

Critical Minerals Mapping - Earth MRI (3DEEP)

FY2023 Request: \$10,500,000

Reference No: 61849

AP/AL: Appropriation

Project Type: Research / Studies / Planning

Category: Natural Resources

Location: Statewide

House District: Statewide (HD 1-40)

Impact House District: Statewide (HD 1-40)

Contact: Theresa Cross

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

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Brief Summary and Statement of Need:

From 1993-2015, the State’s AGGMI program annually produced geophysical surveys, geologic maps, and datasets to attract industry exploration investment and facilitate resource development. This program will produce geological and geophysical maps of high-potential mineral areas in Alaska, focused on critical minerals. The published new data and digitally upgraded historical data will spur private sector investment in Alaska, generate jobs, and help the nation’s critical mineral supply.

Funding:	FY2023	FY2024	FY2025	FY2026	FY2027	FY2028	Total
1002 Fed Rcpts	\$7,500,000						\$7,500,000
1003 G/F Match	\$2,750,000						\$2,750,000
1004 Gen Fund							\$0
1108 Stat Desig	\$250,000						\$250,000
Total:	\$10,500,000	\$0	\$0	\$0	\$0	\$0	\$10,500,000

<input checked="" 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
33% = 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
Totals:	0	0

Prior Funding History / Additional Information:

Sec1 Ch1 SLA2019 P5 L12 SB2002 \$600,000

Sec1 Ch3 SLA2019 P5 L18 SB19 \$3,000,000

Sec1 Ch19 SLA2018 P8 L14 SB142 \$5,000,000

FY2021 10-2021-5318 \$1.5M Federal Receipts (1002) / \$300K Statutory Designated Program Receipts (1008)

4/27/2022 SFCS2 fund swapped \$2,750.0 UGF for GFPR

<http://www.legfin.state.ak.us/BudgetReports/LY2022/Capital/SenateFinanceCS2/CapitalProjectDetailByAgency.pdf>

Project Description/Justification:

If Alaska is going to function as America’s critical mineral warehouse and be able to support world class mining operations, Alaska must have the data necessary to attract exploration investment and drive discovery.

Alaska has significant potential to produce critical minerals (inclusive of strategic minerals and Rare Earth Elements), but the basic datasets required for their exploration are lacking. This project will provide those data; complete, modern magnetic and radiometric geophysical surveys and complete modern geochemical data and additional modern geological mapping covering Alaska’s numerous critical mineral belts. This same information will also be used by industry to explore for precious and base metals and will aid all sectors of Alaska’s mining industry. This work is strongly supported by the mining industry; the Alaska Minerals Commission has recommended funding for this work in each of their last three annual reports, and industry regularly financially contributes to its collection.

In May 2021, the Governor’s Office asked the Alaska Division of Geological & Geophysical Surveys (DGGS) to submit a “Mapping State Lands for Critical Minerals” funding request. Additionally, in May 2021, the Alaska legislature requested DGGS supply “by December 1, 2021, a proposal to conduct large geophysical, geochemical, and geological data collections over mineral-rich portions of the state, and to develop fee schedules to charge for the raw data, once collected, while publishing low-cost hardcopy maps, and providing free access to visual representations of the data through the division’s website.” The latter proposal has been submitted and this CIP aligns with these two requests.

In November 2021, the \$1.2T Infrastructure Bill was passed by the US Congress. This bill significantly expanded federal funding available for the same activities under the federal Earth MRI program. Funds were appropriated to the USGS for the federal fiscal years 2022-2026 in the amount of \$64 million/year, in addition to their base annual appropriation for Earth MRI of \$10.6 million/year. A portion of these funds is expected to come to Alaska and can displace the need for state funds. Our discussions with federal agencies indicate that will be approximately \$7 million per year for federal fiscal years 2022-2026 (State fiscal years 2023-2027).

Alaska’s land status coupled with federal and state priorities create locations where there are areas of state-only, federal-only, and overlapping mapping interests. This budget reflects using federal funds to offset state monies in areas of overlapping federal/state interest and includes general funds to support data collection on state-owned lands.

State Fiscal Year	Nominal Critical Mineral Belt	Area (sq. km)	UGF / ARPA			SDPR	FED
			Geophysical Surveys	Geochemical Analyses	Geologic Mapping	Geophysical Surveys	Earth MRI
FY2023	Interior	52,907	\$1,750,000	\$250,000	\$750,000	\$250,000	\$7,500,000
FY2024	SW Alaska	72,436	\$1,750,000	\$250,000	\$750,000	\$250,000	\$7,500,000
FY2025	Seward	72,687	\$1,750,000	\$250,000	\$750,000	\$250,000	\$7,500,000

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	Peninsula						
FY2026	Alaska Range	32,769	\$1,750,000	\$250,000	\$750,000	\$250,000	\$7,500,000
FY2027	Southern Brooks Range	58,764	\$1,750,000	\$250,000	\$750,000	\$125,000	\$3,500,000
FY2027	SE Alaska & Ruby	72,436				\$125,000	\$4,000,000

Deliverables:

- Approximately 1,000,000-line-kilometers of fixed-wing airborne magnetic, radiometric, or electromagnetic surveys covering all state lands within the critical mineral belts. These are Level 2, regional-scale surveys with 400-meter-spaced flight lines, like other recently flown surveys.
- New multi-element geochemical analyses for all available stream sediment samples within the same critical mineral belts, estimated to be 42,000 samples.
- New 1:100,000-scale geologic mapping covering approximately 50,000 square kilometers.
- Free viewing of all data via web apps on the Division’s website.
- Paper maps and reports will be available for all products at a nominal charge.
- Digital versions of the state-funded data suitable for advanced processing will be available

Line Item Breakdown	Amount	Items
2000 Travel	200,000	Travel
3000 Services	10,250,000	Geophysical, geochemical, helicopter & analytical contracts
4000 Commodities	50,000	Field equipment; supplies
Total	10,500,000	