

Kodiak Fire Station

FY2023 Request: \$15,000,000

Reference No: 64199

AP/AL: Appropriation
Category: Public Protection
Location: Kodiak

Project Type: Construction
Recipient: City of Kodiak
House District: Kodiak/Cordova/Seldovia (HD 32)

Impact House District: Kodiak/Cordova/Seldovia (HD 32)

Contact: Micaela Fowler

Estimated Project Dates: 07/01/2022 - 06/30/2027 **Contact Phone:** (907)465-2506

Brief Summary and Statement of Need:

The existing Kodiak Fire Station was damaged in the 2018 Southcentral earthquake and is located within a tsunami hazard zone. The City of Kodiak has funded site selection and pre-development, concept design, and geotechnical site analysis for construction of a new fire station. The selected property fronts on Mill Bay Road and has ample frontage to support an apron serving up to six drive-thru apparatus bays while also accommodating necessary parking and return vehicle access. It is located well clear of the tsunami inundation zone and allows for excellent emergency response times.

Funding:	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>FY2028</u>	<u>Total</u>
1008 G/O Bonds	\$15,000,000						\$15,000,000
Total:	\$15,000,000	\$0	\$0	\$0	\$0	\$0	\$15,000,000

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input 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
<u>One-Time Startup:</u>	<u>0</u>	<u>0</u>
Totals:	0	0

Prior Funding History / Additional Information:

The existing station was constructed in three phases (Phase 1 in early 60s; Phase 2 in late 60s; Phase 3 in late 70s or early 80s) and was never designed with a specific purpose of being a fire station. The building served as a public works building for several years before becoming a fire station. Replacement of the station became critical after a magnitude 7.9 earthquake on January 23, 2018, which highlighted structural deficiencies that put emergency personnel and equipment at risk.

Nenana Fire Hall

FY2023 Request: \$5,000,000
Reference No: AMD 64169

AP/AL: Appropriation
Category: Development
Location: Fairbanks (Areawide)
Impact House District: Fairbanks Areawide (HD 1-5)
Estimated Project Dates: 07/01/2022 - 06/30/2027

Project Type: Construction
Recipient: Nenana
House District: Fairbanks Areawide (HD 1-5)
Contact: Micaela Fowler
Contact Phone: (907)465-2506

Brief Summary and Statement of Need:

Construction of a new fire hall in Nenana. The old fire hall is dilapidated, poorly insulated, and located at a congested intersection that interferes with emergency vehicle traffic. The old fire hall is inadequately sized for existing emergency response vehicles which requires outdoor storage resulting in unnecessary degradation of equipment and difficulty starting in cold weather.

Funding:	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>FY2028</u>	<u>Total</u>
1008 G/O Bonds	\$5,000,000						\$5,000,000
Total:	\$5,000,000	\$0	\$0	\$0	\$0	\$0	\$5,000,000

<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 checked="" 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
<u>One-Time Startup:</u>	<u>0</u>	<u>0</u>
Totals:	0	0

Prior Funding History / Additional Information:

The new fire hall will be constructed on a city-owned lot with improved traffic flow and access. The Nenana Volunteer Fire and Emergency Medical Service serves the greater Nenana area and northern Parks Highway and is the only emergency response service between Clear Air Force Station and Fairbanks.

Kenai River Bluff Stabilization

FY2023 Request: \$6,500,000
Reference No: AMD 64165

AP/AL: Appropriation
Category: Transportation
Location: Soldotna (Kenai, Nikiski)
Impact House District: Kenai Areawide (HD 29-31)
Estimated Project Dates: 07/01/2022 - 06/30/2027

Project Type: Construction
Recipient: City of Kenai
House District: Kenai Areawide (HD 29-31)
Contact: Micaela Fowler
Contact Phone: (907)465-2506

Brief Summary and Statement of Need:

Provide match assistance to the City of Kenai for a federal grant to support the Kenai Bluff Stabilization Project. A \$30 million project would require a local match of \$10.5 million with the remaining funds of \$19.5 million in Federal dollars. The City of Kenai has secured \$4 million to date, leaving the funding gap at \$6.5 million. This project has been the City of Kenai’s number one capital priority for at least three decades. Buildings and infrastructure have been lost as a result of the erosion. This project would immediately create increased property values and spur investment in the surrounding area.

