

Idaho Geological Survey
Advisory Board Meeting Minutes
November 30, 2018 | Idaho Water Center Classroom 162 | Boise

Present

Peter Isaacson, John Brabb, Reed Lewis, Ed Ratchford, Mark Barton, David Hawk, Chris Dail, Leslie Baker, Alexis Clark, Kristen Pekas, Linda Tedrow, Ginna Gillerman, Keith Nottingham, Zach Lifton, Dan Moore, Jim McNamara, Mike McCurry, Rich Reed, Dennis Feeney, Susan Cleverley, Chuck Staben (Zoom), Brenda Helbling (Zoom), Brad Ritts (Zoom)

Call to Order

The Chair called the meeting to order at 1:00 pm. Nottingham motioned to add items to the agenda. Reed seconded the motion, but the motion was withdrawn.

Opening and Introductory Remarks, President Staben

- Welcome Peter, Interim Director.
- Discussed the search for a fully appointed Director. A draft position description will be sent to the Advisory Board and IGS staff for input.
- Hope is to have a Director here by July 1.
- IGS no longer reports through VP; IGS reports directly to President. We would go through a transition period, and then it would probably return to VP.
- Statutes don't clearly define the role of the Advisory Board.
- Discussed location of IGS Headquarters. Historically the Headquarters have been in Moscow. Don't know that there is magic in where the location is. Most of the geologic activity is farther south, while staff is farther north.

IGS Overview, Peter Isaacson, Interim Director

- Advisory Board introductions.
- IGS is doing an amazing and critical service to Idaho taxpayers. He is honored to be a part of an amazing crew doing terrific work.
- IGS is productive, and he will encourage productivity and promote our successes.
- Different functions within the survey are not well represented in the organization chart. Proposed changes to organization chart include eliminating main and branch offices; instead there is a Moscow office and Boise office. Another proposed change is bringing up each division to equal rank as the Digital Mapping Lab. Reed requested he shares this to the Advisory Board.
- Presented expected deliverables and funding for current and proposed projects.
- Needs for IGS include salary improvement and an Advisory Board that promotes IGS.

- Staben noted that there is state law that says state employees are supposed to be paid competitively so UI is trying to follow that state law in a reasonable way.
- An offer has been made for the Geoscience Manager position.

IGS Financial Report, John Brabb, Financial Specialist

- Presented the FY19 state allocation compared to FY18.
- Presented the FY20 budget request to bring staff up to 85% of market rate.
- Hawk suggested that the Advisory Board list names and contacts and sign on to this budget request. Others agreed.
- Presented external funding.

Discussion of IGS open positions

- Digital lab manager, Moscow (Stanford replacement who retired in May). Offer made with a possible start date of January 2.
- Geologist, Moscow (Phillips replacement who retired in June) has not been advertised.
- Dail noted the Advisory Board, Director, and staff should integrate the needs of the stakeholders in crafting the position. The Advisory Board can contribute their expertise.
- The location of the Geologist position still needs to be addressed.

BREAK

IGS Hydrogeology Overview, Alexis Clark, Hydrogeologist

- Hydrogeologist works statewide with state/federal agencies, industry, universities, and other stakeholders.
- Applied approach to Hydrogeologist role.
- Big Lost River Basin has a very dynamic and complex hydrogeologic system with a close connection between surface water and ground water.
- IGS will be conducting the groundwater balance part of the hydrogeologic investigation of the Big Lost River Basin. This is a joint three-year collaborative study among IGS, IDWR, USGS, and will take up 30% of Hydrogeologist's time. Deliverable will be USGS scientific report with target completion date of October 2021.
- Presented possible topics for future projects focused on groundwater supply, groundwater quality, and geothermal.
- Cleverley noted that Custer County just put in an application for a Mackay Dam advanced assistance project that would help develop details on what they need to do with the dam. Cleverley also noted that Minidoka Irrigation District has drainage and

aquifer recharge project. Hydrogeologist should be aware/involved in these two projects.

- Advisory Board noted future projects should be prioritized.

Recent developments in the “Payette basin” petroleum system, Mark Barton, Senior Petroleum Geologist

- Presented the activities and benefits from those activities performed by Petroleum Geologist.
- Provided overview of oil and gas exploration within Idaho which includes three regions of active leasing and/or drilling with one area proven (southwest Idaho) and the other two speculative (south-central Idaho and southeast Idaho).
- Presented on southwest oil and gas play, the proven play, located on the border of Idaho and Oregon.
- Presented on the geology behind the southwest oil and gas play.
- Currently involved in the basin analysis of the southwest oil and gas play.
- Explained the sequence stratigraphic diagram of the basin.
- Explained source rock maturity and hydrocarbon generation.
- Explained basin evolution.
- Will create a southwest Idaho oil and gas play map in early next year.
- Explained hydrocarbon potential of this basin. It’s very early in the game but the southwest Idaho play looks promising.
- In 2019, continue source rock characterization and basin wide sequence stratigraphy, develop subsurface correlation tools, and pursue access to additional data including 2D seismic.
- Initiate work in the southeast play and south-central play.

