

Part I – Agency Profile

Agency Overview

The Idaho Geological Survey (IGS) is the lead state agency for the collection, interpretation, and dissemination of geologic and mineral data for Idaho. The agency has served the state since 1919 and prior to 1984 was named the Idaho Bureau of Mines and Geology. The agency is currently staffed by 11.32 state-funded FTEs and 21.55 externally funded temporary full and part-time employees.

The Survey's mission is to provide the state with timely and relevant geologic information. Members of the IGS fulfill this mission through applied geologic research and strong collaborations with federal and state agencies, academia, and the private sector. IGS research focuses on geologic mapping, geologic hazards, hydrogeology, geothermal energy, oil and gas, and metallic and industrial minerals. The Survey's Digital Mapping Laboratory is central to compiling, producing, and delivering new digital geologic maps and publications for the agency. The IGS is also engaged in dissemination of historic mining records, community service, and earth science education. As Idaho grows, demand is increasing for geologic and geospatial information related to energy, mineral, and water resource development, and landslide and earthquake hazards.

Core Functions/Idaho Code

Idaho Code Title 47, Chapter 2, defines the authority, administration, advisory board members, functions, and duties of the IGS.

- **Section 47-201:** Creates the IGS to be administered as a special program at the University of Idaho. Specifies the purpose as the lead state agency for the collection, interpretation, and dissemination of geologic and mineral information. Establishes a Survey advisory board and designates advisory board members and terms.
- **Section 47-202:** Provides for an annual meeting of the advisory board, and location of the chief office at the University of Idaho. Specifies the director of the IGS report to the President of the University through the Vice President for Research and Economic Development. Specifies for the appointment of a state geologist.
- **Section 47-203:** Defines the duties of the IGS to conduct statewide studies in the field and in the laboratory and to prepare and publish reports on the geology, hydrology, geologic hazards, and mineral resources of Idaho. Provides for establishment of a publication fund. Allows the Survey to seek and accept funded projects from and to cooperate with other agencies. Allows satellite offices at Boise State University and Idaho State University.
- **Section 47-204:** Specifies the preparation, contents, and delivery of a Survey Annual Report.

Revenue and Expenditures

Revenue	FY 2020	FY 2021	FY 2022	FY 2023
General Fund	\$1,123,500	\$1,105,200	\$1,128,300	\$1,230,200
Total	\$1,123,500	\$1,105,200	\$1,128,300	\$1,230,200
Expenditures	FY 2020	FY 2021	FY 2022	FY 2023
Personnel Costs	\$896,832	\$516,492	\$569,376	\$986,802
Operating Expenditures	\$140,456	\$368,667	\$475,581	\$104,287
Capital Outlay	\$8,590	\$164,741	\$83,343	\$139,111
Trustee/Benefit Payments	0	0	0	0
Furlough Deduction	N/A	\$55,300	N/A	N/A
State Cut (1%)	\$11,200	N/A	N/A	N/A
COVID-19 State Cut (1%)	\$11,200	N/A	N/A	N/A
State Benefits Reduction	\$2,200	N/A	N/A	N/A
Return to State	\$53,022	N/A	N/A	N/A
Operations/Equipment Funding from Reserves	\$58,447	N/A	N/A	N/A
Total	\$1,181,947	\$1,105,200	\$1,128,300	\$1,230,200
BALANCE	-\$58,447			

Profile of Cases Managed and/or Key Services Provided

Cases Managed and/or Key Services Provided	FY 2020	FY 2021	FY 2022	FY 2023
Square Miles of Geological Mapping	269	428	526	424
Number of Geologic Reports	13	15	12	16
Number of Geologic Presentations	25	28	48	55
Number of Grants and Contracts	15	16	13	14

FY 2023 Performance Highlights

Externally Funded Grant and Contract Dollars

IGS was funded and supported through 14 grants in FY 2023 which consisted of a mix from federal, state, and private industry. Grant and contract dollars increased from \$930,195 in FY 2022 to \$932,302 in FY 2023. The USGS funding represents the principal source of external support for IGS with eight concurrent awards in FY 2023. In addition, funding from state agency partners (Idaho Department of Water Resources, Idaho Department of Lands, and Idaho Department of Commerce IGEM) has enabled a hydrogeologic project in the Raft River Valley, research on Idaho-sourced rare earth elements, and continuation of abandoned mines/data preservation efforts (in association with USGS). IGS has also received funding from the University of Nevada, Reno to assist with a U.S. Department of Energy initiative focusing on geothermal energy exploration. Non-government support from the private sector includes Electra Battery Materials Corporation to study magnetite in the Iron Creak area.

