



**Latrobe Valley
Mine Rehabilitation
Commissioner**

TRANSCRIPT

LVMRC Webinar 1: An overview of mine rehabilitation in the Latrobe Valley – A Commissioner's perspective

1.30-2.30pm AEST Wednesday 10 June 2020

Facilitator: Rhonda Hastie, Technical Adviser

Presenter: Rae Mackay, Latrobe Valley Mine Rehabilitation Commissioner

INTRODUCTION

Rhonda Hastie:

Welcome everybody to the Latrobe Valley Mine Rehabilitation Commissioner's first webinar.

I'm Rhonda Hastie and I am the Technical Adviser for the office of the Latrobe Valley Mine Rehabilitation Commissioner.

Before we get started and we hand over to Rae, we've got a few housekeeping things. But firstly and importantly, I'd like to start with an Acknowledgement of Country. So I'd like to start today session by acknowledging that we are hosting this webinar on the traditional lands of the Braiakaulung People of the Gunaikurnai nation and I'd like to pay our respects to their Elders past and present. We also acknowledge that some of you may be joining us from different parts of Victoria, so we extend our respects to Elders in each of the countries and to those who may be online with us today.

I'd also like to take this opportunity on behalf of our office, to thank members of the Gunaikurnai Land and Waters Aboriginal Corporation who have provided us with advice and insight into their hopes and aspirations for mine rehabilitation over the past three years. We would hope that as the Commissioner's office changes into the Mind Land Rehabilitation Authority, that this relationship strengthens and continues into the future.

Now a little bit of housekeeping before we start the session. So our session today will start with the presentation from Rae and that will be followed by a question and answer session. Please note that as a participant, you won't actually be able to turn on your camera or microphone so this is being done to limit interruptions to the presentation, but it also improves the video and audio quality for those attending. I'd also like to remind everyone that we have Slido.com – so it's S L I D O dot com – open for questions, and the meeting code is lvmrc1. So you can input your questions there and you can also vote for questions that other people have submitted if you think that you like them and if you think they're important questions.

If you can't use Slido, we also have a Q&A box in the live event open as well. So you can add questions and they can also be voted upon in there. Today's technology may not work perfectly for everyone so if you do experience any problems, please let us know in the Q&A but also, we are recording this session and it will be available for re-watching from our website.

Finally, before we get started, it's worth mentioning that our legal remit is mined land licensed areas. So our remit actually excludes the power station blocks, and in the case of Hazelwood mine, this would mean the pondage. So we won't be talking about, focusing on those today. If you do have questions on them, we won't answer them, but if you still submit them, we could pass them onto the relevant authorities at a later date. So we're very happy to have many of you with us again today and without further ado, I will pass you over to Rae Mackay.

PRESENTATION

Rae Mackay:

Lovely, thank you very much Rhonda. I'm just going to share my screen so that everybody can see the PowerPoint that I want to present, and I just need to click there and then hopefully you'll see the opening slide of the presentation.

I'm planning to talk for no more than about 20 minutes, I'm going to surrender to cut me off if I talk for much longer than that, so we'll see how we go and I am going to just introduce an overview of where we've come from, what we've learned and where we're trying to go to in the future and predominantly deal with what we've learned. So if you let me move on we can then get underway.

OK so the plan for the presentation is to briefly give a little bit of history since the Hazelwood mine fire in 2014, to talk a little bit about the community views that we've received over the last three years, and then talk more about what we've learned in terms of the technical studies that have been undertaken by the mine operators. And I'm going to cover off in those areas, issues around ground movements. I will very much talk around the issue of water availability which is a really important part of the conversation within the Latrobe Valley, and then look at the visions for land use. Then go to ask the question: 'are we there yet?' and to answer that in respect of issues around the regulating of rehabilitation; specific issues around water for rehabilitation and the alternative rehabilitation options and risks that we might need to be able to deal with.

