

**COMMITTEE ON MICHIGAN'S MINING FUTURE**  
**May 25, 2021**  
**DRAFT MEETING MINUTES**

**ROLL CALL**

**Commission Members and Affiliation**

Richard Becker (Aggregates) – present  
Snehamoy Chatterjee (Research Faculty) – present  
Timothy Eisele (Rep. Cambensy) – present  
Harold Fitch (Sen. McBroom) – present  
Sean Hammond (Environmental Nonprofits) – present  
Matthew Johnson (Metallic Nonferrous) – present  
Stephen Kesler (Research Faculty) – present  
James Kochevar (Ferrous Mining) – present  
Chad Korpi (Ferrous Mining Unions) – present  
Jerome Maynard (Environmental Nonprofit) – present  
Deborah Pellow (Municipality Affected by Mining) – absent  
Evelyn Ravindran (Native Americans) – present

**State Agency Members**

Liesl Eichler Clark (EGLE) – absent  
Adam Wygant (EGLE) – present  
Dan Eichinger (DNR) – absent  
Sharon Schafer (DNR) – present  
Mike Sweat (EGLE) – present  
Susan Bishop (EGLE) – present

**Others Present**

John Yellich  
Dave Behrend  
Connor Loftus – Representative Cambensy's office  
Ben Drenth – US Geological Survey

The meeting began at 9:05 a.m. with roll call.

Tim Eisele reported on the Research and Mineral Mapping subcommittee – the main point of our section is in order for mining to be done responsibly, mapping needs a lot of work, and we need research to do this. The actual document speaks for itself.

Jim Kochevar reported on Mining Methods and Environment – our section talks about the significance of mining and the needs of minerals, tax employment, uses, and impacts of mining, and sustainable methods. We listed examples of ways to bring it back. We can need to convene a group that lives beyond this committee. Everybody recognizes we need to do it responsibly. Topics may fit here: cumulative impacts and climate change.

The impact of mining in society is more in society not climate. It might reference the concept to global change not climate change. It is tough and quickly evolving. It is a lot of work to combat climate change and make minerals more globally. We need to reduce the carbon footprint at the same time and have a piece of Michigan in it. There is certification in oceans as well. There is less of a firecracker than climate change. We are dealing with the impact of climate change. Whatever we do, we need to look at changes that are occurring.

All of these comments have human impact on the planet. We are not sure of the area that spiderwebs on the project. We'll see this in the opening section. Have we touched on liability? Do we discuss that in the committees or the report? There are existing issues on mine sites. Sometimes they take full liability. Do we need to say anything about those situations?

Jim works more with iron, and it is not regulated. There is a conveyance between the parties. New incoming purchase companies assume all responsibilities, and it stays with the owner. Was this discussed anywhere, or do we need to discuss it? It needs to be modified as it relates to mining. It was noted favorably of all old pits for tailings. We didn't discuss liability around that. We will work these issues. This is important and should be mentioned. It is pretty clear when property changes hand.

Adam will work on the paragraph regarding taxation with Matt and Jim's crew. It goes in the introduction or with Brownfields.

Hal Fitch reported on the Regulatory Policy subcommittee – Nothing new to report. He has a couple comments from Sean he needs to add.

Social, Economic, and Labor Opportunities – they met a couple weeks ago and did a final review.

The committee began reviewing the draft report. The regulatory language could go into the introduction. The cover image was added, and a table of contents. Page 1-6 have considerable markup. The rest is sporadic. The executive summary should be added ahead of the introduction in the table of contents. The introductory section review of what each subcommittee did could be put in the executive summary.

We can redraft things and let everyone have a shot at it and handle it that way. Everyone agreed they liked the way Hal's group summarized a problem, then gave a recommendation. We should put the report into a standard format and modify it to that standard. Hal's section laid out specific recommendations. They talk about what is needed to make it happen, and they had 13 main points.

The introduction should say how important mining is to society. It should have a page of how critical it is to have mines in Michigan. Mike highlighted text to be lifted. We should discuss cumulative impacts and stuff like that and describe the four subcommittees.

There is a good deal of overlap in the recommendation. The bullet points can be general recommendations. The subcommittee recommendations should be the committee recommendations or suggestions. The table of contents looks okay; however, instead of having subcommittee after each one of these headings, remove it.

It was suggested that the order of the table of contents should start with the Social, Economic, and Labor Opportunities section, then Research and Mineral Mapping, followed by Mining Methods and Reclamation, and finally Regulatory Policy.

The executive summary and/or the intro may look at the charge of what the committee will do. Is it worthwhile to extract the public act and put it in the document? We need a concise statement. It should be put after act/committee is formed. The act is Appendix A, but it should be in the text also in the Executive Summary. There is a comment on overlap among text; reordering of sections and introductions so it flows better.

We need to inform the reader of the work structure of report findings. It's the least important part of the introduction; the "pep talk" should be in front, then cumulative impacts and how the committee structure was studied.

