UNITED STATES OF AMERICA

FEDERAL ENERGY REGULATORY COMMISSION

Office of Energy Projects

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MORIAH HYDRO, LLC Project No. P-12635-002

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MINEVILLE ENERGY STORAGE PROJECT

Draft EIS Meeting

New York State

DEC Region 5 Sub-Office

232 Golf Course Road

Warrensburg, New York 12885

Tuesday, July 30, 2019

The morning scoping meeting, pursuant to notice, convened at 10:06 a.m.

P R O C E E D I N G S

MR. MILLARD: All right folks. We will go ahead and get started. So, we're going to open the meeting, I have here, 10:06, and thanks everybody for coming out today. I appreciate your time in getting here and taking part in what is an important process as we go through this licensing of this proposed Mineville Energy Storage Project.

My name is Chris Millard. I'm a fish biologist with the Federal Energy Regulatory Commission down in D.C., and I also am the project coordinator for the Mineville Project. And I have with me today two colleagues, Andy Bernick, also from FERC. Andy is a terrestrial biologist, or a wildlife biologist rather; he worked on the terrestrial resources section of the Draft EIS. Also, kind of oversaw the geology and soils section as well and did the threatened and endangered species section of the Draft EIS.

Also, we have Bernward Hay. Bernward is from WSP, a consultant that we hired for purposes of this project. He's a geologist, and we figured we needed a little more muscle in the geology section of the Mineville Project, so Bernward did all the heavy lifting for that section as well as his colleagues over at Rizo Associates.

I do want to mention, too, that as we go through the presentation today, I'm just going to kind of give a

brief overview of the process, kind of where we've been with the project. Then go into each of the resource sections to give a summary of our findings and some of our recommendations, some of the proposals that Moriah has had. And then we'll open it up for questions specific to each of those sections. That way we can be a little more organized as we go through things. I'll also mention that we have Dan here from Ace-Federal Reporters, so he's going to be transcribing everything that's said. All of the transcripts will be available within a couple weeks of this meeting, and you can access them online through eLibrary.

The purpose of the meeting, as most of you know, is really for us to solicit comments on the Draft Environmental Impact Statement that we put out in June of this year. And, you know, we're asking folks to go ahead and provide oral comments, any questions, any suggestions, things that you think we did well, things that maybe you think need some improvement. Everything is open for discussion. You can also submit written comments. I think a lot of folks are intending to do that. Those will all be due by Monday, August 19th. And those can be submitted online through eLibrary.

And if anybody has any questions about eLibrary, how to use it, how to navigate through it, I can certainly discuss it with you after the meeting today. I already got

to Dan being here so, one thing I will mention if I didn't mention it previously is because Dan's using audio equipment please speak loudly, speak clearly, introduce yourselves and give your affiliation prior to providing any comments.

The other part of this meeting, and we'll also have one this evening up at the high school in Port Henry, but in between that we're going to be doing an environmental site visit. This is the same kind of situation that we had during the scoping meeting where we'll go up and tour the proposed project area. The folks from Solvay have been kind enough to allow us access, and so we'll tour that. The idea is to get there about 2:15. Get ourselves organized and then leave at 2:30. We'll meet at the Moriah Highway Department, it's on 30 Joyce Road up in Mineville. And we intend to probably spend about an hour-and-a-half, maybe two hours tops touring the site before we adjourn.

So, just a little background information about how we got to this point. This project has been around a while, to say the least. We got an application for the project back in February of 2015, and it's been kind of in the works much, much later than that. We initiated our scoping meetings in December of 2016, and those were held here and up in Warrensburg, in the same area up at the high school in Port Henry.

Generally speaking, after we do the scoping meetings, we issue our Ready for Environmental Analysis notice. And in this case we got delayed a little bit. We had requested some more information, had some more comments and concerns before we felt we had enough information to go ahead and initiate the NEPA document that we intend to put together; and so the Ready for Environmental Analysis notice came out in February of 2018. So, that's the point when we started working on our EA, our environmental analysis; and as we were going through that and going through the project record, doing our evaluations, we kind of saw that this project might actually constitute a major federal action that could significantly alter the human environment; and because of that we made a switch to an EIS. So, the issue of the draft, the notice, rather, of the current EIS back in April of this year and put together the additional sections, did the additional work and figured out the logistics to finally get our Draft EIS out on June 18th.

So, as I mentioned, our comments for the Draft EIS are due on August 19th. And our intention is to then take the comments that we generate both at this meeting and any written comments that we get and put together a final EIS by February of 2020. All the comments that we get, both today and in *future meetings and written comments we'll address in the Final EIS. And if they don't warrant any

revisions we'll still address them and then respond to each and every question, so all the comments and questions will be addressed in some fashion.

