

Part I – Agency Profile

Agency Overview

The Idaho Geological Survey 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 staffed by about ten state-funded FTEs and 15-20 externally funded temporary and part-time employees.

Members of the Idaho Geological Survey acquire geologic information through field and laboratory investigations and through cooperative programs with other governmental and private agencies. The Idaho Geological Survey’s geologic mapping program is the primary applied research function of the agency. The Survey’s Digital Mapping Laboratory is central to compiling, producing, and delivering new digital geologic maps. Other main Idaho Geological Survey programs include geologic hazards, hydrology, mining, abandoned and inactive mines inventory, and earth science education outreach. Demand is expected to increase for geologic information related to population growth, minerals, energy, water resources, landslides, and earthquakes.

Core Functions/Idaho Code

Idaho Code Title 47, Chapter 2, defines the authority, administration, advisory board members, functions and duty of the Idaho Geological Survey. The section contents:

- **Section 47-201:** Creates the Idaho Geological Survey to be administered as 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 Idaho Geological Survey report to the President of the University through the Vice President for Research. Specifies for the appointment of a state geologist.
- **Section 47-203:** Defines the duty of the Idaho Geological Survey 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 2014	FY 2015	FY 2016	FY 2017
General Fund	\$706,900	\$817,240	\$824,200	\$1,123,300
Total	\$706,900	\$817,240	\$824,200	\$1,123,300
Expenditures	FY 2014	FY 2015	FY 2016	FY 2017
Personnel Costs	\$573,945	\$694,821	\$745,726	\$853,400
Operating Expenditures	\$87,772	\$48,690	\$65,899	\$134,696
Capital Outlay	\$45,183	\$73,729	\$12,575	\$135,204
Trustee/Benefit Payments	0	0	0	0
Total	\$706,900	\$817,240	\$824,200	\$1,123,300

Profile of Cases Managed and/or Key Services Provided

Cases Managed and/or Key Services Provided	FY 2014	FY 2015	FY 2016	FY 2017
Square Miles of Geological Mapping	427	267	467	454
Number of Educational Programs for Public Audiences	20	9	19	14
Number of Geologic Reports	18	14	10	11
Number of Geologic Presentations	15	24	9	9
Number of Website Viewers (no robot searches)	434,076	438,955	398,400	453,562
Number of Grants and Contracts	12	7	7	11

FY 2017 Performance Highlights**1. Number of Publications on Geology/Hydrology/Hazards/Mineral Resources**

Twenty five new geologic publications were published by the Idaho Geological Survey (IGS) in FY17. Publications are focused on a wide array of geoscience issues and resources including hydrology and geothermal energy, metallic and industrial minerals, aggregates, dimension stone and limestone, oil and gas resources, geologic hazards including active faults and landslides, regional bedrock and surficial geologic maps, and geologic databases. The IGS publishes the vast majority of its products in-house through the digital mapping laboratory which are made available for free download on the agency website.

2. Number of Website Products Delivered/Used

The IGS continues to improve its delivery and access of geologic publications on the agency website. Nearly all of IGS publications (over 970) are available for free download. Obtaining geological information on the IGS website has been simplified through search engines including web map applications. The most important metric used to evaluate the efficiency and delivery of geological products to our customer base is the number of downloaded products annually including geologic maps, technical reports, geologic databases, and miscellaneous publications. Downloaded products have more than doubled over the last six years from the IGS website and reached a record high of 204,770 products during FY17.

3. Cumulative Percent of Idaho's Area Covered by Modern Geologic Mapping

Modern geologic mapping is a necessary service of the IGS which is used to identify important economic and geologic resources and to understand complex geologic phenomenon that may negatively impact citizens or the state's infrastructure (roads, dams, and buildings). Legislative decision makers, state regulatory agencies, and developers of residential and commercial properties rely heavily on modern geologic mapping from the IGS to make sound business and public safety decisions. As of FY17, the IGS has mapped 40% of the state with modern high resolution geologic mapping at a scale of mostly 1:24,000. For the last 20 years the IGS has continuously secured federal grants from the U.S. Geological Survey (USGS) to assist with modern geologic mapping in Idaho, and this effort will continue into the foreseeable future.

