

DNR White Paper

DGGS' Geological Mapping Advisory Board

1/23/19

Background, Purpose and Services Delivered

The Geologic Mapping Advisory Board (GMAB) was established in the early 1990's to allow a cross section of industry, academia and the public to:

- Provide a forum for the collection and expression of opinions and recommendations on matters relating to the geologic investigation and mapping programs for Alaska.
- Identify strategic geologic issues that need to be addressed by the state.
- Promote communication among the general public~ other government agencies, private corporations, and other statewide and local groups that have an interest in the geology and subsurface resources of Alaska.
- Inquire into matters of community interest relating to Alaska geology and bring these matters to the attention of the Division of Geological & Geophysical Surveys (DGGS) and the public.
- Appear and testify at public legislative hearings as representatives of groups interested in the acquisition of Alaska geologic information.
- Make recommendations to the State Geologist and Director of the Division of Geological & Geophysical Surveys (Director) concerning, among other things, the following:
 - increasing public awareness of the importance of geology to the state's economy and to the public health and safety;
 - promoting an orderly and prudent inventory of Alaska's geologic resources;
 - identifying Alaska's diverse geologic resources and opportunities;
 - enhancing the value of Alaska's geologic resources;
 - facilitating cooperative agreements between the Division of Geological & Geophysical Surveys and other state and municipal agencies, professional organizations, and private enterprise to enhance the acquisition of Alaska geologic information.
- Enlist public and legislative support for the state's geologic resource inventory and environmental geology programs.
- Hold meetings of the members to discuss matters of common interest.
- Assist the Commissioner of DNR in selecting and appointing a new State Geologist and Director of DGGS, as explained in DNR Department Order 146:

Board meetings are held three times each year to review programs within DGGS, to review and vote on which mapping project to submit to the USGS for STATEMAP funding. Voting on the projects submitted to the USGS for funding is a requirement of the grant program. The board provides this service.

The GMAB provides DGGS valuable input from industry, academia, researchers and federal agencies that use the information and products generated by DGGS. The board provides the opportunity for our constituents to provide additional input on topics where we are not meeting

the information need. This interchange is invaluable, and ensures we meet the needs of the consumers of our information, and the industries we support with our efforts.

The board currently has 8 seats, one of which is vacant. In our most recent meeting we voted to expand the board to 11, to broaden the input to DGGGS from our users. Current board members represent the University of Alaska Geoscience and Mining and Geological Engineering Departments (Dr's Darrow and McCarthy), the oil and gas industry (Dr's Homza, Shell Oil and Wilson, ConocoPhillips), mineral industry (Curt Freeman, Avalon Development, and Dr. James Jones, USGS) and the geotechnical industry by Steve Adamczak at Shannon and Wilson. We intend to add a member from the Alaska Native Corporations to the currently vacant seat in the near future, and discuss the best direction for additional members to the recently expanded board.

Funding Component

There is no cost to the state for the board, their service is completely voluntary. The only cost to DGGGS is providing snacks during the meetings, which are paid for by the DGGGS snack emporium, not state, funds.

Having a geologic mapping advisory board is one of the criteria for eligibility to receive federal grants for geologic mapping under the USGS STATEMAP program. Since inception in 1992 DGGGS has received \$4.6 million from the USGS for geologic mapping in Alaska. Without the board we would not have received this past funding, or be eligible to apply for future STATEMAP funding.

Why is Geologic Mapping Needed?

Alaska is a resource state, with its economy fueled by geologic (energy and mineral) resource development. To find these resources geologists need geologic maps among other types of data. Alaska is only 16% mapped at a scale useful for this work, and geologic mapping has not been completed in even the most important areas for resource development like the North Slope oil fields, and Alaska's mineral districts. Without geologic information exploration is more expensive and less likely to find and develop the resources our economy depends on. Geologic maps are the most basic and important dataset in resource assessments. At our current rate of progress it will take DGGGS another 400 years to map the geology of our state. Geologic maps are also essential for hazards analyses for earthquake preparedness, landslide analyses, erosion studies, permafrost degradation, as well as for sand and gravel and groundwater resource evaluations.