So, kicking off Hazelwood mine fire was hardly something that we would have ever wanted to happen but it has actually generated a lot of useful things that will stand us in good stead for mine rehabilitation of the brown coal mines. Going forwards, in 2014 it was February when we had that fire, and August of that year, we introduce the Hazelwood Mine Fire Inquiry which really dealt predominantly in the first instance on fire management and health. And subsequent to that, it was reopened in 2015 and that was when mine rehabilitation was substantively included. The outcome of that was a series of reports and an acceptance by the Victorian government that the recommendations in those reports would be accepted pretty much in their entirety and that an implementation plan was then put forward, and that implementation planning covered issues around health as well as mine rehabilitation. There are 246 actions that were identified, the majority of which have now been completed. And of those, 50 actions were rehabilitation related. And one of the key features of the actions was the implementation of a project called the Latrobe Valley Regional Rehabilitation Strategy project. That was tasked over a period of three, slightly more than three years, to come up with a strategy for the regional rehabilitation of the mines in Latrobe Valley. And that project commenced in December.

Alongside that, the mines were also tasked with working together developing an integrated mines research plan to help cover off some of the knowledge gaps. So both the project and the Integrated Mines Research Group were given a period of time to actually look at how we actually rehabilitate these mines and how we complete the different pieces of knowledge that we need in order to be able to actually bring the mine rehabilitation to a successful conclusion and deliver a good outcome.

One of the features of the implementation plan was that the Hazelwood power station was expected to run to 2020. It actually closed in March 2017 and that brought forward a number of issues. Hazelwood company ENGIE had put up a plan to develop their rehabilitation and closure planning and they put a period of time on that between three and seven years. They have subsequently actually submitted a plan that is under review at the present time. In June that year, I was appointed and the anticipation was that the organisation that would supersede me – the Mine Land Rehabilitation Authority – would come in at some point before 2026, but because Hazelwood closed, that has been brought forward and my role as Commissioner will cease on the 30th of June this year and the Mine Land Rehabilitation Authority will commence effectively the same day.

Part of the issue of course is around the regulations in relation to mine rehabilitation. And the then Minister for Resources accepted the need to extend the mining licenses to include rehabilitation and that was done and approximately about 17 years was added to the mines' rehabilitation or to their mining licenses to allow for rehabilitation. That stretches out the time that we need for rehabilitation to beyond 2065, so it's an extensive period of time that we're looking at for the rehabilitation.

Last year, towards the end of last year, the technical work that was undertaken by the LVRS was brought largely to a conclusion and the geotechnical and the water availability of the water synopsis reports were prepared and put out for consultation. At the same time, a Draft Preliminary Land Use Vision was also released. In November that year, the Overview of what the strategy would contain and how it might look was published in November.

The strategy itself is due for publication later this month and will contain most of the recommendations that were within the Overview.

As I said, ENGIE actually have completed their Rehabilitation and Closure Plan; they've submitted that for approval and we're waiting to hear from Earth Resources Regulation about the approval pathway and whether there is further work to be done in relation to that plan.

At that time the consultation reports based on the Overview that have been produced were published showing how the community and the various stakeholders had reacted to the plans for the strategy and the strategy's development due later this month and starting next month when the strategy will be published. I'm not going to talk too much about what the strategy contains because that is yet to be announced.

My role will be superseded; the Mine Land Rehabilitation Authority will come into play and the other major feature is that later this year new regulations in relation to the declared mines will actually be introduced that will deal with mine rehabilitation plans for the Latrobe Valley mines going forward.

What this slide gives you is a very good snapshot of what people have been doing but it doesn't really give you the scale of the effort that has actually gone in. The work plan that has been put in by ENGIE is something like 95 supporting documents that actually underpin its development. The regional rehabilitation strategy project team have produced tons of documents as well that also cover all of the technical assessments and the social assessments that they have undertaken. So it's been a very substantial piece of work and I'm not going to do justice to it in the next few minutes to explain everything that's going on. I hope that if I leave things out, you will ask the appropriate questions as we go forward.