Funding:	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>FY2028</u>	<u>Total</u>
1008 G/O	\$6,500,000						\$6,500,000
Bonds							
Total:	\$6,500,000	\$0	\$0	\$0	\$0	\$0	\$6,500,000

<input type="checkbox"/> State Match Required	<input checked="" type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input type="checkbox"/> Ongoing
0% = Minimum State Match % Required		<input checked="" 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
<u>One-Time Startup:</u>	<u>0</u>	<u>0</u>
Totals:	0	0

Prior Funding History / Additional Information:

Seward Freight Dock Expansion and Corridor Improvements

FY2023 Request: \$5,000,000
Reference No: AMD 62613

AP/AL: Appropriation
Category: Transportation
Location: Seward
Impact House District: Kenai Areawide (HD 29-31)
Estimated Project Dates: 07/01/2022 - 06/30/2027

Project Type: Renewal and Replacement
Recipient: Seward
House District: Kenai Areawide (HD 29-31)
Contact: Micaela Fowler
Contact Phone: (907)465-2506

Brief Summary and Statement of Need:

Match for \$19.8 million from federal Port Infrastructure Development Program to construct the Seward Alaska Freight Dock and Corridor Improvements Project. This project will extend the length of the primary Freight Dock by approximately 375 feet to deeper water to accommodate growing freight cargoes and to minimize operational conflicts between freight and cruise movements, both onshore and in the harbor. The dock extension will have a width of 320 feet. The Project will include widening more narrow sections of the existing dock from 200 feet to 320 feet. The Corridor Improvement Project Component will create a roadway connection between the Freight Dock and the existing Airport Road.

Funding:	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Total
1008 G/O Bonds	\$5,000,000						\$5,000,000
Total:	\$5,000,000	\$0	\$0	\$0	\$0	\$0	\$5,000,000

<input type="checkbox"/> State Match Required	<input checked="" type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input type="checkbox"/> Ongoing
0% = Minimum State Match % Required		<input checked="" 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
<u>One-Time Startup:</u>	<u>0</u>	<u>0</u>
Totals:	0	0

Prior Funding History / Additional Information:

By making these improvements to the Seward Marine Terminal Freight Dock, the terminal will have greater flexibility in providing additional berthing space for handling multiple cargo vessels simultaneously and contingency docking space for cruise ships, and research, military, and fishing vessels. The wharf structure improvements will expand the services of the Port of Seward (Port) to accommodate a greater variety of vessels.

Project Description/Justification:

The Alaska Railroad Corporation (ARRC) Seward Marine Terminal assets include three docks — the Loading Facility, Passenger (west), and Freight (east) docks.

Project Scope

Freight Dock Expansion

ARRC is expanding its Seward Freight Dock by lengthening the existing structure from 620 feet to 1,000 feet into deeper water, and include a mooring dolphin and catwalk 100 feet beyond the deck area. The structure will also be widened from 200 feet to 320 feet along its entire length.

Seward Freight Dock Expansion and Corridor Improvements

FY2023 Request: \$5,000,000
Reference No: AMD 62613

Occurring entirely within ARRC's land reserves, expansion will improve freight intermodal operations (ship-to-train, ship-to-truck or ship-to-barge). Expansion design will accommodate larger vessels and more vessel types (freight, cruise, research, military, fishing and barge). Design will increase terminal capacity, improve loading and unloading efficiency, and enhance safety by providing additional:

- short- and long-term berthing space
- capacity for simultaneous berthing
- capacity to service larger ships
- roll-on/roll-off compatibility

Roadway Connection

ARRC's three docks are accessed along Port Avenue. The project's corridor improvement component will extend Port Avenue through railroad property to connect to Airport Avenue. This roadway link will improve traffic circulation in the Seward Port area, resolving user conflicts and safety hazards. The connection will also enhance access to Alaska's highway system, allowing heavy commercial traffic to more directly intercept the Seward Highway.

Project Purpose

Project goals include:

- Expand terminal and vessel service to accommodate growing freight cargo
- Increase opportunities for freight rail business
- Promote the region's key industries
- Provide essential transportation services to Alaska's rural communities.
- Promote port roadway safety and efficiency, allowing greater separation and safety margins between onshore freight movements and cruise passenger pedestrian movements

**Alaska Mariculture Alliance – Economic Recovery
Mariculture Incentive Grant Program**

**FY2023 Request: \$25,000,000
Reference No: AMD 64174**

AP/AL: Appropriation
Category: Development
Location: Statewide
Impact House District: Statewide (HD 1-40)
Estimated Project Dates: 07/01/2022 - 06/30/2027

Project Type: Economic Assistance
Recipient: Alaska Mariculture Alliance
House District: Statewide (HD 1-40)
Contact: Micaela Fowler
Contact Phone: (907)465-2506

Brief Summary and Statement of Need:

This appropriation provides a \$25 million grant to the Alaska Mariculture Alliance (AMA) for the purpose of establishing and operating a grant program for the mariculture industry. The Mariculture Revolving Loan Fund (MRLF) was established to provide patient capital, but additional financial assistance is necessary to support the industry during its infancy. Grants made through this appropriation will assist in the establishment of new mariculture businesses and the expansion of existing farms.