4. Externally Funded Grant and Contract Dollars

Externally funded grants are critical to accomplish the mission and legislative mandate of the IGS. All geologists are expected to seek and apply for externally funded grants on an annual basis or to apply for multi-year grant awards. The IGS typically has a healthy mix of grant awards from federal, state, and private industry that permits the advance of geoscience research projects throughout the state. The USGS often makes up the largest portion of externally funded grant awards for the IGS; during FY17 the IGS had three concurrent grant awards from the USGS. Given the lean projections of federal grant awards in the future there is a new focus at IGS to seek out industry collaborations for additional funding of research projects. Midas Gold has partnered with the IGS on a multi-year geologic research project in central Idaho that revolves around a \$1 billion proposed gold, tungsten, and antimony mine. These private sector partnerships and grant awards are necessary to maintain the level of research and outreach that is expected from this agency.

Part II – Performance Measures

Performance Measure		FY 2014	FY 2015	FY 2016	FY 2017	FY 2018
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 Publications on Geology/Hydrology/Hazards/Mineral Resources Goal 1. Objective 1	actual	32	27	39	25	-----
	target	45	35	35	39 ¹	39
2. Number of Website Products Delivered/Used Goal 1. Objective 2	actual	132,454	157,540	185,635	204,770	-----
	target	201,463	180,000	180,000	191,709	191,709
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.						
3. Cumulative Percent of Idaho’s Area Covered by Modern Geologic Mapping Goal 2. Objective 1	actual	36.6	36.9	37.4	40	-----
	target	36.4	36.4	36.4	37.8	37.8
4. Externally Funded Grant and Contract Dollars Goal 2. Objective 2	actual	\$371,023	\$382,101	\$498,034	\$439,898	-----
	target	\$531,085	\$531,085	\$531,085	\$457,794	\$457,794

¹ This benchmark was adjusted to comply with the description of the benchmark as stated in the Strategic Plan.

Performance Measure Explanatory Notes

- Performance Measure 1. Goal 1. Objective 1: Number of Publications decreased from 39 in FY16 to 25 in FY17.
- Performance Measure 2. Goal 1. Objective 2: Number of Website Products Delivered/Used increased from 185,635 in FY16 to 204,770 in FY17.
- Performance Measure 3. Goal 2. Objective 1: Cumulative Mapping of Idaho has increased from 37.4% in FY16 to 40% in FY17.
- Performance Measure 4. Goal 2. Objective 2: Externally funded grants and contracts decreased from \$498,034 in FY16 to \$439,898 in FY17 due to ending of multiple non-renewable projects.

IGS Grants and Contracts FY 2017

Additional Geologic Mapping and Study of Hydrothermal Alteration, Mineralization and Geochronology in and near Stibnite Mining District, Idaho: V.S. Gillerman and R.S. Lewis (Midas Gold, Inc., July 2014-September 2017, \$70,000).

Big Wood River Landslide Susceptibility Mapping: W.M. Phillips (U.S. Department of Homeland Security, Federal Emergency Management Agency, Risk MAP Program, October 2016-September 2017, \$70,098).

Data Preservation 8: R.S. Lewis (U.S. Geological Survey, August 2015-August 2016, \$22,025).

Data Preservation 9: R.S. Lewis and D. Feeny (U.S. Geological Survey, August 2016-August 2017, \$30,359).

Geologic Mapping in the Preston, Weiser, and Salmon areas: R.S. Lewis and D.M. Feeney (U.S. Geological Survey STATEMAP Program, June 2017-June 2018, \$170,165).

Geologic Mapping in the Rexburg, Weiser, and Salmon areas: R.S. Lewis, W.M. Phillips, and D.M. Feeney (U.S. Geological Survey STATEMAP Program, June 2016-May 2017, \$167,755).

Idaho Department of Lands Abandoned Mine Lands Project, Task 3: R.S. Lewis (Idaho Department of Lands, December 2014-February 2017, \$122,560).

Idaho Department of Lands Abandoned Mine Lands Project, Task 4: R.S. Lewis (Idaho Department of Lands, February 2017-February 2019, \$121,918).

Reservoir Characterization & Petroleum Assessment of Miocene Sedimentary Rocks, southwestern Idaho: M.E. Ratchford (U.S. Geological Survey, September 2015-August 2017, \$30,000).

Smiths Ferry Project: R.S. Lewis (Idaho Department of Lands, May 2015-January 2017, \$45,000).

Surficial and bedrock mapping of Burnt Log Road corridor: V.S. Gillerman and R.S. Lewis (Midas Gold, Inc., June 2016-September 2017, \$27,277).

For More Information Contact

Bob Smith
Senior Associate Vice President,
Research & Economic Development
University of Idaho
875 Perimeter Drive MS 3014
Moscow, Idaho 83844-3014
Phone: 208-885-2560
E-mail: smithbob@uidaho.edu
Website: www.idahogeology.org