

# EnergyAustralia Lithgow Region Community Consultative Committee Final Meeting Minutes – 11 June 2024

## Member attendees:

- Julie Favell
- Jim (Cricket) Whitty
- Jamie Giokaris
- Aunty Helen Riley
- Alex Preema
- Lauren Stevens – Lithgow City Council
- Steve Marshall – EnergyAustralia
- Mick Hanly – EnergyAustralia
- Ben Eastwood – EnergyAustralia

## Also present.

- Michael De Vink – Energy Australia

## Apologies:

- Cr Maree Statham
- Rob Cluff

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## Presenters

- Michael de Vink – EnergyAustralia
- Gavin Powell - ERM

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## Chair:

- Brendan Blakeley
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Item	Discussion Point
1	<b>Welcome and introductions</b> <ul style="list-style-type: none"><li>• The meeting began at 5:05pm</li><li>• The Chair welcomed all members</li><li>• The Chair acknowledged Country</li><li>• The Chair asked for declarations of interest:<ul style="list-style-type: none"><li>- The Chair noted he chaired a similar group for EnergyAustralia at Tallawarra Power Station</li><li>- The Chair declared payment received from EnergyAustralia for role as independent chair of this CCC</li><li>- No other interests were declared.</li></ul></li><li>• A hard-copy minutes of the previous meeting was distributed.</li></ul>
2	<b>Minutes</b> <p>There were no comments on the previous minutes.</p> <b>Actions from the previous meeting</b> <p><u>EnergyAustralia to obtain photographs to assist with identifying grass growing on and around salt mounds.</u></p>

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**Item****Discussion Point**

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Two images were shared of vegetation on the salt mounds

*See slides 6, 7, 8 & 9*

Ben Eastwood noted that the plants were self-sown. Steve Marshall commented that from an online guide it looks as though one of the species was possibly Shepherds Cress.

EnergyAustralia to investigate incorrect information about its water agreement and licenses as described on the Water NSW website.

Ben noted

- the link provided by the member that raised this matter was directed to the EA website. Therefore, it's not clear what information source this is referring to.
- EnergyAustralia would be happy to comment on any information tabled at the meeting that relates to its water licences.

*See slide 10*

For ease of understanding, at the next meeting could EnergyAustralia supply a few slides that diagrammatically show water flows, use and management across the station's various assets and water storages.

- A briefing paper providing an overview of the Regional Water Management System was tabled at the meeting by EnergyAustralia.
- See Appendix A.

*See slide 10*

EnergyAustralia to confirm how long they've been putting ash into Lamberts North

Steve outlined dates for deposition of ash in the respective Stages of Lamberts North as follows:

- LNAR (Stage 1) – Water Conditioned Ash (WCA) November 2013
- LNAR (Stage 1A) – Brine Conditioned Ash (BCA) May 2022 (Post Liner installation)
- LNAR (Stage 2) – WCA August 2022

He explained

- Unlike MPAR Lamberts North contains no legacy salts
- LNAR was approved in 2021 with only water conditioned ash deposited until 2022 when liner was in place.
- Brine is a by-product of the reverse osmosis process used in the water treatment plant

*See slides 10 & 11*

*Discussion*

*Does the liner go up the sides of the ash repository?*

Yes, Steve stated this would be addressed in detail in a later presentation.

*A CCC member commented that the aerial image was very useful, and it was instructive to see LNAR broken down into stage 1 and 2.*

*What is the status of Lamberts South?*

Steve responded Lamberts South is not available as an ash repository and is used as a reject emplacement area by Centennial. It is not part of Mt Piper.

*What is the status of Lot 42?*

Steve replied that Lot 42 is owned by Council and there is development consent for it, and adjacent land owned by Mount Piper to be used as a tip. This forced the Lambert's North repository to be shrunken in that area.

EnergyAustralia to email CCC members when the discussed select concept design drawings for the LLESP, including high resolution aerials, are available online

These have been available online for some time now and have been viewed by the community.

EnergyAustralia to review internal consultation database and ensure responses to the LLESP have been shared with community members where project enquiries have been logged

All enquiries are logged onto an online database called Consultation Manager. This program generates automated reminders for matters that have not been closed out. Generally, queries are followed up as soon as practical with most completed the same day. Detailed technical questions may require additional time to be responded to by a subject matter expert.

EnergyAustralia to follow-up and schedule meeting between CCC member (Rob White) and EnergyAustralia Chief Corporate Affairs Officer Strategy Director (Nicole McKechnie)

This opportunity remains open for the next available site visit when Nicole is at Mt Piper. The offer also remains open for Rob to stop by 2MQ when he is in Melbourne, as discussed. This follows Rob not being available last time Nicole was here in Lithgow.

Item	Discussion Point
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3 **Mt Piper and Pine Dale Update**  
*Mt Piper*

Site safety – Steve Marshall

*See slides 17 & 18*

- Site safety is good
- Unfortunately, a very extended run of no incidents was broken by a lost time injury to a maintenance worker's thumb.
- The task being undertaken was a very irregular activity.
- We have investigated this incident to look at how we can make sure it doesn't happen again.
- The incident has led us to refocus attention on safety preparation and awareness when undertaking infrequent activities.

Operation in the market

*Slides have been redacted due to confidentiality. Only high-level discussion points are reported below.*

- Station has been operating consistently and reliably with units running at around 80%
- Demand has been high over recent period due to a wind drought
- The coal situation is improving with better quality of coal coming in from Centennial, Coal was being sourced from Centennial, Castlereagh, and opportunistically from CeeDive.
- The stockpile is building up.
- The Water Treatment Facility has also been very reliable and consistent.

*A CCC member asked about CeeDive as a long-term source of coal.*

Steve replied that CeeDive was neither a major, or long term, source of supply. Coal is being extracted here as part of a construction project. When earthworks are complete coal will no longer be available. As noted previously, it is an opportunistic source. EnergyAustralia took about 30,000 tonnes from CeeDive a few years ago and around 10,000 tonnes from the more recent round of excavation at CeeDive as part of the foundation works required for the new development.

People

Steve noted

- that apprentice intake presentations will begin in late June.
- Mick Hanly would soon be leaving EnergyAustralia. He thanked Mick for his contribution to Mt Piper and his work engaging with community members over the past few years.

*CCC members joined Steve in wishing Mick all the best.*

### **Pine Dale and Enhance Place**

*See slide 26*

There were no changes to those noted at the last meeting.

### **Community**

*See slide 28*

Community grants:

- Round 1 closed 31 March 2024 with just under \$30,000 awarded to:
  - Lithgow High School
  - Blinky Bill Early Learning
  - Lithgow Cares Committee- Portland Community Funday
  - Oakey Park Residents Association
  - Portland Central School.
- Events supported were:
  - Portland Art Show with six art works chosen by staff purchased
  - Lithgow Show
  - Ironfest

### **Non-project specific Questions on Notice**

Responses to a series of questions about sources and volumes of coal supplied to MPPS were tabled. These were noted as commercial in confidence. Relevant slides have been redacted and only high-level discussion points are recorded here.

- Primary supply sources for the first half of 2024 were:
  - Lithgow Coal
  - Shoalhaven Coal
  - CEY
- Coal from these sources is blended to ensure a consistent quality of coal for station operations.
- The current volume of coal being stored on site is increasing but still sits well below maximum allowable storage capacity.

In relation to the return water pipeline transfer from Lake Lyell via Rydal pumping station to Thompsons Creek Dam (TCR) & Lake Wallace – does the desalination of water for the boilers only feed in the necessary requirements received from the Water Treatment Plant (WTP), or all the water from WTP is desalinated and what is not needed for boilers goes into TCR and needs a second conditioning via desal plant before uptake to the boilers at Mt Piper?

Item	Discussion Point
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Steve noted:

- Boilers need a very pure stream of demineralized water that is derived from either the distillate coming out of the brine concentrators or a very specific stream from the WTF.
- The volume of water for the boiler is very small in comparison to the volume used for cooling.
- Water for the cooling tower does not need to be as demineralized and is fit for purpose, as long as it is between 1200 and 500 micro siemens
- Under normal operations, all mine water received by the Springvale WTP (SWTP) is desalinated, with the treated water going as first choice to the Mt Piper cooling towers, with excess going to Thompsons Creek Reservoir. (TCR).
- The water from TCR can be used to top up cooling towers when evaporation exceeds the WTF make.
- Water in TCR is a blend of treated water from the SWTP, water pumped from Lake Lyell and natural rainfall runoff.
- Water in TCR does not require further treatment before being used in the cooling towers but is not used in the boilers.

Do you have a license for discharge downstream of the dams?

Steve and Ben replied:

- All discharges into waterways need to be under some form of license or standing approval. EnergyAustralia's water licenses for holdings/operations in the area are explained in the paper we tabled earlier in this meeting.
- Water reporting to TCR is off-stream and doesn't affect flows in Cox's River
- In an extreme high rainfall event(s), we will do discharges via Pipers Flat Creek emergency discharge point.
- Water from TCR and Lake Lyell must be released to achieve the required environmental flows as required under the water access licence.
- The Dam Safety Act allows for discharges to ensure safety of dams and downstream communities according to agreed regimes.

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#### 4 **Projects in focus: Ash Repository Groundwater Management**

Ben introduced Gavin Powell from ERM.

*See slides 34- 51*

Gavin noted that leachate from MPAR was a legacy issue and work has been ongoing for over 6 years to look at ways to reduce the amount of leachate entering groundwater and nearby waterways. The

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**Item****Discussion Point**

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independent groundwater investigation undertaken by ERM was in response to a request by the EPA following a review of Bore D 10 groundwater conditions. The intent of the investigation was to identify reasonable and feasible management options.

The site has a long history of mining and ash placement with Brine Conditioned Ash (BCA) being emplaced from the year 2000.

This activity has impacted on groundwater conditions around the ash repository with Bore D10 (an onsite, early detection bore) showing chloride concentrations above the environmental goal. *See slide 39.*

Chloride is an indicator solute for BCA.

CCC questions

*Is chloride the only element looked at in the groundwater? Copper boron, cadmium, sulphates and asbestos, among others, are all associated with fly ash.*

Ben replied that around 35 analytes are looked at in the groundwater analysis. These are in relevant monitoring reports submitted to the EPA. Chloride is used as it is an indicator analyte as it is strongly associated with brine conditioned ash.

<https://www.energyaustralia.com.au/about-us/energy-generation/mt-piper-power-station/mt-piper-brine-ash-co-placement>

*What has been the impact of such high concentrations on biota in Wangcol Creek? It was suggested EnergyAustralia could implement a natural filtration/ treatment system within the creek to improve water quality in this area. This system could use endemic plants to filter the water.*

Gavin replied that Bore D10 is very close to the BCA emplacement area. A series of new bores were drilled closer to the creek to better understand the nature of groundwater flows adjacent to the creek. The bores closer to the creek are showing a much lower concentration of solute.

Gavin continued the presentation.

The original ash dams were made in old open cut workings. When the rain falls on areas where BCA has been deposited the solutes migrate down vertically. Most of this water percolates down deep to old underground mine workings, but a small amount travels laterally and enters the surface water system via old mine excavations along the creek.

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**Item****Discussion Point**

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Following investigation, the volume and nature of groundwater meant interception and treatment was not a viable option. We are now looking at recharge control through stopping water entering the ash dams and moving down into the groundwater. The solution here is to place a barrier or liner over the top of the area with BCA to effectively limit water entering the ash deposit and carrying salts down into groundwater.

The leaching will continue for some time as water is already in the system. However, over time by excluding rainwater and with no additional infiltration the flow of solutes into groundwater will start to reduce. While the central part of the BCA zone can be capped, we will also look at shaping batters so rainwater water flows readily off the ash areas and is directed into a lined drainage area. By limiting water recharge, the amount of solutes in groundwater will progressively reduce over time.

### *CCC questions*

*So the groundwater infiltration won't stop until 2035-2049.*

Gavin replied that it won't stop as such, but the concentration of chlorides will reduce. There will always be some solute present. Our solute transport models show it slowing down and gradually coming into the light blue range as indicated in Slide 46. The key objective is to keep the red and yellow (indicating higher concentrations) away from the creek.

