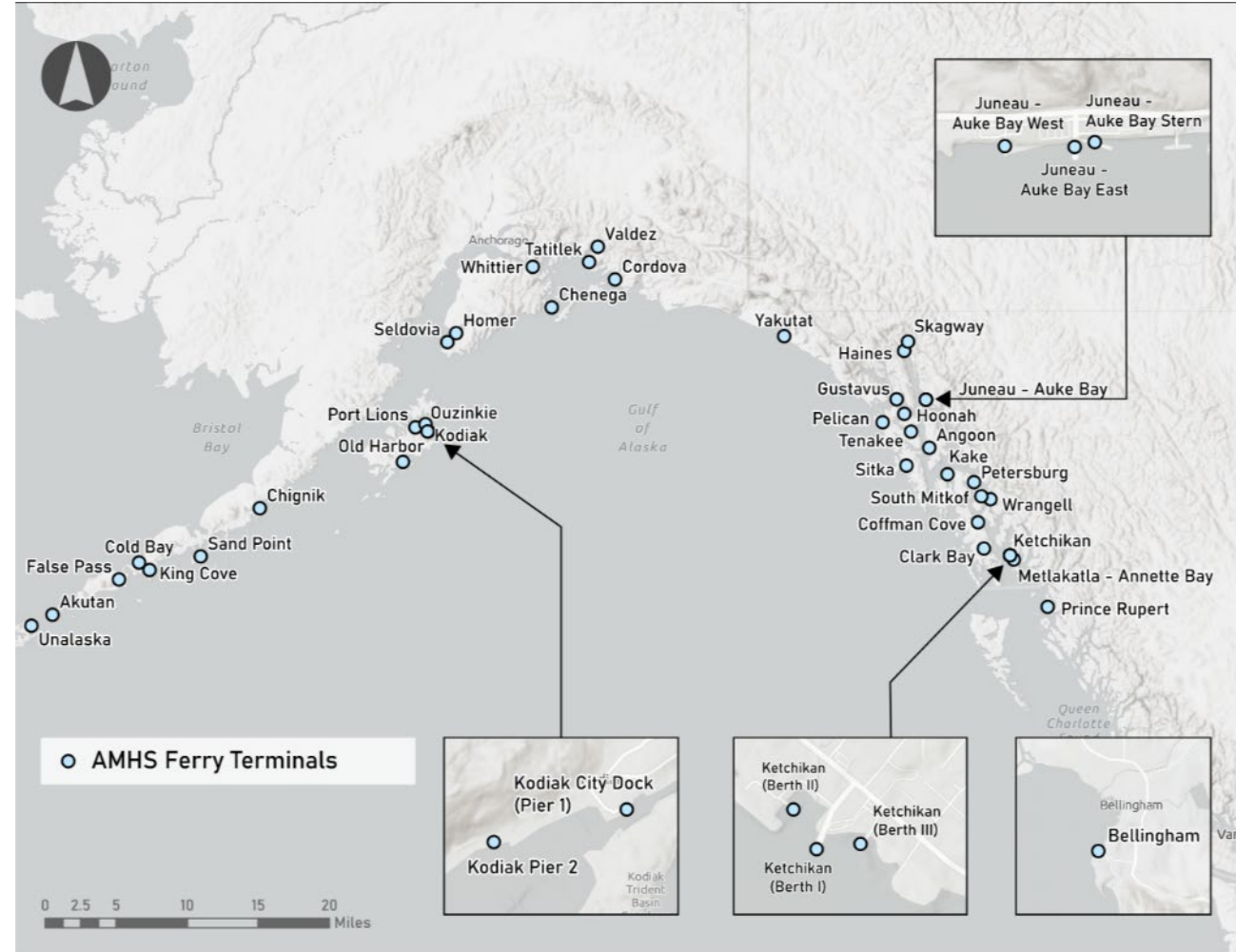
- Log of STIP project scope and capital costs
- Historical bid tabulation cost references

Identifying the Parameters

- **Ratings** – projecting terminals improvements projects needs by term
- **Maintenance Program** – projecting funding needs for preventative maintenance
- **Cost Parameters** - estimating component cost, soft costs and location-based mobilization
- **Scheduling** –Permitting, bidding & contracting, and construction phases