Funding:	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Total
1269	\$25,000,000						\$25,000,000
CSLFRF							
Total:	\$25,000,000	\$0	\$0	\$0	\$0	\$0	\$25,000,000

<input type="checkbox"/> State Match Required	<input checked="" type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input type="checkbox"/> Ongoing
0% = Minimum State Match % Required		<input checked="" 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
<u>One-Time Startup:</u>	<u>0</u>	<u>0</u>
Totals:	0	0

Prior Funding History / Additional Information:

The State has two existing revolving loan programs, the Mariculture Revolving Loan Fund (MRLF) and the Agriculture Revolving Loan Fund (ARLF). Both funds can provide loans to mariculture farmers. Giving both programs the ability to grant funds would allow more flexibility within this growing mariculture industry and encourage development.

Project Description/Justification:

The Alaska Mariculture Alliance (AMA) will manage the program and distribute of the funding. AMA is the private, non-profit, trade organization created as the successor the Alaska Mariculture Task Force. The mission of the AMA is to *“Develop and support a robust and sustainable mariculture industry, producing shellfish and aquatic plants for the long-term benefit of Alaska’s economy, environment and communities.”* The membership (full member status) of AMA includes growers, harvesters, processors, nurseries or hatcheries of shellfish or seaweed in Alaska; regional or village corporations formed under ANCSA; Tribes; community development quota (CDQ) groups; municipalities of the State of Alaska; and research entities.

The time lapse between inception and the beginning of a revenue stream for a new mariculture farm is approximately 3-4 years for seaweed and up to 9-13 years for Geoduck. The need for start-up

**Alaska Mariculture Alliance – Economic Recovery
Mariculture Incentive Grant Program**

**FY2023 Request: \$25,000,000
Reference No: AMD 64174**

capital is significant for a business to survive without revenues for such an extended period. To that end, the Legislature created the Mariculture Revolving Loan Fund (MRLF) within the Department of Commerce in 2018, however, more assistance is needed to grow this emerging industry. Traditional lending options are not viable in the early-phases due to the need for such patient capital.

Investments by new businesses in a developing industry carry more risk than established businesses in established industries. Traditional lenders typically do not lend to these businesses, which has been identified as a significant impediment to growth. Additionally, the coronavirus (COVID-19) has reduced tolerance for risk and the capital available for investment in the private sector. Investing in this industry will help significantly increase production in Alaska.

This investment will expand an existing State program while altering the program to accommodate the following:

- Mariculture Farmers: provide grant funds to farmers for investments which expand operations or start new operations.
- Mariculture Hatcheries: provide matching grants for expansion of existing hatcheries or development of new hatcheries. Hatcheries that receive a loan or any entity that receives a loan under the program is eligible (e.g., mobile hatcheries).
- Mariculture Processors: provide matching grant funds for companies to purchase new mariculture processing equipment (e.g., mobile processing).

Alaska Enhanced Air Quality Monitoring

FY2023 Request: \$650,000
Reference No: 64190

AP/AL: Appropriation
Category: Health/Human Services
Location: Statewide
Impact House District: Statewide (HD 1-40)
Estimated Project Dates: 07/01/2022 - 06/30/2026

Project Type: Life / Health / Safety
House District: Statewide (HD 1-40)
Contact: Alice Edwards
Contact Phone: (907)465-5100

Brief Summary and Statement of Need:

The Department of Environmental Conservation will implement a three-year air monitoring project that expands the department’s existing “AQmesh” air quality sensor network to 15 additional communities across Alaska. The AQmesh network is intended to provide baseline air quality data for areas not covered by the State’s regulatory monitoring network. Communities that are proposed to receive the new pods are: Big Lake, Cordova, Delta Junction, Dillingham, Goldstream Valley Fairbanks, Haines, Palmer, Talkeetna, Tok, Wasilla, Willow, Wrangell, McGrath, Galena, and Eagle.

Funding:	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Total
1265 COVID Fed	\$650,000						\$650,000
Total:	\$650,000	\$0	\$0	\$0	\$0	\$0	\$650,000

<input type="checkbox"/> State Match Required	<input type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input 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
<u>One-Time Startup:</u>	<u>0</u>	<u>0</u>
Totals:	0	0

Prior Funding History / Additional Information:

Competitive federal grant funds (\$500,000) are being applied for from the Environmental Protection Agency (EPA) through the enhanced air quality monitoring funding program under the American Rescue Plan. The department is also eligible to receive a small direct award of American Rescue Act funding from the EPA for air monitoring equipment upgrades, which would be used in support of the state’s air monitoring network (\$150,000).

