

**Alaska Marine Highway System Vessel Overhaul, Annual Certification and Shoreside Facilities Rehabilitation**      **FY2023 Request: \$20,000,000**  
**Reference No: 30624**

**AP/AL:** Appropriation      **Project Type:** Renewal and Replacement  
**Category:** Transportation  
**Location:** Statewide      **House District:** Statewide (HD 1-40)  
**Impact House District:** Statewide (HD 1-40)      **Contact:** Dom Pannone  
**Estimated Project Dates:** 07/01/2022 - 06/30/2027      **Contact Phone:** (907)465-2956

**Brief Summary and Statement of Need:**

The Alaska Marine Highway System (AMHS) requires annual maintenance and overhaul on vessels and at terminals, particularly components or systems whose failures impact service in the short term. Annual overhaul of vessels is necessary to pass United States Coast Guard (USCG) inspections and obtain a Certificate of Inspection (COI) necessary to operate in revenue service.

<b>Funding:</b>	<b>FY2023</b>	<b>FY2024</b>	<b>FY2025</b>	<b>FY2026</b>	<b>FY2027</b>	<b>FY2028</b>	<b>Total</b>
1076 Marine Hwy	\$20,000,000	\$19,000,000	\$19,000,000	\$19,000,000	\$19,000,000		\$96,000,000
<b>Total:</b>	\$20,000,000	\$19,000,000	\$19,000,000	\$19,000,000	\$19,000,000	\$0	\$96,000,000

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input checked="" type="checkbox"/> Ongoing
0% = Minimum State Match % Required		<input type="checkbox"/> Amendment	<input type="checkbox"/> Mental Health Bill	

**Operating & Maintenance Costs:**

	<u>Amount</u>	<u>Staff</u>
Project Development:	0	0
Ongoing Operating:	0	0
One-Time Startup:	0	0
<b>Totals:</b>	<b>0</b>	<b>0</b>

**Prior Funding History / Additional Information:**

- Sec8 Ch1 SLA2021 P79 L16 HB69 \$15,000,000
- Sec5 Ch8 SLA2020 P67 L27 HB205 \$15,000,000
- Sec1 Ch1 SLA2019 P6 L15 SB2002 \$13,500,000
- Sec1 Ch3 SLA2019 P15 L18 SB19 \$1,400,000
- Sec1 Ch19 SLA2018 P10 L8 SB142 \$13,500,000
- Sec21G Ch1 SLA2017 P24 L14 SB23 \$1,000,000
- Sec1 Ch1 SLA2017 P8 L8 SB23 \$11,000,000
- Sec1 Ch2 SLA2016 P7 L19 SB138 \$12,000,000
- Sec25(d) Ch38 SLA2015 P39 L25 SB26 \$10,000,000
- Sec1 Ch18 SLA2014 P63 L23 SB119 \$12,000,000
- Sec1 Ch16 SLA2013 P79 L4 SB18 \$10,000,000
- Sec1 Ch17 SLA2012 P136 L16 SB160 \$10,000,000
- Sec7 Ch17 SLA2012 P167 L26 SB160 \$5,455,000

**Project Description/Justification:**

This project is for numerous recurring maintenance tasks and improvements to the vessels. The majority of the funds being requested are spent in Alaska shipyards with Alaska suppliers and vendors.

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In past years, the AMHS funded its annual maintenance work through two concurrent mechanisms – vessel certification appropriations (i.e., this project) and deferred maintenance appropriations. This project provides \$19.0 million for this required work, \$4.0 million over FY2020 levels due to aging vessels and additional work that needs to be completed each year to safely operate the fleet.

Overhaul work consists of inspection, repair, and maintenance that cannot be performed while the vessels are operating. An overhaul period of approximately six weeks is set aside every year during which each ship is in dry-dock and the scheduled work is accomplished. This work is performed in Alaska shipyards unless it is combined with a Federal Highway Administration project competitively awarded to an out-of-state shipyard. In performing overhaul work, the AMHS must meet the inspection requirements and standards of safety and seaworthiness of two entities, the Classification Societies - American Bureau of Shipping (ABS) for steel hulled vessels, and Det Norske Veritas (DNV) for the aluminum hulled fast vehicle ferries - as well as the USCG. None of this work is discretionary. At the end of the overhaul period, the vessel must pass a demanding USCG inspection to obtain a Certificate of Inspection (COI). This certificate is mandatory to operate for the next year.

In addition to the work required by ABS, DNV, and the USCG, work is done that is recommended by equipment manufacturers and where AMHS port engineers determine the work to be sound equipment maintenance practices. For example, painting the hull is not required, and vessels could sail with badly deteriorated paint. However, paint protects the hull from corrosion. In the long term, the value of asset protection greatly outweighs the cost of the painting.

Overhaul work is costly. Putting a vessel into dry-dock can cost over \$20,000 base cost plus \$1,000 for each day it remains in dry-dock. Dismantling a main propulsion engine solely to permit ABS inspections requires the work of several skilled engineers for several weeks. These are costs incurred simply to enable inspections to be made and routine maintenance to be completed.

A continuing source of increased costs is maintenance of newly installed systems and equipment (primarily safety-related) required to be added to the vessels by the International Maritime Organization's Safety of Life at Sea (SOLAS) regulations and similar U.S. Code of Federal Regulations Subchapter "W" provisions. While federal funds provide the systems and equipment, State funds must be used to maintain them once installed. Perhaps the greatest cause of increased overhaul costs is the simplest: as vessels age, the amount and cost of required maintenance increases.

AMHS operates steel and aluminum vessels in a hostile, corrosive salt-water environment and must protect these expensive ships or suffer rapid deterioration of major structural components and equipment resulting in expensive replacement costs. Ignoring these maintenance and repair requirements will result in failure to maintain ABS or DNV classification and failure to pass USCG COI examinations. Taking vessels out of classification will result in higher annual insurance rates. Without a USCG COI, AMHS cannot sail the vessels and accomplish the mission of providing safe, reliable public transportation. In the past, AMHS often established an inventory of major main engine components that were economical to rebuild. These were used as ready spares to keep the vessels in service when a casualty occurred. More recently, this practice has ceased due to a lack of funds.

This funding may also be used for terminal maintenance and repairs or equipment and component replacement and rehabilitation projects as available due to favorable bids or parts pricing.