So just briefly touching on the community views – and the community has really been very well engaged. There are a large number of community groups that have shown a very strong interest in the planning for rehabilitation. Some of those interest groups have interests just because of the desire to keep mining. They have interest in the uses of water and whether there are better uses for water. So the call for ideas that have been put forward are largely around that the landform should be productive, useful and attractive. So that extends beyond the government stated aims of safe, stable and sustainable. The very strong view came through that whilst the strategy and whilst the Mine Fire Inquiry largely focused on pit lakes, the filling of the mine voids with water, it was a strong view that alternative options to pit lakes should be considered further. It was felt that it was too early in the process to actually commit fully to a pit lake rehabilitation option. What people did say, was that if it lakes ought to be implemented, then any use of the water for mine rehabilitation should not impact other water users within the region. Moreover, in relation to the alternative options and benefits of rehabilitation should really be assessed against other resource development opportunities notably in relation to water and notably in relation to expand the irrigation opportunities and water for food opportunities that exist within the Valley. And finally, and not least, people didn't want to close out the opportunity for future coal development. Well, so there's a government plan at this stage to remove thermal power generation. Coal development has not been taken off the table. Alternative beneficial uses for coal seem to be valuable. So making sure that we don't miss that opportunity well as a result of our rehabilitation plans, was felt to be an important goal. So you see that there's really important community views that the strategy has taken. Considerable care to actually look at those views and to think about how they should be taken forward within the planning for rehabilitation as we move on.

So just looking at the technical issues. Picking up on ground movements first is probably the most important because one of the reasons we want to actually consider pit lakes is because it gives us an opportunity to stabilise the mines. The mine operators have consistently planned for the completion of the rehabilitation of the mine voids using water to fill them and to actually stabilise the mines. The Hazelwood northern batter movements in 2011 gives us a clear indication of the issues if we don't stabilise. We had a rainfall event that led to flows that moved in the Morwell main drain. They drained through sinkholes that had formed in the bottom of the main drain and entered the joint systems of the coal and basically pushed a very large coal block a few 100 millimeters towards the mine. It didn't create a major instability, but it closed the Princes Freeway for about seven months and it required substantial remedial works to be able to bring an assurance that the batters were fully under control. We want to really make sure that we don't have those sorts of situations going forward.

And then the Latrobe Valley Regional Rehabilitation Strategy and the mine operators have all made an assessment that if we were to use water and particularly were to bring the pit lakes to full, we would have a very stable situation. That would require minimum ongoing management and maintenance – not zero, but minimum, and that we would have a long-term valuable asset and we will be able to use the land immediately around at the pits. If we don't do that, if we go for a lower pit lake form then we have a situation with the monitoring and the management, and maintenance increases and we are very strongly aware that will be the case and will

potentially increase the risks of movements of the sort that we've seen at the Hazelwood northern batters going forwards. And so we're really trying to find a way to actually make sure that these sorts of events don't happen, and at the moment, the opportunities for doing that. To fill the pit with some substances it could may not necessarily be water, but at the moment, the most economical, most viable option in terms of resource availability would be water.

But that didn't bring us to the second part of the LVRRS which is the investigation of water availability. This was a major issue for the Hazelwood Mine Fire Inquiry when it said that there needed to be further work done. Water has been assessed in terms of availability. It's been assessed in terms of potential impacts to other users, particularly environment, and is being assessed in terms of water quality. The major part of the assessment was on the availability of water from the Latrobe River catchment in addition to the water that would be available if we continue to use groundwater from the aquifers beneath the mines.