Ben then talked about the proposed project modifications for the ash repositories. *See slide 53 - 70*

### Modification # 2 for LNAR

The modification proposes no increase in overall ash volumes being placed in Lamberts North. It covers the following:

- Constructing the liner
- An increase to operating access time 24/7

Ben noted:

- There were no appreciable changes to noise or air quality
  - EnergyAustralia will be required to do environmental monitoring and reporting
  - The number of nearby residential properties has decreased with demolition of homes near Blackmans Flat.
  - There will be some new mobile lighting poles with shields facing downwards to limit light spill.
  - The application has been lodged with DPHI and the CCC will be advised when it goes on public exhibition.
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### Modification # 9 for Mount Piper

This proposed modification is generally about environmental improvements such as:

- pollution control structures on stormwater drains
- placing a leachate barrier management system between LNAR and MPAR
- increased stormwater detention for the coal stockpile ponds.

Some regrowth from an old mining area will need to be removed to make way for the additional ponds.

CCC discussion.

*Will any offsets be needed?*

Ben explained that offsets would be needed. EnergyAustralia may need to split the application if the offset component delays the application to avoid interruptions to the placement of BCA on LNAR.

*A CCC member suggested that creating a natural water treatment system in or around Wangcol Creek would be a good offset.*

*How high will LNAR be able to go?*

Steve noted that the repository would be three batters above ground level which at 10 meters x 10 meters x 10 meters is around 30 meters high. At this height it would still be below that of the surrounding ridge.

*Are you looking at ways to lessen the amount of ash ending up in the repository?*

Ben and Steve noted that EnergyAustralia has a division that looks after ash sales. They are always seeking new markets and new technologies. The most common use for fly ash is in concrete. Once coal stations stop operating there will be no fly ash being produced as a by-product so concrete companies will need to find alternative sources of ash. The most likely source would be to mine areas where ash has been deposited.

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### **Mt Piper Battery EIS: Project update**

*See slide 75,76 & 77*

An information package on the Mt Piper BESS application was distributed to members via email on 06 June.

Steve and Mick outlined the following

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Item	Discussion Point
	<ul style="list-style-type: none"> <li>• The proposal is now on exhibition until 27 June.</li> <li>• EnergyAustralia will be holding information sessions on: <ul style="list-style-type: none"> <li>- 1-3 pm Thursday 13 June</li> <li>- 10 am-12 pm Thursday 25 June</li> </ul> </li> <li>• The BESS is a key project for EnergyAustralia to assist in managing the transition to a low emissions portfolio. It fits in well with our operations through to the planned closure of coal in 2040.</li> <li>• It takes advantage of the ample transmission infrastructure that is within the area</li> </ul>

#### Discussion

*A CCC member asked if more battery storage be added to Mt Piper down the track. It seems to be readily achievable and a good solution to continuing power operations at Mt Piper when coal generation ceases.*

Steve responded that there is capacity for more battery storage at Mt Piper. Battery storage is short duration storage and takes time to recharge. Ultimately the decision to place more batteries at Mt Piper would be driven by the market. It is a very expensive storage option if it is not used frequently, and its application is not to supply power for long periods of time. It is a highly dispatchable form of power that is typically used to plug a supply gap for up to a few hours.

It is important to have a diversity of storage types such as pumped hydro and look at new technologies such as compressed air. Solving storage is a critical issue for the stability of the grid as more renewables come into play.

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## 6 Lake Lyell Pumped Hydro Study- project update

*Refer slides 79-80*

Michael noted the following

- EnergyAustralia will soon be running some workshops on benefit sharing. It is intended that benefits plan will focus on opportunities related to:
    - Skills and training services and infrastructure
    - Tourism and recreation
    - Heritage and environment.
  - A lot of the field work for the various studies is nearing completion.
  - The teams will now be looking at this data to:
    - inform their reports
    - shape the final version of the design
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Item	Discussion Point
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- Design is continuing and the concept scheme has been confirmed as feasible.
- Peak generation at 400 MW is possible for short bursts with an underlying base capacity of 335 MW for up to 8 hours.
- It is anticipated that the EIS will be completed late 2024 with exhibition most likely in early 2025. Exhibition timing will be up to DPHI.
- Pending determination, a financial investment decision by Energy Australia is likely in late 2025.
- If approved construction would commence in 2026 and go through to 2030.
- Magpie Hollow has been identified as the preferred location for worker accommodation.
- A workers' village will be important to avoid undue pressure on housing in the region over the construction period.
- The location is owned by EnergyAustralia but under lease to Council. EnergyAustralia is working with Lithgow Council to look at excising the village location from the existing lease for the duration of construction.
- It is possible that some of the infrastructure could stay after construction if it has a community benefit.

*A CCC member asked how many workers will be housed at Magpie hollow.*

Michael responded that the village is being planned to accommodate approximately 400 workers.

He noted that currently a lot of information from various studies is being processed and a more detailed update on Lake Lyell and some of the study findings could be provided at the next meeting.

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## **General discussion**

*A CCC member raised the matter of access to Thompsons Creek Reservoir for anglers with disability or mobility issues, noting the difficulty of accessing the water's edge.*

*Members made the following comments for consideration by EnergyAustralia:*

- *as the community gets older this was an important matter related to inclusion*
- *consideration be given to a key pass arrangement to enable approved people to drive closer into the reservoir than is presently possible.*

Steve said he would need to learn more about access requirements, but this could be explored.

Item	Discussion Point
	<i>CCC members reiterated their best wishes for Mick Hanly.</i>
8	<b>Meeting close</b> <ul style="list-style-type: none"><li data-bbox="427 360 596 398">• 7:00 pm</li><li data-bbox="427 398 1038 439">• Next meeting to be on <b>20 August 2024</b></li></ul>

## **APPENDIX A: Water at Mount Piper Briefing Paper**

# Mt Piper Power Station

## Summary of Regional Water Supply Arrangements

Prepared by  
EnergyAustralia

20 March 2024

### Introduction

EnergyAustralia (**EA**) owns Mt Piper Power Station (**MPPS**) which provides a reliable supply of 24-hour base-load and peak demand electricity. MPPS is located in the Western Region of the Hawkesbury-Nepean Catchment and operates two units with a generating capacity of 700 and 730 megawatts.

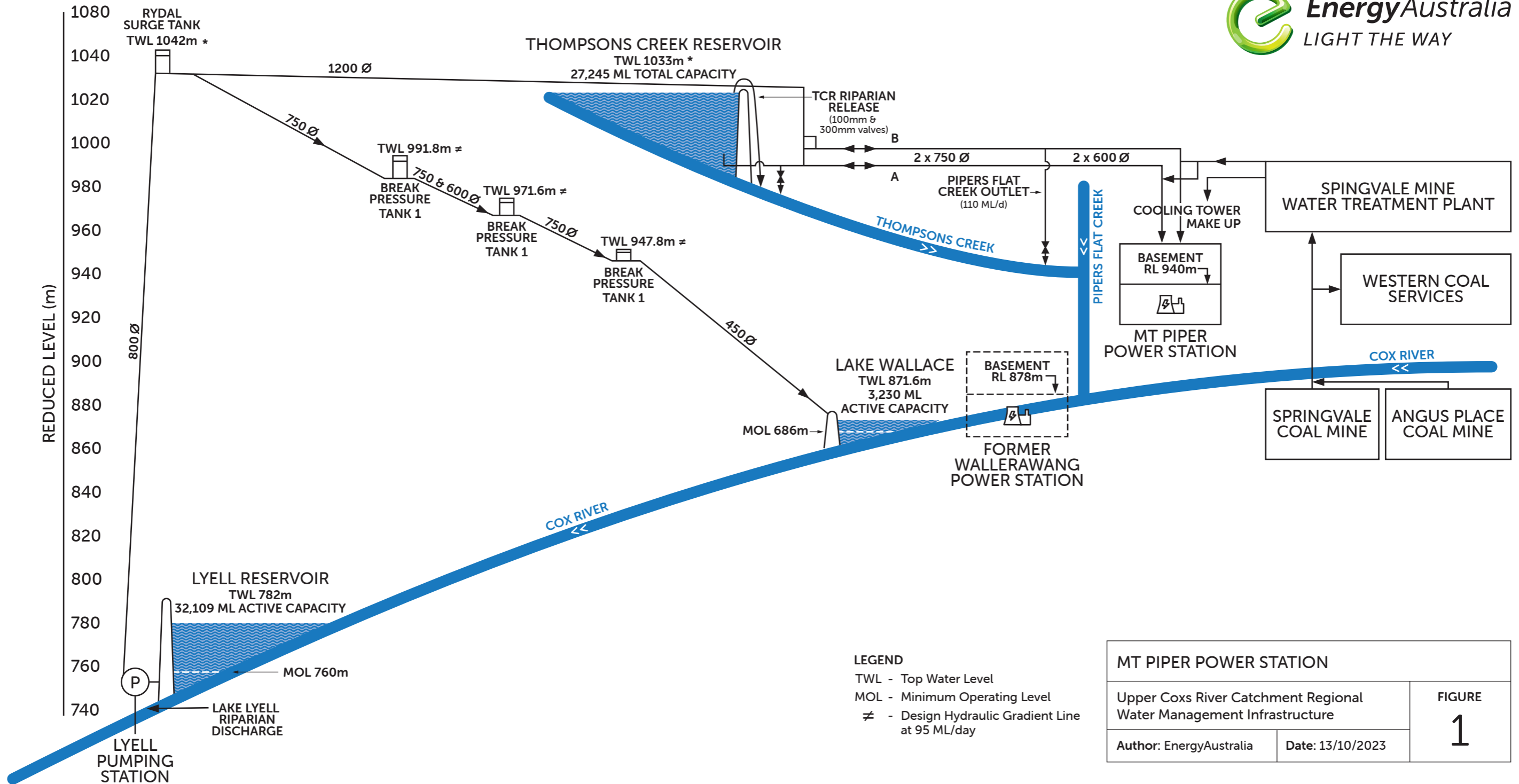
Mt Piper Power Station (**MPPS**) requires fresh water to generate electricity. The water required for the operation of MPPS is supplied from the Coxs River Water Supply Scheme (**CRWSS**), the Fish River Water Supply Scheme (**FRWSS**) and the Springvale Mine Water Treatment Plant (**SMWTP**).

#### Coxs River Water Supply Scheme (CRWSS)

The CRWSS was developed for the Upper Coxs River Catchment to ensure an adequate supply of water for the operation of MPPS and the former Wallerawang Power Station (**WPS**). The location and various elements of MPPS and the CRWSS is shown in Figure 1.

The CRWSS is comprised of Lake Lyell and Lake Wallace on the Coxs River and TCR on a tributary of the Coxs River. Any water released from or spilling over the Lake Wallace dam flows into Lake Lyell. A dedicated pipeline enables the transfer of water from Lake Lyell to MPPS via the Rydal Surge tank, with excess water being stored at TCR for later use. Water pumped from Lake Lyell can report to Lake Wallace via a gravity feed pipeline located off the Rydal Surge Tank.

Lake Wallace was constructed on the Coxs River in 1978 primarily to supply water to WPS. However, no water has been extracted from Lake Wallace since the closure of the WPS in 2014. Lake Wallace is used by the local community for non-motorised boating and other recreational activities. Lake Wallace has an operating capacity of 2,206 ML and a total capacity of 4,004 ML. Lake Wallace was sold to EA in 2019.



Lake Lyell was built in 1982 for the supply of water to WPS and MPPS. It is situated on the outskirts of Lithgow, approximately 16.5 kms from the MPPS and is downstream of Lake Wallace and Thompsons Creek Reservoir (**TCR**). As well as being a source of water for MPPS, the lake is used for recreational purposes including trout fishing, water skiing and camping on the foreshore. Lake Lyell has a Total Active Storage of 32,109 ML and a total capacity of 34,192 ML.

