Alaska Dept. of Natural Resources
Division of Geological and Geophysical Surveys DRAFT

Geological Mapping Advisory Board Minutes

Winter Meeting January 31st, 2023, 8:45 am – 3:45pm
Microsoft Teams Meeting and Teleconference open to the public.

Call to order Jamey Jones, roll call Ken Papp

Jamey Jones - Present
Mischa Ellanna - Present
Kyle Brennan - Present
Matthew Hanson - Present
Paul McCarthy - Present
Tom Homza - Not Present
Rob Retherford - Not Present
Jamie Marunde - Not Present
Nicole Kinsman - Present
Russ Kirkham - Present

Seven of nine board members present.

Special Guest: Commissioner John Boyle. Thank you and farewell to Curt Freeman, Mitch McDonald and Jamie Marunde! Welcome to new board members Kyle Brennan, Mischa Ellanna, and Matthew Hanson!

Approved Agenda – Motion approved by R. Kirkham, seconded by N. Kinsman.

Approve Meeting Minutes from May 2022 – Motion to approve after correction of spelling of Mischa Ellana by K. Brennan, seconded by R. Kirkham.

Business

Dave Lepain gave an overview of budgets and funding for DGGS. Discussed transitions in staff and the importance of receiving more funding to hire additional staff. Additional challenges in staffing include competing for qualified people, creating permanent positions rather than the non-perm positions DGGS currently has in place and getting positions approved in a timely manner.

Geologic Materials Center summary (Kurt Johnson)

Kurt Johnson outlined the GMC and ongoing projects such as the reorganization of the warehouse, preparations to receive a sizable donation from Hilcorp, wrapping up the ASTAR project, rescuing cores from the union Bay/Duke island storage, the research for purchasing and installing the hyperspectral scanner. Emphasized the need for IT infrastructure needed for the scanner.

Kurt says the GMC would be interested in core samples from other agencies/businesses, but the warehouse is fairly full.

Question and Discussion Session

Engineering Geology Hazards (Jen Athey)

Jen Athey presented on the Hazards sections, its five programs and the challenges they face with funding and staffing.

- Climate Hazards is looking at the effects of snow, ice, and permafrost on key infrastructure around the state.
- Coastal Hazards concentrates its efforts on monitoring and data collection on floods and erosion. Such as the resent cyclone Murdock.
- Earthquake and Tsunami Hazards Program works on mapping and modeling and outreach. DGGS is part of the larger Alaska Seismic Hazards Safety Commission whose mission is to recommend goals and priorities for seismic risk mitigation to the public and to recommend policies to the governor and legislators.
- Environmental Hazards has programs for Radon testing, groundwater quality and discovering areas with naturally occurring asbestos.
- Alaska Landslides Program puts its efforts into mapping, assessing, and understanding landslides. Climate change is increasing the work needed in this area. Most recently the work has been on landslides in Skagway, Juneau, among a few others.

  Commissioner Boyle wanted to know about ongoing monitoring of the hazard areas such as the Mount Roberts landslide. Commissioner Boyle would like to suggest more interagency collaboration and perhaps a centralizing of data distribution. Mort is working on integrating the DOT unstable slopes data base.

Question and Discussion Session

Break 10:25am to 10:35am

Geologic information Center summary (Mike Hendricks)

Presented three key areas of GIC. Publication support; for DGGS social media with teaching sessions. GIS support; making maps, assistance for workers in the field, creating Geo Portals and Web Apps. IT support; trouble shooting problems and installing new computers/equipment in addition to collaborations with UAF.

Commissioner Boyle would like to suggest the legislators receive the information fact sheets from DGGS.

Question and Discussion Session

Energy Resources summary (Marwan Wartes)

Marwan Wartes gave an overview of the Energy units objectives, funding and how the work is used. Summarized the North Slope program including workshops and data sharing. Highlighted recent accomplishments such as submitting STATEMAPS products to the USGS for Rooftop Ridge and Racetrack Basin. Looking forward work will be continued with drilling cores in the North Slope, Cook Inlet Basin mapping especially lower cook Inlet and Interior Basin. Lastly the Carbon Sequestration discussions and proposals project.