There was a brief exploration of alternative water sources but during the strategy development it was felt that those were not as readily available and not as economic as using existing water sources. And this is a major 'but'. The availability of water is very much dependent in the Latrobe River system on how our climate evolves. And over the last 20 years we have been in a drought situation predominantly. And this figure shows that as we go forward in time, if we were to actually move forward on the medium climate projection, then we would see a gentle decrease in the amount of water available. To the point where around about 2060, we would not have enough water to be able to include rehabilitation on top of the other uses within the Latrobe Valley. If we go for the really dry climate projection – the one-in-20 dry climate long term, then we are in significant trouble in terms of water availability. There would not be enough water available either for mine rehabilitation or for most of the other uses, including the environmental uses for water. If we go back to pre the sale of the mines to the private sector, we had about 800 gigalitres of water a year and at that time we were very well endowed with water, and if we would continue at that sort of rate, we would not be having major discussions – we would know that we could actually complete all the rehabilitation using water going forwards. At the moment, we cannot guarantee that because at the moment, we appear to be going along the long-term dry trajectory. Over the next few years we'll see how that steps out.

The other thing you'll notice about this figure is that it shows substantial variation year on year. So that if we want to use water for mine rehabilitation, we need to be careful about how we use it. We need to condition the usage of the water in a way that actually does not disadvantage the other environmental and other uses in the Valley, and that remains an important issue.

The Land Use Vision that was also produced to accompany the technical studies for mine rehabilitation looked at the breadth of activity that could be done within the region. And matched really many of the other visions that have been produced for the region. They show that there is a tremendous diversity of opportunity here. And the opportunities stretch from education, agriculture, business, industry, tourism, livability. So that we can see that the vibrant opportunities for the economy are good in this area. And what we can see is that if we choose to do the rehabilitation of the three mines appropriately, we can contribute and add to that vision. And that is something that I think is very important to us. If we are forced into going down a rehabilitated landform that isn't readily accessible, requires us to seal the pits off from public use, then of course, that land is sterilised effectively going forwards. And we wouldn't want to see that.

So looking at those issues, the question is: are we there yet? We've been working on this effectively for about four years. Technical studies have been done which are very significant and substantial but at the moment, I think we can safely say we're not quite there. We are close but there are things that we still need to do in order to be able to bring the story to the point where we can actually have a very good outcome for the region.

A major issue that is being dealt with recently is being the strengthening of the regulations in relation to rehabilitation. So the acts under which the different regulators Earth Resource Regulation, the Environment Protection Authority and WorkSafe have been operating, have been strengthened and are being updated. There is work underway at the moment to increase the capability in the resources of the regulators and that's very important.

Most importantly though, we've actually seen the introduction of the Mine Land Rehabilitation Authority. This is a group that will continue the work that I've been doing for the last three years. It will extend that activity and it will extend it in two ways. It will extend it by allowing the authority to become a landowner. It can actually purchase land that would otherwise not be available or practically available for other alternative uses – land that is too risky to be put into the public domain. It also has a role in looking at the ongoing monitoring and maintenance costs of the land once relinquishment has been approved by the regulators and that's a very important step. So there are

some very valuable components to the new authority which has a long lifetime ahead of it in bringing good outcomes to the region.

The other feature that we have is that later this year, and hopefully no later than early next year, the regulations in requirement to declared mines rehabilitation plans will be in place and those will include for the first time the requirement to consider strongly post closure plans and the funding required to maintain the land going forwards. So it's a big a set of regulations that are being built and are being worked on.

The other issues that we have around the water rehabilitation, we need to get further understanding by all the key stakeholders of the risks that we face when we look at the future climate projections and what that means for mine rehabilitation – whether water options for rehabilitation are actually valid given the risks that we are potentially likely to incur. So there's a need not only to look at the future climate projections, but also to look at the options for supplying water rehabilitation and the conditions to be imposed if we want to actually deal with that. And there is a view that we need to go back and look at all the alternative water options other than the Latrobe Valley region to make sure that we do not miss out on the opportunity to see whether bringing water into the region to support mine rehabilitation and other activities can be undertaken.

