HAINES AK

LUTAK

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The Project Team

Jason Davis
President

Josh Zellmer
Senior Design Engineer

Adam Jones
Project Manager

Jean Shepherd
Design Engineer

Mickey Richardson
Business Development

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Current Lutak Dock

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Lutak Utilization

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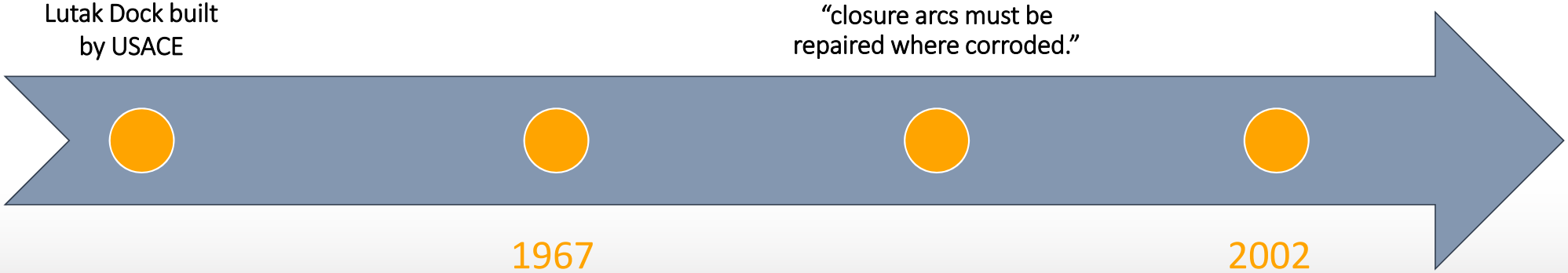
Lutak History Begins



1953

Lutak Dock built by USACE

1967

Dock Inspection by R&M Consultants, Inc. states "maximum remaining structural life of main cell system is estimated to be about 20 years…remaining life of sheet pile connector arcs is estimated to be less than 10 years."

1988

Dock Inspection by PND Engineers, Inc. states "closure arcs must be repaired where corroded."

2002

Inspection Report by Echelon Engineering, Inc. states "overall condition of the closure arc piling was found to be poor."

Lutak History Continued

2003

Lutak Dock H-pile repairs which ultimately led to failures within the closure arcs. Sacrificial anodes added to main cells.

2015

2015 – DOT demolition of Cells 1-4, 5-6 and partial of 7.

PND report states "the structure has reached the end of its credible 60-year service life…and is effectively on 'borrowed time.'"

2016

R&M provides conceptual design alternatives, one including encapsulating the dock for $37.42 million

2017

2017 – Final R&M design and development concepts report states, "Based on the history and various reports it is unlikely that the existing dock will remain usable for another 10 years."

Alternative 1A (encapsulate using modified diaphragm) was approved by PHAC and PC committees.

Ro-Ro & Barge Configuration

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Operational Space

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Waterside Navigation

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Ro-Ro Berthing

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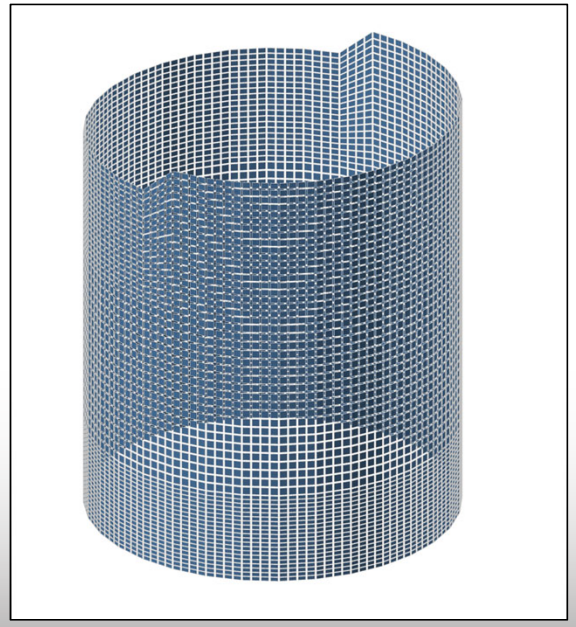
Corrosion of Main Cells

