

Research and Mineral Mapping Subcommittee
Draft Meeting Minutes
January 8, 2021
9:00 a.m.

Roll Call

Tim Eisele – present
Steve Kesler – present
Snehamoy Chatterjee – present
Adam Wygant – present
Sharon Schafer – present
Mike Sweat – present
Peter Rose – present

The meeting began at 9:18 a.m.

I'm hoping to thrash out what we need to do. The document from the last meeting is what we will work from. Is this everything we want to address and how will we turn it into a final report? What do we need to add or change?

The legislature is looking for input on these topics and how to move forward. Mike is knitting together the work products together. We would need to see where the intersects are. The Social, Regulatory, and Mineral Mapping has a lot of pieces to put together. Mike is leaving at the end of May, so we want to utilize him. The report is due October 8, so I would like a draft complete by June. We honed in on 3-4 areas already. We need to look at these areas. If we looked at one topic each month and see what recommendations we want to make, we're farther ahead.

The Regulatory Policy subcommittee is aiming for a rough draft in April and will meet monthly to discuss progress. What length were you anticipating? I think we should have a 50-100 page document. How do you see this expanding? Will we use collection, statistical and financial data?

Adm is thinking about a network group coordinating with geology. Think about the proactive action to take to achieve these goals. We talked about several concepts. We need to put more meat on the bones. I have an idea where complexes are, what state resources, what the overlay is like. Zoning and special environmental would help. This area might be a good area to look at for copper.

We need to make sure we comply with statute to make sure we put everything in the report. The content is more important not the length. What is the intended audience?

In the October 8, 2019 Act, in Section 3 it tells what the committee is supposed to do. That is the charge Sharon drew our attention to. We got three pieces here. We should cover each piece at separate meetings. Today we should cover item 1. Maybe we can add more to this or not. Representative Cambensy was impressed with the Minnesota product. It was probably her vision. We don't want a 200 page document no one reads.

The policy recommendations would be more to wrangle. The statement areas are really good. We could bullet out specific areas. We could do a large document then a cliff notes version or summary. Who is the audience? The legislators may read it. They might ask how they can help the industry. We need to be articulate in the document.

Area 1 has inadequate funding. We would have to start with a specific statement. I like the work we've done so far. We need to bullet items out more. Yesterday, in the Social, Economic, and Labor Opportunities meeting, we discussed how it is not enough to just submit the report to the legislature. We need an executive summary. We need to do outreach. The DNR and EGLE have legislative days. MOGA does as well. Instead of dropping a 50 page report, I think it's good to add on to that where does the funding come from? We can work with John. Tim has a grant from the private industry. John Yellich has money from the legislature and general funds. We might be able to contrast with other states. If they are funding activities, how are they doing it?

I'll check with adjacent states and out west to see what they're doing. We could site in a bullet from several research objectives. It might be more useful to get a map with land tenure and geology. Peter will check with John Yellich.

We could make a case that funding is inadequate. It should be what you have and what is that gap whether it's general or not. The legislature can help with that. Mike agreed. The first paragraph can be edited to make a point that state has funds to expand on the survey. We can suggest to the legislature how we want funding set up.

Steve read that there is \$800 million in funds for rare mineral research. A point was made to position the survey to have sufficient personnel to go in after funds. We could go after it. According to Snehmoy, Michigan Tech and Michigan Geology put a proposal together to put an exploration study together. John Yellich submitted the proposal. It is timely to hear this, and we should put it in the report. This kind of thing is a recommendation the state should pursue. There is an underlying effort to access databases to allow people to get the data they need.

Is there more funding? It is unfortunate John isn't here. We had a lot of conversations on how to fund and survey. Michigan Tech has research capabilities different from the University of Michigan and Western. Universities are very competitive. It has to be out in future fund. Too much competition has to go out the window. Universities might not

be doing all languages. Steve said when they were getting rid of geology at MSU, we need to have people in the state to fully gather and interpret this.