Project Description/Justification:

The Environmental Protection Agency is providing American Rescue Act funding for enhanced air monitoring through federal grant awards. The Department of Environmental Conservation (DEC) is applying for a competitive community monitoring grant. The grant funding will allow for implementation of a three-year project to expand the existing air quality sensor network using AQmesh sensor pods. DEC currently owns 18 AQmesh pods, nine have already been installed and the rest are scheduled for installation by fall 2022. The AQmesh network is intended to provide baseline air quality data for areas not covered by the state’s regulatory monitoring network. The AQmesh sensor pods measure particulate matter, carbon monoxide, sulfur dioxide, and nitrogen oxides. With the funding DEC will purchase and install 16 additional sensor pods, maintain the entire sensor network, and provide outreach, education, and assistance to the communities with sensors. This project would allow the state and communities to monitor baseline air quality information, which will assist the department and local communities to improve notifications to the public when air quality is significantly degraded as well as understanding and addressing air pollution impacts within communities. DEC plans to

Alaska Enhanced Air Quality Monitoring

FY2023 Request: \$650,000
Reference No: 64190

partner with interested local community members, including local governments and Tribes, to coordinate the locations and operations of this air monitoring network. Communities that are proposed to receive the new pods are: Big Lake, Cordova, Delta Junction, Dillingham, Goldstream Valley Fairbanks, Haines, Palmer, Talkeetna, Tok, Wasilla, Willow, Wrangell, McGrath, Galena, and Eagle. These new communities would fill out the existing or planned network of Anchorage, Bethel, Homer, Juneau, Ketchikan, Kodiak, Kotzebue, Nome, Seward, Sitka, Skagway, Soldotna, North Pole, Unalaska, and Utqiagvik.

The Division of Air Quality is applying for grant funding under a competitive award process. No state matching funds are required for this federal grant. The project is dependent on the federal grant being awarded.

Funds received from the EPA through a non-competitive direct grant to the state also require no state matching funds and will be used to procure air monitoring equipment to support the Division of Air Quality's air monitoring efforts in Alaska. The amount of the direct award has not yet been identified by the EPA but is anticipated to be no more than \$150,000; the specific equipment to be procured will be detailed in the federal award.

MH: Deferred Maintenance and Accessibility Improvements **FY2023 Request:** **\$500,000**
Reference No: **AMD 33670**

AP/AL: Appropriation **Project Type:** Deferred Maintenance
Category: Health/Human Services **Recipient:** Various
Location: Statewide **House District:** Statewide (HD 1-40)
Impact House District: Statewide (HD 1-40) **Contact:** Amy Burke
Estimated Project Dates: 07/01/2022 - 06/30/2027 **Contact Phone:** (907)465-1624

Brief Summary and Statement of Need:

Capital grant funds offered competitively to providers serving Alaska Mental Health Trust beneficiaries will be awarded statewide to agencies on a competitive basis for deferred maintenance, including facility renovation and repair, energy efficiency upgrades, and accessibility improvements. This project contributes to the department’s mission “To promote and protect the health and well-being of Alaskans”. The funds are needed to keep program facilities operational and accessible.

Funding:	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Total
1037 GF/MH	\$250,000						\$250,000
1092	\$250,000						\$250,000
MHTAAR							
Total:	\$500,000	\$0	\$0	\$0	\$0	\$0	\$500,000

<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 checked="" type="checkbox"/> Amendment	<input checked="" 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
Totals:	0	0

Prior Funding History / Additional Information:

Sec4 Ch2 SLA2020 P11 L11 HB206 \$500,000
 Sec4 Ch2 SLA2019 P11 L11 HB40 \$250,000
 Sec7 Ch1 SLA2019 P14 L11 SB2002 \$250,000
 Sec4 Ch1 SLA2017 P12 L10 HB59 \$250,000
 Sec5 Ch15 SLA2013 P12 L10 HB66 \$1,000,000
 Sec4 Ch11 SLA2011 P11 L13 HB109 \$470,000

Replaces existing FY2023 capital project; amended so that the agency responsible is transferred from Family and Children Services to Department of Health to align with agency's strategic mission.

Project Description/Justification:

Agencies serving beneficiaries often lack resources for necessary deferred maintenance, renovation and repair, energy efficiency and accessibility upgrades. The ongoing need for this project has been well documented by the Alaska Mental Health Trust Authority, the beneficiary boards, and the Comprehensive Integrated Mental Health Plan - Moving Forward. The unmet need for deferred maintenance is also documented by the consistent number of applicants that are left unfunded by each Request for Proposal (RFP) due to the limited funds available for this grant program.