There is also a need to pick up on that issue of economics, the valuation of water uses, including water through rehabilitation to make sure that we have dealt with these systems properly. And finally, we need further work looking at alternatives landforms to pit lakes, to assess the practicality of such a landform, to assess the economics of those landforms, and to understand how far the community and government is willing to accept the potentially increased risks that may arise from using alternative landforms. It's an important step to get all of those things right, so we're not quite there and the Latrobe Valley Regional Rehabilitation Strategy will hopefully allow us to actually build towards getting these things resolved in the next few years – in good time to allow the mine operators to develop their mine rehabilitation plans.

So that's all I want to say. I've opened the door probably to a very large number of questions. I look forward to trying to answer some of those. So I'll hand back to Rhonda to actually commence the conversation.

QUESTION & ANSWER SESSION

Rhonda Hastie:

Thanks Rae, that was an excellent presentation. I feel like even I learned something.

We've had a great response from the questions coming in. Thank you very much everyone. I'm going to start with the one that had the most votes on Slido because I think it's a good question.

The question is: 'elephant in the room – how much is reasonable to expect for big profit companies to pay for rehab of land they've made money from. What is reasonable and why'.

Rae Mackay:

So the state requirement for all the mine operators is that they actually finance the rehabilitation of their mines. So the desire is to not have any legacy costs coming to the government or to the community. The mine operators are all aware of that and they're planning for that. The question then is how much, and that is a question that is not possible for me to answer. Mine operators have large companies backing them up. They have a social license to operate and they're very keen to make sure they commit to do what they need to do, but all good companies – they do not want to spend more than they absolutely have to but they do not want to leave people without a good outcome either. So it's an interesting question that will continue to be developed over the next few years particularly once the authority starts to look at the future ongoing costs beyond rehabilitation relinquishment and the future uses of the land.

Rhonda Hastie:

Thanks Rae. Second most popular, equally popular question, 'is there anything during this process that you would do differently?'.

Rae Mackay:

Is there anything I would do differently? That's a very interesting question. I think the one thing that we learned very early on in my tenure as Commissioner was that the direct transition to look at a water based rehabilitation options and excluding other options at that stage was probably not the best answer, although there was very

clear evidence from the fire inquiry that the alternative options probably were not the best? That and the water-based options should in principle be the best because there are so many uncertainties with regard to water. We were not able to actually say that the other options shouldn't be brought into play. And it would have been very good had we had an opportunity to expand the remit of the regional rehabilitation strategy project to look at both water-based options and other options.

Rhonda Hastie:

Thanks Rae. I am continuing on from that actually. As part of the process, someone said that the people who will be living with and presumably paying for land rehabilitation are now aged under 20 years, how is your planning being designed to elicit their views?

Rae Mackay:

It's such a lovely question because it is true that if it takes us many decades to complete the rehabilitation of the mines many people will not be around to see the final stages of mine rehabilitation for the Valley and the young people will be there. We've taken quite a lot of effort to actually engage with young people and we have been looking at working on education programs with local schools, particularly with the Broadening Horizons program that is working in this area, and starting to have conversations with youth and community groups that are actually involved in this area. It's actually quite important to say with very mature age community groups, their interest is not for themselves, their interest is for their children and their children's children. So every age group is very strongly committed to making sure that the Valley thrives for the next generations. I think it's also important to say that at the moment we are not anticipating that the community will be paying for the mine rehabilitation that will have been dealt with by the mine operators. If there is a need for work from the government, they will be doing, potentially come in to support that, but at the moment, they don't need to do that. And we need to make sure that nobody is disadvantaged by the mine plans and what we want to see of course, is that the final land uses for the mine rehabilitated land are productive, attractive, useful. And to the value of the region not detract from it.

Rhonda Hastie:

Thanks Rae. I'm going to roll a few questions together now about pit lakes. So we had a few people ask a few different things about pit lakes. Some of them have been related to quality and would it be usable in the future, but also the rate of filling, why do the mines prefer a fast fill time, and beneficial uses for pit lakes going forward. So, I was wondering if you could give us a rundown on that please.

