

Latrobe Valley Mine Rehabilitation Advisory Committee

MEETING #11 MINUTES (WITH CONFIDENTIAL INFORMATION REDACTED)

THURSDAY 11 OCTOBER 2018

UPSTAIRS AT THE TRARALGON BUSINESS CENTRE, 55 GREY
STREET TRARALGON VICTORIA 3844

ATTENDEES

Ms Susan Lloyd (Chairperson), Latrobe Valley community

Mr Roland Davies, Latrobe Valley community

Mr James Faithful, Latrobe Valley mine operators (ENGIE Hazelwood)

Mr Ron Mether, Latrobe Valley mine operators (EnergyAustralia Yallourn)

Ms Sarah Gilbert, Latrobe Valley mine operators (AGL Loy Yang)

Cr Graeme Middlemiss, Latrobe City Council

Mr Terry Flynn, Southern Rural Water

Mr Angelo Saridis, Gippsland Water

Ms Gail Gatt, Latrobe City Council

Mr Alan Freitag, Department of Environment, Land, Water and Planning (DELWP)

Mr John Krbaleski, Department of Economic Development, Jobs, Transport and Resources (DEDJTR)

Ms Jane Burton, Department of Economic Development, Jobs, Transport and Resources (DEDJTR)

Ms Anna May, Department of Environment, Land, Water and Planning (DELWP)

Emeritus Professor Rae Mackay (observer), Latrobe Valley Mine Rehabilitation Commissioner

Mr Brett Millsom (secretariat), Department of Economic Development, Jobs, Transport and Resources (DEDJTR)

APOLOGIES

Mr Trevor Williams, Gippsland Trades and Labour Council

GUESTS

Dr Brett Davis, Senior Manager, Latrobe Valley Regional Water Study, Department of Environment, Land, Water and Planning (DELWP)

Mr Paul Barrand, Regulatory, Compliance and Business Development Manager, AGL Loy Yang

Mr Paul Metlikovec, Mining Engineer, EnergyAustralia Yallourn

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Agenda Item	Minutes
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1	<p>Latrobe Valley Regional Rehabilitation Strategy (LVRRS) Water Scoping Studies</p> <p><i>Delivered by: Dr Brett Davis, Senior Manager, Latrobe Valley Regional Water Study, Department of Environment, Land, Water and Planning (DELWP)</i></p> <p>The presentation provided an overview of the environmental effects scoping study, water resources modelling scoping study and the pit lakes water quality scoping study completed as part of the Latrobe Valley Regional Water Study.</p> <ul style="list-style-type: none"> The Latrobe Valley Regional Water Study is attempting to answer a number of key questions regarding the pit lake mine rehabilitation option. These include: <ul style="list-style-type: none"> What is the demand for water to fill and maintain pit lakes? Is there sufficient water to meet demand? How long will it take to fill each mine? What is the current and future regional water balance? What is the likely water quality of the pit lakes? What impact(s) would using water for mine rehabilitation have on downstream users and the environment? How might climate change affect the viability of pit lakes? Each of the three scoping studies have been delivered by external contractors, and supported by a steering group, expert panel and reference group. The studies and their outcomes were largely driven by the inputs of key stakeholders and independent technical experts. It was asked how the scoping studies address the issue of optionality – for example, either of the two remaining brown coal mines could close earlier than their expected dates or an operating section of these mines could be retained. The scoping studies are not necessarily about what is modelled but more about how the modelling is undertaken. The rehabilitation scenarios have been developed in a separate study stream of the LVRRS, and deal with a number of the expected scenarios. The LVRRS Project Team is trying to ensure that there is sufficient scope to explore alternatives scenarios. In undertaking the modelling it's important to keep asking the question, 'is this going to change our view of what is feasible and what is not?'. If the answer is 'no', it may not be warranted to spend the extra time examining the point in detail considering the complexity involved and time constraints of the LVRRS. <p>Water Resource Modelling Scoping Study</p> <ul style="list-style-type: none"> All states and territories are moving towards a surface water modelling system called Source. This is still in development for Victoria, and the Source model for the Latrobe system is not due to be in place until late 2019, which means it will not be available to use for the LVRRS. There have been a number of groundwater models developed for Gippsland over the years, however two in particular are commonly used. These are the Gippsland Groundwater Model developed by the Victorian Government in 2015 as part of the water science studies for onshore gas, and the Latrobe Valley Regional Groundwater Model developed by GHD for the Latrobe Valley coal mine operators. No models currently exist for modelling pit lakes at the Latrobe Valley's three brown coal mines. Pit lake modelling is currently in phase one which is due to conclude at the end of October 2018. Four climate scenarios will be modelled for each regional rehabilitation scenario. Clarification was sought regarding what is meant by the term 'minimal pit lake'. It was noted that this term refers to the long-term water level that would develop without groundwater pumping. Groups within the community are coming up with options as to what the rehabilitated mine voids might look like. It was asked if the modelling is able to take these into account. (i.e. can it cater to a change in underlying assumptions, such as a portion of the mine void being retained for coal winning?). The pit lake modelling is trying to cover off as many possibilities as it can. The pit lake modelling has determined some early fill timings for each of the three mines. It was noted that this is very preliminary modelling and has a margin of error in the order of \pm five years.
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The presentation provided an overview of the environmental effects scoping study, water resources modelling scoping study and the pit lakes water quality scoping study completed as part of the Latrobe Valley Regional Water Study.