So, what I'd like to do now is just kind of open it up for comments and questions on the Draft EIS. What I'm going to do is pretty much summarize the issues that we saw relative to each of the project areas, each of the resource areas. So I'll go through them, discuss the issues briefly, talk about what Moriah proposed for environmental measures. And then also the recommendations that we came up with. And then after each section we'll go ahead and open the floor to any questions or comments; that way we things somewhat organized.

So, the first is geology and soils, and clearly this is kind of a complex area for the Draft EIS, there are a lot of issues that we considered. I'll mention that this isn't meant to be exhaustive. This is just kind of an overview of our issues and our findings. And so really we saw four separate issues here. Those are highlighted in blue. I'll just go through them briefly.

The first being seismicity, structural integrity and dimensions of the proposed facility. When I say dimensions of the proposed facility, that's with regard to the proposed project reservoirs. Clearly, this is, the project is in the seismically active region, it's a pumped

storage facility, so water would be moving between the project reservoirs. Bedrock within the project reservoirs contains some marble, so there was concern over the solution of the marble maybe impacting structural integrity. And then also we wanted to look at the elevations in storage compliance, and confirm them within each of the reservoirs.

There's also subsidence of the filled former mine shafts, and if you're going to go on the tour today you might see that. Some of the mine shafts are forming sinkholes and have potential hazards. We want to look at that as well. Hydrological connectivity to the adjacent New Bed Mine, and we want to examine potential groundwater flow and pathways from New Bed Mine into the project mines. And then control of soil erosion. And here the idea there was that project construction makes those soils that they could erode into local streams.

The proposed measures from Moriah included everything here. I've broken them down by topic area. So, under seismicity and structural integrity, they propose to conduct geotechnical investigations. Relate the seismic risk and bedrock stability for the final design, and also develop a 3D model. Also, they proposed to monitor seismicity basically two months before project construction and then twelve months after the start of project operation.

In regards to the subsidence of the former mine shafts, their intent was to go ahead and reseal all the shafts and openings within the project boundary with the exception of the 21 Pit. And with hydrological connectivity of the New Bed Mine, the idea is to isolate the project mines by sealing the West Drift and sealing any other water-bearing seams that may lead into the project mines. And for the control of soil erosion, the proposal was to basically implement an erosion and sediment control plan.

Once we went through our analysis we came up with the following recommendations, and some are mostly just modifications of the proposal from Moriah, but we also added quite a bit to it. So, our first was to develop a formal geotechnical investigation plan. And that plan would be for upwards of ten years post-construction to expand the number of borings that were proposed and conduct additional geotechnical tests within the project reservoir. And that was mainly to evaluate stability.

We also wanted to look at evaluating the lower maximum elevation for the upper reservoir and reassess the proposed storage capacity. As far as subsidence of the filled former mine shafts, we recommended to develop, again, a formal mine shaft and pit resealing plan. And this was mainly to just kind of take an individual look at each of

the subsiding areas, each of the shafts, and kind of tailor-make a fix for those particular shafts and pits.

As far as hydrological connectivity, we want to develop a project mine sealing plan; again, this is going to isolate both the project mines from all the adjacent mines; it included grouting major water-bearing seams and discontinuities. Inspecting the sealed West Drift for its integrity. And then intermittently inspecting and grouting the upper reservoir, as needed.

We also proposed to develop a groundwater monitoring plan. And again, that is to basically have a network of monitoring stations around the project area to get a better spatial understanding of the groundwater hydrology and connectivity to adjacent mines. And then with respect to the control of soil version, we want to modify Moriah's proposed erosion and sediment control plan to include more site-specific measures for all locations with any ground disturbing activities. And we also want to include a plan for disposal and the use of any excavated materials that came as a result of the project construction.

So, I think that's kind of our overview of the geology and soil section. I guess I'll go ahead and open it up to any questions, comments that folks have with respect to geology and soils.

MS. NINER: Hi, I'm Robyn Niner with the U.S. Fish and Wildlife Service. I was wondering, maybe this is to you, what are your thoughts on the likelihood of actually being able to seal all the potential connections that maybe the rock -- not just the shafts. What's the likelihood of actually being able to seal all the different connections that are there?

MR. MAY: Bernward Hay from WSP.

So basically we see, thinking about the connectivity between the New Bed Mine and Harmony mine.

So those mines are adjacent to each other and the concern there is that rock water can go from the New Bed Mine to the Harmony mine. Basically we see three connections between the three; one is the West Drift, which is an elevation of around plus-200 LMD, which is around plus-295, and there are two elevations, elevations that are used -- LMD means local mine datum, that they used in the past. So a lot of the maps are using that elevation. So that's number one.

From what we have seen, there is no reason to believe that this connection between the two mines is closed; so it might still be open in Moriah. I was proposing to close that West Drift through a bore hole from above, and sealing the drift. That's number one.

The second is, potential cracks and falls and

zones of weakness between the two mines in the form of cracks in the bedrock; and then the third option, perhaps, would be the glacial overburden, and we don't know too much about that. But potentially, there could be a pathway also for groundwater between those two mines through the overburden, just looking at elevations.