Long-Range Plan Vessel Service Scenario Planning

- Analysis of vessel service scenarios and anticipated terminals upgrade costs



TERMINAL UPGRADES

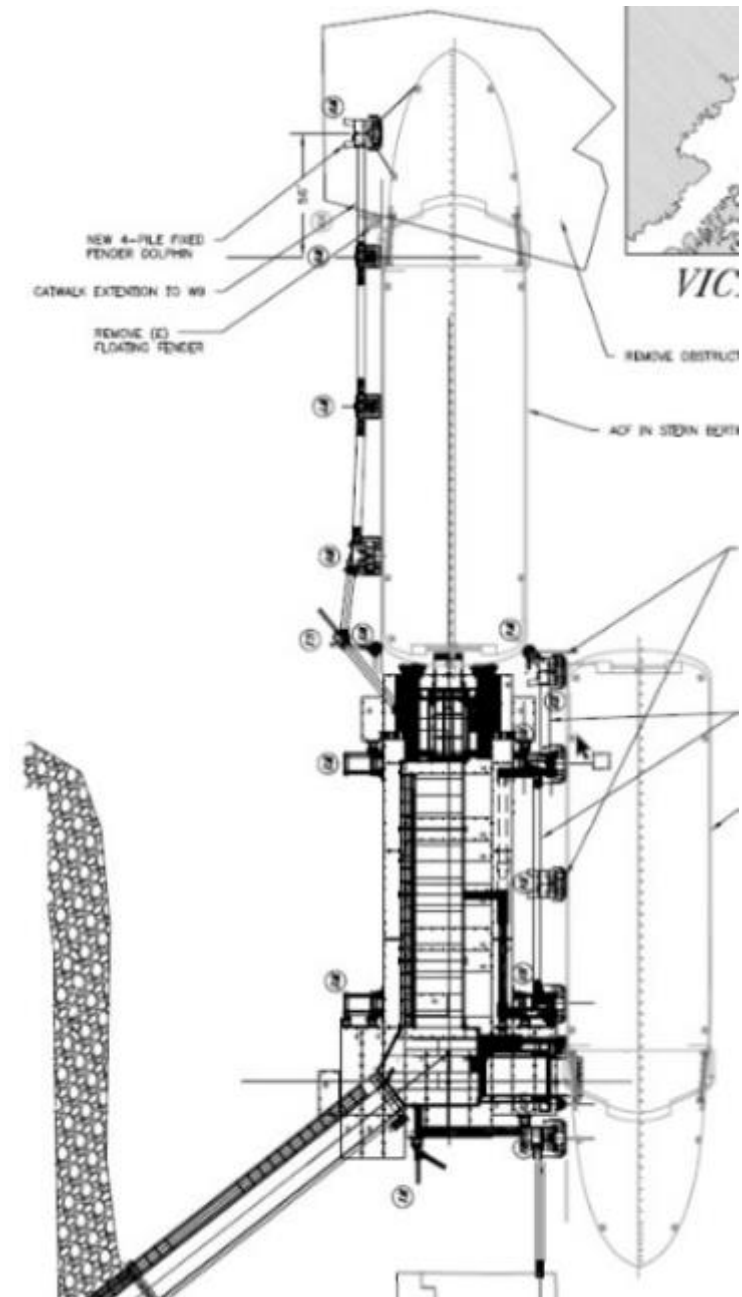
STANDARDIZATION AND MAINTENANCE

Standardization

Terminal standardization aims to promote a sustainable service by increasing uniformity and consistency to support interoperability, reducing the risk of affecting service.

Maintenance

Structural maintenance of AMHS terminals is currently undertaken based upon the findings of regularly conducted conditions assessments. The LRP proposes formalizing this structural maintenance process through a dedicated preventative maintenance program.



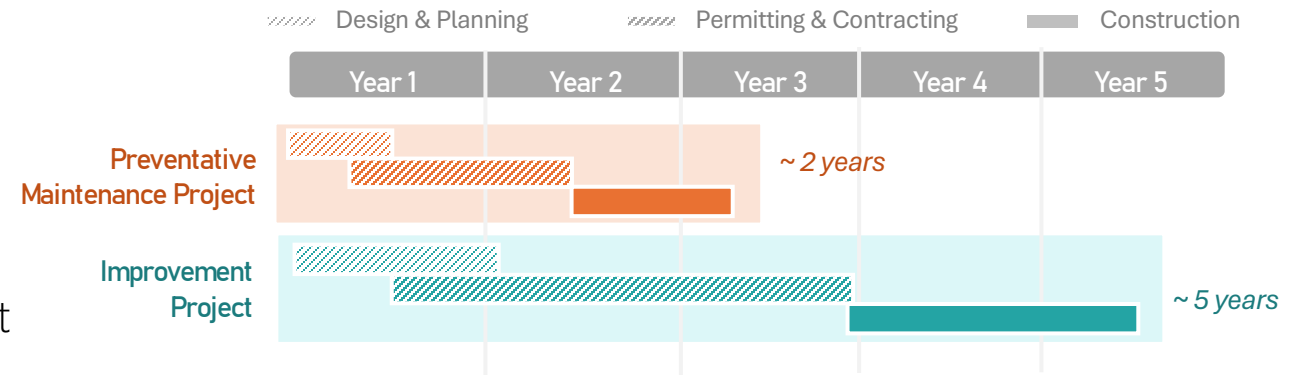
Stern and side berth capabilities at Cordova terminal



TERMINALS CAPITAL PROJECTS

SCHEDULE

Terminal capital projects require significant lead times. Project planning and design work also has costs that must be outlaid prior to construction efforts.