- The Latrobe Valley Regional Water Study is attempting to answer a number of key questions regarding the pit lake mine rehabilitation option. These include:
 - What is the demand for water to fill and maintain pit lakes?
 - Is there sufficient water to meet demand?
 - How long will it take to fill each mine?
 - What is the current and future regional water balance?
 - What is the likely water quality of the pit lakes?
 - What impact(s) would using water for mine rehabilitation have on downstream users and the environment?
 - How might climate change affect the viability of pit lakes?
- Each of the three scoping studies have been delivered by external contractors, and supported by a steering group, expert panel and reference group.
- The studies and their outcomes were largely driven by the inputs of key stakeholders and independent technical experts.
- It was asked how the scoping studies address the issue of optionality – for example, either of the two remaining brown coal mines could close earlier than their expected dates or an operating section of these mines could be retained. The scoping studies are not necessarily about what is modelled but more about how the modelling is undertaken. The rehabilitation scenarios have been developed in a separate study stream of the LVRRS, and deal with a number of the expected scenarios. The LVRRS Project Team is trying to ensure that there is sufficient scope to explore alternatives scenarios.
- In undertaking the modelling it's important to keep asking the question, 'is this going to change our view of what is feasible and what is not?'. If the answer is 'no', it may not be warranted to spend the extra time examining the point in detail considering the complexity involved and time constraints of the LVRRS.

Water Resource Modelling Scoping Study

- All states and territories are moving towards a surface water modelling system called Source. This is still in development for Victoria, and the Source model for the Latrobe system is not due to be in place until late 2019, which means it will not be available to use for the LVRRS.
- There have been a number of groundwater models developed for Gippsland over the years, however two in particular are commonly used. These are the Gippsland Groundwater Model developed by the Victorian Government in 2015 as part of the water science studies for onshore gas, and the Latrobe Valley Regional Groundwater Model developed by GHD for the Latrobe Valley coal mine operators.
- No models currently exist for modelling pit lakes at the Latrobe Valley's three brown coal mines.
- Pit lake modelling is currently in phase one which is due to conclude at the end of October 2018.
- Four climate scenarios will be modelled for each regional rehabilitation scenario.
- Clarification was sought regarding what is meant by the term 'minimal pit lake'. It was noted that this term refers to the long-term water level that would develop without groundwater pumping.
- Groups within the community are coming up with options as to what the rehabilitated mine voids might look like. It was asked if the modelling is able to take these into account. (i.e. can it cater to a change in underlying assumptions, such as a portion of the mine void being retained for coal winning?). The pit lake modelling is trying to cover off as many possibilities as it can.
- The pit lake modelling has determined some early fill timings for each of the three mines. It was noted that this is very preliminary modelling and has a margin of error in the order of \pm five years.

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Environmental Effects Scoping Study

- Alluvium was awarded the contract to undertake the Environmental Effects Scoping Study.
- The study was needed to determine whether sufficient information was available to adequately assess the impacts and benefits that may be associated with the pit lake rehabilitation option.
- The scope of the work was to identify the potential environmental effects and knowledge gaps relevant to environment- and water-related assets that are valued by the local community, have a realistic likelihood of being adversely affected by mine closure and rehabilitation and require further investigation to understand the nature and scale of the threat.
- Water in the Latrobe River System is currently fully allocated.