So our geotechnical investigation plan has allowances to investigate those latter two pathways by looking at the overburden and looking at the bedrock to determine what the likelihood of pathways between the New Bed Mine and the Harmony Mine.

What you've seen in the record that is filed, there are no fault lines that are directly connecting the two mines, so that would be one zone of weakness -- we didn't see that; there's some faults in the area, but nothing really that cuts right across these two mines. So again, we anticipate that we can answer that question more fully once the geotechnical plan has been implemented.

MR. MILLARD: Jim?

MR. BEECHAL: Jim Beechal. Albany Engineering.

Can you just comment on the elevations of the New Bed Mine versus the Harmony Mine?

MR. HAY: The New Bed Mine, the water level -- you're talking about the potential connectivity between those two mines?

MR. BEECHAL: Yes; the fact that New Bed is substantially higher than the Harmony.

MR. HAY: Yes. I would have to look back in the record to give you the exact elevation; but what I've seen in the maps, the water level in -- the New Bed Mine. Let me look.

So the approximate water elevation in Roe shaft was given as 1,070 feet; and then the water elevation in the Harmony Mine was at about 1,083 feet. So based on the water elevation, it looked very similar to me. So when you look at the thickness of the glacial overburden and the land elevation of the area, the thickness of the glacial overburden being up to, I believe it was 350 feet. So in theory, without knowing exactly how thick it is in various places, clearly there's a lot of topography there, and it's possible that the overburden is not as thick between those two mines; and it's possible that you have a bedrock sill, which is substantially higher between those two, but we don't know that.

So if you have a bedrock sill, that it's high enough so that you don't have that kind of connectivity, then you wouldn't have that third pathway that I mentioned earlier; in other words, the overburden being a potential pathway. That would come out in the geotechnical investigation, if you did a seismic survey, a seismic

fracture survey in the area, then you could pick that up easily. So that would be something to explore.

MR. BEECHAL: I guess if you wanted to find out the bulk of the mine, the New Bed Mine, where the path area is,
is substantially higher in elevation than the Harmony Mine.

MR. HAY: Okay. We can look at that in more detail.

MR. MILLARD: Anybody else for questions on geology and soils? Marc.

MR. MIGLIORE: Just to clarify, you're saying that the water levels in the two mines that Jim mentioned, the Harmony and the New Bed Mine are similar? However, the topography, the terrestrial aspects are different. That's what I got.

MR. HAY: Yes, Basically the maps were filed; it says the water level in Roe shaft is about 1,070 feet, and that's LMD. And when I look at the Harmony Mine the water level there is 1,083 feet. So to me that means they're basically similar. So maybe there's some discrepancy in the water elevations that would need to be -- that's the information that I have on filing.

MR. MILLARD: Did you want to request clarification on anything else that we have in the Draft EIS

at this time? Are there any questions that you have?

MR. HAY: Well, one question that I had pertained to the reservoir capacity, so we did some recalculation of that. So that would be some clarification that we would like to come up with. Perhaps we don't have all the information, all the data; but based on the information that we have, calculating the surface area, calculating the anticipated thickness of the individual mine field, as well as the Harmony, we come up with a different reservoir capacity, and we would like to have some clarification. Perhaps we are missing some information there that is not filed, or perhaps we interpret information differently than you are interpreting.

MR. BEECHAL: To respond to that, we basically used the water recovery records after they shut the mine pumping down, and recorded the elevation periodically through the years, and correlated that volume change to the predicted mine change. Our mine engineer originally had all of his mine volumes from his excavation, and correlated that to effective water level at recovery. And that correlated well to the mine.

MR. HAY: The way we calculated that is two ways, actually. We looked at the footprint of the two mines -- the reservoirs, that is -- the reservoirs in the two mines, so that gives us the acreage, and then we looked at the

anticipated thickness of each individual mine and then calculated that. That gives you acre-feet, so we come up with a different volume there.

Then we also looked at, as a second approach, try to back calculate using Patrick Ferrel's total volume estimate of about 12,000 acre-feet of groundwater in the ground, and try to account for that, given the footprint of the entire old bed mine, the entire New Bed Mine -- sorry, the entire Harmony Mine, part of the New Bed Mine which is only partially flooded; as well as the Welsh mine, as well as the 21 Pit. And try to back calculate, making certain assumptions; and we can talk about these assumptions, to then back into the volume that may be available.

So again we come up with a different volume, and if you can clarify that, that would be great.

MS. NINER: Robyn Niner again. Why are there not locations about where the ground-disturbing activities are going to occur now? Why are basic above-ground site plans not yet available?

MR. BEECHAL: There is no above-ground site disturbance except at the footprint of the main shaft.

MS. NINER: So why are there not - so that additional request for information was understood where, listing of ground disturbing activities are.