Rae Mackay:

OK well let's start with the water quality. If we're going to be using both the groundwater and surface water resource is available locally, then the water quality issues do not arise. We have genuinely very good quality water within the pits so we're not anticipating that there will be contamination, that there will be issues with water quality in terms of potential future uses. So we're anticipating we should be able to use the pit lakes for recreation and other uses including agriculture if appropriate. So water quality isn't an issue, then we would expect to also make sure that the water quality is good.

Why do we want to do it quickly? Well, the reason we want to do it quickly is that while the pits are empty and as the pits are filling, we have ongoing stability issues. So the shorter that we can make the time for for rehabilitation, the smaller the risks are that we have during the rehabilitation period. And we can then get past that period of risk and move to a period where the risk is much reduced and if we get to a full pit lake, the risk should in principle be negligible, not zero but next to zero.

Rhonda Hastie:

Thanks. Right. So following on from that, I had a few questions about residual risk. So, what kind of residual risk remains with the lake, and also, what kind of monitoring and maintenance would be required for that rehabilitated landform?

Rae Mackay

It will depend very much on the depth of the water in the lake. So the water level that we raise it to if we bring it to a full pit lake, then there will be areas of the coal that exists in the mines which will remain above the final lake form and we will have to cover that coal to mitigate for fire and dust and other issues. And we will need to maintain that cover. If we have a lowered lake form, then much more coal will remain exposed and we would have to cover all of that coal to make sure that it is again minimising the fire risks. So we bring the fire risks down to exactly the same as we would have if we were working with fields next to the mines so fires could start out in

the undergrowth but they would not get into the coal which is an important requirement. They have issues with stability remaining if we bring waer level up to the full lake level, so very close to the lowest crest level around the mine, then the instability issues should be very low and we should be able to say that the chances of any ground movements due to instabilities of the pit walls will be not zero but close to zero. It's difficult for me to give it a precise numerical number, but it was close to zero.

We will of course have issues for a long period of time. Whether they're real issues or not, we will have the fact that over a long period of time that the land around the mines has subsided because of the aquifer depressurisation that we've had going on over a long period of time. When we stop pumping the aquifers because we no longer need to, then the active pressures will rise. Therefore, the groundwater pressures in the whole of the geological sequence will rise and that will cause some uplift, some rebound of the land surface. So we are going to have vertical movements that will continue into the future and they will continue decades, possibly for a century or more. That was seen with subsidence during mining. We've had very little substantive impact from subsidence, a few minor changes in the grade of land and some issues around local areas being having a changed ideological setting. But nothing substantial. Rebound will be no worse than we were in terms of subsidence. We should recover very uniformly. Not an absolute guarantee of that, and there will be substantial monitoring going forwards to assess.

If there are unforeseen impacts, and we hope there won't be, but if there are unforeseen impacts, then there will have to be some mechanism to deal with those impacts at that time and some compensation arranged. The expectation is that they will only be in areas very close to the mines themselves.

Rhonda Hastie:

Thanks Rae. I've just had a question in from Vicki actually, which just sort of follows on from this. So if we do have trouble with water going forward, what is the issue with stability? Are we re we looking at sinkholes?

Rae Mackay:

Sorry. Can you repeat that question, Rhonda?

Rhonda Hastie:

If we do have trouble with water going forward, what is the issue with stability? What stability issues are we facing?

Rae Mackay:

I assume the question is looking at we can't have, are we looking at sinkholes. Second, there is a possibility of sinkholes appearing, certainly. One of the areas that we haven't yet resolved completely is the issue of what's called 'creep'. So really, slow movements that occur over time where we get expansion of joints that are in the coal and the potential daylighting of those joints through the overburden that sits above the goal causing sinkholes. So that is something that could happen.