TCR was built in 1992 to store water for use at MPPS. TCR is considered off-stream storage as it has a minor catchment of less than 10km<sup>2</sup>. Fishing is the only recreational activity permitted at TCR, with the dam considered as a Trophy Trout Dam by anglers. TCR has a capacity of 27,245 ML and supplies MPPS via gravity-feed.

#### Fish River Water Supply Scheme (FRWSS)

EA is a major customer of the FRWSS and has an annual allocation of 8,184 ML. The FRWSS is comprised of a 45 GL storage dam at Oberon and a 20 ML weir on the Duckmaloi River. Both the Dam and weir are connected to the Stage 2 system, supplying EA via a 370 ML reservoir at Rydal.

Due to the high quality of water from the FRWSS, this water is more suitable than alternate water supplies for domestic, fire services and boiler feedwater, and at this time is critical to EA's operations. The dependence of other consumers on the FRWSS is acknowledged, and hence use of this water source is minimised wherever possible during low rainfall years, and EA's allocation is restricted according to the level at Oberon Dam.

#### Springvale Mine Water Treatment Plant (SMWTP)

On 19 June 2017, Springvale Coal Pty Ltd was granted State Significant Development Approval SSD7592 for the development of the SMWTP. The SMWTP has since been constructed and supplies treated mine water to MPPS. It is designed to treat raw mine water transferred from the Springvale Mine and provide an additional source of fresh water to MPPS, for use in the station's cooling water system. The SMWTP is approved to process up to 15,330 ML/yr (42 ML/day) and, with a recovery rate of 94%, produce a maximum of 14,410 ML of treated water per year. Water from Springvale Mine was received at the SMWTP from 1 July 2019.

### **Regulatory Framework**

#### Water Management Act 2000

EA use of water from the Coxs River is regulated by two regulatory instruments: a Water Access Licence (WAL) and a Water Supply Work and Water Use Approval (the Approval) issued under section 66 (1) (a) of the Water Management Act 2000. The water is allocated to EA NSW in accordance with *the Greater Metropolitan Water Sharing Plan for Unregulated River Water Sources 2023* (the WSP).



The WAL and the Approval contain conditions that EA are required to comply with regarding water take, water use and reporting. The Approval also contains conditions pertaining to water management works (e.g. dams, pipelines, and associated water management infrastructure), metering requirements, and environmental matters (e.g. environmental flow release requirements). These conditions are consistent with relevant provisions of the WSP.

#### Fish River Water Supply Scheme (FRWSS)

The FRWSS is regulated by WAL 36230 and Approval 80CA719431 held by WaterNSW and issued under section 66 (1) (a) of the *Water Management Act 2000*. The water is allocated to WaterNSW in accordance with *the Water Sharing Plan for Macquarie Bogan Unregulated River Water Sources 2012*. EA's use of water from the FRWSS is per the sub-agreement with WaterNSW referred to as the Fish River Water Supply Scheme Agreement.

#### Dam Safety Act 2015

Lake Lyell and TCR are classified as declared dams under the NSW *Dams Safety Act 2015* and *Dams Safety Regulations 2019* and must comply with the requirements set out in the legislation.

### **Monitoring & Reporting Requirements**

EA performs monitoring in the CRWSS in accordance with the Approval and other regulatory arrangements.

The monitoring performed includes but is not limited to:

- Water take from Lake Lyell monitoring;
- River height and flow monitoring through the use of stream gauges;
- Environmental flow monitoring;
- water quality;
- blue-green algae;
- macroinvertebrate & fish (**River Health**) monitoring; and
- geomorphological monitoring downstream of Lake Lyell.

#### Water take from Lake Lyell

A water meter is located on the pipeline between Lake Lyell and the Lyell Pumping Station to record the water take from Lake Lyell.

#### River height and flow monitoring

WaterNSW operates and maintains a stream gauging network in the Coxs River Catchment and provides gauge data for the sites listed in Table 1 to MPPS for the determination of in-flows into and verification of environmental releases from Lake Lyell. Alternatively, the relevant gauge data can be obtained from [WaterInsights – WaterNSW](#).

Table 1 WaterNSW Gauging sites relevant to Lake Lyell environmental releases

Site Number	Site Name
212008	Coxs River at Bathurst Road
212011	Coxs River at Lithgow
212042	Farmers Creek at Mount Walker
212045	Coxs River at Island Hill
212054	Coxs River at Wallerawang
212055	Neubecks Creek at upstream Wallerawang Colliery
212058	Coxs River at upstream Lake Lyell

#### Environmental Flow monitoring

Environmental flows from TCR are comprised of seepages from toe drains, releases from the environmental flow valves and surface runoff from the southern face of the dam wall. Visual inspections are performed on a daily basis (excluding weekends) to gauge the flow rate of each site, which are then reported back to EA at the end of each week for use in calculating the environmental flow from TCR.

Flow meters are located on the environmental flow release valves located at Lake Lyell to verify the required release is being achieved.

#### Water Quality monitoring

Water quality monitoring is performed at several sites along the Coxs River catchment. Contractors engaged by EA perform chemical characteristic analyses, including depth profile results for turbidity, conductivity, dissolved oxygen and pH, as part of routine monthly water sampling.

#### Blue-Green Algae monitoring

Since blue-green algal blooms can cause water to be unsafe for recreation, blue-green algae monitoring is performed at sites located along the Coxs River in accordance with WaterNSW's Regional Algal Management Guidelines.

#### River Health Monitoring

River Health monitoring is performed by contractors engaged by EA on an annual basis in accordance with the requirements of the Approval and EA's WAL Monitoring manual.

#### Geomorphological Monitoring

Geomorphological monitoring, which looks at changes in the in-channel structure, is performed downstream of Lake Lyell on an as needs basis in accordance with the requirements of the Approval and EA's WAL Monitoring manual. The monitoring is generally undertaken after an Annual Channel Maintenance Flow release from Lake Lyell.

### Reporting of monitoring results

Results of all monitoring performed in accordance with the Approval are reported in EA's WAL & Approval Annual Compliance Report submitted to the Natural Resource Access Regulator (**NRAR**) and Department of Climate Change, Energy, the Environment & Water (**DCCEEW**).

Water take from Lake Lyell is reported on a monthly basis to WaterNSW through their online Water Accounting System (**iWAS**).

Blue-Green algae results are sent through to the Co-ordinator for the Metropolitan/South Coast Regional Algal Coordinating Committee (**RACC**), as facilitated by WaterNSW, and Lithgow City Council.

Weekly reports of dam storage levels, environmental flows from Lake Lyell and blue-green algae results, as well as a copy of EA's WAL and Approval, are publicly available on EA's website: [Mt Piper Water Data | EnergyAustralia](#).

## **APPENDIX B: Presentation**

# EnergyAustralia Lithgow Region

## Community Consultative Committee

11 June 2024

Steve Marshall – Head of Mt Piper



**EnergyAustralia**  
LIGHT THE WAY

# Agenda

1. Welcome – Acknowledgement of Country – Declarations of Interest
2. Minutes and Actions
3. Mt Piper and Pine Dale Update
4. Lamberts North – Project in Focus
  - Leachate status
  - Proposed project modifications
1. Mt Piper Battery EIS
2. Lake Lyell Pumped Hydro Study
3. General Discussion
4. Meeting close

# Acknowledgement of Country

I would like to acknowledge the Wiradjuri people as the Traditional Owners of the land on which we meet today, and pay my respects to their Elders past, present and future

Artwork done by Wurundjeri Traditional Owner, Mandy Nicholson



# Declarations of Interest



# Minutes and Actions

# Actions from Previous Meeting

EnergyAustralia to obtain photographs to assist with identifying grass growing on and around salt mounds









# Actions from Previous Meeting

***EnergyAustralia to investigate how the water agreement and licenses are described on the Water NSW website***

Unfortunately, the link provided by the member that raised this matter does not work. Therefore, it's not clear what information source this is referring to. EnergyAustralia would be happy to comment on any information tabled at the meeting that relates to its water licences.

***For ease of understanding, at the next meeting could EnergyAustralia supply a few slides that diagrammatically show water flows, use and management across the station's various assets and water storages.***

EnergyAustralia has prepared a briefing paper that will be tabled at the meeting and attached to the minutes which provides an overview of the Regional Water Management System.

# Actions from Previous Meeting

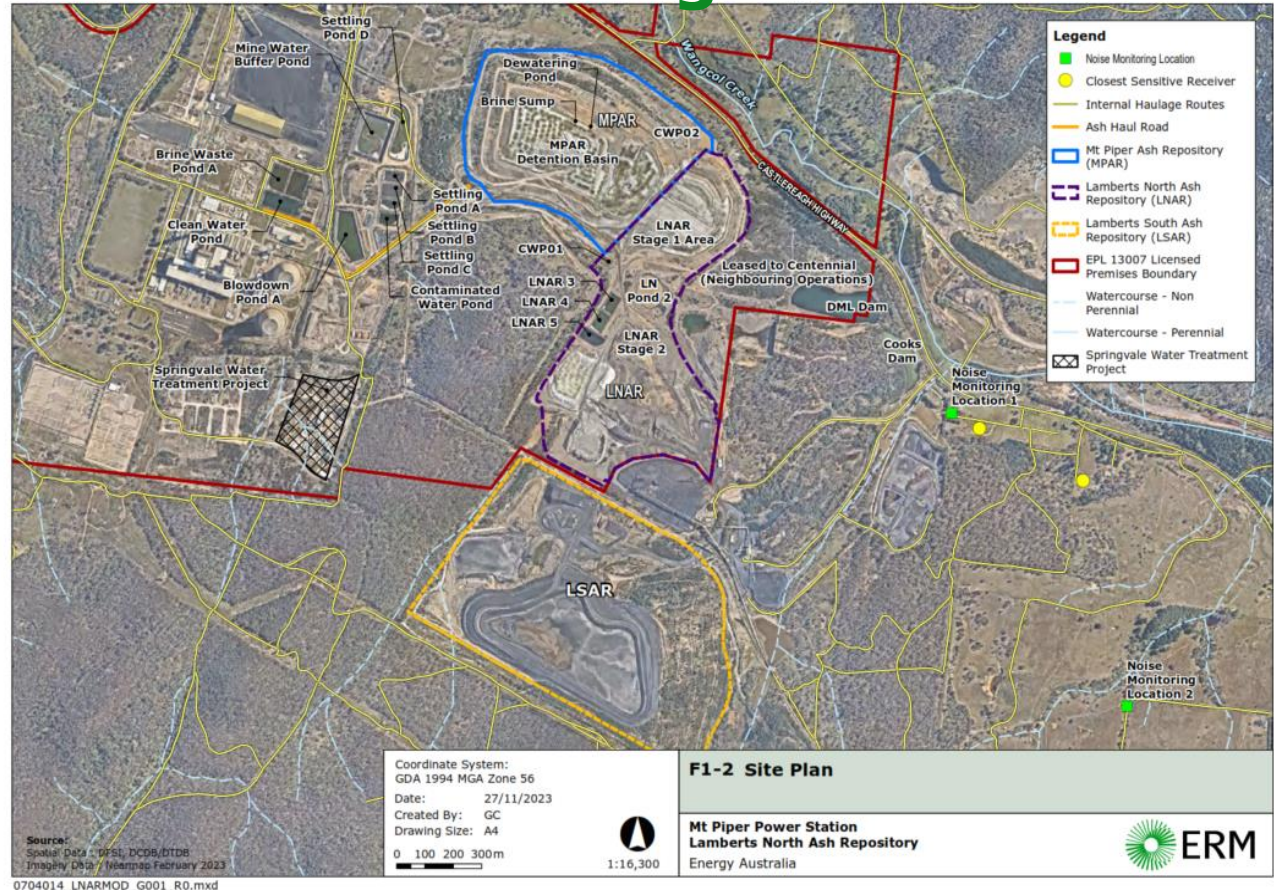
## *EnergyAustralia to confirm how long they've been putting ash into Lamberts North*

- LNAR (Stage 1) – WCA November 2013
- LNAR (Stage 1A) – BCA May 2022 (Post Liner installation), see photo below of first truckload of BCA to be placed in LNAR
- LNAR (Stage 2) – WCA August 2022



# Actions from Previous Meeting

*EnergyAustralia to provide a clearer map of the ash dams*





# Actions from Previous Meeting

***EnergyAustralia to email CCC members when the discussed select concept design drawings, including high resolution aerals, are available online***

These have been online for a while now and have been viewed by the community.