MR. BERNICK: Andy Bernick.

I think the question there was for the ceiling West Drift. There would probably need to be some -- depending on where you had the site to drill the bore hole to fill that crosscut. There's a possibility that there would be some ground disturbance.

And then there would also be likely some ground disturbance in resealing some of the subsiding shafts elsewhere in the project vicinity. I think that's what we were getting out with that.

MR. MAY: If I can add that. It's a good point, when you can, because when the individual shafts are being refilled and rebilled there would have to be some excavation first; you've got to place that material next to it, assume before you refill it; but then that should all come out in the resealing plan, the detailed resealing plan, that would specify exactly how it's being done. Based on the record, each individual shaft is filled in a somewhat different manner, so someone understanding of how it was done and how it is to be done properly in the future; would need to occur, that would then determine what needs to be done in terms of excavating material, and then place it next to it, and then refilling it, so. But that would be again, another ground-disturbing activity in certain places.

MR. MIGLIORE: But I also take your point that as far as permanent project facilities, there are very few.

MR. HAY: It would have a very small footprint in terms of actually surface -- that's correct.

MR. MIGLIONR: Right.

MR. BERNICK: I think on the site visit today we will probably see those locations.

MR. MERRILL: One question. Jim Merrill.

What is the connection at the existing -- for transmission? Will there be an expansion of that existing connection?

MR. BEECHAL: No, there's no -- at that location would be a transformer and a connection to the existing line. It would not be a large expansion there beyond perhaps a 50x50 foot area, within the existing area.

MR. MILLARD: Anybody else for geology and soils? Then we'll move on to the next resource area. Okay.

So, next up is aquatic resources. We'll go through this a little bit quicker. Our concern here was water quality in local streams. There's of course this one tributary that runs through the proposed project area that leads to a larger tributary of Lake Champlain down below. What we want to look at are issues that would avoid surface water impacts; and that would be during dewatering of the project mines for construction and also during project operation, with controlled releases of excess groundwater having to be continuously pumped out.

Proposed measures from Moriah included monitoring water quality at the Don B outfall, which us right adjacent to Tributary C86-5; and along that tributary during construction and for the life of the project. And the proposal also included treating any water not meeting NY DEC water quality standards.

Our recommendations were again to develop a monitoring plan, develop a formal water quality monitoring plan which would include all the parameters proposed by Moriah: so temperature, pH, connectivity, turbidity, DO, and some of the metals there that you see at the end. We also saw a benefit to adding PCB monitoring and then also wanted to modify the duration of the monitoring treatment to just one year prior to construction, during project construction, and then for three years during project operation. Of course there would be an opportunity to extend that monitoring if necessary to evaluate at the end of each three year period.

So, that's what we came up with. If anybody has comments or questions along those lines? Marc.

MR. MIGLIORE: Marc Migliore. M A R C. Last name, M I G L I O R E. The discharge water from the construction-operation of the site, industrial discharge requires DEC --.

One of the questions I had when you talked about,

Jim, the recovery of water; they kept records, and what the groundwater input would be when it is -- when that water that, the water that fills the mine right now and is pumped out -- does it correlate, does the recovery correlate with the existing outflow, surface water outflow, with the -- I'm not a hydrogeologist -- but the expectation that removing all that water in there may cause an increase in inflow into the mine, and during operations would be a different water increase or decrease, outflow.

MR. BEECHAL: What we understand is that during the life of the mine -- that occurred since about 1920 -- that approximately 250 gallons -- the exact number I can't remember exactly -- being discharged from the mine at all times. And that was actually being used by the local municipality as a water supply.

The rejection that Pat Ferrel, the engineer made with the assumption there was approximately 250 gallons of inflow, as to what the elevations would be at certain times, correlated very well; and the prediction of when it would start overflowing to the surface correlated very well.

So from our understanding of the records, we see that inflow as being relatively consistent based on simply precipitation coming down through the overburden, and we would not expect that to change significantly.

MR. MIGLIORE: Another regarding the treatment of

water: From what I can recall from reading over this material, there are elevated levels of iron and manganese -- actually a water quality standard, that would need to be treated and returned.

Considering it's an iron mine, that sampling that was done -- probably at the surface -- is there a monitoring protocol that, you know, as you go deeper in the mine and you're able to access different elevations of water with different influences of mineral content? How can we do that prior to construction in order to satisfy the criteria of the permit to know that if there is a higher level of manganese or iron or other minerals encountered that it can be treated? That meet the permit.

MR. BEECHAL: Good question.

All we know is historically different levels were actually below your state's drinking water standards at that time. I can't comment on whether they're still below the drinking water standards today.

I do know a similar extraction at the Fisher Hill mine, where the shock incarceration facility is, does very minimal treatment, I recall, of that water. And that is an iron mine as well.

To answer your question directly, how do we know that the water at depth, as they're starting to pump that out, doesn't have a higher concentration because of its

contact with the iron in the mine. Just thinking this through.

