



MLRA Webinar 2: LVRRS Implementation Actions 4 and 5 Q&A Session, 9 February 2021

(*) denotes MLRA substantially responded

No.	Question	Answer
	Mine rehabilitation	
1(*)	Why can't we fence off the dangerous areas, turn the pumps off and let nature take its course?	<p>If groundwater depressurisation ceased without having a stabilising weight on the mine floor, floor heave would occur, which would not only destabilise the mine floor, but also the walls of the mine. This in turn would affect nearby infrastructure, including local roads and rivers and major infrastructure such as the Princes Highway, the major power lines and residences near Hazelwood mine or the proposed Traralgon Bypass near Loy Yang mine. To protect these assets, we need to continue to stabilise the mines either through a passive measure, such as filling the mine with water, or actively through stabilising the pit walls along with ongoing surface and groundwater management programs currently in place.</p> <p>Furthermore, 'letting nature take its course' would not address future fire risks and most likely would exacerbate these through greater exposure of the coal caused by uncontrolled coal movements and removal of the current fire management infrastructure operated by the mine licensees.</p>

No.	Question	Answer
2(*)	If the LVRRS is being updated in June, what's the likelihood of including coal ash dam clean up and rehab into the strategy (as they're currently not included and community groups are awaiting EPA investigation results into groundwater pollution at Hazelwood)?	<p>The outputs from the LVRRS implementation actions will be published in June 2021. The Strategy will be reviewed and updated in 2023.</p> <p>The ash disposal facilities at each site are EPA-licensed. The long-term management of the ash disposal facilities will be according to EPA approvals processes.</p>
3	The presentation last week and again this week has focused solely on the availability of surface water sources and the impact that climate change and mine rehabilitation may have on these systems. The previous presentation mentioned that alternative sources other than surface water AND groundwater are required. Why is DELWP opposed to the use of groundwater for filling mine voids?	<p>Groundwater extraction is expected be required during the rehabilitation phase of the Latrobe Valley mine sites until weight balance is achieved to reduce aquifer pressure and maintain the stability of the mine voids.</p> <p>Groundwater resources are managed separately from the surface water resources. Southern Rural Water is the licensing authority for groundwater resources in the region and work with Government to ensure groundwater extractions are sustainable and consistent with license conditions.</p>
4(*)	Where will the material required to provide buttressing and/or surcharge come from?	<p>Under current rehabilitation plans for the three mines, all earth materials for buttressing works are projected to be sourced from within the mine licence areas. Should plans change substantially—so that a large increase in buttress and surcharge works is required to ensure adequate long-term stability of the landform—it may be necessary to source additional material from outside the mine licence areas. Implementation Action 5 is expected to provide preliminary assessments of material requirements for different final landforms.</p>

No.	Question	Answer
5(*)	<p>Is there a shortage of fill and soil to cap the coal? Has any research been done into a sustainable substitute for a growth medium?</p> <p>Isn't it true that not enough soil exists to cover all the coal in the mines?</p>	<p>The mine operators believe that for full pit waterbody scenarios sufficient overburden is available within the mine licence areas to cover all areas of exposed coal above the final level of the waterbody. This may not be the case for a dry pit or lower waterbody levels. Approximate cover material requirements for an empty void or partial pit waterbody are being investigated as part of LVRRS Implementation Action 5.</p> <p>There are concerns that insufficient topsoil is available for any mine rehabilitation scenarios. For this reason, trials using manufactured topsoils are currently underway at AGL Loy Yang, in partnership with Monash University.</p>
6	<p>Are you concerned that all your rehabilitation options are sterilising the second biggest lignite deposit in the world? What is going to happen when an alternative ("clean") use of Victoria's brown coal comes along that was not foreseen?</p>	<p>Government is seeking to guide and support the owners of Latrobe Valley's coal mines with their mine rehabilitation planning, through the LVRRS and other initiatives. The mine owners have the option of continuing to utilise the mining licence, divesting the mining licence to another company, or rehabilitating the site and relinquishing the mining licence. All options are subject to statutory approvals.</p> <p>In the case where the mine owner seeks to relinquish the mining licence, it is a legal requirement that they rehabilitate the site by making it safe, stable and sustainable. This is to protect the surrounding community, the environment and infrastructure from the potential impacts of unrehabilitated mine sites.</p> <p>The relinquishment of a mining licence, once rehabilitation has been completed, does not preclude an application to mine that area in the future. Government is also modernising planning provisions in the Valley to support the future growth and economic development of the region, by ensuring that the State's highest value coal resources are protected whilst removing any redundant protections.</p> <p>Also see Question 51.</p>