Question and Discussion Session

Hydrology and Surficial Geology summary (Trent Hubbard)

Trent Hubbard presented the three programs under this section of DGGS and the projects they are working on.

- Hydrology programs mission is to understand groundwater in Alaska to provide clean water resources for all Alaskans and assess groundwater related hazards. Projects are Permafrost Studies, Hydro Kinetic energy resource studies and refining the groundwater map.
- LiDAR a laser scanner emits infrared pulses which reflect off the surface and capture a record of the surface to better understand the geology of an area. Some of the areas the LiDAR team is focusing in on are coastal resilience and landslide hazards projects.
- Surficial Geology's mission is to map the distribution of geologic materials and provide information on their engineering properties and potential as construction materials. Recent projects in this area have been Alaska's many roads outside of its cities and how to move forward with construction and maintenance materials.

Presented information on the ASTAR gravel program and how it helps with resource assessment. Lastly, the discussion on the Surficial Geology section's contribution to STATEMAPS.

Commissioner Boyle wanted to know what our interaction is with the borough and other communities. Are there opportunities for us to get monies from industry to help supplement our field work and studies. Also suggested a proposal of user disclaimer language that is more modern for researchers using the public made information DGGS has gathered.

Question and Discussion Session

Lunch Break 12:15pm

Afternoon Session Begins 1:10pm

Mineral Resource Section (Evan Twelker)

Evan Twelker gave an overview of the Mineral Resources Sections work. Including the Mineral industry activity web map, gathering data to publish the Alaska Mineral industry Report and being an active part of the American exploration and Mining Assoc. With the State and USGS collaborated focus on Earth MRI detailed areas of surveys. Earth MRI is now finished with the Western Tanacross map. Detailed Yukon Tanana Upland geological mineral map projects are in the works. Finally, the work with Earth MRI and its collaborated efforts, promote resource exploration and enables DGGS to improve regions geologic mapping.

Question and Discussion Session

Alaska Geospatial Office Summary (Leslie Jones)

The GIS is building a geospatial framework for data that is used for public safety and the health of Alaskans. The system allows one to analyze data in maps, gives a single system of record for recording and analyzing information and understand changes overtime. The mission is to coordinate the development of and management of geographic information in Alaska. In addition

to provide timely and accurate geographic information for widespread use by decision-makers and Alaskans. There is an Alaska Geospatial Council to ensure all the stake holders have a seat at the table and if we purchase data it is available for use to all. Current projects include EVOS LiDAR, LiDAR over 40 communities across Alaska, Coastal mapping and the 9-1-1 Advisory Board.

Question and Discussion Session

Volcanology Section (Scott Crass)

This section monitors and collects data from Alaska's many volcanoes, in partnership with USGS and UAF. The current focus is to maintain mature modules, have a one search interface for stations, collect samples and do analyses. Data can be utilized for the safety of Alaskans during an eruption event. Cameras are used on several of the more active volcanoes along with seismometers and gas detection equipment. New activity is shared with aviation and community agencies who would be involved in some kind of response to an event.

Commissioner Boyle requested a briefing paper on the Mount Edgecumbe project.

Question and Discussion Session

Break 2:35pm to 2:45pm

Board Guidance and Proactive Perspective Questions - What issues or concerns does the board have regarding the division and its programs? What program gaps might there be in our survey? What should the survey be doing differently? What future challenges might you see for the division?

Jamie feels there has been a lot of growing and adapting in DGGS already, with the current staffing issues we are facing making it difficult to ask more of DGGS.

Discussion revolved around encouraging young people to consider making Energy Geology a career choice.

Conversation moved to mapping Alaska's resources. Commissioner Boyle suggested when using the term mapping define it in a way that a person will not think of just drawing yet another map. So that they have more of an understanding of what is involved in that activity and the importance of what is being mapped.

Spent several minutes on what the future of Carbon Sequestration looks like.

Final talk moved to DGGS having a Geothermal section, but it needs to be funded.

3:59 pm N. Kinsman made a motion to adjourn the meeting, seconded by K. Brennan.

Meeting Adjourned at 4:00pm