

*Detailed instructions for each section below are given in Section II. Quarterly Project Reports in the Reporting Policy on the website, https://evostc.state.ak.us/policies-procedures/

Project Number: 21210131 (Includes 21210131)

Project Title: Alaska SeaLife Center Facilities Project \$2,000,000/\$500,000

Principal Investigator(s): Chip Arnold, Ben Smith

Reporting Periods and Due Dates:

Reporting Period	Due Date
February, March, April	June 1
May, June, July	September 1
August, September, October	December 1
November, December, January	March 1

Submission Date: December 1, 2023

Project Website: N/A

Please check <u>all</u> the boxes that apply to the current reporting period.

☑ Project progress is on schedule.
 ☐ Project progress is delayed
 ☐ Budget reallocation request.
 ☐ Personnel changes.



1. Summary of Work Performed:

Building Infrastructure:

Work has been completed to replace the unserviceable motor control sections in the North Penthouse fan room. Marathon Electric completed the new panel installation and VFD connections in the North Penthouse, providing motor controls for AHU-01, AHU02, and AHU-05 with the addition of Exhaust Fan 4 (EF-4), which provides the vital service of fume hood exhaust from the lab areas. The system is now fully integrated with the Trane BAS system. Additional problems were detected, including seized motors. Replacement motors have been procured from Automation Direct and Grainger, and one has been installed by ASLC, with the other two possibly being installed by a mechanical contractor or by ASLC later, depending on staff capacity.

Quotes for AHU-6 damper replacement, to replace badly damaged dampers discovered during the BAS refit, were received from Sheet Metal Inc., and a purchase order for the work has been issued.

Trane conducted a routine site visit on 10/11/2023 for BAS system preventative maintenance and a combined BAS and Mechanical Services visit from 11/27 to 11/29/2003. Adjustments were made to AHU-4 (Lab area) to improve efficiency and heating performance. Connections were verified for the north penthouse air handlers, which will be returned online after the exhaust fan motors are replaced. Trane technicians made several adjustments to valves and dampers. They are continuing to work on Tracer Ensemble system issues that are occurring on their offsite cloud server. It appears all Trane Tracer server-related problems have now been corrected, and the service is working as designed.

Seawater Life Support System:

The intake line temperature survey work is ongoing. A failed conductivity logger was replaced by ASLC divers on 10/3/2023, and the replacement will be covered under warranty. The only loss in data was for conductivity readings at 100 ft, which will not materially affect the design of the new intake line. Temperature data continues to be collected, revealing essential insights on the water column activity directly from ASLC. Data shows the seasonal inversion of temperatures at various depths, with deeper water becoming warmer than shallower waters. Most importantly, ASLC has confirmed that shallower depth intake line options would result in higher and more variable seawater, which would have multiple deleterious impacts on animal habitats.



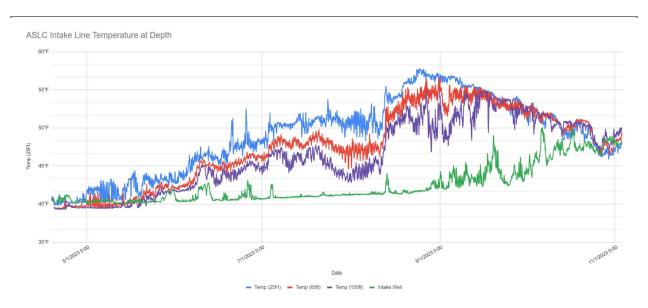


Figure 1: Further results from deployed temperature data loggers showing significantly warmer temperatures with a temperature inversion in process (green line versus others).

A PND Engineering coordination meeting was held to discuss the US Army Corps permit status, the condition of existing chamber wall separations, and the strategy for maintaining flows. Contingency plans for seawater supply for planned dredging are being worked on. Additional sensors were required to determine water level differentials during the well cleanout and pigging operations, which were ordered from Automation Direct and will be installed by ASLC.

SeaWater Pump Replacements:

New pumps for LSS-3, LSS-5, LSS-6, LSS-7, and LSS-13 are still delayed from Industrial Pumps of Alaska (IPA). The latest status report indicates LSS-3 and LSS-13 pumps will ship from the factory during the first week of December, however, these specific pumps will not aid in the well cleanout operations due to their specific installation locations. ASLC staff and PND Engineers are working on contingency planning to ensure seawater delivery through the well cleanout operations.