The most recent RFP garnered \$1,587,177 in requests with only \$607,947 available for award. Maintenance of buildings for housing, treatment offices, residential services, and administrative offices is a continual problem for providers serving Alaska Mental Health Trust beneficiaries. Some agencies have staff working in buildings that are in serious states of deterioration and disrepair. Clients are sometimes housed in residential program facilities in which maintenance and repair needs are extensive.

With a continuing decline in operating funds, many Alaska Mental Health Trust beneficiary service agencies must place all available resources in providing care to clients and are not able to set aside repair and replacement funds for their buildings. Agencies serving beneficiaries often lack resources for necessary deferred maintenance, renovation and repair, energy efficiency and accessibility upgrades. There is usually no other option for these agencies, and their buildings continue to deteriorate. Funds for repair of beneficiary service provider facilities are a good investment in the health care of Alaskans. The amount of funds requested is only a small part of the total need.

The number of deferred maintenance projects continues to grow as agencies continue to defer the maintenance needs of their facilities due to lack of funds. Also, potential available funding sources to address deferred maintenance continue to decrease. Because of rising fuel and energy costs the department may partner with the Alaska Housing Finance Corporation to allow for energy efficient upgrades to be included as part of this grant program. This request will reduce the deferred maintenance and accessibility needs as well as mitigate high energy costs among Alaska Mental Health Trust beneficiaries provider agencies throughout Alaska.

With the continued rise in energy costs and agencies' inability to maintain their facilities, not funding this request could jeopardize the services provided for the well-being of Alaska Mental Health Trust beneficiaries.

Cook Inlet Petroleum Potential

FY2023 Request: \$1,200,000
Reference No: 63823

AP/AL: Appropriation
Category: Natural Resources
Location: Statewide
Impact House District: Statewide (HD 1-40)
Estimated Project Dates: 07/01/2022 - 06/30/2027

Project Type: Energy
House District: Statewide (HD 1-40)
Contact: Theresa Cross
Contact Phone: (907)269-6389

Brief Summary and Statement of Need:

Lower Cook Inlet basin and the Alaska Peninsula-North Aleutian basin have significant petroleum potential, but they have been lightly explored and critical aspects of their geology remain poorly known. Much of the existing exploration data in these basins are proprietary. This request will help fund an effort to increase the amount of publicly available data on the petroleum potential of these basins.

Funding:	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>FY2028</u>	<u>Total</u>
1004 Gen Fund	\$1,200,000						\$1,200,000
Total:	\$1,200,000	\$0	\$0	\$0	\$0	\$0	\$1,200,000

<input type="checkbox"/> State Match Required	<input checked="" type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input 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
<u>One-Time Startup:</u>	<u>0</u>	<u>0</u>
Totals:	0	0

Prior Funding History / Additional Information:

Project Description/Justification:

Despite the significant remaining petroleum potential in Cook Inlet basin, the basin is dramatically underexplored and many of its producing oil fields are in decline. The U.S. Geological Survey estimates mean volumes of undiscovered, but technically recoverable, hydrocarbons in the basin to be 599 million barrels of oil, 19 trillion cubic feet of gas and 37 billion barrels of natural gas liquids. The geology of Cook Inlet is complex and finding these resources will require significant investment by industry.

The basin’s location outside of the Arctic region, which is facing significant challenges from the current federal administration, combined with ease of entry and a lower cost operating environment should, objectively, make it highly attractive for new private sector exploration investment, yet the lack of relevant high-quality data serves to increase risk and dampen interest.

This project will spur exploration investment, resulting in more near-term jobs and new discoveries that will help create long-term high-paying jobs and support Alaska’s refining industry. While this request will fund work specifically in lower Cook Inlet and the Alaska Peninsula, the resulting data will impact the petroleum potential of the entire region, including upper Cook Inlet where all current

production and a major oil refinery are located. Data and interpretations resulting from this project will reduce exploration risk and increase interest in the region.

Critical aspects of the petroleum geology of Cook Inlet basin remain poorly known. Current estimates of remaining undiscovered, but technically recoverable hydrocarbons, combined with a lower cost operating environment make the basin highly attractive for new exploration. Three poorly understood aspects of the basin include the lack of information on the scale and geometry of potential reservoir sand bodies, composition and petrophysical properties of potential reservoir sand bodies, and their structural evolution. This work will result in the timely release of geological data to reduce risk and promote new exploration investment.