I doubt whether there is that much more dissolved iron in that water because there's very little oxygen down there. I think to be safe you would have to make sure you designed a facility, if you allowed for some elevated concentrations of iron and manganese to be treated out.

Those are not difficult treatment mechanisms, so I think to answer your question, we should be conservative, and assume that we have to remove more iron than perhaps we think we do.

MR. MIGLIORE: Yes. Because we have to issue a permit before. So we have to be sure.

You mentioned it, have there been any discussions with the town on perhaps using some of the water for water supplies?

MR. BEECHAL: Yes, the town has expressed interest in taking the water and replacing their existing surface water source. Which apparently is problematic. We have not included that in -- neither encouraged or discouraged it.

MR. MIGLIORE: Yes.

MR. BEECHAL: I think when the time comes, that will be up to the town to decide whether to investigate that. I think they will; historically it's a better water

source. They had to go to a surface water source when the mine shut down. It's very expensive and problematic because it is a surface water source.

Now having said that, and I'm extrapolating, but if they were to take this it would still be considered somewhat of a surface water source, as far as treatment standards. I don't think the health department or DEC would allow this to be classified as a groundwater source for drinking water purposes. So I'm guessing they would still have to do some treatment; chlorination, what not.

I think other water quality parameters would probably be easier to treat than the surface water.

MR. MIGLIORE: Do you expect that all of that may be part of the project facility?

MR. BEECHAL: It's not a part of the project. The town may decide to go in that direction.

MR. MIGLIORE: Okay, thanks.

MR. MILLARD: Jim, I -- I'm sorry, go ahead.

MR. PINHEIRO: Jim Pinheiro with DEC again.

So I don't know if you have another topic on water quantity, but if you could go back to the map that you had up earlier.

So there are a couple small trout streams that come, exit that project area to the south, but I didn't know if there's any influence on the quantity of water in those

trout streams coming from the lower reservoir, if they're essentially overflowing through overburden and being those smaller streams.

I'm just asking that question.

MR. BEECHAL: The overflow is occurring just above Joyce Road into that Tributary 6 -

MR. MILLARD: C86-5, yes.

Which is right through here.

MR. PINHEIRO And that's the only overflow that we're aware of. There is an overflow from the New Bed Mine at Roe Pond. So there is a discharge there that is obvious.

MR. PINHEIRO: But the only thing from the lower reservoir is --

MR. BEECHAL: The lower reservoir is well below ground level. We're not dealing with any overflow areas there, seepage areas.

MR. PINHEIRO: That would be my concern. There are some treat streams coming from that area, from Silver Hill Road down towards -- if there was a surface overburden connection, there could be groundwater flow coming from the mine to the actual stream going towards --.

MR. MILLARD: You're talking about down through here.

MR. PINHEIRO: Correct.

MR. BEECHAL: I'd like to make a comment on that.

There obviously is overburden, this area is all subject to precipitation, and that overburden is transmitting water to the surface. So that's there no matter what. I would be expecting to see that now. So the answer to your question, there's probably some going into the stream; that's why the streams are there, is because of the precipitation. It's the overburden that transmits that water.

MR. PINHEIRO: The only reason I ask, if (inaudible) So it wasn't exactly that; some of the local residents were concerned about the drawing of water that they now see in their back yards like what they did when the mines were functional. So they didn't know if there was additional contributions to groundwater through this overflow of the reservoir to that overburden.

MR. BEECHAL: We took those comments, and we interpreted those to be different. In the last ten years, there's probably been more events, high flow events during springtime caused by -- and a lot of fairly dramatic, culverts washing out -- be an indication of people having seen the high spring flow or high storm events, rather than certain natural low water back --.

MR. MILLARD: We do have a section in the Draft EIS that looks at water quantity. Of course it was based on limited information, because there is no specific gauge data, of course, for Tributary C86-5. So we had to kind of

estimate it. But our best estimates show that even during dewatering, volumes will still be well below bank full, below the one to two year return interval. But with the erosion sediment control measures in place, we didn't foresee any physical changes to that tributary, in particular. It didn't make an appreciable change, at least during the construction dewater.

And the same would be true during the project operation as well.

MR. PINHEIRO: From a water resource standpoint, I'd be more concerned about that thermal impact of a low groundwater recharge rate during the heat of the summer.

MR. MILLARD: Sure.

MR. PINHEIRO: That would be my larger concern, rather than a higher flow during a bank full event.

MR. MILLARD: Yes, and we discussed that as well. Because our concern was, as you get into the depths of the mine, clearly there's going to be a change in temperature, DO is probably going to go to next to nothing.

MR. PINHEIRO: Right.

MR. MILLARD: And there's going to be that contribution immediately into C86-5, and that I guess historically did hold brook trout, from what I understand, but now there's a more substantial fishery, mostly for browns, I think, down in -- I forget the name of the

tributary that leads into.

