

## Minutes GGE Advisory Board Meeting 4/17/2021

In Attendance in Person: Dr. Rankin, Rob Hall, Laurie Anderson, Scott Cooper, Steve O'Rourke, Ed Duke, Curtis Price, Sharon Chantos, Kurt Katzenstein, Larry Stetler, Kevin Ward, John Chandler, Foster Sawyer, Liz Sailer

In Attendance via Zoom: Emily Berry, Darrin Pagnac, Liangping Li, Arden Davis, Nuri Uzunlar, Andy Farke, Jeanne Goodman, Sherwin Artus, Joy Lester, Lance Roberts, David Hammond, Christopher Pellowski, Bill Eldridge, Clint Boyd, Stuart Buchholz, Sarah Keenan, Barb Nielsen, Tim Masterlark,

Unable to attend: Gokce Ustunisik

Approve Minutes from Last Meeting, Steve O'Rourke made a motion, Barb Nielsen seconded, no discussion, approved

### **Jim Rankin:**

- Updates from campus: Bill Spindle is the new head of Finance, introduced goals and strategic plan.
- Covid updates: two outbreaks - one in the fall and one around Halloween. Commencement will be in person on May 8<sup>th</sup>, honoring Dean Mahon and 3 honorary doctoral degrees. May 10<sup>th</sup> will go back to regular operations without masks or social distancing. Expectation for fall is regular activities.
- Academic updates: MS sustainable chemistry, some new department heads, some restructuring like moving facilities under finance. Student employment placement: many virtual internships, decent placement but not great.
- New MI Building: team effort between CARA, the university, the MI departments, and the legislature. \$19M in legislature funds, \$3M from University, and \$12M to fundraise by CARA. Mines hired a lobbyist this year and he did a great job getting things done in Pierre. Currently working on final design to start moving things forward.
- Library Renovation: first two floors will be used for student services, tutoring spaces, etc. All the books will be on the 3<sup>rd</sup> floor. They had to get rid of a lot of books to make this possible, but so much is online now.
- Surbeck Center: dining needs to be expanded, fundraising ongoing.
- Senate Bill 55: Making the university system more efficient. University leaders and legislatures are working together to find efficiencies. Creating partnerships and shared services between campuses.
- Upcoming Events: Spring Commencement, Alumni Reunion, Fall semester is back to normal

### Questions:

- Athletics: will be back to normal in the fall,
- What will happen to the old MI Building: Meetings next week with architects and all involved units. Want to knock down the old MI building.

**Lance Roberts:** Thank everyone for supporting MI. Emphasizes challenges of COVID and how much we appreciate faculty's efforts. Enrollment is looking good for the fall overall. What's enrollment looking

like: First time freshmen 480, about 80 transfer students. Big unknown is retention of freshmen returning as sophomores.

**Sharon Chontos (CARA/Foundation):** Liz Sailer is working on the MI Fundraising Campaign. Overall campaign is 100M. 50M of it will be athletic and academic scholarships. 12M for MI and 6M for Surbeck (1/4 of that is raised so far), the remainder is for labs, student success, and other programming. Mineral Industries Building: thank you to anyone who has donated thus far or helped with the lobbyist. Remaining challenge for MI is to raise the final 12M. So far 3.1M has been raised. Options exist for donors to make 3- or 5-year pledges. Building details: naming opportunities to match with donations. Plea to advisory board for help connecting with donors to fundraise the final 9M. Talked about the people who have coached Mines on forming connections and building trust with corporate donors. The timing is good right now to be asking for money. Some companies that have been good connections are Nevada Gold and Nucor. Need to understand the companies' motivation for donating. **Homework: in the next 3 weeks email Laurie, Sharon, or Liz with how you can help make connections with alumni donors, alumni with influence in a company, or corporate donors.**

Questions: Are the smaller gifts also important? Yes – solicit small gifts from alumni at alumni reunion weekend by giving them tours of the MI building as it is now. Donor asks are more genuine coming from fellow alumni. Asbestos in current MI: cost to renovate was only 6M less than cost to build new.

**Rob Hall Mining Hub:** Thanks to Laurie for being interim head of Mining during the search process and thanks for getting the opportunity at Mines. Mining hub is a CAT sponsored 10-year research program with internship opportunities for undergrads, grad students, and a post-doc. They pulled together a committee. Mining hub value proposition: leverage funds to get additional government and industry dollars, stay at the front edge of the mineral industry field, relationships with future employers for our students, opportunities for consulting and contract work.

Membership model for support of the mining hub: different levels of membership with different benefits for different commitments. Board is chosen from the members based on commitment. Interested companies were listed, refer to slides. CAT, Nevada Gold, and Amazon were included.