Adam and John and I have a vision of what the survey could include. Universities do work, and they have lots of need. Geology at WMI needs funding. There are different means to fund surveying. If we can message it out, it would be great.

The State Geologist is not a member of the state survey. I don't want to recommend that as it would hurt the State Geologist. There are multiple models across the country. Nick is a State Geologist and Director. Should I have more input being an advisory director? Nick is the Oil and Gas Commission director. He has to have someone under him. We need to make sure our recommendation is realistic.

Agencies like MDOT, EGLE, and the DNR want a strong representation on the advisory board. We put through a lot of money for PFAS erosion. The concept of surveys is located at WMU and serves the state. Geologically you can grow a lot of areas. We can be an advocate for mineral activities. Some are related to mineral production. I hear you talking about relationships. Partnerships are important and making sure we are working towards the same goals. It's about those relationships.

There are a couple different layers of a partnership. This group, we're okay going more specific with partnership areas and it is important to mining copper back up to \$3.50. Exploration goes up and there is lots of interest. We can't control those cycles.

There is interest when copper is low, but everyone invest when money is at the top. I wrote a thing about 20 years ago. I heard about it when it was high. Projects were delayed and didn't come out until the next project cycle went online. We need to expand on what we have written. Steve will work with John Yellich. Adam will take ownership on a couple of these paragraphs. John and Steve can help with one area and others do the other two items; we'll be in good shape.

Tim will take the first two paragraphs in section one, I can do. He will do what I can with paragraph three. Peter was late joining the meeting but he offered to work on one. Area two, Mineral Mapping would be Peter Rose, Mike Sweat, and John Esch. These areas are where funding comes from.

We have three areas and have been discussing how to elaborate on these. Should we discuss the current state of funding in Michigan? The reader has an idea of funding. Steve, can talk to you about states that do this better. What states do a good job of researching and mapping? Some states with lots of money just pony up and pay for it.

John just got off a call with Washington DC dealing with new funding. They are looking at the state side, but I have insite. USGS supports the cost of analysis. It's not mining

that benefits its communities too in the midst of gathering that data. I am trying to get feedback from Michigan entities. I didn't get it when the mineral bill was passed. We didn't get some of the money. It was done by MDARD. We have no money here. Aggregate Associate proposed a penny per ton. I went to the Aggregate Associates for mapping funding, and they won't go for this. We get a cost per county. It's about \$1 million per county. We have priority counties. It's not at a small mapping scale. We didn't have LIDAR before. We can map things more clearly now with LIDAR, and we see things at a meter and put continuity on the map. It's easier than it was 2-5 years ago. Can we do mapping in the UP? USGA people are in the UP area, and they went and looked between LIDAR and geophysics, and they could see more. The detail was just finished in 2018. A core sample of 18-20" was being taken, and we can see stuff about the structure and water resources. We can prepare a demonstration of Dickinson County. We have the ability to do better mapping, get the information we need, and we have our boots on. Back in the 70s, we had great mapping. Funding was pulled and mappers left. We can see about annual funding. I am enthusiastic about people who want to work in Michigan.

You can start this section that LIDAR puts us in a remarkable position. I knew about this indirectly eight years ago. They do a leaf off, and you can take off layers that we never knew were there. That would be a great thing to put at the beginning of the report.

With the funding piece, we can articulate the vision of tentacles in universities. We talked about documenting networks, where geologic survey is located at Western and working with Western management. They are committed. We still have challenges and opportunities to document this is the report.

A professor at Wayne State looked at trace minerals. He wrote a letter to get money to do XRF demonstrations. A lot of metals are lead. Water pipes are not connected so grass is not growing. They wanted to put goats out to eat the grass and take their milk. They could not do it due to too much lead in the soil. They put a 2' buffer on it to excavate the land. They want geologists t the university who want to work in Michigan.

John and Steve will work on paragraph one. Peter will work on area two. Everyone should at all the areas and wire what they know about it and contribute what you can. We can work on finessing this at the next meeting.

Adjournment

The meeting was adjourned at 10:39 a.m.