No.	Question	Answer
7	Will the government be investigating the possible flood mitigation and water storage benefits the mine voids could provide?	<p>Natural flood waters are unlikely to be diverted for mine rehabilitation. Floods are naturally occurring and a necessary part of the Latrobe region's environment cycle. Studies have considered the impacts of these flooding events and determined the Ramsar-listed wetlands on the lower Latrobe River, and floodplains along the river, require a dynamic water cycle including flooding for ecological integrity. Higher flows from flooding are needed to prevent saltwater movement further up the river.</p> <p>Preliminary investigations have considered use of the voids for flood mitigation purposes but maintaining for the voids for this end use will create a number of risks and management challenges that are likely to outweigh the benefits.</p>
8(*)	Would material from tunnel boring in city be considered, due to scarcity of sufficient earth and rock?	While some of the bored material may be suitable for use in mine rehabilitation, there would be insufficient volume of material to make a substantial difference to the total volume needed. In addition, the impacts and cost of transporting material to the Latrobe Valley would need to be considered, as they would be much higher than sourcing material locally.

No.	Question	Answer
9(*)	Given what we know today about rehabilitation progress, what is the shortest lead time before we can see partial access available to the public for beneficial use?	<p>At the moment, the Victorian Mineral Resources (Sustainable Development) Act does not permit relinquishing part of a mining licence's area prior to rehabilitation being complete across the entire licence. As such, under the current laws the earliest public would have access would be approximately 20 years after the end of mining, depending on the proposed final landform.</p> <p>Future changes to the Act may change these timeframes and the licence relinquishment process.</p> <p>It must be noted that if the residual risk of instability in a mine void remains too high, as might arise if an empty or partially filled void is maintained, public access to the void may not be possible post-rehabilitation.</p>
10	Would industry and other uses be permitted if surrounding land was released earlier than the pit void?	<p>If partial relinquishment of a mining licence becomes possible in the future, the permissible land uses for the relinquished areas would depend on the risks associated with that land (e.g. the potential for ongoing ground movements due to the mine void).</p> <p>The LVRRS outlines the need for integrating mine rehabilitation and regional land use planning, and that this should allow for the economic and sustainable use of rehabilitated land in a way that is fair and orderly and gives weight to the interests of Victorians in the future as well as in the short-term.</p>
11	Do you have enough data for your studies to have a level of certainty in your results?	The LVRRS implementation actions will be based on best available information. The level of uncertainties will be identified in the reports.
12	If the mine lease is handed back early, will that preclude the use of coal for blue hydrogen and shut out the hydrogen industry early?	See Questions 6 and 51.

No.	Question	Answer
13	With the generators paying the bill, where is the incentive to speed up works and not take the cheapest option? What co-funding is required to achieve the best and most expedient social, cultural, environmental and economic benefit can be achieved for the community?	Under the <i>Mineral Resources (Sustainable Development) Act</i> , the mine licensees are responsible for the costs associated with rehabilitation. Before the mining licence can be relinquished, each licensee must create a landform that is safe, stable and sustainable. Prior to relinquishment, the licensee must provide a post-closure fund for the ongoing maintenance and monitoring costs once they have relinquished the licence. As such, it is in the interest of the licensee to create a sustainable landform with minimised ongoing maintenance requirements.
14	Have you modelled on the basis of (highly likely) power station closures in advance of their current published closure dates?	<p>The estimates of water availability modelled and presented in relevant technical reports is sourced from the water resource models of the Latrobe Basin and is independent of power station closures.</p> <p>Though uncertainty increases with longer time periods, these models did show projections of future water availability up to 2090 so they are still applicable in the event of changes to power station closure timetables.</p>
15	Now that this modelling is completed and acknowledge that current values (cultural, current users, etc.) need to be maintained, how will future regional water/land use policy develop? I.e. will rehabilitation take priority over other regional development requirements/opportunities?	<p>A key principle of the LVRRS is that 'any water used for mine rehabilitation should not negatively impact on traditional owners' values, environmental values in the Latrobe River System, or the rights of other existing water users.</p> <p>Government's aim is to enable mine licensees to find solutions that support regional development and aid in the region's future prosperity rather than inhibit it.</p>