This funding will be distributed across three sub-projects:

1. Reconstruction of Mesozoic and Tertiary depositional systems in Cook Inlet basin: This sub-project will integrate new outcrop data with available well and seismic data to reconstruct depositional systems in both basins. Data and interpretations resulting from this sub-project will assist in recognizing depositional systems in subsurface datasets, which is critical for constraining potential reservoir heterogeneity and volume calculations.
2. Petrophysical and petrographic studies of petroleum reservoir quality and seal potential of Mesozoic and Tertiary rocks: The resulting dataset will be used to evaluate the reservoir quality and the ability of non-reservoir rocks to form effective reservoir seals. Data and interpretations resulting from this sub-project will be useful in evaluating reservoir and seal risk in the basin.
3. Reconstruction of basin structural development: This sub-project will evaluate the subsidence and structural development of the basin to better understand the timing of petroleum maturation and formation of major structures that could serve as traps for hydrocarbons. Data and interpretations resulting from this sub-project will be useful in evaluating trap risk.

Datasets resulting from the three sub-projects will be prepared for timely release to the public. Existing personnel will be used for various type of work. This funding will leverage funds received from the U.S. Geological Survey.

Cook Inlet basin is dramatically underexplored and there are few publicly available datasets to aid explorers in understanding the complex geology. Despite significant remaining hydrocarbon potential, the lack of data results in high risk and represents a serious impediment to future exploration investment. This funding will help reduce risk, promote exploration investment, support Alaska’s refining industry, create both near-term and long-term high-paying private sector jobs statewide, and provide revenue for state government.

This project meets the division’s statutory responsibility as outlined in AS 41.08.020 to “....conduct geological and geophysical surveys to determine the potential of Alaskan lands for production of metals, minerals, fuels, and geothermal resources.....and shall conduct such other surveys and investigations as will advance the knowledge of the geology of Alaska....”

Personal Services	225,000
Travel	35,000

Cook Inlet Petroleum Potential

FY2023 Request: \$1,200,000
Reference No: 63823

Contractual	900,000
Equipment	30,000
Supplies	10,000
Total	1,200,000

Food Security Agriculture Incentive Grant Program

FY2023 Request: \$25,000,000

Reference No: AMD 64173

AP/AL: Appropriation
Category: Natural Resources
Location: Statewide
Impact House District: Statewide (HD 1-40)
Estimated Project Dates: 07/01/2022 - 06/30/2027

Project Type: Economic Assistance
Recipient: Various
House District: Statewide (HD 1-40)
Contact: Theresa Cross
Contact Phone: (907)269-6398

Brief Summary and Statement of Need:

This funding supports agriculture grants, incentive, guarantee and program development for increased production to increase local market share. Grants and loans are critical to the future of agriculture development. The Division of Agriculture will provide financial incentives, matching grants, and higher risk loans to allow more flexibility within the Alaskan agriculture industry. Increasing land sales and foundational seed production will encourage and support expansion and development. Ultimately, this funding allows the Division to supplement Agriculture Revolving Loan Fund (ARLF) programs, provides matching grant funds, financial incentives, production programs

Scope change from prior capital description.

Funding:	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Total
1269	\$25,000,000						\$25,000,000
CSLFRF							
Total:	\$25,000,000	\$0	\$0	\$0	\$0	\$0	\$25,000,000

<input type="checkbox"/> State Match Required	<input checked="" type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input type="checkbox"/> Ongoing
0% = Minimum State Match % Required		<input checked="" 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
Totals:	0	0

Prior Funding History / Additional Information:

Investments by new businesses in a developing industry inherently carry more risk than established businesses in established industries. Traditional lenders typically do not lend to these businesses, which has been identified as a significant impediment to agricultural growth in Alaska. Additionally, the COVID-19 pandemic reduced risk tolerance and the capital available for investment in the private sector.

Project Description/Justification:

Nenana-Totchaket Agriculture Development - \$7,225,000

The Nenana-Totchaket (Nen-Tot) region has been recognized for agricultural development since the late 1970s. The Alaska Agricultural Action Council (AAAC) in 1982 reported “Nenana-Totchaket will play a particularly important role in the future of Alaskan agriculture” noting its access to the Parks Highway & Alaska Railroad; lower elevation than Delta; and not conflicting with other resource development. The current project is to develop around 100,000 acres of the existing 140,000 acres in

the identified project area. This project requires soil and other surveys, clearing of lot lines and right of ways, installing roads, and other activities incidental to subdivision development.