Mapping updates (Elk City, Salmon, Burntlog), USGS and IDL mining, and records funding, Reed Lewis, Research Geologist

- Four priority areas in Idaho for geologic mapping: Salmon, Preston, Weiser/Boise, and Elk City.
- Funding for mapping includes primarily Statemap but IGS has also received funding from ITD, IDL, and Midas Gold for individual project areas.
- For the Salmon project area IGS is working with Montana Bureau of Mines and Geology.
- Salmon project area is of interest due to ongoing exploration of copper-cobalt and gold (Beartrack mine).
- To finish Elk City maps we can use existing data collected during the 1989 mapping and add it to proposed mapping areas.

- Try to tie Elk City stratigraphy to Stibnite stratigraphy using detrital zircons and quartzites.
- Published results from Burntlog Creek road project, reconnaissance work for Midas Gold. Midas Gold was looking at the possibility of using an old logging road as a route that stays off the main river system. Didn't find a lot of aggregate.
- Statemap deliverables have tapered off to about five maps a year.
- Cumulative percentage of digital geologic mapping has flattened since 2010 at about 38%.
- Mines and Prospects Database includes records on over 2,600 properties.

Mapping updates, Preston and Weiser areas, Dennis Feeney, Senior Geologist

- For the Boise-Weiser project we have mapped 12-7.5' quadrangles.
- One reason this project started was because the push for oil and gas.
- Updating volcanic stratigraphy in the area.
- Subdividing tertiary sediments.
- Understanding more about Glens Ferry Formation.
- J. Coogan has been very helpful and knowledgeable with the Preston project as he mapped 10 quads in this area for his PhD years ago.
- For the Preston project, would like to obtain more knowledge on the Fold and Thrust Belt, the active faulting and earthquake swarm, phosphate, possible tight gas, and refine tertiary stratigraphy.
- Working with J. Coogan on cross sections.

Economic geology of the Stibnite project, Virginia Gillerman, Research Geologist

- Working in Stibnite district on two-part study which includes 1. Stibnite Quadrangle Map (GM-51) and 2. Hydrothermal Alteration and Geochronology Study of the Au-Sb-W Ore Deposits (B-31, in press).
- In between there have been abstracts, posters, and field trips.
- Project goals, methods, and results were presented.
- Presented on hydrothermal alteration and age of mineralization.
- Presented on West End and Yellow Pine deposits.
- Summarized the major findings of the Stibnite Study.
- Presented proposed model for Stibnite District.

Geologic Hazards Program, Zack Lifton, Hazards Geologist

- Develop a geologic hazards program.
- Update and organize "big" datasets.

- Priority hazard projects include Boise Foothills and Panhandle Landslides.
- Build new technologic capabilities (UAVs, Structure for Motion photogrammetry, wireless geophone “nodes” for seismic monitoring, new lidar data coverage).
- Connect and coordinate with external partners (Idaho Office of Emergency Management, Western States Seismic Policy Council, Idaho LiDAR Consortium, Yellowstone Volcano Observatory).
- Applying for external funding and has received funding from ITD (for Landslide Database) and FEMA (for lidar training).
- Hazard Program Elements include seismic, landslides, sinkholes, subsidence, collapsible, volcanic, and assist other agencies with flooding.
- Received funding from ITD to develop and update Landslide Database for Idaho. It will be expandable, digital, and compatible with GIS.
- Current Fault Database needs to be updated with new data.
- Another project underway is mapping landslide hazards in the Panhandle as landslides have recently impacted trains.
- Will create a higher resolution Surficial Geologic Map (1:12,000) for Boise Foothills.

BREAK

Open Discussion

- IGS serves the entire state with no preference.
- We are informally discussing having an Economic Phosphate Geologist in Pocatello.
- We will work on a timeline for filling Bill Phillips position.
- IGS Centennial celebrating formation in 1919.
- Nottingham suggested a booth at BSU STEM Outreach Day for IGS Centennial. Maybe partner with the Idaho Museum of Mining and Geology.
- Dail discussed internship opportunities through GSA for originally just federal agencies, but now state agencies can participate.
- Dail mentioned that USGS has funding for flying and collecting airborne geophysics for prospective energy projects and mineral exploration. Suggests putting a proposal together. Possible projects include Weiser or Cobalt Belt. May be too late for this opportunity this year.
- IGS did not attend trips that the Governor took to New York and Toronto with mining representatives to market Idaho. Dail recommends the Director find a way into that.
- Advisory Board needs to be utilized.
- Maybe Advisory Board needs a mission statement.
- Statutes establish an Advisory Board that is to advise.

- Board should provide expertise and support funding for the Survey.
- Establish some rules of order so when a decision that is advisory in nature is to be made, a few members of the Board don't make that decision or opinion without the whole Board contributing. This would entail having a voting mechanism established.
- The Board should align with what the IGS wants from them.
- Advisory Board must follow Open Meeting Law.
- The Board is not a Board of Directors (i.e., governing board).
- The budget should be presented to the Board for advice not approval.
- The Board shouldn't be dealing with individual personnel issues, but should be consulted during hiring, moving, or changing positions.
- The Board should participate in program evaluation.
- The Board should make the case that the IGS Director should present the budget to JFAC.
- Proposals could be sent to the Board for advice if possible.
- Communication between the Board and IGS staff should include the Director when dealing with program-level decisions.
- Advisory Board should meet ahead of the budget preparation.
- Discussed possible federal funding.
- The Survey is underfunded.
- The Board would like to meet more than once a year.
- The 2021 budget will be worked on in April and May.

The chair adjourned the meeting at 5:06 pm.

Minutes prepared by K. Pekas