The introduction is left for Mining Methods and Reclamation. Waste is a negative word. Some of this is just terminology. Can we find another word instead of waste? Rock material or something like that. If you use materials, people might think of steel. Could it be biproduct? Mining biproduct is specific to the topic at hand. It looks like we're talking about waste. If it doesn't fit at the end, we can look for another word.

We are talking about value in the future. There are one if not two generations that do not understand mining. We need to make sure everyone understands. Mining was something we stick with and provides easy definition that people understand.

We need a definitions section in the document. What's waste today could be a valuable resource tomorrow. Most things are waste but are full value mining. It can be heat waste, too. We need definitions. We can use the best term throughout the text. If you use waste, people will just assume they know what it means. We should also define brownfields. We should define rock and mineral and things like that.

Do we want mine-land to be one word, two words, or hyphenated? It was agreed it should be hyphenated.

Global change/climate change – make a note to add to this. The intent was to establish guiding principles. Move this forward after the "pep talk." We didn't need as much detail on climate change. We don't go into as much detail as we did with other topics. What parts should be taken out? Some of the parts can go into the definition. Quite a few terms could be added to definitions.

It's almost like we need to prove our point. We should look at how mining can be done. The first and last paragraph capture what should be included. Are they pertinent to

regulatory impacts of mining? Global climate change is not specifically Michigan climate change. We could argue that mining is necessary to aid climate change. We could say if it's positive or negative and how this equates to mining in Michigan. We are setting it up as mining.

The BBC distributed that mining is an important part to deal with global climate change. Mining will help a lot. Regulating fossil fuels and mining is difficult. Things are truth and a global issue.

On page nine, we are at Mining Methods and Reclamation. What are the recommendations? What are we trying to convey to the reader? Pump storage in mine-land and underground pump storage. Do we need a paragraph about the Ludington pump? Keep this as pump storage is possible. If we leave it, it states Ludington site is not regulated to mining.

John lived in Minnesota for four years. Schools were the best in the country because taxes stayed in the iron range. This goes back to when he lived there for 1978-1982. They had the Hockey Hall of Fame.

You wouldn't even know it was a mining area. When did tax policies come into effect? Taxes were horrible, but everything was first rate. John will reach out to his contact in Minnesota to get more information.

Yoopers have land based timber and proceeds are economic benefits that go down state. They are going on 100 years up there. We can add Surface Mining Control and Reclamation Act (SMCRA). They have an occasional collapse of mines. This section shouldn't overpower things.

Hal's group did an excellent summary of regulations and did an outstanding job putting this together.

In the second paragraph, change to iron ore deposits are currently mining in Michigan and Minnesota. In the third paragraph, add in favorability before among the 13 states surveyed. Do we need to add Michigan was ranked converse due to uncertainty? Michigan fell considerably overall. It fell to twelfth or eleventh in 2019. Hal will make this change.

There is a rank in geologic databases and repositories in Michigan. In databases, Michigan does very well. Regulatory certainly dinged us. This is assuming everyone reports, but note this ranking tends to jump around. The Frasier Report is heavily looked at in Toronto and Pedact. It's looked at a lot even though it's inaccurate.

Aggregates are lumped into industrial minerals. Mainly sand and gravel are the issues. Then next page we deal with aggregates separately. It's not your dimension stone or limestone. Aggregate's bill would regulate clay. You could inadvertently clay minerals with aggregate mining.

Sean cannot support this being in the report. You're pulling water out of the ground and not addressing it. He doesn't feel it should be reviewed. The language should be changed to be more general. He doesn't feel it should be considered. It can have an impact if pulled to the surface.

Introduced contaminants can't be changed. You have to treat a contaminated site different. If someone does limestone mining, they have natural TDS and sulfide, and they need to treat it. In the upper peninsula, low mercury threshold. Mostly from airborne sources, and you have to treat the mine.

Sean doesn't agree that it's okay. Groundwater and surface water interface. Mercury in the groundwater is an issue. Solids in groundwater are very different thing. It shouldn't be a distinction. You can't pump and dump water. He feels strongly that water should be maintained.

Adam said the important issue for aggregates mining with natural constituents in the water. We can handle this so it doesn't leave Sean not approving it. There is mine dewatering; mine water is sometimes cleaner. John agreed with Sean 1000%. We have natural occurring minerals. There is ammonia in swamps. Discharge with groundwater to surface water is diluted so rapidly you don't see it. We want to capture water from ditches, downhill from them and pump upstream.

In southeast Michigan, Monroe, there is a problem with TDS levels but it's hard to do the discharge. Total dissolved solids is where we have problems. Some are higher than limits are set. Sean is willing to look at new language to resolve this recommendation. He will forward to Hal so he can add it in.

It's fair to have a discussion on what significant means. Our perspective now is a regulator things everything is significant. CDQ doesn't define significant.

In subsection five, we should say we have two internal policies with EGLE. Some discussion of those should go there. The mine team reviews permits. Internally, they are looking at a new mine, and they like that. They do coordinated reviews. We don't want decisions made by one individual.

With preliminary scoping projects, EGLE pulls everyone from transportation in. They tell what we think they need. The second piece is more internal. EGLE has a mine team to review applications, and it's beneficial to everyone involved. Adam and Hal will update the aggregate mining concept. Hal will reflect where legislation is right now.