***EnergyAustralia to review internal consultation database and ensure responses have been shared with community members where project enquiries have been logged***

All enquiries are being followed up as soon as practical. Most are completed the same day. Some of the more technical questions may require additional time to source the response from the appropriate subject matter expert.

# Actions from Previous Meeting

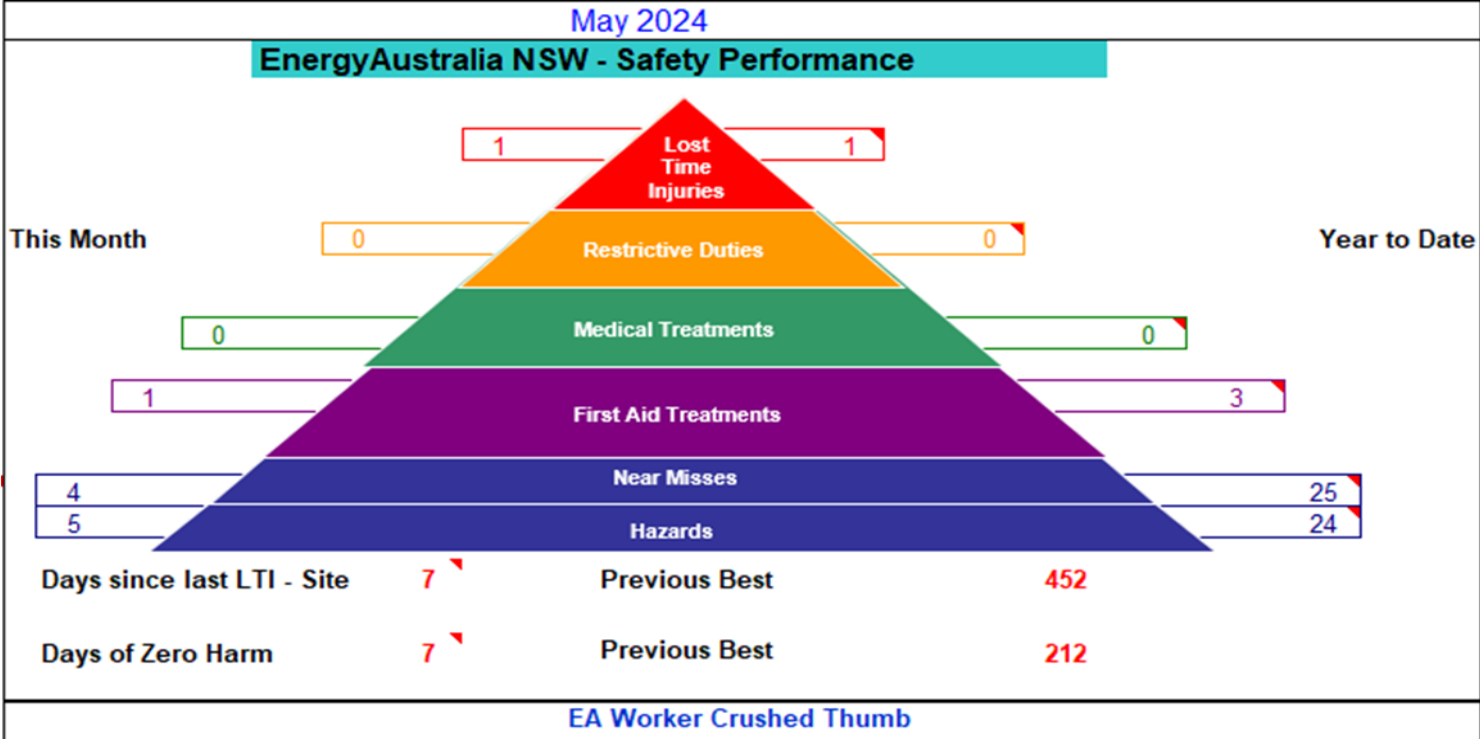
***EnergyAustralia to follow-up and schedule meeting between CCC member (Rob White) and EA Strategy Director***

This opportunity remains open for the next available site visit when Nicole is at Mt Piper. The offer also remains open for Rob to stop by 2MQ when he is in Melbourne, as discussed. This follows Rob not being available last time Nicole was here in Lithgow.

# Mt Piper Update

# Site Safety

# Site Safety – May 2024

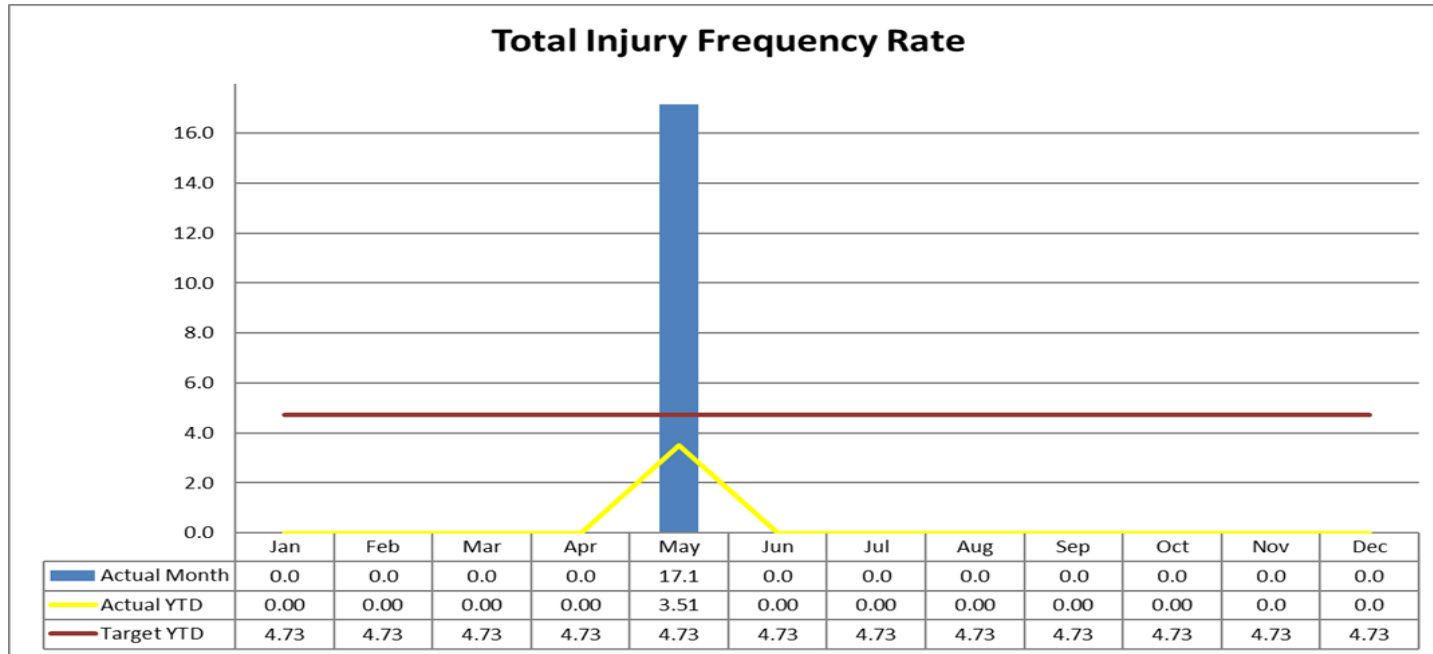


# Site Safety May 2024

YTD – TIFR (As of May 2024)

Actual = 3.51

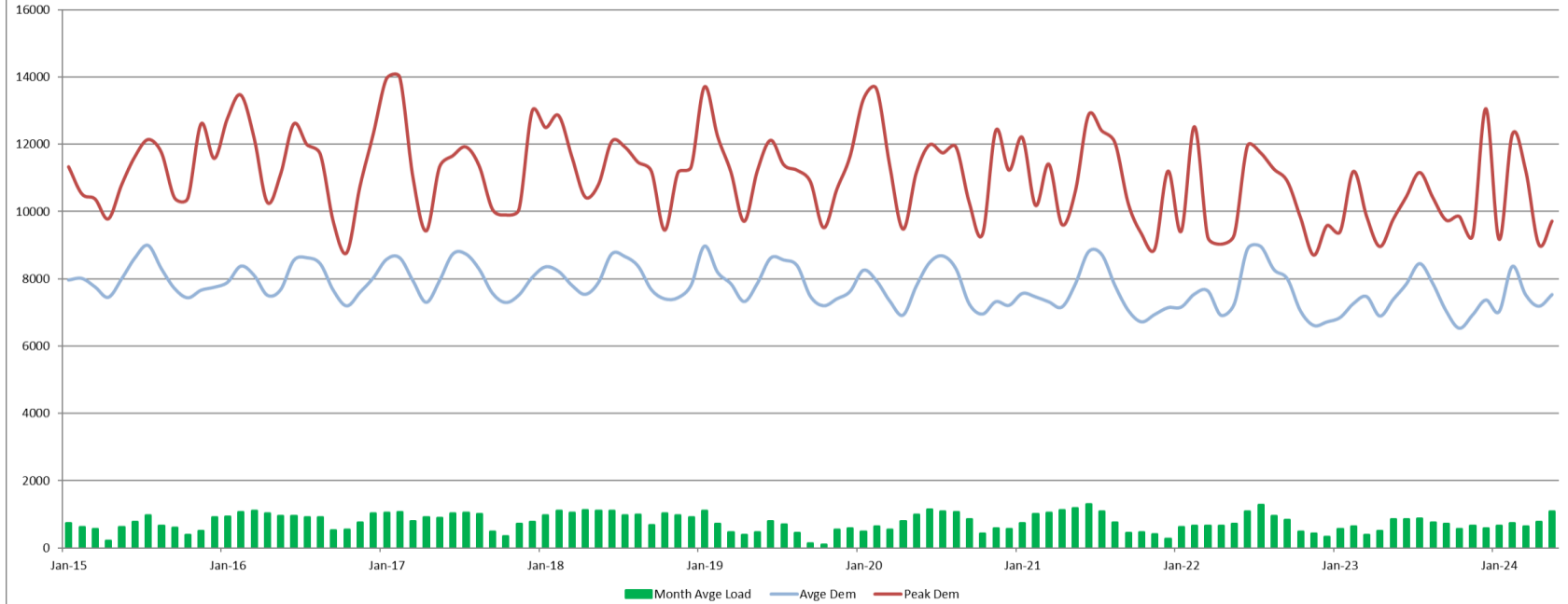
Target = 4.73



# Market Update

# Operation in the Market

## Mount Piper in the NSW Market





# Operations (Site) Update

# Operations update – May

REDACTED



# Operations update – May

REDACTED



# People

- Apprentice Intake presentations to be held later in June.
- Farewell Mick Hanly, who will be leaving EA at the end of June.

# **Pine Dale Mine and Enhance Place**

# Pine Dale Mine and Enhance Place

- No non compliances at the Pine Dale Mine
- No community complaints recorded for Pine Dale Mine, related to its activities
- Continues in care and maintenance
- Future mining activities continue to be evaluated
- Monitoring of rehabilitated areas is ongoing



# Community Update

# Community

- Round 1 Community Grants closed 31 March with just under \$30,000 awarded.
- Successful applicants include:
  - Lithgow High School – Solar & Engineering Challenge
  - Blinky Bill – Uncle Brett Art workshops
  - Lithgow Cares Committee – Portland Community Family Funday
  - Oakey Park Resident’s Association – Oakey Park Arena
  - Portland Central School – Stem Robotics





# Community

## Supported Events

- Portland Art Show
- Lithgow Show
- Ironfest



# Questions on Notice – non project related (project questions are posted under the project)

REDACTED

# Questions on Notice – non project related (project questions are posted under the project)

REDACTED

# Questions on Notice – non project related (project questions are posted under the project)

- ***In relation to the return water pipeline transfer from Lake Lyell via Rydal pumping station to Thompsons Creek Dam (TCR) & Lake Wallace – does the desalination of water for the boilers only feed in the necessary requirements received from the Water Treatment Plant (WTP), or all the water from WTP is desalinated and what is not needed for boilers goes into TCR and needs a second conditioning via desal plant before uptake to the boilers at Mt Piper?***

This question refers to water used in the Mt Piper boilers. As a point of clarification, boiler water is a separate stream, which is thoroughly demineralized, and sourced primarily from the distillate stream of the Brine Concentrators, or a specific stream from the WTF, before being demineralized (ion exchange process). The volume of water used directly in the boilers is very small relative to the water used in the cooling towers.