Pit Lake Water Quality Scoping Study

- The purpose of the Pit Lake Water Scoping Study was to make an early assessment of water quality issues that may present in the pit lakes, including risks and mitigation actions and knowledge gaps that need to be addressed.
- The scoping study found that the water quality risks are relatively minor for all three mines, and that residual risks should be manageable.
- A geochemical model will be developed to model of water quality over time.

Other comments

- It was asked whether water harvesting is being modelled as part of this study. It was noted that there is an opportunity for water to be harvested at Yallourn during the summer months. The water studies will consider this in terms of applicable regulations and water quality risks.
- There is currently a level of uncertainty regarding the future of the Hazelwood Cooling Pond. The Cooling Pond will be rehabilitated but the final landform is yet to be determined.

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Committee administration

Minutes from last meeting and actions arising

- Minutes from the previous meeting of the Committee (Meeting #10) were noted.
- An apology for Trevor Williams was noted.

Update from the Latrobe Valley Mine Rehabilitation Commissioner

Delivered by: Emeritus Professor Rae Mackay, Latrobe Valley Mine Rehabilitation Commissioner

- The Commissioner has been continuing to work on his Monitoring and Evaluation Framework which he is required to prepare under the *Mineral Resources (Sustainable Development) Act 1990*.
- Planning work is also underway for an event later in the year to launch the framework and walk through it with stakeholders.
- Work to recruit a communications and engagement officer is continuing.
- Discussions are continuing regarding the establishment of a cooperative research centre for mine closure and rehabilitation.

Updated on the LVRRS Project Team's approach to engagement

Delivered by: Brett Millsom, Senior Engagement Specialist, Coal Resources Victoria.

- The overarching aim for engagement activities during stage three of the LVRRS Project is defined in the *LVRRS Stakeholder and Community Engagement Strategy*. The aim of engagement activities for stage three is to "take people on the journey of what's technically and economically possible [and] taking that into account, create a shared vision for the future use of the area".
- The engagement aim for stage three of the LVRRS is supported by three objectives:
 - keep people informed about the project;
 - build knowledge about the technical process and outcomes; and

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- start an informed dialogue around future land use.
- A number of community and stakeholder engagement activities have been undertaken to support the preparation of the LVRRS during stage three. These include:
 - Project collateral, shared via an electronic distribution list
 - Newsletters; first one issued mid-year with plans to publish another one before the end of the year
 - Stakeholder briefings to inform the technical studies
 - Workshops regarding future land uses.
- Market research into public attitudes to mine rehabilitation revealed the *Latrobe Valley Express* is a key source of information for the Latrobe Valley community. The Project Team is currently preparing an information lift out for the local newspaper to provide general information about the project.
- There is a high level of interest from the local community in the future land uses that the area surrounding the mine voids might be able to support.

3 Mine Rehabilitation – Reflections from Germany

Delivered by:

James Faithful, Technical Services Manager – Mine, ENGIE Hazelwood

Paul Barrand, Regulatory, Compliance and Business Development Manager, AGL Loy Yang

Paul Metlikovec, Mining Engineer, EnergyAustralia Yallourn

Emeritus Professor Rae Mackay, Latrobe Valley Mine Rehabilitation Commissioner.

A number of representatives from each of the Latrobe Valley's brown coal mines, the LVRRS Project Team and the office of the Latrobe Valley Mine Rehabilitation Commissioner recently attended the Mine Closure 2018 Conference in Leipzig, Germany.