- RISA Analysis:
  - Allowable strength design
  - Yield strength of 50ksi
  - Original thickness vs projected thickness



Year	Average Main Cell Thickness (in)	Percent of Original Remain-ing	Average mil/year loss
1953	0.500	-	-
1976	0.426	85.20%	3.2
2002	0.361	72.20%	2.5
2014	0.312	62.40%	4.1
2023*	0.275	55.05%	4.1*

***2023 estimated projected cell thickness using previous rate of 4.1mil/year**

**Photo provided by AKDOT*

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Corrosion on Closure Arcs

Year	Average Main Cell Thickness (in)	Percent of Original Remaining	Average mil/year loss
1953	0.375	-	-
1976	0.290	77.33%	3.7
2014	0.232	61.87%	1.5
2023**	0.205	54.67%	3.0**

****2023 estimated projected cell thickness in the splash zone**

**Photo provided by AKDOT*

Potential Closure Arc Failure

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Potential Closure Arc Failure

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Potential Closure Arc Failure

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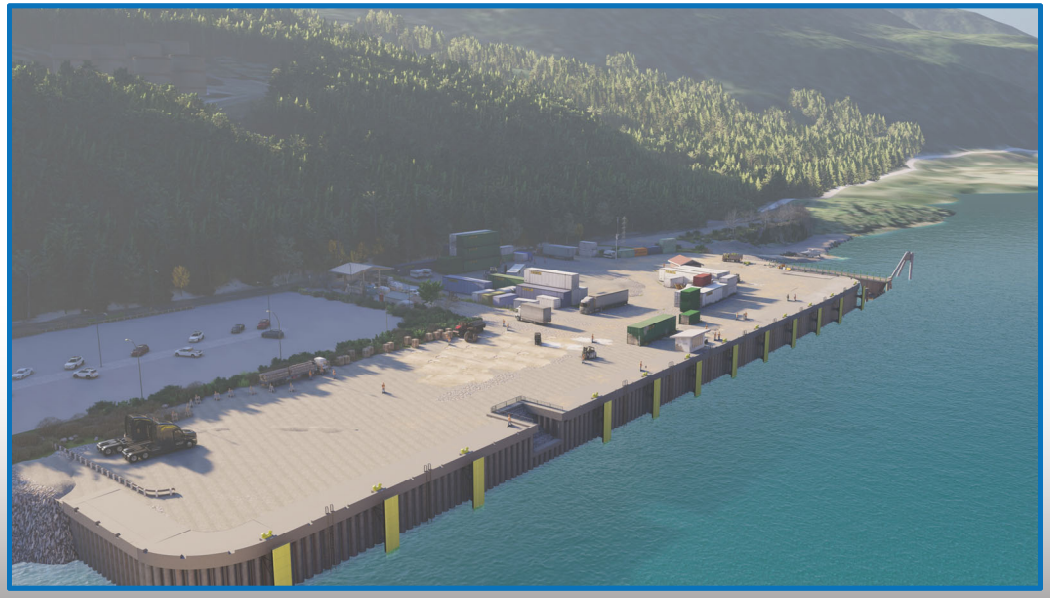
Corrosion on New Pipe-Pile Wall

- **Design includes a 42” x 3/4” pipe pile wall**
  - Typical service conditions from the soil pressures and live load surcharge were used of 500 psf
  - Seismic event ignored
- **Conservative constant corrosion wastage of 5 mils/year applied over pile**
- **Including protective paint coating, piles will last a minimum of 20 years**
- **Total minimum 50-year service life of the dock**
  - 20-years with protective paint coating
  - Additional 30 years after coating ineffective and zero maintenance



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Demolition of Lutak

**Photos provided by AKDOT*

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Demolition of Lutak

**Photos provided by AKDOT*

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Lutak Dock Overlay

Seward, AK

Two Harbors, MN

- **Lutak Dock Footprint:** about 5 acres

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Lutak Dock Project History

November 1, 2016 – Community meeting #1 – Three alternatives presented: encapsulation with sheet pile wall, replace in-kind with earth-filled bulkhead, pile supported dock. Community input during this meeting led to splitting alternative 1 into 1A (larger encapsulated area) and 1B (encapsulate using modified diaphragm, no reclamation of uplands).