Under normal operations, all mine water received by the Springvale WTP (SWTP) is desalinated, with the treated water going as first choice to the Mt Piper cooling towers, with excess going to TCR. The water from TCR can be used at a later date to top up cooling towers when evaporation exceeds the WTF make. Water in TCR is a blend of treated water from the SWTP, water pumped from Lake Lyell and natural rainfall runoff. Water in TCR does not require further treatment before being used in the cooling towers.

This water does not make it into the boilers.

# Project in Focus

**Mt Piper Ash Repository Leachate Management**



MT PIPER POWER STATION

# Ash Repository Groundwater Management

PRESENTED TO: COMMUNITY CONSULTATION COMMITTEE

PRESENTED BY: ERM, DR TAMIE WEAVER AND GAVIN POWELL

11 JUNE 2024

Sustainability is our business

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# Agenda

- 1 Objectives
- 2 Background
- 3 Scope of work
- 4 Investigation outcomes
- 5 Mitigation options
- 6 Modelling outcomes
- 7 Resulting actions

# Objectives

## “The Independent Investigation”

- Developed in response to review by ERM of Bore D10 groundwater conditions in 2016
  - Bore D10 review requested by EPA

## Project objectives

- Investigate groundwater and surface water conditions in the vicinity of, and down gradient from, the Mt Piper Ash Repository and Lamberts North Ash Repository (the Ash Repositories)
- Assess the potential for groundwater to interact with the surface water of Wangcol Creek
- Identify reasonable and feasible management and mitigation options

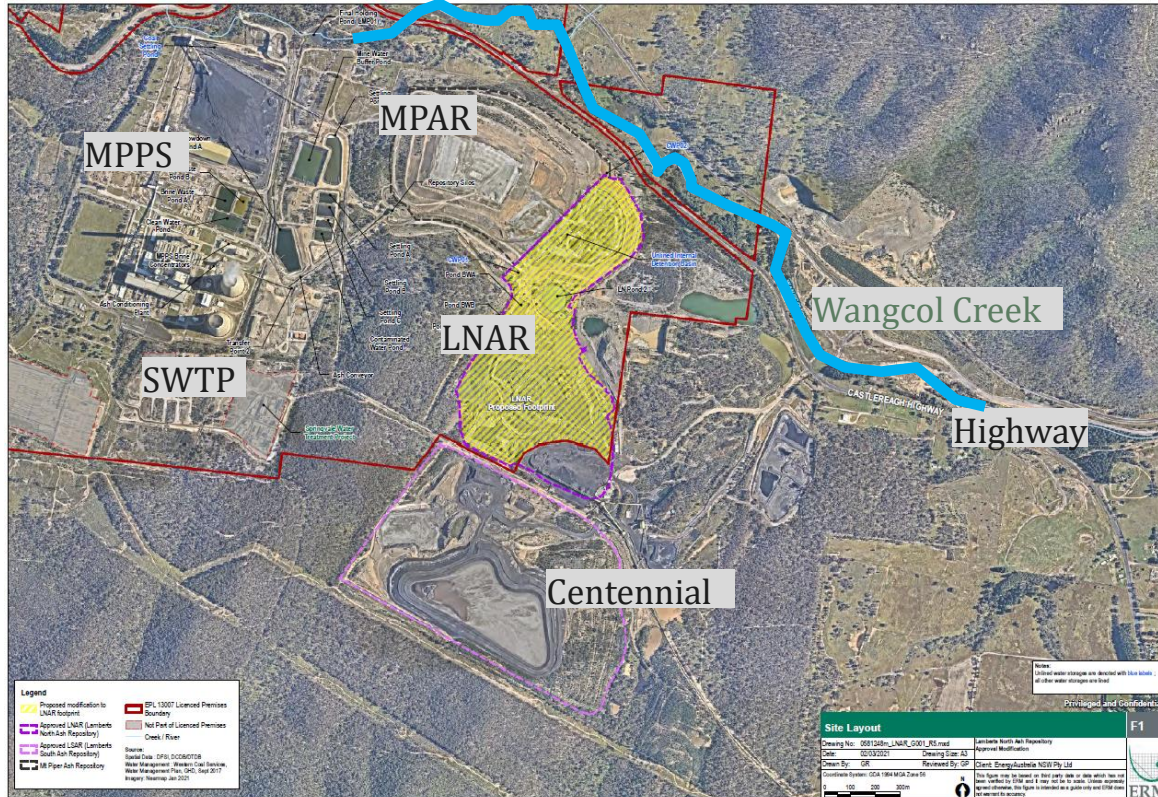
## CCC meeting objectives

- Present an overview of findings of the Independent Groundwater Investigation at completion and how that has informed the selection of management and mitigation options for the Ash Repositories