AUDIENCE: Mill Brook.

MR. MILLARD: Mill Brook. Thank you.

Yes, into Mill Brook. So our concern -- this is for water quality as well; we discuss that a little bit in the Draft EIS.

Yes, Robyn?

MS. NINER: What's the status of the water quality certification application?

MR. MILLARD: It was initially denied, so now there's an opportunity I guess by August 12th to go ahead and reapply or petition that status.

MS. NINER: So what is the status of that?

MR. MIGLIORE: It hasn't been received yet, but the water quality certification is -- the previous one was denied without prejudice. I suspect it will be applied for by the deadline.

MR. MILLARD: Is there anything else on aquatic resources?

So the next is, next section here is terrestrial resources and threatened and endangered species, and primarily we're looking at summer and winter habitat for bat species which do include ESA-listed species also, state listed species. The issues that we particularly paid attention to were the clearing of forested habitat during

project construction, mainly with respect to formation of the project facilities and sealing former mine shafts and any crosscuts; and also wanted to take a look at the adjacent bat hybernaculum, and any effects that would come from hydrologic connections with the project mines on that bat hybernaculum.

The proposed measures from Moriah were to implement of course the erosion and sediment control plan that we discussed a little bit earlier; and also implement bat protection measures and an action plan, that we'll just refer to as the bat plan.

Our recommended measures; were modified, the erosion and sediment control plan that was proposed by Moriah, again, for more site-specific concerns. And also to modify the bat plan to include identifying all project-related ground disturbances and tree clearing; to identify the number and location of monitoring devices within New Bed Mine; those monitoring devices to look at environmental conditions, temperature, humidity, water level and so on. Also to develop a protocol to seal the West Drift, again to isolate the project mines from the adjacent mines. Establish a groundwater elevation monitoring station at the reported seep, near the Roe shaft; and identify the number and design of bat exclusion devices for mine openings. And then finally, identify the need for bat surveys at all

shafts and pits proposed for resealing. Just to kind of get a sense of what's there before the shafts get sealed up.

Okay, so with that, I'll go ahead and open up questions and comments for terrestrial resources and threatened and endangered species.

MR. BEECHAL: I can think of one comment. Recently we were aware that the groundwater seepage coming out of a much higher elevation. We might be able to see that today.

Our impression is still that absent any involvement, the pine water elevations are going to come up, eventually to the top of 21 Pit, which will increase the water level in the New Bed Mine significantly. So I just point that out as a -- a no-build option if water levels are coming up. And apparently another, emanating at the surface, higher in elevation now, up beyond where it has historically come in to the tributary. Someone just pointed that out to us this year, the spring.

MR. BERNICK: Andy Bernick. Jim, is that the Roe shaft that --?

MR. BEECHAL: No. This is at the existing discharge stream.

MR. BERNICK: Up elevation from that, where the tailings pile is. Apparently it's emanating up higher now. So there's --

MR. BEECHAL: Oh, I see.

MR. BERNICK: -- second place it's emanating, telling us there's water -- that's where we expect. Higher and higher and higher. It hasn't reached equilibrium, I guess is what I'm saying.

MR. BERNICK: That it's the Don B --

MR. BEECHAL: Yes, for that area.

MR. MILLARD: Don B overflow.

Robyn?

MS. NINER: We provided a letter already about listed species and the inability for us to initiate formal consultation at this time, given the lack of a lot of pretty important information that would influence the continued existence of the bats in the site. But I just wanted to say that we appreciated and agreed with the issues that were identified that do need to be thought through; and I wanted to make sure that everyone was aware that this is the most significant hybernaculum for most of our wintering species, not only in New York but all the way down to Virginia. It's the largest hybernacula for Indiana bats by far; over 80 percent of Indiana bats overwinter in this site, and most little browns, and Northerns.

So I appreciate the due diligence that FERC is going to do, as you figure out how we're going to proceed with evaluating the impacts of this project. So, thank

you.

MR. MILLARD: Anyone else?

MR. BERNICK: I had a couple of comments.

So as far as identifying resources, the clearing for project facilities and Jim, any information you might have about the location and the size of any clearing that we need to happen for sealing the West Drift, any surface activity there, any access roads. That will be helpful in determining the total acreage and the location in this clearing. That's because I think that was one of the items raised in the Service's recent letter.

MR. BEECHAL: Let me respond to that directly, that one question. You probably have others.

That West Drift location, we believe we can locate on surface, and it -- for a ways. So I think there's multiple opportunities there for siting a drill rig to cause the least terrestrial damage along that path.

I can semi-visualize where it is because I know where Roe Pond is, but I think there's probably opportunities there to site that drill rig to minimize disturbance.

MR. BERNICK: Okay. Is anyone from DEC here who could speak to bat monitoring at New Pit today?