December 15, 2016 – Community meeting #2 – Combi-wall encapsulation design discussed as not feasible due to alternative being too expensive. Alternatives 1A and 1B with modified diaphragm were presented.

February 1, 2017 – Community meeting #3 – Alternatives 1A and 1B encapsulation with modified were presented. R&M preferred alternative 1B.

March 17, 2017 – R&M recommends 1B as alternative in Design and Development Concepts Report.

June 3, 2021 – Townhall meeting – Discussed the alternative used in RAISE grant application (multi-phase: relocate boat launch, new uplands, demolition and replacement of entire dock).

June 24, 2021 – Townhall meeting – Discussion of extending bulkhead towards ferry terminal.

July 2021 – Haines Borough applied for and received a $20 million dollar RAISE Grant from DOT. Only 1 of 3 projects in Alaska to receive this funding.

June 17, 2022 – Haines Borough issues Requests for Proposals (RFP)

September 28, 2022 – TMC Concept Justification Letter sent to MARAD regarding new pipe-pile combi-wall design that maintains capacities and functionality, and matches previous cost

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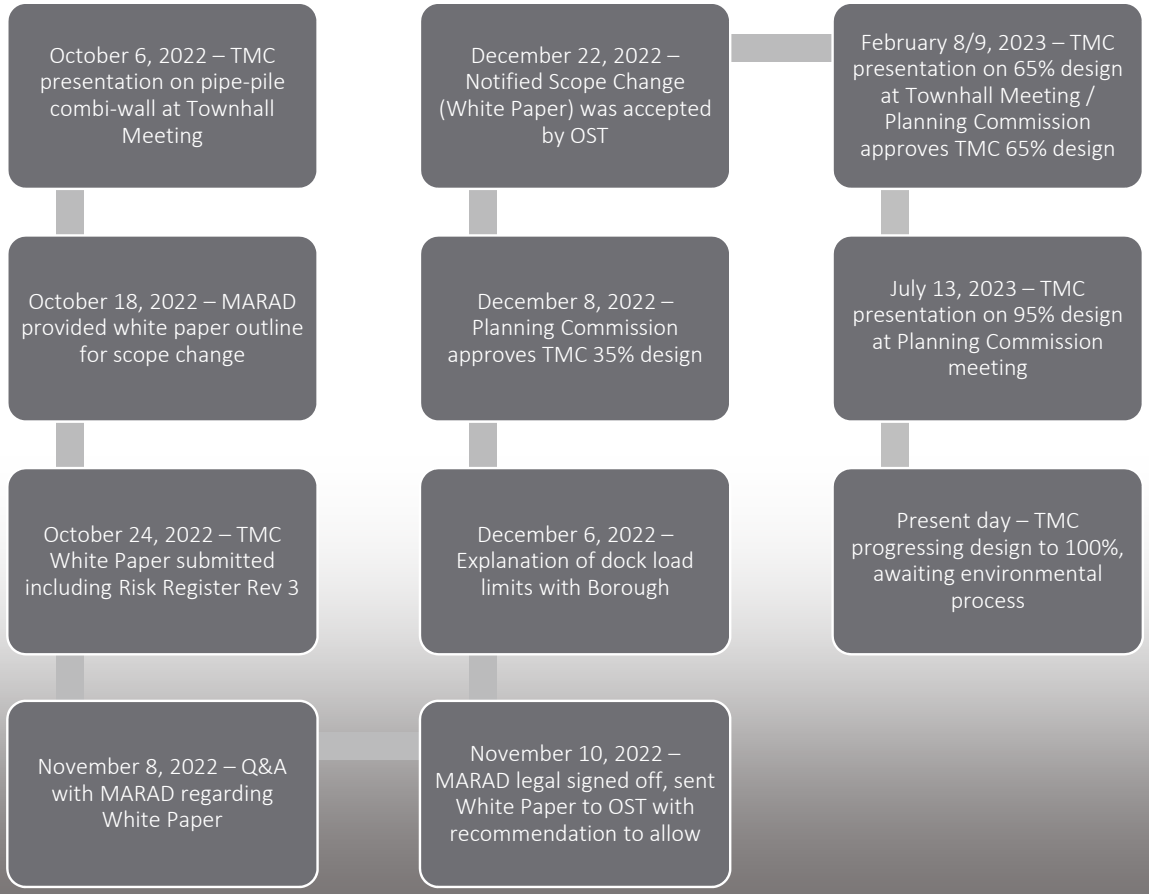
Lutak Dock Project History