# Project Background

## Site layout, key terminology



MPPS – Mt Piper Power Station

MPAR – Mt Piper Ash Repository

LNAR – Lamberts North Ash Repository

SWTP – Springvale Water Treatment Project

MPAR + LNAR – the Ash Repositories

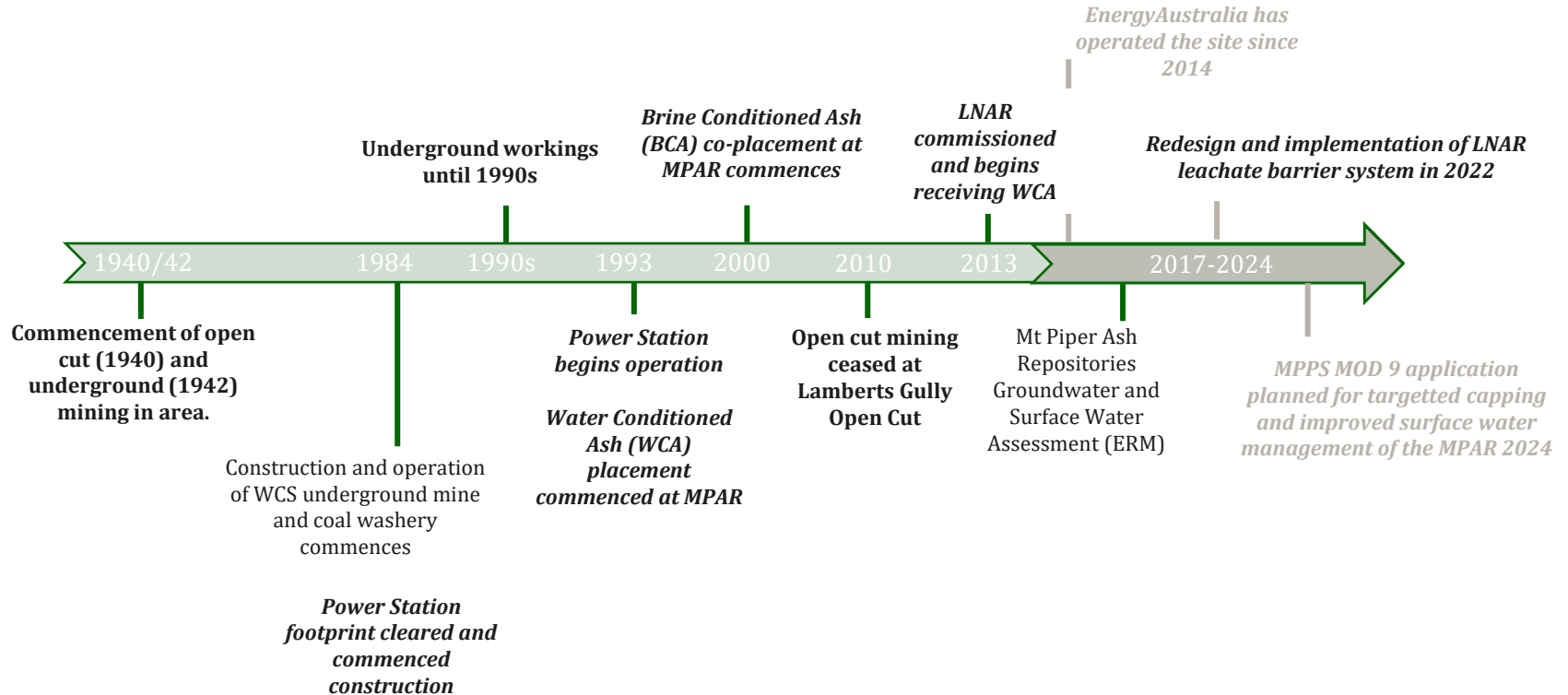
BCA – Brine Conditioned Ash

WCA – Water Conditioned Ash

946 m AHD – BCA placement limit

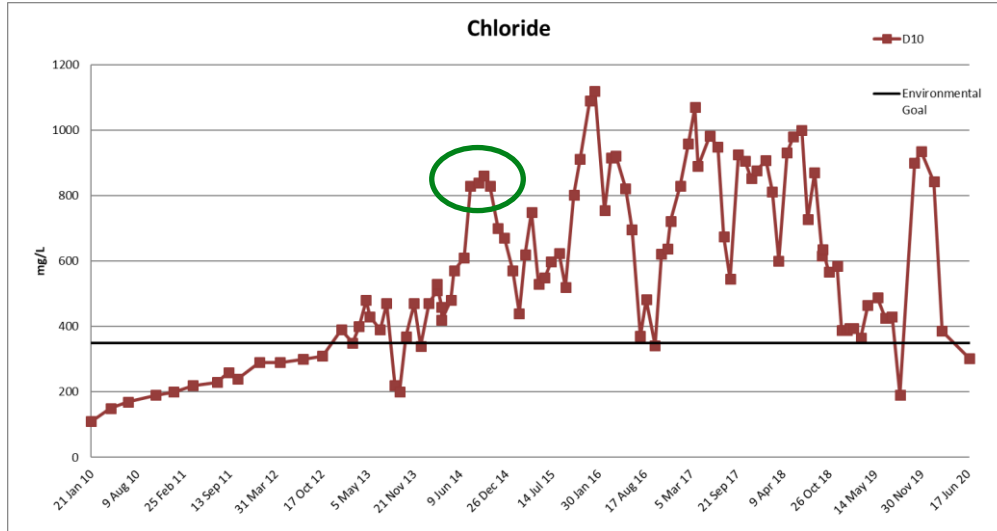
# Project Background

## Power Station and Ash Repositories Development Timeline



# Project Background

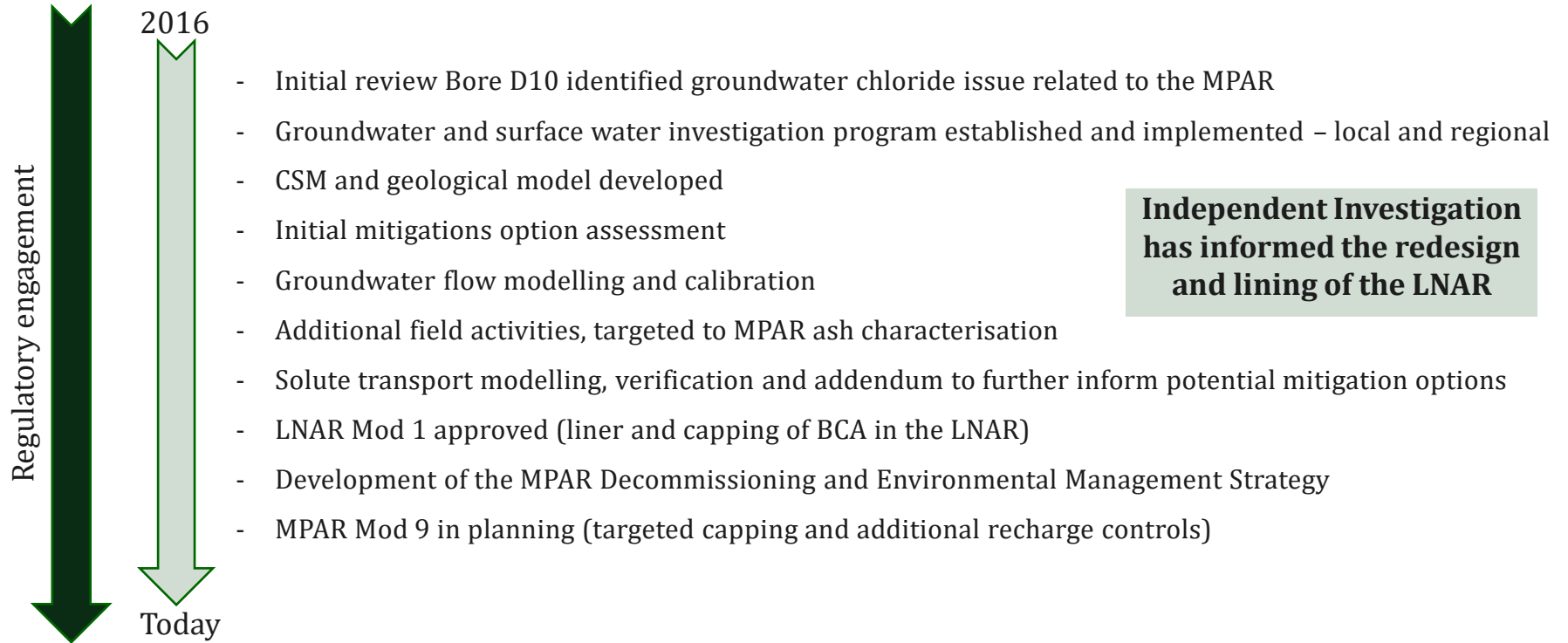
## Temporal Groundwater Quality, Bore D10



- Routine groundwater and surface water monitoring is undertaken in accordance with approvals to assess potential effects from ash placement
- Results indicate that BCA placement activities have influenced groundwater conditions in the vicinity of the Ash Repositories
- Chloride concentrations at Bore D10 have remained below 600 mg/L from 2020 to July 2023.

# Scope of work

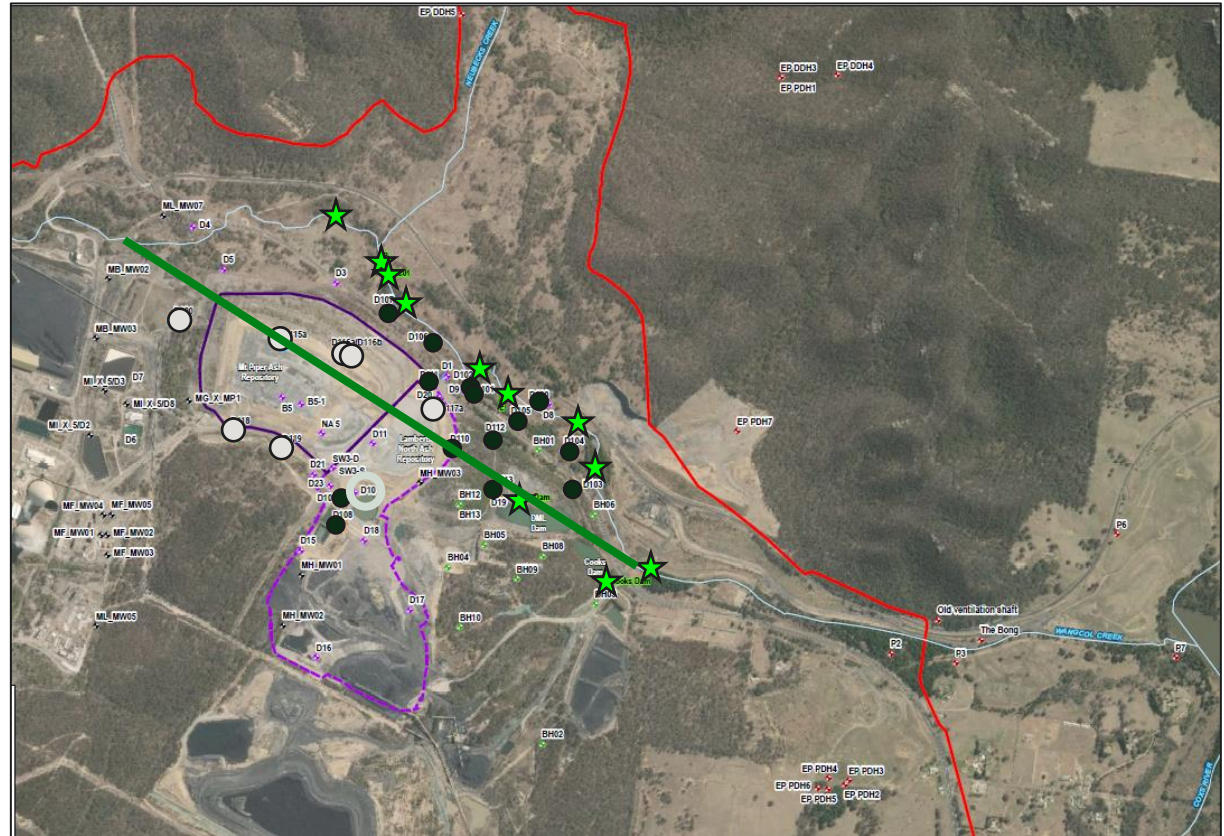
## Overview



# Scope of work

## Field investigations

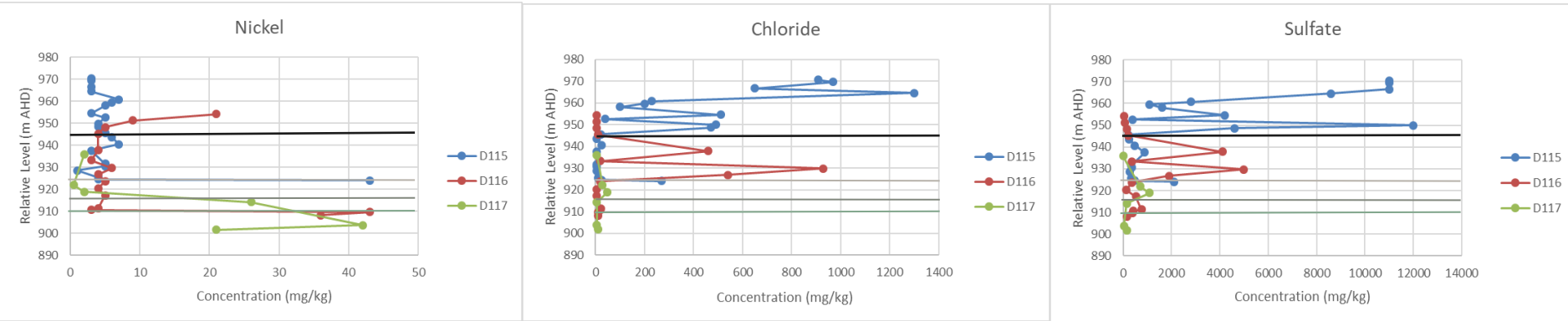
- Existing Centennial bores
- Existing Pine Dale bores
- Existing MPPS bores
- Existing MPAR/LNAR bores
- 2018 bores (14 new bores)
- 2020 bores (7 new bores)
- ★ 2018 surface water sampling locations (8 locations)  
2018, 2020 surface water surveys



Ongoing groundwater and surface water monitoring in accordance with approvals, reported annually

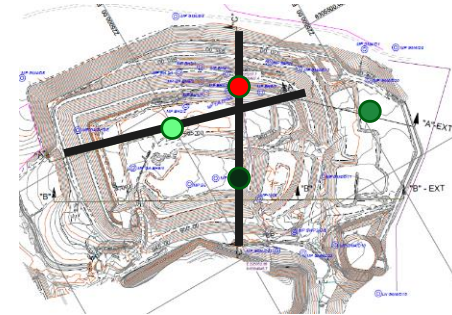
# Ash investigation outcomes

## Total concentrations vs depth in ash

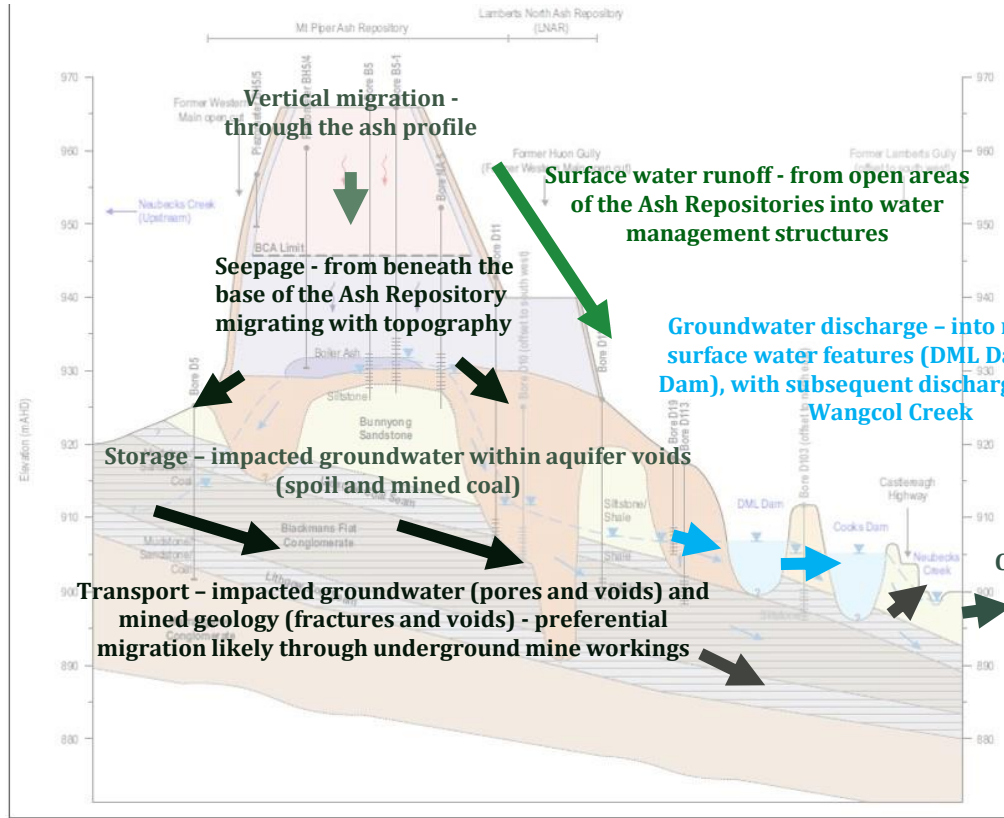


- = BCA emplacement limit (946 m AHD)
- = Base of Ash D115 (924.2 m AHD) D115
- = Base of Ash D116 (910.2 m AHD) D116
- = Base of Ash D117 (916.9 m AHD) D117

Solute migration from BCA vertically due to recharge  
 – consistent with observations at B5 / B5-1  
 – supported by long-term leach column testing results



# Summary of the updated Conceptual Site Model



Vertical migration - through the ash profile

Surface water runoff - from open areas of the Ash Repositories into water management structures

Seepage - from beneath the base of the Ash Repository migrating with topography

Groundwater discharge - into mined out surface water features (DML Dam, Cooks Dam), with subsequent discharge towards Wangcol Creek

Storage - impacted groundwater within aquifer voids (spoil and mined coal)

Transport - impacted groundwater (pores and voids) and mined geology (fractures and voids) - preferential migration likely through underground mine workings

Limited groundwater flow beneath Wangcol Creek and towards Pine Dale Mine and former Wallerawang Underground