Phase 1 supported 30,000 acres and received \$5.0 million of the estimated \$21.0 million costs through the FY22 capital budget. While delays in obtaining this funding slowed the project development, 2,000 acres have been subdivided and will be sold in the summer of 2022. This funding will keep the project moving forward on its current accelerated timeframe and cover an additional 10,000 – 15,000 acres to be developed. This is the second funding request for this project.

Agriculture 3 Phase Electrical Service Infrastructure - \$8,775,000

Many of Alaska's previous agricultural areas remain without even basic electrical service. As part of this investment in developing 100,000 acres of farmland in the Nenana-Totchaket Project, it will be necessary to establish a reliable three-phase (commercial) electrical service for cost effective farm operations. This funding will also provide and enhance electrical service to other established areas.

As Alaska works to increase production, farmers in Alaska must be given the same basic infrastructure provided in the Lower 48 states. By developing the electrical grid, farms will be able to develop their operations with reduced production costs and development of additional storage facilities. Farms may also provide for local cost-effective processing centers.

Plant Materials Center Seed Processing and Storage Capacity Improvements - \$2,000,000

Based on the Alaska statutes and regulations, the Alaska Plant Material Center (PMC) is responsible for certifying and managing all imported plant seeds. The PMC also does research, storage, and production of genetic seeds developed or used in Alaska's short growing season and conditions. A new seed cleaning center with additional storage capacity is critical for the continued development of Alaska's food stocks and the re-vegetation of native species used in all of Alaska's natural resource extraction and construction industries.

For the agriculture industry to meet the in-state demand on food security, it begins with seeds free of pathogens and pests, which are also viable in Alaska's environmental conditions. The PMC provides foundational seeds for farmers to grow on a commercial basis. This effort is a critical link between farmers, industrial users, and the public.

Upgrades to current machinery and new storage facility are critical to expanding the ability of Alaska farmers to produce crops used for food, fiber, and reclamation.

Food Security Agriculture Incentive Grant Program - \$7,000,000

The Department of Natural Resources, Division of Agriculture, provides financial and marketing support to Alaska's agriculture industries. These funds will supplement and enhance the private sector by providing grants and incentives that reduce costs and risks from expanding production. This effort is part of the Governor's \$25 million investment working to develop more food security for the State of Alaska.

Incentives, grants, and public and private partnerships will expand on existing state programs to

accommodate the following:

Farmers: provide grant funds to farmers for investments that expand and create new operations.

Farmers: provide economic incentives for increased production while reducing the risk of market fluctuations.

Buyers: provide economic incentives (some pass through to farmers) for contracting the purchase of Alaska grown products.

Manufactures: provide public/private partnership funding.

Financial support: Provide risk management (hold harmless) to Alaska Revolving Loan fund (ARLF) for new and high-risk agriculture endeavors, including new mariculture producers.

The Division of Agriculture assists the farming community with technical, marketing, and financial support using state and federal grants and the Alaska Revolving Loan fund (ARLF). These grants and loans are the lifeblood to future agriculture development. Giving the division the ability to provide financial incentives, matching grants, and higher-risk loans would allow more flexibility within the agricultural industry and encourage expansion and development.

This funding provides financial incentives that will support farmers, ranchers, and other producers in expansion efforts, and it will help encourage the growth of both large and small enterprises. Adding funds to benefit farmers by providing further funding and assistance for qualified operators is critical to economically viable industry advancement and expansion.

Line-Item Breakdown:

Line 1000	1,250,000
Line 2000	
Line 3000	15,250,000
Line 4000	
Line 5000	8,500,000
Total	25,000,000

Emerging Energy Opportunities for Alaska

FY2023 Request: \$2,500,000

Reference No: 64202

AP/AL: Appropriation

Project Type: Research / Studies / Planning

Category: University

Location: Statewide

House District: Statewide (HD 1-40)

Impact House District: Statewide (HD 1-40)

Contact: Michelle Rizk

Estimated Project Dates: 07/01/2022 - 06/30/2027

Contact Phone: (907)450-8187

Brief Summary and Statement of Need:

UAF proposes a \$2.5M investment through the Alaska Center for Energy and Power (ACEP) to address important gaps in our understanding of emerging energy technologies and applications for Alaska. The global energy landscape is transitioning to lower carbon resources, and Alaska has the opportunity to meet demand for and profit from clean energy-derived products and services. Alaska is home to abundant renewable energy resources and is well situated geographically to meet global export markets. It is an ideal location for next generation small-scale transportable nuclear reactors, with one of the first commercial demonstration projects in the U.S. scheduled for deployment in 2027 at Eielson Air Force Base.

