

*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: September 1, 2023

Project Website: N/A

 \square Personnel changes.

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.



1. Summary of Work Performed:

Building Infrastructure:

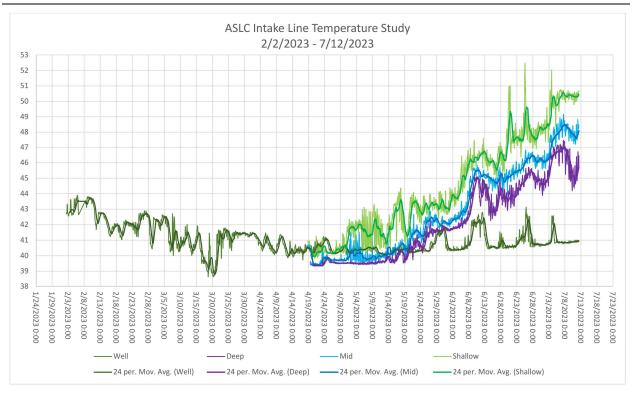
Final payments relating to Trane Tracer and Synchrony training were made during the month of June. Trane completed installation of the remaining sensors and valves, and completed programming changes that were identified during the BAS project as "AHU Rehabilitation." ASLC Operations crew has been working on correcting items from the deficiency and defect list generated by Trane. As part of the Lutron lighting system installation contract, a technician was dispatched on 6/15/2023 for customer orientation and support. Additional enhancements to the Lutron graphical interface (Quantum Vue) were made, and one relay module was swapped as part of warranty support.

Seawater Life Support System:

ASLC divers recovered data from deployed Tidbit temperature loggers and seawater conductivity loggers. A significant temperature gradient spanning 9°F between 25ft and intake well temperatures was observed. The temperature differential between intake and 65ft and 100ft depths decreases. It is not unexpected that during summer months, water at shallower depths than the intake will be warmer. Conductivity was measured at 100ft and 65ft. The conductivity at the 100ft point was more stable than at 65ft. The conductivity at the 65ft depth appears to be correlated with Lowell Creek flows and decreases significantly during the month of June, which mirrors an increase in freshwater flows from the outfall. Additional data loggers were needed, which were ordered and will be deployed along the proposed new pipeline route.

A planning meeting with PND Engineer Jacob Kapplow was held on August 9th to review pipeline rehabilitation plans and review data collected and analyzed by ASLC. Issues brought forward by ASLC staff during the meeting highlighted the need for consistent temperature and salinity, which will require drawing water in from depth. With this information, PND will revise its plan and cost estimates to include a phased approach to rehabilitating the B-line siphon system and replacement of B-line pipe and intake structures in the bay.





Temperature data from all deployed loggers. The sample interval is 1 hour.

Figure 1. Initial results from deployed temperature data loggers showing significantly warmer temperatures.

SeaWater Pump Replacements:

Industrial Pumps of Alaska installed a rebuilt pump in the LSS-2 location, which is performing well after initial problems with line shaft packing that were corrected by ASLC staff. New Danfoss VLT VFD drives from Branom Instruments have been installed on the recently installed submersible waste pump and existing solids handling pump. Controls for these VFDs were fully integrated into the RCK control system allowing for the fully automatic function of the contaminated water wells.

New pumps for LSS-3, LSS-5, LSS-6, LSS-7, and LSS-13 have not yet been delivered by Industrial Pumps of Alaska. The IPA office was contacted and reported additional measurements were needed before the pump discharge heads could be manufactured. IPA sent a representative to take these final measurements. Shipment from the factory is expected in 8 to 10 weeks.



A hydrostatic level sensor from Automation Direct was installed in the waste sump. This sensor was coupled to a data logger to better tune the controls from the waste pump and analyze the system's overall performance.

Ozone Water Treatment System:

Some ozone generator components have arrived and been installed. Additional Ozone generator cells and repair items are on order with Ozone Water systems and will be installed by ASLC Operations staff when they arrive.

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."

Cast Iron Drain Pipe Assessment:

Operations staff is monitoring underwater viewing area leaks. No additional leaks have been identified. 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:

Noteworthy progress includes the completion of BAS related training, installation of required sensors to support BAS functionality, valves actuators, and the enhancement of Tracer and Lutron graphical interfaces. A comprehensive analysis of seawater temperature and conductivity data was conducted, revealing insights that are being considered by PND Engineers. Collaborative planning with PND has led to revised pipeline rehabilitation plans. Pump replacements by Industrial Pumps of Alaska, both successful and pending, have been reported along with integrated controls and performance analyses. Progress has also been made in the ozone water treatment system. The Pump House Barrier project awaits key details for project planning. Furthermore, efforts are underway to assess and address underwater viewing area leaks and drainage issues.



3. Coordination and Collaboration:				
N/A				
4. Response to EVOSTC Review, Recommendations and Comments:				
N/A				
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

		Proposed	Proposed	Proposed	Proposed	5-YR TOTAL	ACTUAL
	FY 22	FY 23	FY 24	FY 25	FY 26	PROPOSED	CUMULATIVE
							1 00
	-	$\overline{}$		$\overline{}$			\$0
							\$1,231
	\$126,095	\$0	\$0	\$0	\$0	\$126,095	\$106,804
	\$0	\$0	\$0	\$0	\$0	\$0	\$189,419
	\$2,373,905	\$0	\$0	\$0	\$0	\$2,373,905	\$579,981
here)	\$0	\$0	\$0	\$0	\$0	\$0	\$87,744
SUBTOTAL	\$2.500.000	\$0	sn.	80	sn.	\$2.500.000	\$965,178
SOBIOTAL	\$2,500,000	30	30	30	90	\$2,500,000	\$303,170
% of subtotal)	\$225,000	\$0	\$0	\$0	\$0	\$225,000	N/A
DJECT TOTAL	\$2,725,000	\$0	\$0	\$0	\$0	\$2,725,000	
ind Funds)	\$580,897	\$0	\$0	\$0	\$0	\$580,897	\$492,490
	% of subtotal)	\$0 \$126,095 \$0 \$2,373,905 \$here) \$0 \$UBTOTAL \$2,500,000 % of subtotal) \$225,000	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$126,095 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	\$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$0 \$	S0	S0

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.

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