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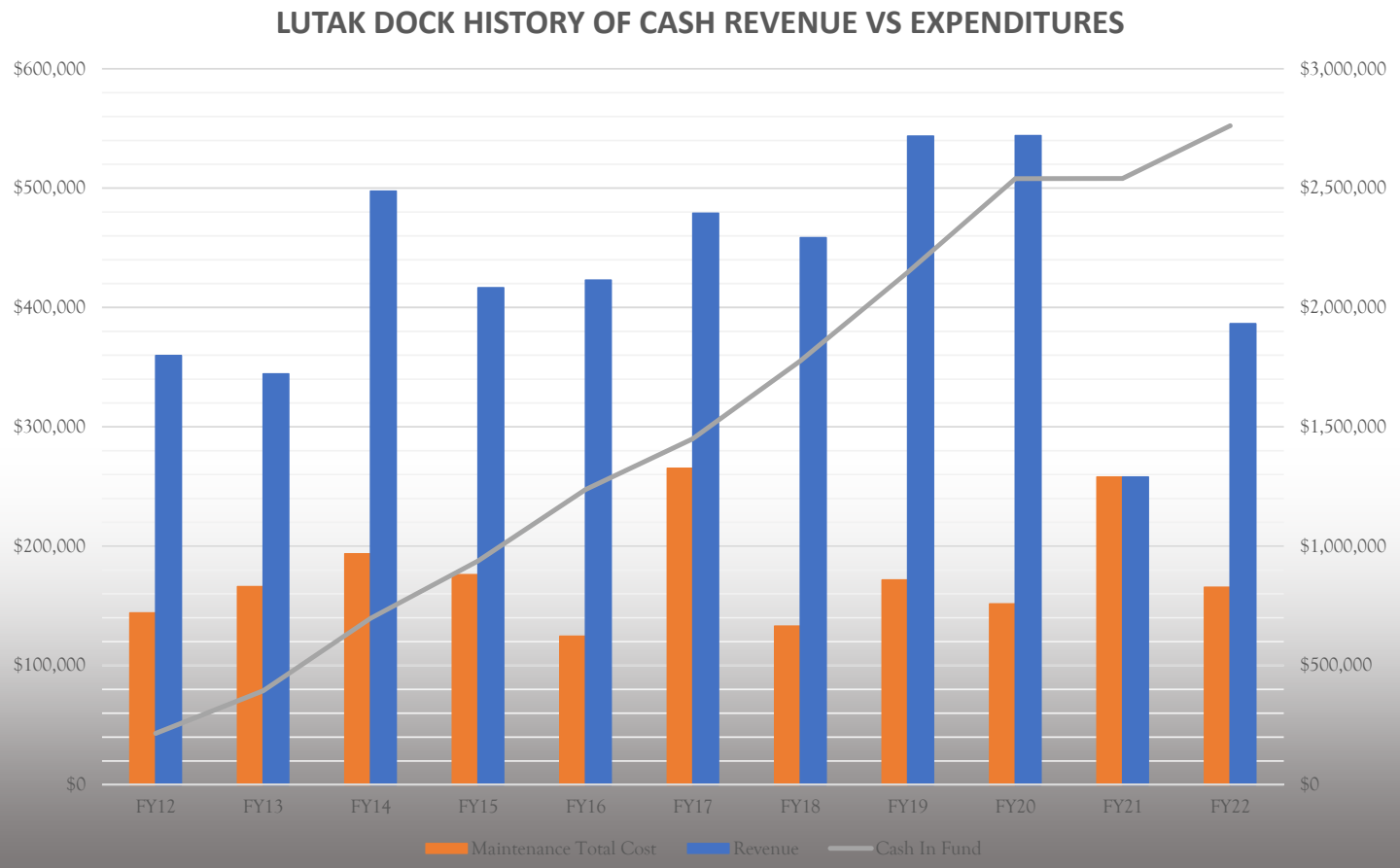
Cost Cashflow Chart