Funding:	<u>FY2023</u>	<u>FY2024</u>	<u>FY2025</u>	<u>FY2026</u>	<u>FY2027</u>	<u>FY2028</u>	<u>Total</u>
1004 Gen Fund	\$2,500,000						\$2,500,000
Total:	\$2,500,000	\$0	\$0	\$0	\$0	\$0	\$2,500,000

<input type="checkbox"/> State Match Required	<input checked="" type="checkbox"/> One-Time Project	<input type="checkbox"/> Phased - new	<input type="checkbox"/> Phased - underway	<input 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
<u>One-Time Startup:</u>	<u>0</u>	<u>0</u>
Totals:	0	0

Prior Funding History / Additional Information:

Project Description/Justification:

These funds will be used to support targeted research in key emerging energy technology areas, working in close collaboration with Alaska industry, communities, and agencies. The focus will be on filling needs and developing research products that help address critical gaps and unknowns, as well as developing targeted roadmaps for positioning Alaska at the forefront of next-generation energy technologies. This funding will allow ACEP to focus first and foremost on Alaska's opportunities and challenges which often differ from national R&D priorities.

The development of a composite roadmap for small nuclear technologies in Alaska will be a priority area of emphasis for this program. To develop this roadmap, ACEP will work with state agencies as well as other industry and community stakeholders to better understand the possible use cases and economics of deploying small nuclear energy in Alaska, within the context of other energy options. The roadmap will incorporate key readiness metrics, critical action steps, decision gates, etc. based on consideration of a minimum of five specific case studies (military base, Railbelt utility, remote

industrial site, hub town, and remote community). ACEP will also continue to track technology advancements at the national level, collaborate with federal agencies and national laboratories, and continue to manage a state working group on nuclear energy.

Alternate Energy \$1.5 million

UAF proposes an investment to address important gaps in our understanding of small nuclear energy systems and related technologies for the Alaska market through work already taking place in ACEP. Alaska is in a strong position to be an early adopter of a new generation of small micro- and modular nuclear reactor technologies that could unlock economic development opportunities currently constrained by access to stably priced, reliable energy including heat and power. This includes expanded economic development opportunities for rural communities, military bases and defense sites, and place-based industries such as mines whose development is often hampered by energy access and cost.

Microreactors could also play an important role in attracting more renewable energy development to the state, since they can provide a carbon-free source of baseload power and regulation services to support variable renewable technologies like wind and solar. In addition, because these systems can readily supply heat in addition to electric power, the Arctic is ideally suited to be an early technology adopter. Over a dozen vendors have expressed interest in specific Alaska use cases, and this project will leverage and accelerate that interest from the private sector – including both developers and end-users – ensuring Alaska remains at the forefront of the national conversation when it comes to the development of small reactor technologies.

This project will involve a number of agency and industry collaborations. Primary state agencies will include the Department of Environmental Conservation, and the Alaska Energy Authority. These will complement federal agency and national laboratory engagement including the Nuclear Regulatory Agency, Department of Defense, and the Department of Energy Office of Nuclear Energy. We also anticipate accessing subject matter expertise from relevant Department of Energy national laboratories, including Idaho National Laboratory, Pacific Northwest National Laboratory, and Los Alamos National Laboratory.

Industry partnerships will include the electric power industry (primarily Railbelt utilities), the mining industry, native corporations, and the small business/entrepreneurial sector. UAF will also explore opportunities for attracting new place-based industries and opportunities to Alaska ranging from the petrochemical industry, to manufacturing, to hydrogen production and export.

Alaska Roadmap for Nuclear Reactor Applications \$1.0 million

This funding request is designed to enable the ACEP to engage with Alaskan stakeholders in the exploration of safe, affordable and impactful pathways for potential implementation of advanced nuclear reactors.

The advanced nuclear reactor industry is focused on developing systems that are sized to provide combined heat and power services on a scale well-aligned with the heat and power needs of multiple defense, industry, utility, and community sectors in Alaska. A roadmap is required to appropriately prioritize and sequence the related opportunities, identify needed risk mitigation activities specific to

Alaska applications, and characterize key integration and implementation requirements. Near-term actions aligned with the roadmap’s guidance can gather critical information, mitigate key risks, and ensure maximum synergy with existing conventional energy systems.

ACEP has the technical acumen, Alaska stakeholder awareness, and industry access required to develop and launch implementation of this needed roadmap. The effort will incorporate insights from 2019/2020 Department of Energy and Department of Defense grants to the University of Alaska for preliminary analyses related to nuclear microreactor integration, and build on the foundation provided by the Small Scale Modular Nuclear Power: An Option for Alaska? study published in 2011 at the request of the Alaska legislature. In addition, future federal fiscal resources will be leveraged at up to a 4:1 ratio through availability of the state funding investment.