In FY 2023 IGS also initiated the installation of the first four seismometers of the Idaho Seismic Network which is an array of instruments for the detection of local and regional earthquakes. Before 2022 the state of Idaho lacked any earthquake monitoring instrumentation. IGS will continue its effort to grow the network in FY 2024 according to available resources. This kind of effort is not captured by any of the performance measures included in this report but constitutes a fundamental part of the IGS mission and supports Idaho’s public safety, industry, and economy.

Part II – Performance Measures

Performance Measure		FY 2020	FY 2021	FY 2022	FY 2023	FY 2024
Goal 1						
Achieve excellence in collecting and disseminating geologic information and mineral data to the public, governmental agencies, elected officials, educational institutions, civic and professional organizations, and the mining, energy, agriculture, utility, construction, insurance, and banking industries. Continue to strive for increased efficiency and access to survey information primarily through publications, website products, in-house collections, and customer inquiries. Emphasize website delivery of digital products and compliance with new revision of state documents requirements (Idaho Statute 33-2505).						
1. Number of Published Reports on Geology/Hydrology/Geohazards/Mineral & Energy Resources Goal 1. Objective A, Measure I	actual	11	18	14	15	-----
	target	25	11	11	11	12
2. Number of Website Viewers Goal 1. Objective B, Measure I	actual	278,919	21,388 ²	116,017	113,795	-----
	target	NA	140,000	279,000	120,000	120,000
3. Number of Website Products Used or Downloaded Goal 1. Objective B, Measure II	actual	----- ¹	5,621 ²	35,851	31,473	-----
	target	252,882	40,000	40,000	32,000	36,000
4. Percentage of Survey documents available through these programs Goal 1. Objective C, Measure I	actual	~99%	~99%	~99%	~99%	-----
	target	~99%	~99%	~99%	~99%	~99%
5. Percentage of published Geologic Maps that are uploaded to the national website depicting detailed geologic mapping in Idaho Goal 1. Objective D, Measure I	actual	100%	100%	100%	100%	-----
	target	100%	100%	100%	100%	100%
Goal 2						
Promote, foster, and sustain a climate for research excellence. Develop existing competitive strengths in geological expertise. Maintain national level recognition and research competitiveness in digital geological mapping and applied research activities. Sustain and build a strong research program through interdisciplinary collaboration with academic institutions, state and federal land management agencies, and industry partners.						
6. Increase the geologic map coverage of Idaho by mapping priority areas of socioeconomic importance. Identify and study areas with geologic resources of economic importance and identify and study areas that are predisposed to geologic hazards. Goal 2. Objective A, Measure I	actual	38.2%	38.7%	39.3%	39.8%	-----
	target	39.1%	38.6%	38.6%	39.2%	39.8%
7. Maintain externally funded grant and contract dollars to support IGS mission. Goal 2. Objective B, Measure I	actual	\$639,902	\$662,366	\$930,195	\$932,302	-----
	target	\$485,000	\$500,000	\$500,000	\$500,000	\$600,000
Goal 3						
Support knowledge and understanding of Idaho’s geologic setting and resources through earth science education. Achieve excellence in scholarly and creative activities through collaboration and building partnerships that enhance teaching, discovery, and lifelong learning.						
8. Number of educational programs provided to public and private schools and the public at large. Goal 3. Objective A, Measure I	actual	48	30	33	21	-----
	target	19	18	18	18	20

Performance Measure Explanatory Notes

¹ We did not have the data to calculate this measure due to the ongoing implementation of a different web statistic tool on our website. An estimate for this measure for FY 2019 was reported in the FY 2021 Strategic Plan in error.