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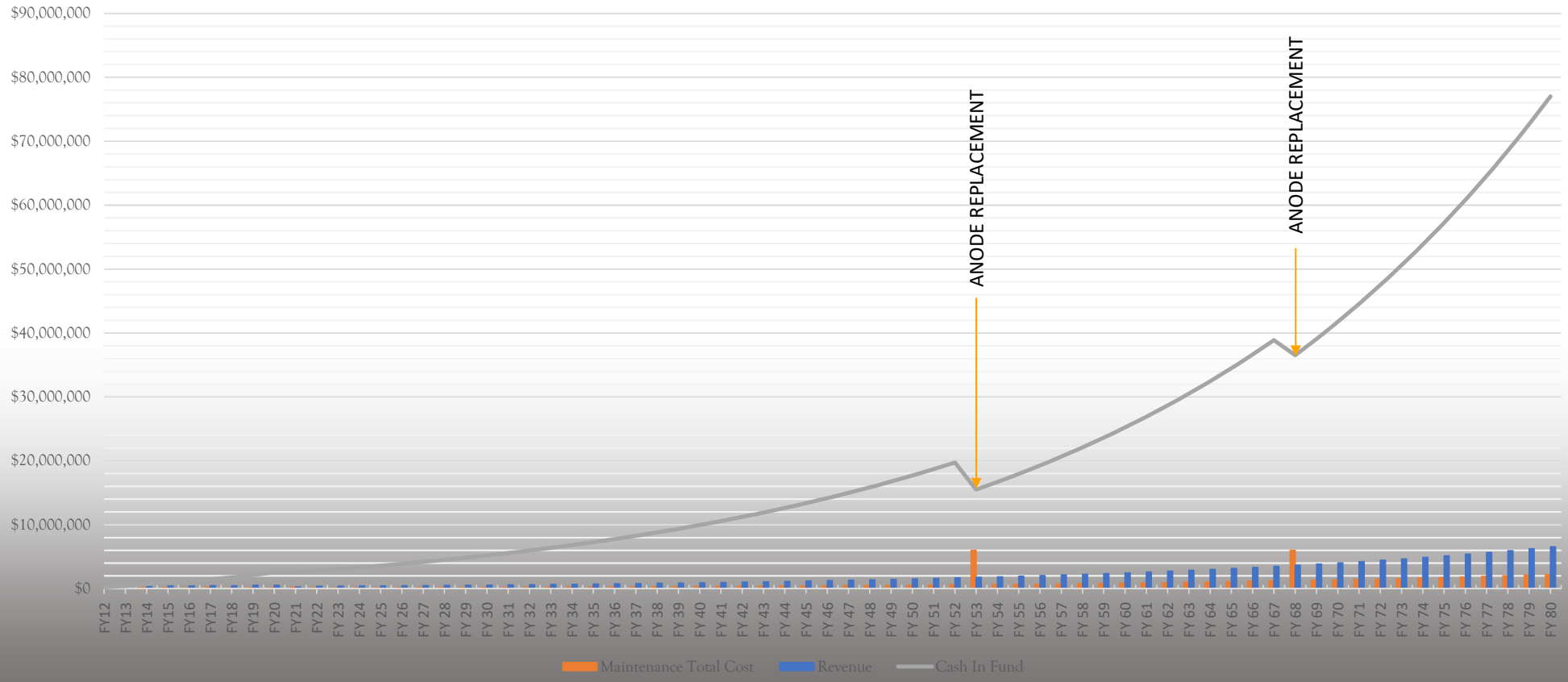
Cost Cashflow Chart