Questions:

- For the research done in the mining lab, is it shared with all the stakeholder companies? Yes, with opportunities for companies to co-fund research.
- Issue of ESG (environment, sustainability, governance) initiatives in mining and natural resource research? Goal in the 5-year plan is to hire an environmental person in the mining department. Also need for stakeholder engagement. Jim Rankin – Native legislator asked about cultural education regarding mining in the Black Hills, and he was apparently satisfied with the cultural initiatives.
- Whoever signs on first will have to work out the framework for the legal arrangements of these partnerships.

10 Minute Break 10:10 – 10:20

**Laurie Anderson Department Updates:** Laurie thanks everyone for being here and appreciates all the feedback we get from the advisory board.

- Enrollments: declining in undergrads the last few years. GEOE especially.
- Internships: MS Paleo students doing internships all over the country.
- Budget: research funding new awards is doing decently. Expenditures have been declining the last few years, this is cause of concern. Proposals and submissions have been up in recent years.
- COVID Effects on research: delayed visits to national labs, delayed paper and grant submissions, loss of networking opportunities, decreased time to spend on research because of retooling for online teaching, loss of opportunity to present at conferences, loss of on campus seminars but replaced with online seminars – opportunity to have both next year. Assistant professors lost some start-up funding, hopefully temporarily.
- **Curtis Price Geospatial News** – space grant to buy GPS devices. 1- to 5-meter resolution. Haven't gotten to use them much due to Covid. Collaboration with WDT for surveying class, we can use their equipment in exchange for helping pay for some licenses. This is a good partnership because students may end up transferring from WTD to Mines. GIS Consortium for a shared ArcGIS license with BoR schools, tech schools, and tribal schools. Curtis invites everyone to join Friday seminars.
- **Nuri Uzunlar BH National Science Field Station** – last year was a hard year for field camps. 30 students came to the Black Hills for a face-to-face field camp, and it was completed successfully and safely. Most camps outside the Black Hills were cancelled. Online class created on field methods – 3 credits. Established a second online class on depositional systems – 3 credits. Some interest in summer online courses this year. High numbers of applicants for field camps in 2021 because other places weren't offering field campus at all so more people are coming here. We have decided to cancel some international campus for this summer and students who had signed up for those are hopefully being placed in domestic camps. Turkey and Iceland are still going forward this year. For this summer there are a total of 302 students registered between in person camps plus online.
- Back to Laurie – budget: university cut money from operating expenses but there were no furloughs or layoffs. Faculty searches for next year were allowed to go forward. Big hit was expanded lab sections due to occupancy capacities, which means we had to hire more TAs, some of this may be reimbursed through CARES act funding. This was an extra \$40k expense, \$20k will hopefully be recouped. Additional losses: Field Station 50% loss. Big impact on ability to recruit grad students and do local outreach. Startup funds for assistant faculty cut, not sure whether it will be restored.
- Looking to next year GOALS: Considering Non-thesis MS option, considering expanding online course offerings permanently. Hire two new assistant professors, support research and education at mining hub, concerns about enrollment at undergrad and MS level, rethink youth camps to increase enrollment. Campus culture salons and increase inclusion through online options, targeted seminar series.
- NEEDS: Assistant prof in geology and in geological engineering, great pools of applicants. Currently have made offers in both positions and are in negotiation. Both are visiting around this time and will grow the department into new areas. More robust TA budget because we often use operational funds to supplement TAs both with the goals of supporting faculty and providing support to grad students. New funding model for TAs is in the works that would put more money into GGE.

- Museum Budget: budget cuts to operating expenses and student workers. No income in the closure months March through July. About a 50% loss in visitation but only a 25% loss in revenue.
- Museum GOALS – project-based learning in Museum courses, Funding from O’Rourke’s, and Dakota Territory Resources to work in the mineral collections to get us prepared to get a grant to make the Mineral Collection a better resource for teaching, research, and outreach. Paleobotany has been upgraded thanks to US Forest Service. This year staff has been focusing on developing a strong volunteer program. Meetings with other institutions to build plans, policies, and calendars. We are doing a MAP assessment of the exhibits and outreach programs. Radioactive specimens we keep trying to shield, still in progress. Paleo club.
- NEEDS – Radioactive shielding 22k – 25k, pest control,
- MI Building – moving forward. President Rankin and other MI heads have all been great to work with.
- Nemo field station – this fall Laurie and Lance Roberts met about land donation of an iron near Nemo. Agreements have been made regarding ownership, operations etc. It is moving forward.
- Laurie says thank you to Kevin Ward and Kurt Katzenstein for their work on the new faculty search efforts. Faculty and students were also great assets to this search process.