No.	Question	Answer
16	Once completed, will information relating to non-water-based options and alternative water options (e.g. recycled water) be made publicly available?	Information relating to non-water-based and alternative water options will be publicly available. Preliminary investigations are scheduled for completion by mid-2021, at which time, or soon after, key findings are expected to be communicated.
17	Will results from studies be made publicly available before a decision is made?	<p>No decisions on mine rehabilitation are anticipated until all parties, including community members, have the opportunity to consider and engage meaningfully with the relevant information. This includes the key findings from studies undertaken as a part of the Latrobe Valley Regional Rehabilitation Strategy.</p> <p>Information on the work to progress the Latrobe Valley Regional Rehabilitation Strategy will be available, including on non-water-based rehabilitation approaches and approaches that use alternative water.</p>
Hazelwood		
18	Can we be assured that Hazelwood rehabilitation will not be delayed by possible future mining options?	See Questions 6 and 51.
19	This sounds like confirming the use of alternative water sources is a long way off. Hazelwood wants to start filling this year. How does that work?	<p>ENGIE are responsible for and have a legislated obligation to achieve a safe, stable and sustainable rehabilitated landform based on the resources available to them at the time of submission.</p> <p>If a water-based mine rehabilitation approach is adopted and an alternative water supply was considered feasible, the Hazelwood mine licensee would need to work through the appropriate planning and approval requirements to enable access to this new supply source.</p> <p>Some water supply options may take longer to deliver than others, including those that require approval from a range of agencies and delivery of infrastructure.</p>

No.	Question	Answer
20	What is indicative price tag of rehabilitating Hazelwood?	<p>The estimated costs of the rehabilitation works are required to be reviewed at least every five years and on approval of significant work plan variations under the regulatory oversight of Earth Resources Regulation (ERR), using an independently developed Rehabilitation Liability Assessment Framework (RLA Framework). An associated rehabilitation bond, equivalent to 100% of the independently assessed rehabilitation liability, is held by the State of Victoria. Currently, the independently assessed rehabilitation liability and bond for the Hazelwood site is \$289 million.</p> <p>The estimated cost of rehabilitation of Hazelwood Mine will be next reviewed by Government on the finalisation of ENGIE's rehabilitation plan for the site or in 2022, whichever is sooner.</p>
21	If the cost of rehabilitation of Hazelwood for the owners (ENGIE) is too costly, the mine operator can forfeit \$273 million bond that the Government holds and just walk away. Hence the cost must be borne by the taxpayer. This should be considered in your decision-making process.	<p>Practicability (which includes cost) is a key consideration in Government's decision-making. It is also a legal requirement that the mine licensee rehabilitates the site at the end of mining.</p>
22	Hazelwood is 4km by 2km by 100 m deep and took 60 years to dig. It is a very, very big hole in the ground. You cannot fill it with soil—you would need to dig a near equally sized hole to fill Hazelwood.	<p>An assessment of six rehabilitation options, commissioned by the Hazelwood Mine Fire Inquiry, concluded that completely filling the Latrobe Valley brown coal mines to the crest level using overburden and non-polluting mine waste is unviable due to the lack of available fill material onsite or locally, and the significant costs associated with bringing in new material.</p> <p>Mine operators have been invited to collaborate with Government and stakeholders to identify and assess non-water rehabilitation options to manage land stability and fire risks, as part of the implementation of the LVRRS. These options include strategic placement of fill material to reduce the fire and stability risks associated with the voids.</p>