MR. PINHEIRO: I'll try to recall -- and maybe I shouldn't --

(Laughter)

MR. BERNICK: No, I assumed we'd be getting written comments, possibly.

MR. PINHEIRO: I think for the most part the plan is acceptable. The monitoring, I think could use some tweaks; I think that would be, the drift I got out of -- I got out of Central Office, but they were unable to make --.

We'll provide comments on it.

MR. BERNICK: And I was also curious if there's current, I think there was some discussion of temperature and humidity gauges that were -- I think water level monitoring, that were somewhat recently established, like within the last few years. So any information on that could be helpful.

And also, we used the 2013 data that have been filed on the record as far as the population size.

MS. NINER: I can respond to that. So this past winter was our most recent cycle, so it's every other year, and the numbers actually increased again. So we can definitely provide the most recent. And if all bats were counted this year or just Indianas. So we can give you the most recent counts, and definitely for Indianas.

MR. BERNICK: Okay. And that would be all right to have in a public document?

MS. NINER: That's fine; that's just numbers.

Yes.

MR. BERNICK: I was also curious if anyone knows if there have been any surveys at any of the subsiding shops on Solvay property, or there's potential? You know, if the Service or DEC thinks there's potential, that those would be used as overwintering sites.

MS. NINER: I don't know that anybody has actually -- I mean --.

MR. MIGLIORE: We'll check.

MR. BERNICK: No, it looks --

MS. NINER: I was going to add that.

MR. BEECHAL: We'll check.

MR. BERNICK: And then also to speak to the letter that the Service filed recently. Typically, we'll have a technical conference regarding a formal consultation, not request in the information needs that were raised.

But at one point I wanted to clarify was that, as far as the -- the letter mentions a number of plans that we, that Staff recommended to include in any license issued; and so those are usually plans that Staff are recommending be included in the license. But we don't consider those to be generating information to do the valuation under NEPA; those would be more of protection, mitigation and enhancement measures.

So I was curious if it was in draft copies of the plans that was of interest to review, or if it was more information that -- resulting from those plans.

MS. NINER: Correct. It's Robyn.

We have several questions about permitting issues or licensing issues and having plans in terms of who determines sufficiency? Who has approval? Who determines that not only the plan is sufficient but that the intended outcome is likely to occur.

And so we just have so many questions about how that process would work; so it would be helpful for us to understand that. Who has -- can the licensee rescind it, if the plans are inadequate or unlikely to result in the intended outcome? What happens if a project starts and some of the monitoring triggers go off, can the licensee rescind it then?

I mean, those are major, major implications to the project that we don't fully understand what the possibility is. Because if anything goes wrong, being assured that it's not going to happen and it does, then what does that mean?

And so any kind of draft plans are extremely helpful, especially if you think they're actually adequate to do what they're intended to do. So draft plans are better than no plans.

MR. BERNICK: Well, most likely a technical conference regarding that consultation would be the way that we can start to get at some of this.

MS. NINER: Okay.

MR. BERNICK: Another item raised in the letter was the effects on summer habitat for bats elsewhere in New York and Vermont, so if there's any data that -- you know, these data aren't usually publicly available or easy to track down, so if there's any data that you'd like to have on the record, or could use an analysis that would --

MS. NINER: Okay.

MR. BERNICK: Because that's one area that sort of treads into our NEPA analysis, as well.

MS. NINER: So there's one published paper that talks about the initial tracking of the bats from Barton to the Lake Champlain Valley that we can get you; but really, it's not thinking about the impact on the habitat but the fact that the bats that are wintering are associated with multiple summer colonies in Vermont and Lake Champlain; and so it's a deterioration of those summer colonies which are essential to reproduce and repopulate the wintering population.

So it's just kind of connecting the dots to, what does loss of numbers in the winter mean on the summer grounds? It means loss of colonies. So it's just kind of

making that connection; and then hopefully DEC in Vermont will provide a little bit more comment on that as well.

But I can send you information.

MR. BERNICK: Thank you.

MR. HAY: Just one question for Marc. Marc, you mentioned that, I think you said you would be providing elevation data for the mines, the New Bed Mine, right? The question that you had earlier.

MR. MIGLIORE: No, monitoring. Which would be, part of would be the water monitoring, water elevations.

MR. HAY: Okay, good.

MR. MILLARD: Okay, we'll close out terrestrial resources and threatened and endangered species, and then we're on our last official topic area. We'll certainly discuss other things, though.

The final one here that we put together was for cultural resources; and our issues were mainly to protect cultural resources at the project and highlight the historic mining character of the project area. Moriah's proposed measures include implementing an Historic Properties Management Plan, which includes the development of the historic-industrial interpretive displays about the mine itself, the commission mine, and the pumped storage development for the project. That's kind of what we had in mind. Or what Moriah had in mind, rather.

