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 11.625 state-funded FTEs, 12 externally funded temporary and part-time employees, and 1 volunteer.

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 duty 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 duty 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 2017	FY 2018	FY 2019	FY 2020
General Fund	$1,123,300	$1,076,540	$1,085,100	$1,123,500
Total	**$1,123,300**	**$1,076,540**	**$1,085,100**	**$1,123,500**
Expenditures	**FY 2017**	**FY 2018**	**FY 2019**	**FY 2020**
Personnel Costs	$853,400	$880,196	$974,400	$896,832
Operating Expenditures	$134,696	$165,241	$105,336	$140,456
Capital Outlay	$135,204	$31,103	$5,364	$8,590
Trustee/Benefit Payments	0	0	0	0
State Cut (1%)				$11,200
COVID-19 State Cut (1%)				$11,200
State Benefits Reduction				$2,200
Return to State				$53,022
Operations/Equipment Funding from Reserves				$58,447
Total	**$1,123,300**	**$1,076,540**	**$1,085,100**	**$1,181,947**
FY 2020 BALANCE				**-$58,447**

Profile of Cases Managed and/or Key Services Provided

Cases Managed and/or Key Services Provided	FY 2017	FY 2018	FY 2019	FY 2020
Square Miles of Geological Mapping[1]	587	271	269	269
Number of Educational Programs for Public Audiences	14	19	18	48
Number of Geologic Reports	11	8	14	13
Number of Geologic Presentations	9	22	26	25
Number of Website Viewers (no robot searches)	453,562	487,249	402,834[2]	278,919[2]
Number of Grants and Contracts	11	10	10	15

Red Tape Reduction Act

Each agency shall incorporate into its strategic plan a summary of how it will implement the Red Tape Reduction Act, including any associated goals, objectives, tasks, or performance targets. This information may be included as an addendum.

	As of July 1, 2020
Number of Chapters	*N/A*
Number of Words	*N/A*
Number of Restrictions	*N/A*

FY 2020 Performance Highlights *(Optional)*

1. **Number of Publications on Geology/Hydrology/Hazards/Mineral Resources**
   Eleven new geologic publications were published by the IGS in FY20. Publications were focused on a wide array of geoscience issues and resources including oil and gas resources, geologic hazards, and regional bedrock and surficial geologic maps. In addition to the 11 published products, IGS staff has produced a large number of informal deliverables, abstracts, and reports on a wide range of statewide relevant topics, including metallic and industrial minerals, natural resources, hydrogeology, oil and gas resources, regional stratigraphy, bedrock and surficial deposits, and geologic databases. The IGS publishes most of its products in-house through the Digital Mapping Laboratory, and nearly all products are made available for free download on the agency website.

2. **Externally Funded Grant and Contract Dollars**
   IGS was funded and supported through 15 grants in FY20 which consisted of a mix from federal, state, and private industry. Grant and contract dollars increased substantially from $396,556 in FY19 to $639,902 in FY20. The USGS funding represent the principal source of external support for IGS, with six concurrent awards in FY20. In addition, funding from state agency partners (Idaho Department of Water Resources, Idaho Transportation Department, and Idaho Department of Lands) has enabled hydrogeologic projects in the Big Lost River Valley and Raft River Valley, the development of a statewide landslide database, and continuation of abandoned mines/data preservation efforts (in association with USGS). Non-government support from the private sector includes geologic mapping and resource assessment at the reactivated DeLamar Mine by Integra Resources Inc. and geologic mapping adjacent to the newly explored Stibnite mining district by Wilmat Petroleum Company. An instrumentation grant from IRIS-PASSCAL has allowed the deployment of a temporary network of six broadband seismometers for the monitoring of the M_w6.5 Stanley earthquake aftershocks sequence.

3. **Number of Educational Programs Provided to Public and Private Schools and the Public at large**
   In FY20, the IGS was able to broaden our education and outreach throughout and beyond the state of Idaho in the aftermath of the M_w6.5 Stanley earthquake that occurred on March 31, 2020. Many interviews were requested from local and state newspapers, television, and radio stations. As a result, the number of educational programs, which includes media interviews, increased considerably (from 18 in FY19 to 48 in FY20).

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[1] It was determined that square miles of geologic mapping were calculated incorrectly in the past. Calculations have been corrected in this report.
[2] Number of Website Viewers reported is a minimum estimate.

Part II – Performance Measures

Performance Measure		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
Goal 1 Achieve excellence in collecting and disseminating geologic information and mineral data to the mining, energy, agriculture, utility, construction, insurance and banking industries, educational institutions, civic and professional organizations, elected officials, governmental agencies, and the public. 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 Code 33-2505).						
1. Number of Published Reports on Geology/Hydrology/Geohazards/Mineral & Energy Resources Goal 1. Objective A	actual	25	31	11	11	----------
	target	*37*	*39*	*20*	*25*	*11*
2. Number of Website Products Used or Downloaded Goal 1. Objective B	actual	204,770	229,893	-------[3]	-------[3]	----------
	target	*191,709*	*191,709*	*215,000*	*252,882*	*40,000*
3. Percentage total of Survey documents available through these programs Goal 1. Objective C	actual	~99%	~99%	~99%	~99%	----------
	target	*~99%*	*~99%*	*~99%*	*~99%*	*~99%*
4. Percentage of Geologic Maps that are uploaded to this national website depicting detailed geologic mapping in Idaho Goal 1. Objective D	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.						
5. 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	actual[4]	37.6%	37.9%	38.2%	38.2%[5]	----------
	target	*37.8%*	*37.8%*	*40.5%*	*39.1%*	*38.6%*
6. Increase externally funded grant and contract dollars with a particular focus of securing new sources of funding from the private sector. Goal 2. Objective B	actual	$439,898	$393,622	$396,556	$639,902	----------
	target	*$457,794*	*$457,794*	*$467,923*	*$485,000*	*$500,000*