LUTAK DOCK HISTORY AND FORECAST OF CASH REVENUE VS EXPENDITURES



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Letters of Support

LYNDEN

100 Mt. Roberts Street
Juneau, AK 99801
Main: (907) 586-3700
jnuoffice@lynden.com

To Whom It May Concern,
10/11/23

Alaska Marines Lines would like to offer its support for the Lutak Dock Replacement. The project is vital in keeping the supply chain intact for future generations and an integral piece to link Haines Borough, Southeast & Interior Alaska, and the Yukon. Furthermore, the grant funding was 1 of only 3 grants awarded to projects in Alaska.

In addition to these facts, AML invested $2.6 million dollars in a Ro/Ro ramp which solved the immediate need when environmental issues impacted the Lutak Dock making it unusable for pass/pass operations. The need still remains for improving the uplands cargo area and a very real risk exists for the current seawall failing. When you combine the Lutak dock has "**reached the end of its credible 60-year service life and is effectively on borrowed time**" (*PND Engineers assessment*) and the Federal funding opportunity we support the completion of this project now.

Sincerely,

Adam S. Anderson
Southeast Regional Manager
100 Mt. Robert St.
Juneau, AK 99801
adama@lynden.com
907-419-5600

AN EQUAL OPPO...

Hi Annette,

My apologies for the delay in responding- it's been a busy month. As a tenant of the Haines Borough, Delta Western supports reliable operations, and is therefore in favor of the rehabilitation of the Lutak Dock. Should the dock not be rehabilitated, there could be an increased risk of fuel shortage to the residents of the Haines Community. The only alternative to delivering fuel via barge is delivery by truck, which is not as safe or environmentally friendly as delivering fuel via barge.

Jake Eckhardt

900 Main Street / PO Box 1369
Haines, AK 99827
Jake.Eckhardt@deltawestern.com
907.766.3190 office
907.231.3518 cell

DELTAWESTERN™ PETROLEUM

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Environmental Tasks

- **National Historic Preservation Act Section 106 State Historic Preservation Office Concurrence issued-2/24**
- **Magnuson–Stevens Act/Essential Fish Habitat Consultation completed-8/18**
- **Alaska Department of Environmental Conservation Section Clean Water Act Section 401 Water Quality Certification issued-10/20**

- **MARAD Environmental Assessment**
  - In-house draft completed
- **Endangered Species Act Consultation**
  - Final Draft BA submitted to National Marine Fisheries Service-11/3
- **National Historic Preservation Act Section 106 Consultation**
  - SHPO concurrence issued-2/14
  - Tribal consultation ongoing since-1/23
- **Marine Mammal Protection Act/Incidental Harassment Authorization Process**
  - IHA application complete-10/17; IHA Fed Reg Notice expected-11/17
- **U.S. Army Corps of Engineers CWA Section 404/Rivers and Harbors Act Section 10 Permit Process**
  - Application submitted 7/25; comment period ended-9/17; may be posted again

Environmental Tasks Moving Forward

Next Steps

- **MARAD Environmental Assessment**
  - Incorporated public comments and Endangered Species and National Historic Preservation Act Consultations into EA
  - Draft EA, address comments, Final EA, if warranted Finding of No Significant Impact
- **Endangered Species Act Consultation**
  - BA determined complete; ESA process initiated with draft IHA
  - NMFS prepare draft Biological Opinion, prepare final BO
- **National Historic Preservation Act Section 106 Consultation**
  - CIV sign cultural monitoring plan, work with MARAD to address issues,
- **Marine Mammal Protection Act/Incidental Harassment Authorization Process**
  - NMFS publish in Federal Register with 30-day public comment period, respond to public comments
  - NMFS issue IHA
- **U.S. Army Corps of Engineers CWA Section 404/Rivers and Harbors Act Section 10 Permit Process**
  - Respond to public comments, incorporate ESA and Section 106 consultations, if warranted Corps issue permit

Q&A

www.turnagain.us

5050 Cordova St. Suite 200
Anchorage, AK 99503
907-261-8960