No.	Question	Answer
	Non-water rehabilitation options	
23	What is the groundwater recharge and how much water would need to be pumped continuously to keep the pit water free?	<p>Keeping Hazelwood and Loy Yang mine voids dry would require ongoing groundwater pumping to control pit floor heave. Historically, collective groundwater pumping from the three mines has been in the order of 25–30 GL per year, and ongoing groundwater pumping within this order of magnitude would be expected to maintain dry voids.</p> <p>Ongoing groundwater pumping is unlikely to be needed at the Yallourn mine to maintain a dry void. But this could change depending on the final mine void and the rehabilitation adopted at the other mines (which could increase groundwater levels in the area of the Yallourn mine).</p> <p>Groundwater in coal adjacent to the mines currently drains, via horizontal drains, into holding ponds in the base of each mine. To keep the pit water-free the water collected in the holding ponds will need to be disposed off-site to the mine void in accordance with the EPA regulations, which is the current practice.</p> <p>A 'dry' void scenario is not a completely dry void and will require ongoing surface and groundwater management.</p> <p>Groundwater pumping relates to the confined aquifers. The recharge for the confined aquifers is dependent on climate.</p>
24	Where would all the material come from to enable any dry void options?	See question 22.

No.	Question	Answer
25	<p>In a dry mine scenario, who will undertake the care and Maintenance of the pits in perpetuity.</p> <p>This includes maintenance of the mine batters and floor as well maintenance of networks of aquifer depressurisation pumps and systems in perpetuity in order to prevent uncontrolled floor heave?</p>	<p>Under the <i>Mineral Resources (Sustainable Development) Act 1990</i>, the land owner is responsible for any post-closure management of former Latrobe Valley brown coal mines. Currently this is the mine licensees (ENGIE, EnergyAustralia and AGL), but a licensee may sell the land, in which case the obligation for post-closure management would travel with the title.</p> <p>Where appropriate the Mine Land Authority may become the owner of the land on behalf of the Government and would assume the responsibility for the management of the land. This may include land outside of the current mining lease areas that is impacted by the mine.</p> <p>The Mine Land Rehabilitation Authority has responsibility for oversight of all post-closure management of former declared mine land to ensure that appropriate management of the land is occurring.</p>
26	Who would manage the long-term and ongoing risks of a dry void option?	See question 25
27	Can you give us any detail about whether non-water is likely to be feasible (esp. in cost compared to expensive water solutions)? How much dirt/soil is needed? Costs? Or is that all still to come?	See question 22.
28	I guess the costs of managing dry pits will be determined in order to compare with alternative water options, so the two studies come together. Is this the case?	The LVRRS commits to assessing potential non-water rehabilitation options and potential alternative water sources by June 2021. Community will be engaged on the findings of the reports and the next steps.

No.	Question	Answer
	Water fill pit options	
29	<p>So, if everyone is happy to fill Hazelwood with groundwater and the top up water (for evaporative loss) is only 15GL/year for all three mines then what is the problem? 15GL/year is a very small component of the water available in the Latrobe Valley system based on the graph presented. Is the core of the issue the Latrobe Valley water system cannot support the 15GL/year lake top up or cannot support the mine void filling?</p>	<p>The Latrobe Valley Regional Water Study found that the ongoing volume of water needed to maintain water levels in the mine voids to offset evaporation would be estimated to be around 15 GL per year. This figure could be higher depending on the future climate.</p> <p>The estimated volume of water required to offset evaporation, may sound small compared to the total fill volume, however this is more water than the volume supplied to all the towns across Central Gippsland combined and more than double the water historically used for irrigated agriculture in the lower Latrobe. For comparison, the net historic usage of water supplied for power generation is around 55 GL per year.</p> <p>A range of studies, including the Regional Water Study, found there are uncertainties associated with future surface water availability due to climate change and climate variability. Under a dry scenario, water from the Latrobe River system would not be available for mine rehabilitation because it would have unacceptable impacts on other existing entitlement holders and minimum environmental flows. Consistent with the principles of the LVRRS, mine rehabilitation should plan for a drying climate, to create the certainty for the community that a safe, stable and sustainable landform can be achieved into perpetuity.</p>