# Mitigation Options considered and re-considered throughout

Remedial Options	Remedial Effectiveness	Remedial Timeframe	Short Term Suitability	Long Term Suitability	HSE Considerations	Risks to Resources/Community	Technical Hazards/Risks	Regulatory Acceptance/Permissibility	Design Needs/Structure	Utility and Waste Repard	Est. Capital (AUD)	Est. Yearly Costs (AUD)
Rating Code Key	<ul style="list-style-type: none"> <li>Effective</li> <li>Limited</li> <li>Ineffective</li> </ul>	<ul style="list-style-type: none"> <li>&lt; 1 year</li> <li>1-5 years</li> <li>&gt;5 Years</li> </ul>	<ul style="list-style-type: none"> <li>Suitable</li> <li>Less Suitable</li> <li>Not Suitable</li> </ul>	<ul style="list-style-type: none"> <li>Suitable</li> <li>Less Suitable</li> <li>Not Suitable</li> </ul>	<ul style="list-style-type: none"> <li>Few concerns</li> <li>Moderate concerns</li> <li>Many concerns</li> </ul>	<ul style="list-style-type: none"> <li>Few to no risks</li> <li>Moderate risks</li> <li>Many risks</li> </ul>	<ul style="list-style-type: none"> <li>Few</li> <li>Moderate</li> <li>Many</li> </ul>	<ul style="list-style-type: none"> <li>Likely</li> <li>Less Likely</li> <li>Unlikely</li> </ul>	<ul style="list-style-type: none"> <li>Low</li> <li>Moderate</li> <li>High</li> </ul>	<ul style="list-style-type: none"> <li>Above</li> <li>Average</li> <li>Below</li> </ul>	<ul style="list-style-type: none"> <li>&lt;500K</li> <li>500-1,000K</li> <li>&gt;1,000K</li> </ul>	<ul style="list-style-type: none"> <li>&lt;50K</li> <li>50-150K</li> <li>&gt;150K</li> </ul>

Source/Plume Management or In-Situ Treatment Options (does not include water effluent management or treatment)

Source Area Groundwater Extraction	●	● ●	●	●	●	●	●	●	●	●	● ●	● ●
Redirect groundwater flow	●	●	●	●	●	●	●	●	●	●	●	●
Hydraulic containment trench	●	●	●	●	●	●	●	●	●	●	●	●
Barriers – Containment wall	●	●	●	●	● ●	●	●	●	●	●	● ●	●
Barriers - Passive Reactive (PRBs)	●	●	●	●	● ●	●	● ●	●	●	●	●	● ●
Receptor Dilution	●	●	●	●	●	●	●	●	●	●	●	●
Recharge control – capping	●	●	●	●	●	●	●	●	●	●	●	●

Water Effluent Management or Treatment Options

Recirculation	●	●	●	●	●	●	●	●	●	●	●	●
Deep Well or Subsurface Disposal	●	●	●	●	●	●	●	●	●	●	●	●
Treatment	●	●	●	●	●	●	●	●	●	●	●	●
Dilution	●	●	●	●	●	●	●	●	●	●	●	●

Subject to field trials via the Groundwater Interception Project. This was not feasible due to water volumes, water treatment requirements and recirculation of salts back to the Ash Repositories.

Lab assessment of ash at the MPAR showed leaching occurs over years. Recharge control identified as a suitable option, backed up by solute transport modelling.



# Conceptual Mitigation Options Assessment

The mitigation options assessment considered both short and longer-term options in terms of:

**Source control**

**Pathway interruption**

**Receptor management**

Recharge control (source control) at the MPAR was identified via modelling as the preferred long-term option for further assessment

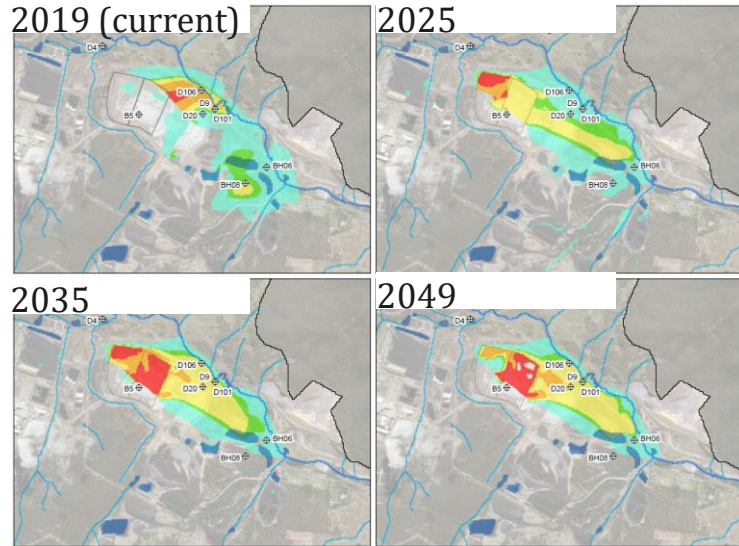
Solute transport modelling was conducted for a range of potential mitigation scenarios to assess the effects of managing recharge over the MPAR (i.e. source control), and results were compared to the currently approved decommissioning strategy for MPAR.

Recharge controls influence the volume and timing of infiltration and resulting solute concentrations that migrate from the source (BCA) beyond the base of the MPAR and into the underlying groundwater system.

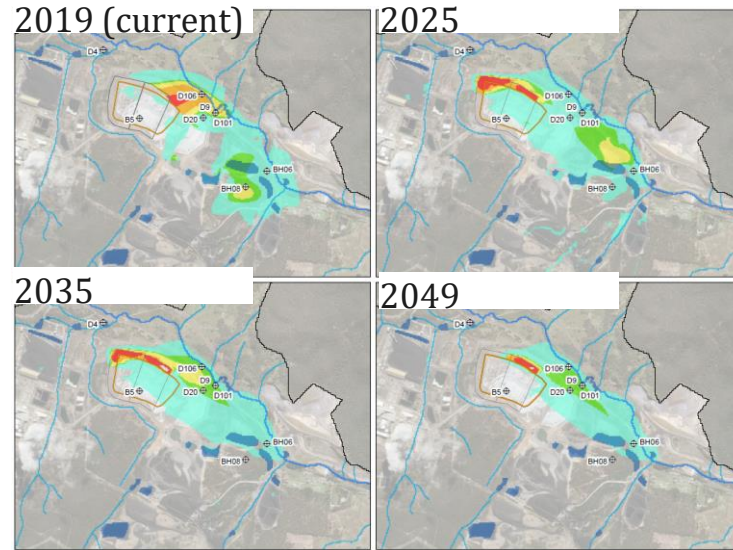
# Numerical Solute Transport Model Outputs

## Scenario comparison - Layer 2

### Current closure



### Upper BCA placement cap



### Legend

- Active Model Domain
- ▭ Ash Staging Areas
- ⊕ Monitoring Bore
- ▭ Wangcol Creek
- ▭ Tributaries
- ▭ Surface Water Features

### Chloride Concentration (mg/L)

- 30-350
- 350-500
- 500-1000
- 1000-2500
- >2500

Notes:  
 All concentrations shown in milligrams per liter (mg/L).  
 Surface water features shown for reference and are not present in layer 1.

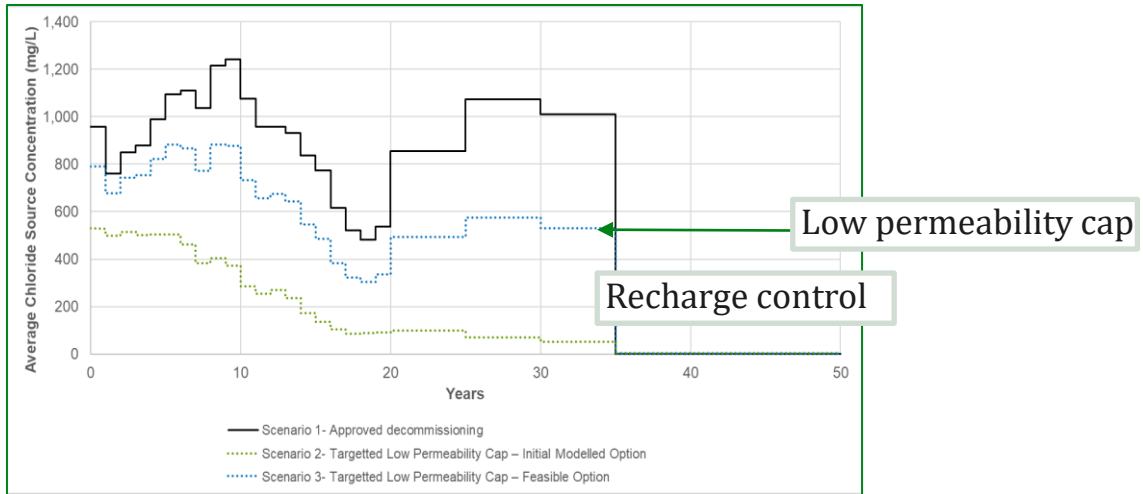
# Addendum to Numerical Solute Transport Model

## Initial modelled footprint vs feasible option



# Numerical Solute Transport Model Outputs

## Average chloride leachate concentrations and mass loading estimate



**Recommendation:**  
Augment recharge control / revegetation and improved surface water runoff over northern uncapped extents

## Average mixed chloride mass loading estimates (the source)

# Numerical Groundwater Model

## Outcomes

Targeted capping of active BCA placement areas together with additional recharge control of will:

- **slow the rate of solute migration through the MPAR;**
- **reduce the rate of mass discharge to groundwater; and**
- **reduce the mass discharged to receiving environment.**



# Resulting actions

Independent Investigation has informed the redesign and lining of the LNAR

## MPAR decommissioning and environmental management strategy (DEMS)

Outcomes of the independent investigations, including field studies, modelling and risk assessments have been used to inform the DEMS, in which ERM has recommended **two main work streams as key recharge control concepts for long-term management following decommissioning of the MPAR:**

- Design of landform, capping and stormwater infrastructure.
- Additional recharge controls over existing batters and benches, including revegetation and drainage.

The above recharge control concepts are inherently linked, with the design and installation of the capping over recently placed BCA currently subject to detailed design and impact assessment to inform the project approval. These will be subject to impact assessment and planning approvals (MPPS MOD 9), along with ongoing performance monitoring and reporting, including revegetation.

# Thank you

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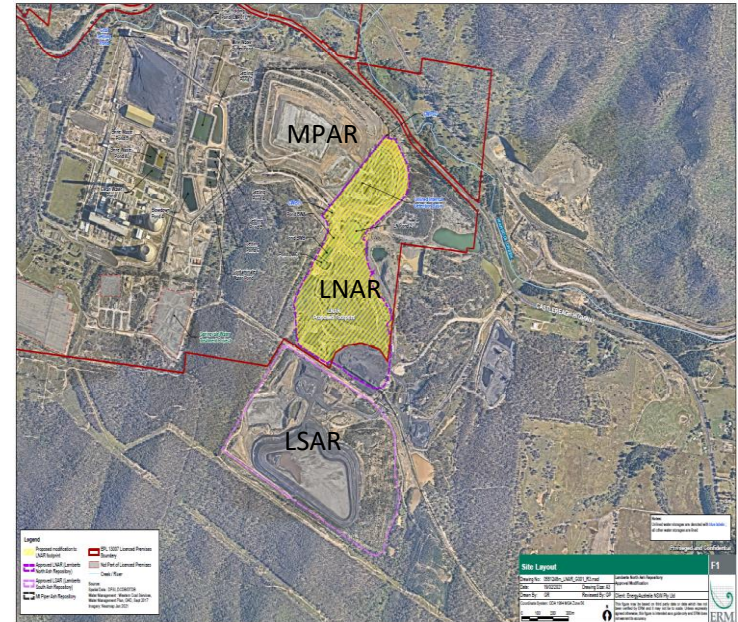
	Approval Process - Stage					
	Project Description/Introduction (SEARs or Mod briefing, application briefing)	Complete Environmental Studies & Prepare report (SEE, EIS or Mod report)	Lodge Application with Determining Authority (DPHI or LCC)	Public Exhibition	EA Response to Submissions	Determining Authority Assessment & Project Determination
EA Project	Community Consultation					
Lake Lyell Pumped Hydro Site Investigation Geotech (Council DA)						
Lake Lyell Pumped Hydro Site Investigation Geotech (Council DA Mod 1)						
Mt Piper BESS (SSD)						
Lake Lyell Pumped Hydro (SSD)						
LNAR Mod 2 (SSD)						
Mt Piper Mod 9 (SSD)						



# Proposed Project Modifications

# Modification #2 to Lamberts North Ash Repository

- EnergyAustralia is proposing to modify the Planning Approval for Lamberts North Ash Repository:
  - To remove the limitations on operating hours (currently approved 6am to 8pm Monday to Friday and 6am to 5pm Saturday and Sunday); and
  - To allow LNAR to operate 24-hours, 7 days a week in line with the operating hours of Mt Piper Power Station and Springvale Water Treatment Plant.
- The modification does not propose any increase to the volume of ash that can be placed at the LNAR or change in process of depositing ash in the LNAR.
- No additional plant or equipment are proposed to be used beyond what is currently used.
- There are no proposed changes to the volumes of brine, ash and water received from the Mt Piper Power Station and Springvale Water Treatment Plant.