² We launched our new website and started collecting web stats on April 29, 2021, so these measures are only for the period between April 29, 2021 and June 30, 2021. Caution should be used when comparing FY 2021 web stats to previous years as we started using a new web statistic tool on April 29, 2021. The number of website viewers extrapolated over the entire fiscal year would be 123,622, and the number of website products used or downloaded would be 32,489.

IGS maintains several live databases. Some of the updates to the databases are not captured in the number of publications but constitute a continued baseline effort of the Survey in the fulfillment of its mission.

FY 2023 Grants and Contracts

Data Preservation 15: R.S. Lewis and V.S. Gillerman (U.S. Geological Survey Data Preservation Program, July 2022-July 2023, \$105,562).

Development of Idaho-sourced Rare Earth Elements Drilling and Extraction: Award to University of Idaho: A. Mirkouei, PI, with Idaho Geological Survey co-PIs, C. Berti and V. Gillerman (Idaho Department of Commerce IGEM Program, March 2022 – December 2023, IGS portion is \$ 80,491 of UI award of \$ 348,241).

Geologic Mapping in the Idaho Cobalt Belt II: R.S. Lewis (U.S. Geological Survey Earth-MRI Program, September 2021-August 2023, \$100,000).

Geologic Mapping in the Preston, Weiser, Salmon, and Elk City Areas and GeMS-compliant Database Work: R.S. Lewis, R.V. Di Fiori, and D.M. Feeney (U.S. Geological Survey STATEMAP Program, July 2021-July 2022, \$427,233).

Geologic Mapping in the Weiser, Salmon, and Elk City Areas and GeMS-compliant Database Work: R.S. Lewis, D.M. Feeney, R.V. Di Fiori, and N. Hopkins (U.S. Geological Survey STATEMAP Program, July 2022-July 2023, \$342,701).

Geologic Mapping in the Sheep Creek – Mineral Hill REE District: R.S. Lewis and V.S. Gillerman (U.S. Geological Survey Earth-MRI Program, December 2022-December 2025, \$300,000).

Idaho Department of Lands Abandoned Mine Lands Project, Task 6: R.S. Lewis (Idaho Department of Lands, April 2021-March 2023, \$169,445).

Idaho Department of Lands Abandoned Mine Lands Project, Task 7: R.S. Lewis (Idaho Department of Lands, April 2023-March 2025, \$218,840).

Innovative Geothermal Exploration through Novel Investigations of Undiscovered Systems (INGENIOUS): C. Berti (University of Nevada, Reno, February 2022-December 2023, \$302,000).

Mapping and Neotectonic Investigation of the Sawtooth Fault, Central Idaho: Collaborative Research with Idaho Geological Survey, Idaho State University, and BGC Engineering, Inc.: Z.M. Lifton (U.S. Geological Survey NEHRP Earthquake Hazard Program, June 2021-May 2023, \$23,528.60).

Mapping and Preliminary Geochronology of the Quaternary-Active Halfway Gulch Fault, SW Idaho: Collaborative Research with Idaho Geological Survey and Lettis Consultants International: Z.M. Lifton (U.S. Geological Survey NEHRP Earthquake Hazard Program, July 2021-December 2022, \$41,369.33).

Petrochemical Study of Magnetite in the Iron Creek Co-Cu Area, Lemhi County: V.S. Gillerman (Electra Battery Materials/First Cobalt, December 2021-December 2023, \$16,459).

Raft River Basin Hydrogeologic Investigation – Phase 2 (Hydrogeologic Framework and Water Budget): A.L. Clark (Idaho Department of Water Resources, January 2021-December 2023, \$375,000).

USGS Earth MRI Western Geochemical Data Collection Project for the Western Phosphate Field: Mark Barton (U.S. Geological Survey Earth-MRI Program, September 2022-August 2025, \$525,000).

For More Information Contact

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Director Attestation for Performance Report

In accordance with *Idaho Code 67-1904*, I certify the data provided in the Performance Report has been internally assessed for accuracy, and, to the best of my knowledge, is deemed to be accurate.

Department: Idaho Geological Survey



Director's Signature

08/04/2020

Date

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