- Leipzig is the 26th most populous city in the European Union with a population of 592,000 people.
- Three mine sites being operated by RWE in West Germany near Cologne are being progressively rehabilitated – Hambach, Garzweiler and Inden.
- The stripping ratio for German brown coal is very different to Latrobe Valley brown coal. There is much more overburden to place back into the mines compared to the Latrobe Valley.
- A number of towns have been relocated as part of mining development in Germany. Some of these towns are estimated to have been established for between 200 and 300 years.
- The Hambach Mine was the largest of the three mine sites visited. It's between 400 and 500 metres in depth, compared to Loy Yang at approximately 200 metres.
- Hambach dwarfs the Latrobe Valley's coal mines.
- All of the mines visited were in relatively close proximity to townships and urban developments.
- Construction of a pipeline to take water from the Rhine to the Garzweiler Mine for rehabilitation purposes is underway.
- The Inden Mine bears the most similarity to Hazelwood. It's closest to closure.
- Inden's initial rehabilitation plan was to fill the mine entirely with inert material, however community appetite for a pit lake saw the rehabilitation plans revised to allow for this.
- One important learning from the visit was that getting access to the rehabilitated pit lake as early as possible was very important to the local community.
- Germany has seen in the order of 28,000 hectares of new mine lakes delivered in the last 25 years.
- There would be value in interested local community members, and representatives from Latrobe City Council, having first-hand exposure to the region to see just what can be achieved.
- About €10 billion has been spent on mine rehabilitation in Germany in the last 25 years. This money was committed by the German Government to numerous mines.

4 Round-the-table updates

James Faithful, Latrobe Valley mine operators (ENGIE)

- ENGIE has recently made two new mine closure planning appointments at Hazelwood. Luke Bowden has assumed

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the role of Mine Rehabilitation Lead and Antonia Scrase has taken on the role of Mine Closure Planning Manager.

- Batter reprofiling work will shortly recommence on site with the improved weather. This will see an additional 60-70 people on site.
- Deep drilling of pilot bores is currently underway to understand where aquifer sands are and how ENGIE can access artesian water supply to fill the mine.
- ENGIE has come to an agreement with Earth Resources Regulation regarding its recent Section 110 notice. This will result in a small increase to the numbers on site.

Ron Mether, Latrobe Valley mine operators (EnergyAustralia)

- Initial feedback has been received on Yallourn's workplan variation. Work is currently underway to address this feedback before resubmission.
- Discussions are continuing with local mountain bike and motorbike groups regarding the location of a track on a suitable block of land surrounding Yallourn.

Angelo Saridis, Gippsland Water

- Gippsland Water is working with Monash University to investigate products that could be produced through its Soil and Organic Recycling Facility (SORF) that could be used to assist with the rehabilitation of either mines, quarries or landfills.

Graeme Middlemiss, Latrobe City Council

- The debate regarding the location of an asbestos cell for the waste from the demolition of EnergyBrix's Morwell Power Station continues. Latrobe City Council commends ENGIE for its open mindedness on the issue and its willingness to work with EnergyBrix.

Gail Gatt, Latrobe City Council

- The removal of coal overlays on two blocks of land within Latrobe City have now been gazetted. This opens up Industrial Zone 2 land within Latrobe City for potential development.

Sarah Gilbert, AGL

- All of AGL's financial reporting for FY2017/18 is now complete.

Roland Davies, Latrobe Valley community

- A pathway to make contact with advocacy groups in the region is needed. It was noted that a number of groups are emerging regarding mine rehabilitation and demolition of power stations including a more recent anonymous group called the Centre for Democracy and Environment. The group has established a Facebook page and is providing active commentary on the demolition of EnergyBrix's Morwell Power Station and the Hazelwood Power Station and the role and function of the Latrobe Valley Mine Rehabilitation Commissioner. It was suggested that the Commissioner may be a suitable representative to make contact with the group.
- It was suggested that the Committee consider elevating the request for Aboriginal representation on the Committee if attempts to secure a nomination continue to go unanswered.

Susan Lloyd, Latrobe Valley community (Chairperson)

- Dates for 2019 meetings will be put into calendars shortly. The dates will most likely be the second Thursday of every second month starting in February.

Jane Burton, Department of Economic Development, Jobs, Transport and Resources (DEDJTR)

- Coal Resources Victoria is currently working with Latrobe City to plan three business networking events in the Latrobe Valley (Moe, Morwell and Traralgon) to provide information about the hydrogen opportunity for Victoria and the Hydrogen Energy Supply Chain (HESC) Pilot Project.
- The Greenhouse Gas Control Technologies (GHGT) Conference will be held in Melbourne commencing Monday 22

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October 2018.

5 Other business and next meeting

Next meeting scheduled for Thursday 13 December 2018.