No.	Question	Answer
	Water quality	
30	Can you clarify water quality better, what are the issues?	<p>Generally speaking, water quality in a pit waterbody refers to the water's chemical and biological composition. In the mine voids, it will be influenced by the following:</p> <ul style="list-style-type: none"> • The quality of the source water entering the mine voids. • Water gaining and losing processes (e.g. rainfall / evaporation) that may dilute or concentrate chemicals in the water. • Water column (limnological) processes – how water quality changes as it “settles out” changing the properties at the bottom compared to the top of the water column. • Chemical (inc. biogeochemical) processes – chemical reactions that happen over time (e.g. chemical reactions of that water with the material lining the waterbody like the coal and sediments). <p>If the pit waterbody is to have a future use beyond that of stabilising the mine walls and floor, the quality of the water used to fill the waterbody must be suitable for that use at the time of filling and into the future.</p> <p>The other key issue with respect to water quality is how a pit waterbody interacts with the surrounding environment. If the waterbody acts as a groundwater source (i.e. water seeps from the waterbody into the regional aquifer(s)), then under current environmental legislation, there must not be an adverse impact to that aquifer. This would likely preclude the use of raw seawater or saline water as the use of this may give rise to water-quality risks within the mine voids, which must be considered.</p>

No.	Question	Answer
	Alternative water options	
31	Would a pipeline from Eastern Treatment Plant to the Latrobe Valley for mine filling (and also industry/agriculture) be co funded between mine operators and Govt (ie Infrastructure Victoria)? What would the cost be, and what timeframe for construction?	<p>The LVRRS will further assess the feasibility of alternative water sources that could be used for mine rehabilitation.</p> <p>Potential for benefits of large-scale infrastructure projects such as a pipeline from Eastern Treatment Plant to the Latrobe Valley will be considered.</p> <p>At this time an accurate cost is not known, and it is too early to say if a large-scale infrastructure project will progress, who would benefit from the infrastructure and how it would be funded. Under the Mineral Resources (Sustainable Development) Act, the mine licensees are responsible for the costs associated with rehabilitation.</p>
32	Will the analysis on the feasibility of alternative options be made publicly available?	Information will be made available to the public as part of the LVRRS.
33(*)	It was mentioned how expensive alternative water supplies are, as well as ongoing water management. How do these costs compare with management of pits without water, long term?	Ongoing pit management costs for an empty void are estimated to be in the order of tens of millions of dollars per year per pit and will be required in perpetuity.
34	Pleased to see blue sky thinking on alt water. Who is doing this thinking and how can we contribute?	DELWP is leading the delivery of LVRRS implementation action four, which is concerned with alternative water source investigations. In delivering this action, DELWP is liaising closely with mine licensees, water corporations, the Mine Land Rehabilitation Authority, other government departments as well as the Latrobe Valley Mine Rehabilitation Advisory Committee.
35	What other regional benefits from use of recycled water are being considered to increase the benefits to the state overall?	<p>DELWP has commenced work to explore the regional benefits and opportunities of an alternative water supply.</p> <p>Potential expansion of irrigated agriculture, and contributing to economic growth through the making of a climate independent</p>

No.	Question	Answer
		water supply available are two examples of potential regional benefits.
	Costs of alternative water options	
36	What are the high ongoing costs if mines are filled with water?	<p>While the costs are yet to be calculated and depend very much on where the water is being sourced, if mine voids are partially or fully filled with water, there will be costs attributed to the ongoing supply and treatment of water into perpetuity.</p> <p>Ongoing monitoring of water quality, evaporative and other losses, water levels and aquifer pressures etc. is expected to be needed.</p> <p>Ongoing maintenance of vegetation and soil cover on non-submerged areas of coal, water quality within the pit water body and monitoring of land subsidence, rebound and landform etc is also be expected to be needed.</p> <p>If a water-based mine rehabilitation plan is adopted and approved, then an alternative climate-independent water supply—such as recycled water or desalinated water—could be needed over the longer term. There will likely be high ongoing costs associated with pumping and maintaining and operating the supply infrastructure for any alternative water sources.</p>
37	Who's paying the bill, the generators or taxpayers?	See question 13.
38	Is the cost of different water options being taken into account when looking at options?	<p>The costs of different water options will absolutely be taken into account. Government understands that different approaches to mine rehabilitation, and the different fill material, is a complex balancing exercise.</p> <p>Water from surface water sources may appear to cost less, however it is climate dependent and may not be able to achieve a safe, stable and sustainable rehabilitated landforms into</p>