#### Questions –

- Location of Nemo field station? O’Rourke clarified. It is up a hill near National Forest Land. We will have to build our own road. North of the quarry and out of the flood plain.
- Joy Lester on enrollment – pointing out general decline in enrollment. Can we see trends in a more long-term way and correlations to industry? Laurie – university is making it easier to get data. Economy is all about green right now, how do we recruit in that context? Are field camps included in this enrollment? No, only for SDSM&T students who attend field camp. Observation that research award decline mimics the decline in enrollment. Where are the sources of funding coming from of research funding? 5 years ago, the research office changed how they report grants. In 2016 they started to report data on PIs and Co-PIs. FY17 there was a big spike because we had Co-PIs on campus wide grants. Peak in FY14 because we got all the money for multi-year grants at once. When we look at funding can we see a separation by majors and entities? Why are we not getting industry funding? Can we spread this study back 20 years to see how we did things in the past? Federal funding is from primarily from NSF, NASA, and DOE.
- John asked about collaboration with the Frank Garcia museum and Hill City Museum. Laurie said no we don’t. John said the new museum in hot springs is impressive (Sarah in chat the Frank Garcia and Hill City “museums” are both for-profit entities so working with them isn’t compatible with the Museum’s mission). John also points out that the new visitor center is Lead is pretty great.
- **Foster Sawyer non-thesis MS** – We are trying to address issues with declining enrollment, and one option is to start a non-thesis MS. We are competing with non-thesis, online, and professional degrees. We are starting with the non-thesis option. Current discussions include
  - should it include a research project,
  - should there be core course requirements,
  - what general course requirements do we want, how many total credits do we want to acquire,

- what delivery mode do we want to use for this.
- We are going to start by offering it face to face with the hope to transition it to online. Could be offered fall 2023 at the earliest. Consideration for professional degrees but that doesn't make sense because of our locality and the depth of knowledge and faculty in the professional fields. How does this affect ABET accreditation? ABET does allow MS accreditation but we haven't pushed that for any existing masters. Was the non-thesis for both Geology and Geological Engineering? Yes.

### **Advisory Board Business Meeting**

Thanks for Stuart for his service on the Advisory Board.

Voting on new members: Tim Barker and Jay Nopola are the nominees. Steve motions to accept the notations, David Hammond seconds, all agree. Stuart moves to appoint Jay, all agree.

Election of officers: Call for volunteers for Chair and Secretary. Laurie nominates Steve O'Rourke for chair, David Hammond seconds, all are in favor. Scott Cooper volunteers for secretary, Laurie nominates, John Chandler seconds, all are in favor.

What Mining Hub companies we should present this partnership to: Mineral Mountain, F3, Nucor, Anoka Eagle. John Chandler asked if Black Hills Corporation WyoDak Resources was interested, we haven't had conversations with them yet. Also brought up Black Hills Energy.

MI Building: development opportunities for the board? Petroleum industry is a tough place to look because people are leaving the industry. David Hammond: South Dakota small donors? Sand and gravel? People in East River? Millbank quarry? Mining engineering has been intentional about connections with aggregate mines. Get more engaged with mining engineering to make sure we aren't duplicating efforts. Foster is asking about engaging more of the environmental companies. David brings up the issue that environmental is a lot of small companies with small cashflows, so they don't have a lot of capacity for donations. Suggests a test run with one of the bigger environmental consulting firms like Golder (WSP) or SWCA. Bill thinks naming opportunities is a cool incentive to maybe gather up a bunch of small donations into one umbrella that gets named like the "XXXXX company employees XXX lab." Consulting firms or Golder may also be incentivized by naming opportunities. Golder bought out by WSP. Are equipment costs included in the \$34M? Unknown. 1M cost to tear down. Auction off old bookcases. Bill asked how much control the department has on what will go into the building in terms of labs, spaces, layout etc. The three departments are working together well to meet shared priorities. Because of location between O'Harra and PRL the Museum has come up with ideas to offer up some space in the PRL to free up some space in the new building. Bill wants to know if there will be a groundwater lab, yes there will. Sarah wants a lab in aqueous geochemistry.

Nemo Field Station @ hematite quarry: Field camp fundraising will not interfere with MI Building fundraising. Some donors have historically just supported the field station. Proposal that the foundation builds the field station then the field camp buys it from them. Timing of field station – 3 to 5 years. In the meantime, could work on utilities, access road.

Scott Cooper motions to adjourn, David Hammond Seconds, all are in favor.

Submitted by Emily Berry