In order to – if we have an empty pit or a pit with a lowered water level pit, or a pit with a lowered water level, we may need to continue to pump the aquifers to actually prevent floor heave to prevent the uplift of the underlying ground – the floor of the mine – which reduces the stability of the batters. And we also need to continue to drain the water from the coal adjacent to the batters so that we minimise the risks of high water pressures in the coal leading to the sorts of movements that I described for the Hazelwood northern batters. And if we don't maintain that drainage well, if we don't maintain the surface water network so that we avoid ponding of water and we avoid water sources that could get into the coal if we don't manage all that well, then the risks go up. If we manage it, we will very well then should see really very little movement and we should see very good outcomes.

But it will come at a cost. And it will come at a risk that over time, because we're not talking of ever stopping, doing this will be a permanent feature of our lives, this monitoring and management and maintenance of these empty pits will continue forever. We will see that. It's a strong likelihood that our reliability of those systems will go down. Over time, people forget why they do things. People forget the basis of the management protocols that have been put in place, particularly if they've been put in place 20, 30, 50, 100 years before. And so there is a chance – and this has been borne out in so many areas of human intervention over time, that the setting that we have in terms of governance looking after these will degrade over time, and we will then see a higher risk going forwards in time, and that worries me. That's one of the reasons that I'm very keen on rehabilitation that leads to passive management of ground movements, not active management of ground movements – anything which actually reduces the reliance on human intervention reduces the risks of human error.

Rhonda Hastie:

Thanks. Right, next question. Has any thought... well, actually no, first question before I ask that one – future ownership of the lands. Will the land be transferred to community or the state and would that affect rehabilitation goals at all?

Rae Mackay:

I'm not doing well here, Rhonda. You'll have to repeat the first part of the question again.

Rhonda Hastie:

That's OK, it's a usual day in the office I ask a question and Rae stares blankly at me! So, just talking about future landowners. So, at the moment, the mines, their privately-owned land, what will they be or the future owners be – will it transfer to the state and what does that... what effect does that have on rehabilitation outcomes going forward in terms of different owners?

Rae Mackay:

The first and most important point is that the mine owners currently own the land on which the mining leases exist. And if they wish to, they can maintain ownership going forwards, that's entirely up to them. The state could compulsory purchase, but whether it would need to do that, it is unknown. The conversations that we've had so far with the mine operators are very clearly along the lines as soon as they get the opportunity to sell the land, they will undertake to do that. They are mining and power companies, they're not landowners. They're only landowners because they currently use that land for mining. So my anticipation is that all of the land potentially will become available for other people to purchase. If the mine owners want, they can gift that land. This is all part and parcel of the conversations that go on between the landowners, the government, and the community.

The important thing is the Mine Land Rehabilitation Authority is going to be looking at every parcel of land that will eventually be relinquished when rehabilitation is complete and has been approved as complete. It will be looking at that and registering it, saying what it takes to actually manage and maintain that land. Some parts of the land may require more management and maintenance. Some parts of the land may not be suitable for certain types of future activity, so the Mine Land Rehabilitation Authority will have a role in registration of land to make sure that people understand if they purchase that land, what the constraints are to the use of the land, and what would be required to maintain. It also said that the Mine Land Rehabilitation Authority could, if it feels it needs to take ownership of land, through procurement. It has the capacity to buy on behalf of the state, land and look after it, and that would be particularly land that is not likely to ever get interest for other potential uses because stability issues remain a little bit too high because the maintenance costs and the management costs remain a little bit too much. And so we have an authority which will make sure that future landholders understand what land uses are, what the issues are around using that land, and hopefully the mine owners will be selling that land on as soon as they are able to do so.

Rhonda Hastie:

Thanks. Right. Now I'm just a little bit conscious of time and there's been a lot of questions about the Mine Land Rehabilitation Authority, which I'd like to ask. But first I'd like to just squeeze in a quick question about whether or not any thought has been given to the future economic uses of land, and this flows on from what you were just discussing.