No.	Question	Answer
		<p>perpetuity. Under a dry climate change scenario, it is unlikely that water from the Latrobe River system will be available for mine rehabilitation in most years, particularly in the latter half of the century.</p> <p>Alternative water sources are likely to cost more but are more reliable as they are not dependent on the climate.</p>
39	<p>If the alternative requires billions of dollars in cost to build two pipelines as well as the increased cost of water sources, will this cost be shared by the ratepayers of Melbourne as well as those of Gippsland? Would Hazelwood mine have yearly access to its water right to help fill the void?</p>	<p>The purpose of the alternative water assessment is to determine whether a supply can be considered feasible, including understanding the potential impacts and opportunities.</p> <p>At this time an accurate cost is not known, and it is too early to say if and who would benefit from the infrastructure and how it would be funded.</p> <p>Under the Mineral Resources (Sustainable Development) Act, the mine licensees are responsible for the costs associated with rehabilitation.</p>
	Community/social issues	
40	<p>While the focus is on water, it is largely a social challenge of equitable allocation and use, which as Anna [May] described is a 'gnarly problem'. How are social scientists involved in providing insights on what is actually a social challenge entwined with a biophysical research (water)?</p>	<p>The team at DELWP have social science expertise and any decisions made about the use of water will naturally involve robust assessments consistent with Government guidelines.</p> <p>Social considerations are hardwired into the State's water planning framework. We require our water corporations to undertake rigorous consultation with community members and sustainable water strategies are prepared regularly for the purpose of developing a plan for regional water supplies while protecting environmental, economic, cultural and recreational values.</p>
41	<p>I note the importance of partnerships from community consultation. Are partnership options being examined as part of this stage of</p>	<p>It's too early to say which rehabilitation solution is the most appropriate, let alone have a view on the best commercial delivery vehicle for that particular solution.</p>

No.	Question	Answer
	studies. for example: public private partnerships for treating and managing alternative water sources (e.g. desalination for pit water)?	A partnership-based approach is not uncommon in the water sector. As an example, Victoria's Desalination Project is a public-private partnership where the private company is contracted to finance, design, build, operate, and maintain the project.
42	<p>How is community benefit being factored into this project? An important element for locals in addition to safe and stable.</p> <p>Why isn't community benefit from mine rehabilitation part of the consideration?</p>	The LVRRS commits to integrating mine rehabilitation and regional land use planning, which should allow for the economic and sustainable use of rehabilitated land in a way that is fair and orderly. This is explained in the LVRRS, noting, "Government's role is to provide policy and guidance, and to facilitate or support investment by industry where there is a clear community benefit." This gives weight to the interests of Victorians in the future as well as in the short-term and the Government is committed to performing this role. As an example, through sessions such as the webinar convened by the MLRA, Government is able to obtain a strong appreciation of the benefits community members are seeking
43	This community has evolved and grown from this incredible brown coal resource delivering economic value to all Victorians. A long-lasting legacy should be part of the solution to acknowledge this community's contribution to the state of Victoria. Acknowledging that safe and stable is paramount. Please comment.	Agreed. The Minister for Resources' foreword to the LVRRS notes that the Latrobe Valley has been the powerhouse of Victoria's economy for decades and that the implementation of the Strategy, coupled with the work of the Mine Land Rehabilitation Authority, must deliver positive mine rehabilitation outcomes for the Latrobe Valley. This includes fully protecting the rights of existing water users—farmers, towns, industry and the environment (including the Ramsar-protected Gippsland Lakes)—during mine rehabilitation and protecting the region's agriculture, fishing and tourism industries.
	Water users/uses	
44	How does Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) use their 2GL allocation?	Use of the 2GL of water will be determined by GLaWAC in line with cultural practices and self-determination. GLaWAC have

