

**Mining Methods, Environment, and Reclamation Subcommittee
Draft Meeting Minutes
April 28, 2021**

Roll Call

Jim Kochevar – present
Hal Fitch – present
Evelyn Ravindran – present
Adam Wygant – present
Steve Kesler – present
Peter Rose – present
Anna Ediger – present
Mike Sweat – absent

Others

Aram Kalousdian, Michigan Builder, and Infrastructure magazine
Dave Behrend

The meeting began at 2:03 p.m.

The March 24, 2021, minutes were distributed. Please look at them and get your comments to Jim.

Anna was busy soliciting comments. She will take us through the comments section. In the introduction, aggregates were not capturing all the constituents that was needed so it was updated to industrial mining.

The scope of work section highlighted two things: cumulative impacts and climate change. Input was provided by Adam and Evelyn. Steve has comments to forward. He feels we don't need cumulative and climate change in the report. It's an issue. Sections were left in so they wouldn't get lost. Other subcommittees might be working on this, too. The committee as a whole should make this decision. Each subcommittee can put together something for this and the whole committee can decide if they want it included. This could be paired down as Mining Methods, Environment, and Reclamation. We should embed recognition in our comments instead of having a whole paragraph.

With cumulative impact, were other major minings looked at? Part 632 explicitly addresses it, and Part 657, sand dune mining. Leave cumulative impact for now and put it in regulatory policy. The regulatory piece could be put in the preamble. Cumulative impact and climate change does touch on regulatory. It would be good to know where the information comes from. There is the Hazard Mitigation and Climate

Change office. We have to be accurate. The Regional Planning committee provided plans for tribes. Different language instead of climate change is fine.

It could be a controversial topic. We don't want it to retract from industry. We need to work with people who will be reading this. We hear about this when we have public hearings. Are events appropriate if we see high intensity storms? Where do we go with recommendations? We may have some folks thinking if there is a 100-year event, it should be 500 years. State decisions need to be based on science. They are in Part 632.

Adam will talk to Brandy Brown and James Clift in the climate change office with the State of Michigan regarding language. Would that satisfy concerns? Some people may think climate change needs to be addressed, and we should say those issues need to be addressed. We can't draw on this mining practice and whether it should be deterred or preferred due to climate change.

Mining things like lithium and wind turbines are necessary and do decrease our carbon footprint. Keep in mind extreme situations. We could add a narrative on what companies are doing. Minerals are critical. Miners expected to provide them, but they are under pressure with ES and G carbonization.

Mining is necessary for wind turbines. There are other impacts on carbon footprints. Don't expect a consensus. When designing toward the extreme ends of things, you're encouraging decision making. They don't just run on a 20-year average. We may have to adapt. This whole section can encourage companies to look beyond reclamation and look at climate.

We found that trying to cut tailings construction is not good. It's not a bad thing, but non-stringent implies it's not happening. It's not a prescribed factor of safety. There is an elevated factor of safety to adhere to in designs. It should go through third party review as well. There are two ways to deal with tailings regardless of climate change. It's a gesture towards appropriate changes.

The upstream dam methods aren't created equal. They may have very little monitoring. It's new global standing. This has been handled in Hal's subcommittee. Upstream dyke construction has failed. We can monitor this. However, the rise over run is different.

There are two issues, and it's more generic when it comes to tailing design and climate issues. Precipitation events should be factored in. That leaves us in a neutral position. Events are getting more frequent. It can be more general. It works with other best practices like paste backfill and other solutions. It can be considered as alternatives. The gypsum mine in Florida had a failure impacting water quality in the Tampa area.

It's a phosphate mine. It's covered in regulatory. We're talking about tailings.

In our area (Evelyn) stamp sands are an issue and we encourage reuse. Several proposals of Buffalo Reef are an issue. We can use it for roads and bricks. Has this been addressed? What about legacy and mining and reuse? Adam and Hal talked about legacy sites. A paragraph was added with Adam's language. Particular uses were added.

Reworking waste rock piles, dunes, and covering of reefs aren't technically mining. Consideration should be reviewed or regulated with mining. A person may want to mine for two reasons. It is advantageous to reclaim some of these legacies. How would funding be looked at by the state? A for-profit company could make shingles with copper in them, but economics don't work. A company may have concerns with dredging. They have financial non-traditional partnerships.

Buffalo Reef is a bad one. It's at the end of the spectrum of things we want to do. Sands are being moved on the shoreline. They could be used. We can address this in a more generic way in terms of mill waste or tailings that can be beneficial.

Mineland Visioning Partnership could develop in Michigan and bring resources from various perspectives. We can knit together funding to bridge the gaps. Brownfields are initially reentering property and includes tailings and waste rock. Leaching tails out of some metals, we could create good secondary land use. Try to find out proposals that say you mined here, now fix it.

We are trying to foster some down activity. There is potential harm and potential benefit. The Attorney General talked about tailings that didn't meet the state's definition. In regulatory, this was hinted at. Some regulations benefit everyone.

Mineral rights look and smell like mining. People are processing metals out of rocks, but taxes don't apply. Regs aren't going to change if there is a mineral right or not. Don't know how other states do it. Do they create another mining category? There has been a fair amount of controversy. This is common law. How did Minnesota handle how they reworked rock piles or tailings? Do they consider this in Minnesota? Steve will look into this.

Saucony worked in Michigan down in Groveland, but they don't have an active lease. Don't know how extractive if a company was regulated. It depends on tax or regulatory and how you were looking at it.

Comments on the report have worked its way through. Mineland Vision Partnership, what is the recommendation that comes out of this? This subcommittee report should put this together. We want recommendations or options for consideration. May need to

move a few pieces around. There are recommendations but they don't jump out at you. How deep do you go? Future work is needed to understand whether a convener of mine stakeholders that explores reclamation and land use planning would be effective. Michigan would benefit from such a convener such as MVP. One or more based on categories of mining. We would benefit from two different groups.

Make it explicit without pinning it on someone. We need to point out these things to be considered. Brownfields and overall mines should be managed as a resource. Brownfields are an asset including mines and all waste products and treated as so. We try to encourage industry and government groups that facilitate mining and reclamation activities. Brownfield can be potential benefit or harm and lends toward partnerships. We should look for benefits that are economic and environment benefits. It's a win-win situation.

MVP grants – mention that Michigan has the rural development fund. We should acknowledge we have this in Michigan. Consider it a model. Linden and Matt Johnson has ideas. This topic is better covered in the SELO subcommittee. There is the Department of Natural Resources Trust Fund. This was also touched on in the SELO committee. Incorporate conversation held today into the narrative and distribute it to the subcommittee.

Public Comment

Dave Behrend – All of the comments were good. People will misunderstand if they can. Repeat repeatedly that if a mine is reclaimed it can be done many times. Groups come in with little or no conservation and land is converted to solar panels. They cannot come back and use land for farmland. Technology is going one way and mining another. In the middle is a population of people.

Meeting adjourned at 3:20 p.m.