[3] We do not have the data to calculate this measure at this time due to the ongoing implementation of a different web statistic tool on our website.

[4] It was determined percentage of geologic map coverage was calculated incorrectly in the past. Calculations have been corrected in this report.

[5] Although field work was completed and data were collected in FY20, deliverable product submission has been delayed due to COVID-19. Therefore, there is no increase in published geologic mapping coverage in FY20, and the coverage of geologic mapping remains at 38.2%.

Performance Measure		FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
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.						
7. Number of educational programs provided to public and private schools and the public at large. Goal 3. Objective A	actual	14	19	18	48	----------
	target	*19*	*19*	*15*	*19*	*18*

Performance Measure Explanatory Notes *(Optional)*

- For Goal 1, Objective A; Goal 1, Objective B; and Goal 3, Objective A the benchmarks are to be greater than or equal to the actual measures from the previous year. Since the Strategic Plan, which is where we determine our benchmarks/targets, is due before the end of the fiscal year when we are able to calculate our performance measures, we rely more on the actual measures from the last full fiscal year reported. For example, when setting the benchmarks for FY20 we did not have the actual measures for FY19 yet since those are calculated at the end of the fiscal year, so we used the FY18 actual measures to determine the benchmarks.
- For Goal 1, Objective B, due to the ongoing implementation of a different web statistic tool on our website we do not have the data to calculate this measure at this time. Therefore, the benchmarks set may not be that meaningful.
- For Goal 2 Objective A, although field work was completed and data were collected in FY20, deliverable product submission has been delayed due to COVID-19. Therefore, there is no increase in geologic mapping coverage in FY20. Deliverables will be submitted in FY21, and the associated geologic mapping coverage will be tabulated in FY21.

FY 20 Grants and Contracts

Aftershock Deployment for Stanley, ID Earthquake 2020: C. Berti (IRIS-PASSCAL, April 2020-November 2020, instrumentation grant).

Data Preservation 11: R.S. Lewis (U.S. Geological Survey, July 2018-July 2019, $24,127).

Data Preservation 12: R.S. Lewis and V.S. Gillerman (U.S. Geological Survey, July 2019-July 2020, $67,496).

Detailed Mapping of the Holocene- and Late Quaternary-Active Traces of Northern Utah/Southern Idaho Active faults: Collaborative Research with Idaho Geological Survey and Utah Geological Survey: Z. Lifton (U.S. Geological Survey NEHRP Earthquake Hazard Program, July 2019-Dec 2020, $28,218.56).

Development of a Statewide Landslide Inventory Database: Z. Lifton (Idaho Transportation Department Research Grant, October 2018-October 2020, $90,114).

Geologic Mapping in the Idaho cobalt belt: R.S. Lewis (U.S. Geological Survey, August 2019-July 2021, $100,000).

Geologic Mapping in the Preston, Weiser, Salmon, and Elk City areas: R.S. Lewis and D.M. Feeney (U.S. Geological Survey STATEMAP Program, May 2019-August 2020, $164,417).

Geologic Mapping in the Preston, Weiser, Salmon, and Elk City areas and supplemental funding for Weiser, Salmon, and Rexburg databases: R.S. Lewis and D.M. Feeney (U.S. Geological Survey STATEMAP Program, June 2020-May 2021, $318,392).

Geologic Mapping of the Swisher Mountain and De Lamar quadrangles: V.S. Gillerman and D.M. Feeney, (Integra Resources Inc., May 2019-December 2020, $103,261).

FY 20 Grants and Contracts (continued)

Geologic Mapping in the Yellow Pine quadrangle: R.S. Lewis (Wilmat Petroleum Company, May 2019-September 2020, $39,999).

Groundwater Budget for the Big Lost River Valley: A.L. Clark (Idaho Department of Water Resources, December 2018-October 2021, $125,000).

Idaho Department of Lands Abandoned Mine Lands Project, Task 5: R.S. Lewis (Idaho Department of Lands, March 2019-November 2020, $141,677).

Leveraging Domain Repositories in Flyover Country, A Mobile App for Geoscience Outreach, Data Discovery and Visualization: R.S. Lewis and L.A. Tedrow (Arizona Geological Survey/National Science Foundation, February 2019-December 2019, $15,000).

LiDAR Training and Outreach: Z. Lifton (FEMA Cooperative Technical Partner Grant, September 2018-September 2019, $6,247).

Raft River Valley Hydrogeologic Investigation Phase 1: A.L. Clark (Idaho Department of Water Resources, December 2019-November 2020, $107,500).

For More Information Contact

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