Our recommended measure was to essentially revise the that proposed HPMP, basically to update the project description, provide more of an overview of the historic background of the area. I'll shoot through a couple of these a little quicker. We also want to include training, cultural resources training of staff, and add more details about the interpretive nature of the historic signs; and make all these revisions in accordance with the Commission's policies.

Does anybody have any comments or questions regarding the cultural resources section?

[No response]

MR. MILLARD: All right, that's a quick one. So anything else, though, there's other aspects of course covered in the Draft EIS that we didn't necessarily go over here today, but anything and everything is on the table for discussion or comment.

So if there's anything else that anybody can think of that wants clarification or any input?

I do have one question, Jim. I can circle back to the water treatment. I guess it wasn't entirely clear that the capacity of the proposed treatment facility -- I know you said it's a step aeration facility. So there's no real storage of water at any time, right? It's kind of flow-through.

So what are the approximate dimensions, and maybe if you know more about the specific location of that facility.

MR. BEECHAL: Well, I don't recall the dimensions. It would be at the location where the water is probably emanating right now; that's where the pump discharge would come out, that general area, which is up -- we'll see it this afternoon, that's an area that's already been cleared, it's kind of just rock.

I would be guessing, 50x50 feet, something like that, you know, besides where they did the discharge, capacity.

MR. MILLARD: So the pumping would just be rerouted from the overflow into that facility and then redirected --

MR. BEECHAL: Yes. To get separation, just basically you're adding oxygen to water which is oxidizing the iron and manganese, settling it out, and maybe some static -- a device like that.

The amounts we've seen, they're not excessive. There'd more than you'd want in your water you're doing laundry with, but they're not excessive as far as water quality.

MR. MILLARD: So the concern came up a little bit earlier that as we go into the depth of the mine the

concentrations might increase. Is there a point at which there is a viable option for treatment?

MR. BEECHAL: I really doubt whether it's going to increase the concentration as you go deeper. I don't see why that would occur, necessarily. There's no oxygen in the water at depth; we're not picking it up. I think, more from an operational standpoint afterwards, that can be more of an issue.

I could add one thing, and I'm not asking to add anything to the DEIS, but are you going to be considering a null option, if nothing is done what are the effects? I'm thinking about the New Bed Mine.

MR. MILLARD: That is, it's listed as one of the alternatives. And certainly we can elaborate maybe a little bit more with this information, now that you're mentioning it, that might be worth putting in there as well.

MR. BEECHAL: I'm not trying to ring an alarm bell, but I just know it's a real issue.

MR. MILLARD: Sure.

MR. HAY: The groundwater monitoring data would help a lot for answering that question.

MR. MILLARD: Yes. That's a good point, so we'll consider that during the Final EIS.

MR. SULLIVAN: This is Tim Sullivan, the U.S. Fish and Wildlife Service. The Department of the Interior,

including the U.S. Fish and Wildlife Service plans to send a letter to FERC on the Draft Environmental Impact Statement with any additional comments or questions or concerns.

MR. MILLARD: Okay. Good.

MR. SULLIVAN: We look forward to working with FERC and all the engineering to further analyze the project.

MR. MILLARD: Yes. Same here.

MR. HAY: I have one question for Tim, for clarification. One question that we came up with by looking at the historic record, with regard to the elevation of -- the highest elevation in the Harmony mine. We saw in the old mine maps that the elevation doesn't go much beyond about 900 MSL, feet MSL. So we recommended in the EAS to consider lowering the top of the reservoir by about 200 feet or so, because we didn't see much additional storage capacity.

So if you could clarify at some point, if you see additional source with capacity, beyond that elevation, that would be helpful for us to have as well.

MR. BEECHAL: Yes. That could be accommodated also, that's required by simply lowering the -- there's plenty of storage below -- lowering the entire elevation down.

MR. BEECHAL: Yes. I think your bulkhead is anticipated to be at plus 170 feet, so -- and I think your

reservoir currently is planned to be at plus 495, so you already have some capacity for lowering the entire reservoir to a lower elevation. So that could be accommodated.

MR. MILLARD: Well, if that's all the comments and questions; again, this isn't the last opportunity. I mentioned written comments; we appreciate those just as much as we appreciate the oral comments. Again, the due date, the 45-day comment period ends on August 19th, so please if you have written comments, go ahead and submit them by then.

And if that's all, we'll adjourn the meeting at 11:07.

[Thereupon, at 11:07 a.m., the morning public scoping meeting concluded.]

CERTIFICATE OF OFFICIAL REPORTER

This is to certify that the attached proceeding before the FEDERAL ENERGY REGULATORY COMMISSION in the Matter of:

Name of Proceeding:

MINEVILLE ENERGY STORAGE PROJECT

Docket No.: P-12635-002

Place: Warrensburg, New York

Date: Tuesday, July 30, 2019

were held as herein appears, and that this is the original transcript thereof for the file of the Federal Energy Regulatory Commission, and is a full correct transcription of the proceedings.

Dan Hawkins

Official Reporter