Rae Mackay:

Yeah, ENGIE's Hazelwood mine has actually put a little bit of a master plan together which looks at different parcels of land including lake land form which could be used for different activities. And that includes industrial, it includes municipal, housing, etc. It includes parklands, it includes cultural activity. There are a whole range of potential future uses and potential land and water uses that could be entered into. Mine operators are very clear it's not their responsibility to fund the creation of those land uses, that is for developers to come in, that is for people who want to purchase the land then to actually develop the land, to come in and to work with the City Council and others to plan developments going forwards. The important thing for the mine operators is to get that safe, stable, and sustainable landform with maximum opportunity for potential future uses created and then to allow others to come in to take on the land and actually create the land uses. The government obviously will have a role if there is a need to finance some of these uses but it would be great if they could be dealt with through the private sector.

Rhonda Hastie:

Thanks Rae. Now we've got four minutes left. I've just had a really great question come in so I'm going to try and squeeze this in before we segue to the authority. So the question is, so the whole management of pit lakes could fall into other peoples' hands. What management of pit lakes could fall into other peoples' hands? What needs to ensure that upkeep of water?

Rae Mackay:

Again. can I just ask you to repeat that first bit? I missed one word and I think it was probably crucial to the whole sentence.

Rhonda Hastie:

Sorry, Rae. Seamless production going on here, actually just lost the question. But the question was if the pit lake – if there's a pit lake for example, and that lake is then sold off or given to another entity that isn't owned by the mines, who and how is the water level safeguarded to stop it from, you know, how do you safeguard the water level in that lake?

Rae Mackay:

Very, very important question. At the moment, we're pretty certain that these pit lakes, if they're not connected to the river system and there is no plan to connect them to the river system at the moment, will actually benefit users of water, there will be a need to top them up irregularly to make sure that they remain at an appropriate water level. At the costs for doing that will depend on water source is required. At the moment, a simple water source would be to rather than using the surface water available in the Latrobe River system, that we continue to use the groundwater for that purpose. We've been pumping groundwater for a long period of time. It would still be potentially available for that opportunity. And a part of the planning going forward would be to work out the financing of that continual top-up of water. It's an important stepping stone to proving that the pit lakes are inappropriate use of water. Even if we didn't have a pit like full level, though we have pit lakes at a lower level or even empty, there would still be use of water due to evaporation. But it would be easier to actually hide it in the groundwater pumping that we would have to continue to do to maintain stability. When we bring the water level up to a full lake we no longer need to water pump for stability. But then we would need to groundwater pump to maintain water level. So that's one way of going. In terms of the total amount of water that we need is probably a couple of percent of the surface water. Resource is available in the Latrobe Valley to produce it. That's not an inconsequential amount, but it's not an amount that would be impractical for us to actually be able to cooperate with.

Rhonda Hastie:

Thanks. Right. Now I'm cognisant that it's 2:30PM and we've had a whole lot of questions come in asking about the Mine Land Rehabilitation Authority, its composition, where it's going to be located, terms of reference, and if Rae will or will not be involved in it. But I'm not going to ask you to answer those. Instead I'm just going to let everybody know that on the *24th, we're actually hosting another webinar that will answer all of your questions regarding the Mine Land Rehabilitation Authority. We hope that at that stage we will be able to announce members of the Board and who will be the interim people involved in it. But we do know at the moment it will be based in the Latrobe Valley. So we are future residents.

So I think that's all we've got time for at the moment. I'm just looking at Mary Mathew, she's not our wonderful Engagement Officer and she's nodding at me saying yes, wrap it up.

So I'd like to thank Rae for answering your questions and your presentation today. And I'd also like to thank everybody for coming online and listening to us. There will be a recording available for those who couldn't make it or had to leave early. We really hope that we see you or at least see your questions again for the webinar on the *24th. So thank you very much for your time.

-ENDS-

*Please note that the second webinar will now be held at the end of June. Visit www.lvmrc.vic.gov.au/events for more details.