Terminals Major Project Schedule



NOTE: MAINTENANCE PROJECT IS RECOMMENDED TO OCCUR AT EVERY TERMINAL AT APPROXIMATELY 5 YEAR INTERVALS.



Focus Area 3

CONTINUE TO BUILD AND SUPPORT A RELIABLE WORKFORCE

- 1 Invest in the growth and development of Alaska's maritime workforce.
- 2 Support increased recruitment efforts.
- 3 Explore retention strategies to support current employees.
- 4 Pursue training and education partnerships to support internal career growth.
- 5 Improve internal organization structures to support hiring, staffing, and data collection.

WORKFORCE

CREW TRENDS

	Total Needed	Currently Employed	Current Status
Master	26	18	-8
Chief Mate	24	10	-14
2nd Mate	24	8	-16
3rd Mate	25	32	7
Chief Engineer	22	20	-2
1st Engineer	18	17	-1
2nd Engineer	18	11	-7
3rd Engineer	23	14	-9
Bosun	13	14	1
Able Bodied Seaman	60	58	-2
Ordinary Seaman	28	18	-10
OSP	14	7	-7
WM	18	12	-6
Jr. Engineer	15	8	-7
Oiler	29	25	-4
Wiper	5	4	-1
Stewards		208	

As of January 30, 2025



Current Challenges

Crew shortages are currently limiting service levels. To provide the desired seven-vessel schedule (with two vessels in layup), AMHS needs to fill **84 vessel crew vacancies**. The following areas are currently the greatest barriers to crewing:



Competitive Salaries

Current salaries for licensed and certified positions are not as competitive as other maritime jobs on the market.



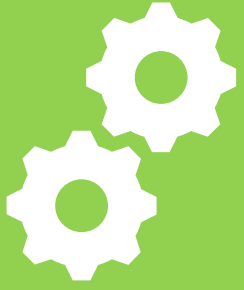
Travel Costs

Employees pay their own travel costs to reach work, while AMHS's competitors do. Travel costs reduce effective take-home pay, further reducing competition.



Pilotage Requirements

New hires in the wheelhouse do not have the required pilotage.



Focus Area 4

PROMOTE FINANCIAL EFFICIENCY AND SUSTANABILITY

- 1 Develop funding and revenue generation strategies to promote system sustainability.
- 2 Promote responsible management of system finances and resources
- 3 Make strategic financial investments to promote operational excellence.

FINANCIAL PLAN

SERVICE

- + Fare revenue
- + Cabin revenue
- + Onboard services
- Fuel costs



FINANCIALS



INFRASTRUCTURE

- Vessel capital costs
- Terminal capital costs
- Vessel operating costs
- Vessel maintenance costs
- Terminal maintenance costs



WORKFORCE

- Labor costs



FUNDING STRATEGIES

Funding

- AMHS service revenue
 - Passenger and vehicle tickets sales, staterooms, other passenger services
- State funding
 - State operating funding
 - State capital funding
- Federal funding
 - Federal Highway Administration
 - Federal Transit Administration
 - MARAD
- Innovative financing



THE PATH TO RELIABILITY

PERIOD OF VARIABILITY
2025 - 2028

INITIAL SUCCESSES
2029 - 2035

RELIABLE EXPANSION
2036 - 2045

5,200

Average Annual Port Calls



NEW

New Vessel Online:
Low-No I Shuttle

6,300

Average Annual Port Calls



NEW

New Vessels Online:
TRV
MRV I
Dayboat



NEW



NEW

6,700

Average Annual Port Calls



NEW

New Vessels Online:
MRV II
Low-No II



NEW

13

Terminal Projects Ongoing

29

Terminal Projects Ongoing

40

Terminal Projects Ongoing

Average Fleet Age: 36

Average Fleet Age: 20

Average Fleet Age: 13

Notes:

1. Vessel silhouettes are representations only, new vessels may be different.
2. Terminals maintenance projects are not included in terminal project numbers, as they will be ongoing throughout all phases.

NEXT STEPS



LRP Document Prep and Review



30-Day Public Review Period

Once the draft document is complete, there will be a 30-day public comment period.



Project Completion and Interim Updates

Once the Plan is complete, the work won't be done! The plan is a living document and will be revisited every 5 years for project updates and implementation reports.



Link to LRP Webpage



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