No.	Question	Answer
		received the water under the <i>Water Act 1989</i> ; this licence enables GLaWAC to self-determine how it will use the water, whether that is for irrigation, economic development or looking after the water in its environment, depending on their aspirations and choices.
45	What is the primary use for the 2,800GL required, is it purely irrigation for vegetation?	The 2,800GL value is the collective volume calculated to completely fill the three mine voids to their crests with water. Filling the mines to their crests is one rehabilitation approach that would stabilise the mine batters and mine floor and allow aquifer depressurisation to stop.
46	Will the assessment look into other secondary benefits including availability of water for irrigators, recreation, community benefits, additional flows into the Gippsland Lakes, potential increase in property values, bushfire response?	The primary purpose of the assessment is to understand whether alternative water sources are feasible for mine rehabilitation. Secondary benefits may be revealed through the assessment and will indeed be considered.
47	Have the generators been engaged in the investigations?	All mine operators have been invited to collaborate and been engaged in the LVRRS implementation actions to further assessing the feasibility of alternative water sources and non-water-based rehabilitation approaches. Mine licensees are also represented on the Latrobe Valley Mine Rehabilitation Advisory Committee, who provide advice on the scope and delivery of the LVRRS implementation actions.
	Climate/climate change	
48(*)	Isn't stormwater climate dependent?	Climate change modelling suggests that in the future high rainfall events—and therefore stormwater—will decrease in frequency and increase in intensity – with an overall net decline in water availability.

No.	Question	Answer
49(*)	What if any impact does closure or recapture of cooling tower condensate have on local climate?	Cooling tower condensate creates a micro-climate within the towers' vicinity but does not impact the climate overall.
50	Is the greenhouse impact of the alternatives for managing stability being considered in the studies?	This is an important consideration that will be assessed progressively through the implementation of the LVRRS. Further work will be needed post June 2021 to assess the potential carbon emissions associated with a range of rehabilitation options.
Other Matters		
51(*)	What consideration has been given to mining coal for blue hydrogen in the future?	<p>The development of the LVRRS and the role of the MLRA are designed to ensure that the Latrobe Valley brown coal mines are rehabilitated into safe, stable and sustainable landforms at the end of their mining life. The initiatives do not preclude extensions to the mining licences or new mines if a future, economically viable use for the brown coal is found.</p> <p>The Victorian Government is committed to maximising the long-term value of Victoria's brown coal resource, consistent with the Government's triple bottom line (economic, social and environmental) objectives. This includes investigating the potential for hydrogen production from brown coal through initiatives such as the Japanese led Hydrogen Energy Supply Chain (HESC) pilot project, which is currently underway. If the pilot is successful, HESC may commence commercial operations in the 2030s, but only if a commercial carbon-capture and storage solution is available, such as CarbonNet. If proved viable, the production of clean hydrogen in Gippsland will create markets for both domestic use and export.</p> <p>Government is also modernising planning provisions in the Valley to support the future growth and economic development of the region, by ensuring that the State's highest value coal resources are protected whilst removing any redundant protections.</p>

No.	Question	Answer
52(*)	Is there any sense of urgency in the MLRA given Hazelwood situation or is this like the old SEC, Slow, Easy, Comfortable job for life?	<p>The MLRA does not control either the planning for rehabilitation or the regulation of rehabilitation and is therefore dependent on others, who determine the speed of progress in decision making. The MLRA does oversee the works that are being undertaken and does encourage good progress, while requiring good quality outcomes.</p> <p>One of the difficulties the MLRA faces in its education and engagement programs is impressing on everyone not only the urgency with respect to solving how the Latrobe Valley brown coal mines will be rehabilitated, but also the timeframes involved in providing those solutions. Rehabilitation is a generational process that starts with progressive works and technical studies during mining, with the physical works and outcomes monitoring continuing for decades post-mining.</p> <p>As the consequences of mine rehabilitation in the Latrobe valley are so significant for future generations, the MLRA in collaboration with mine licensees, other government agencies, stakeholders and community will be undertaking a wide-ranging program of intensive and extensive work to ensure that future generations can enjoy the benefit of the rehabilitated landforms.</p>

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