Ozone Water Treatment System:

The RCK control system server, which controls the ozone, filtrations, and pumps, is well past its end-of-service life. A replacement embedded controller has been ordered from RCK.

Pump House Barrier:



ASLC is awaiting final plans regarding Lowell diversion work from the Army Corps of Engineers before proceeding with additional project planning on the pumphouse barrier. A FOIA request has been submitted by ASLC requesting specific details, specifically "Any plans to protect or accommodate freshwater rights named under Alaska file number LAS 19238 or relating to the freshwater well house, underground utilities leading to the well house, and existing well house structure." No further updates have been received.

Cast Iron Drain Pipe Assessment:

Operations staff are monitoring underwater viewing area leaks. A slight increase in water leaking around the southernmost viewing deck was noticed during the rainier fall months. Guidance from the RESPEC engineering memo has been received by operations staff and will be acted on if further leakage is detected. ASLC staff will also begin camera inspections of various drains.

2. Abstract:

Building HVAC and associated equipment identified during the BAS project as needed, repair or replacement is ongoing. The BAS and lighting system are now performing as designed and helping ASLC control energy usage. VFD replacement for the north fan room and BAS integration is now complete, although several motors that were previously inoperable due to controls will require replacement. PND Engineering is making steady progress and permitting an initial design on intake line modifications and well-cleanout procedures. Additional sensors and data logging efforts have been applied at the request of PND Engineering. Delays are ongoing for replacement LSS pumps from IPA, however, they report that the first shipments will be in early December. Ozone system work included ordering a replacement embedded controller for the RCK system. Overall, BAS and lighting projects are largely completed. Critical water system work has moved into detailed design phases for intake line repairs, and pump replacements while delayed, are expected to be completed.

3. Coordination and Collaboration:

N/A

4. Response to EVOSTC Review, Recommendations and Comments:



Exxon Valdez Oil Spill Trustee Council General Restoration, Habitat Enhancement, Habitat Protection, and Facilities Projects

Quarterly Project Reporting Form

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5. Budget:

Please see next page.



Exxon Valdez Oil Spill Trustee Council

General Restoration, Habitat Enhancement, Habitat Protection, and Facilities Projects

Quarterly Project Reporting Form

Budget Category:	Proposed	Proposed	Proposed	Proposed	Proposed	5-YR TOTAL	ACTUAL
	FY 22	FY 23	FY 24	FY 25	FY 26	PROPOSED	CUMULATIVE
Personnel	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Travel	\$0	\$0	\$0	\$0	\$0	\$0	\$1,231
Contractual	\$126,095	\$0	\$0	\$0	\$0	\$126,095	\$111,679
Commodities	\$0	\$0	\$0	\$0	\$0	\$0	\$206,728
Equipment	\$2,373,905	\$0	\$0	\$0	\$0	\$2,373,905	\$580,832
Indirect Costs (report rate here)	\$0	\$0	\$0	\$0	\$0	\$0	\$90,047
SUBTOTAL	\$2,500,000	\$0	\$0	\$0	\$0	\$2,500,000	\$990,516
General Administration (9% of subtotal)	\$225,000	\$0	\$0	\$0	\$0	\$225,000	N/A
PROJECT TOTAL	\$2,725,000	\$0	\$0	\$0	\$0	\$2,725,000	
Other Resources (In-Kind Funds)	\$580,897	\$0	\$0	\$0	\$0	\$580,897	\$492,490

INSTRUCTIONS: This summary page provides a five-year overview (FY 22-26) of proposed funding and actual cumulative spending which includes the non-trustee agency and trustee agency worksheets. This Summary Page should automatically populate as the formulas reference the cells in the non-trustee agency and trustee agency worksheets. Please make sure the totals given are correct. The column titled 'Actual Cumulative' will be updated each fiscal year and included in the annual report (include information on the total amount actually spent for all completed years of the project). On the Project Annual Report Form, if any line item exceeds a 10% deviation from the originally-proposed amount; provide detail regarding the reason for the deviation.

OMMENTS: Expenses throu	igh October 2023.		
FY22-26	Project Number: 21210131 Project Title: Alaska SeaLife Center Facilities Project \$2,000,000/\$500,000 PM(s): Arnold, Smith	SUMMARY TABLE	