It should be changed to specific Indian concerns and put it in the appendix as no significant changes are needed.

Evelyn asked if treat rights could be added to page 25. She will write something up. Be concise about comments; 150-year treaties are still in place and be helpful to the reader. Most are issues by the committee and Hal felt should be recognized.

The next section regarding mine inspector should be updated. There was no comment, and it should be updated prior to final. The Research and Mineral Mapping section – should this comment be used in the introduction or just delete it. Use it in the executive summary. If we talk about mining in Russia, it should be noted. Language could be used to set up mineral mapping. Snehamoy made this comment; he felt it needs more background. There wasn't government support by the Bureau of Mines. Maybe we could say "Government support for mineral processing has ended and government research should drive innovation."

DOE is not getting involved with recycling. DOE has the potential for gathering a lot of money for research. They want to get involved with reprocessing mine waste. DOE may be an entity that can do things under multiple directions.

Does anyone have language for current production of lithium, cobalt, and magnesium? Mike has a spreadsheet but no text. In number three, extraction of minerals, Steve recommended to change the first four lines. Change aeromagnetic and LiDAR to geophysical. John felt LiDAR should be left in. The whole next paragraph is about LiDAR, so leave this sentence in.

The next section is about organizing and funding of research. Everyone should read this to make sure it captures the intent. The last sentence needs to be reworded in the third paragraph. Take out "the separation process for new."

There are 10 or 20 terms; we could put them in italics and note they're defined in the appendix. We can work with the editor; definitions would be best in the appendix. The definition is in the first pages, so they can understand. It should be put after the table of contents. USGS puts definitions after the table of contents.

Recurring stable funding for MGS would provide dedicated staff for working on projects and funds to meet grant requirements. Does anyone know why this is highlighted? Alaska companies work and do research, and it's kept confidential for a year. WE could blend this into a recommendation. Turn it into a positive recommendation.

The next section needs a summary and recommendations for state funding.

The SELO section regarding mining tax structure aggregate overview should be added or moved to the "pep talk."

Retitle unemployment benefits to Workforce Retention. Under mining tax structure, there is a bulleted list. Jim, Matt, and Adam will work on this. Treasury will do a brief overview of taxes.

The tax structure should be moved and dropped into the introduction or appendix. Condense the mining tax in the introduction or have it in the appendix. None of Eagle's tax goes to the general fund. This wasn't discussed in great detail. Should it stay under

SELO? Should we have a separate section on taxes and funding? It was agreed there should be a separate section on taxes and funding.

The committee took a break from 12:03 to 12:14 p.m.

This section relates to who were talking to. It can be mine companies who want to operate or general public about mining. It's a recommendation to companies on how to be a responsible company. The Canadian DNR has a responsible mining handbook. It could be housed in another way. Should Michigan develop a handbook? We could offer recommendations. What is the recommendation to the public? Companies and general public are aware. Will we make recommendations to the general public? We can indicate that public is a group that licenses mining. It is stated at the beginning. There are educational pieces throughout the report. Keep it under responsible mining since ESG is not known yet.

BBC had a piece that we need to ramp up mining to be sustainable. New awareness needs to come across. People that use energy use minerals. There is a divide of how things are sourced and sourced irresponsibly in some places. We do it in an environment friendly way here in Michigan. Matt included it in the opening.

There were no comments regarding treaty.

The general responsible engagement actions heading was written as if we are speaking to everyone. Matt will rewrite as more of a narrative. Stakeholders include the general public. We need to talk about how engagement needs to occur in mines.

Pebble Mine is an issue that's global. We need to up our production of copper. We don't know how to engage special groups. The responsibility of the miner is to know who stakeholders are. They could be global, local, or regional. Downstate people usually have negative opinions.

Looking at permit approvals, it has to be done first. EGLE policies have grown. They engage heavily with ten tribes in Michigan, but treaty rights are in Michigan and Minnesota. All tribes of US won't be engaged.

The DNR has on the forefront whether direct mining is a lease. The public wants to know about this. They went through a process to audit harvest processes. Anything we do, we need an outlet to public and allow them to voice opinions. Considering all things in the DNR and EGLE, we need to get off right with communities.

Appendix A should be moved to the executive summary. Appendix B is what the report talks about. Appendix C was just added. I talks about each topic. Bullet point list gets to final suggestions or conclusions. Appendix D is a description of minerals.

A discussion took place as to whether the report should be sent out for public review. The UP Energy Task Force report was sent out for public comment, and the public was

included all the way through. There was a large turnout for public comment, but the process is not a debate. The public needs to be educated. Are comments from people in Michigan or all over the country who don't want mining? We will get criticism if we don't hold public comment. It is more work for the committee to prevue to go through comments. We can have a paragraph stating we had so many comments, and state what we decided to do.

#### Public Comment

Ben – living minerals are critical things. You can reference the report I dropped in the chat.

The next CMMF meeting is July 27, 2021.

The meeting adjourned at 12:56 p.m.