# LNAR Stage 1 & MPAR



# LNAR Stage 2 area



# Approval Pathway

## Section 4.55 (1A) Modification involving minimal environmental impact

- Removal of limitation on operating hours
- Allow LNAR to operate 24-hours, 7 days a to approved construction and operational activities

## Substantially the Same Development

- Same purpose
- Same approved footprint
- Consistent with approved maximum landform height of RL 980 m AHD
- No other construction and operational changes to ash placement within LNAR
- No changes proposed to LSAR

## Environmental Assessment

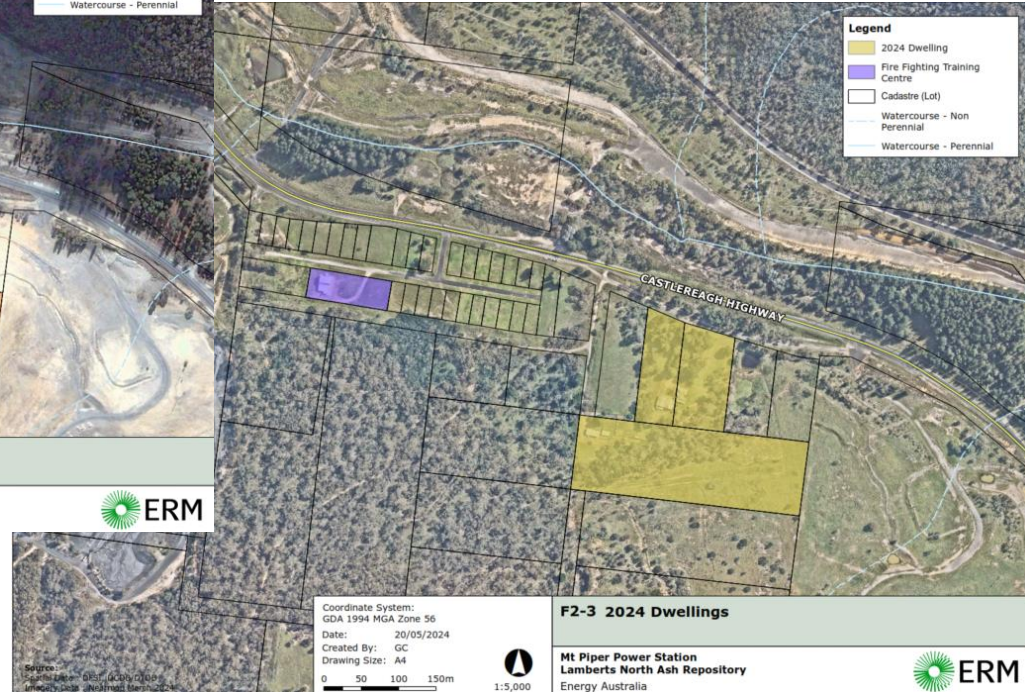
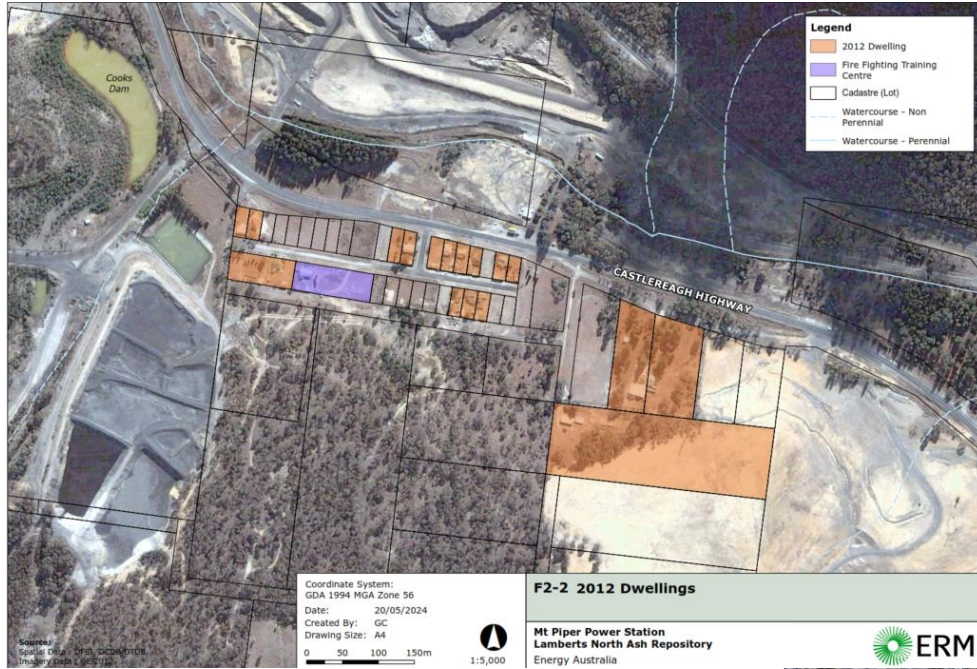
- Modification Report, supported by:
  - Noise Assessment, based on routine noise monitoring results; and
  - Air Quality Impact Assessment, prepared in accordance with the NSW EPA's Approved Methods for Modelling and Assessment of Air Pollutants in NSW

# Key environmental aspects

The key environmental aspects considered in Modification are:

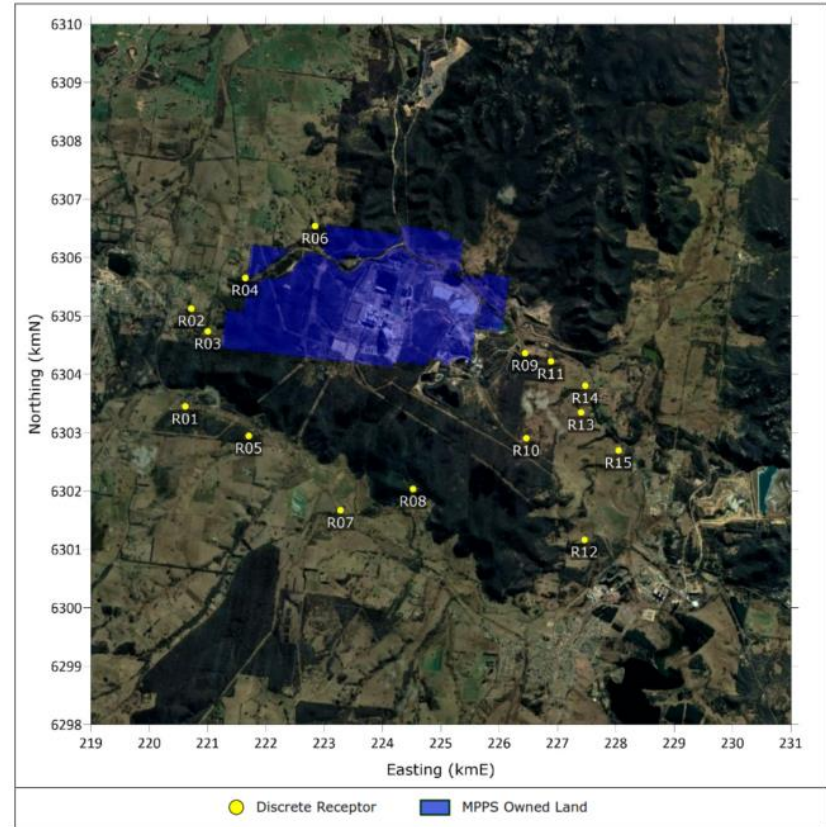
- Air Quality
- Noise
- Lighting
- Water
- Traffic

# Dwellings



# Air Quality

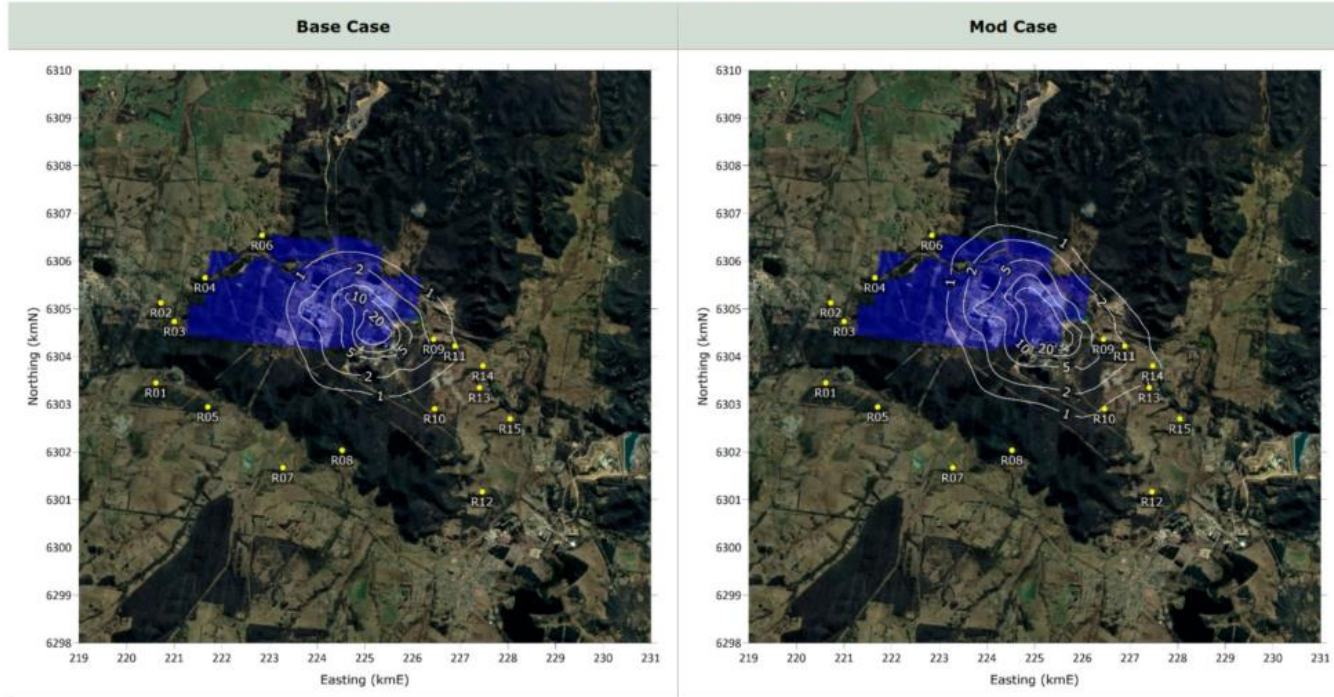
- New model developed to assess potential air quality impacts, particularly between 8pm and 6am at night
- Assessment included a review of actual measured regional ambient air quality data and modelled predictive outputs
- Closest sensitive receiver to LNAR is the Rural Fire Service remote firefighting training centre





# Air Quality

FIGURE 5-1 ANNUAL AVERAGE INCREMENTAL PM<sub>10</sub> PREDICTIONS ( $\mu\text{g}/\text{m}^3$ )

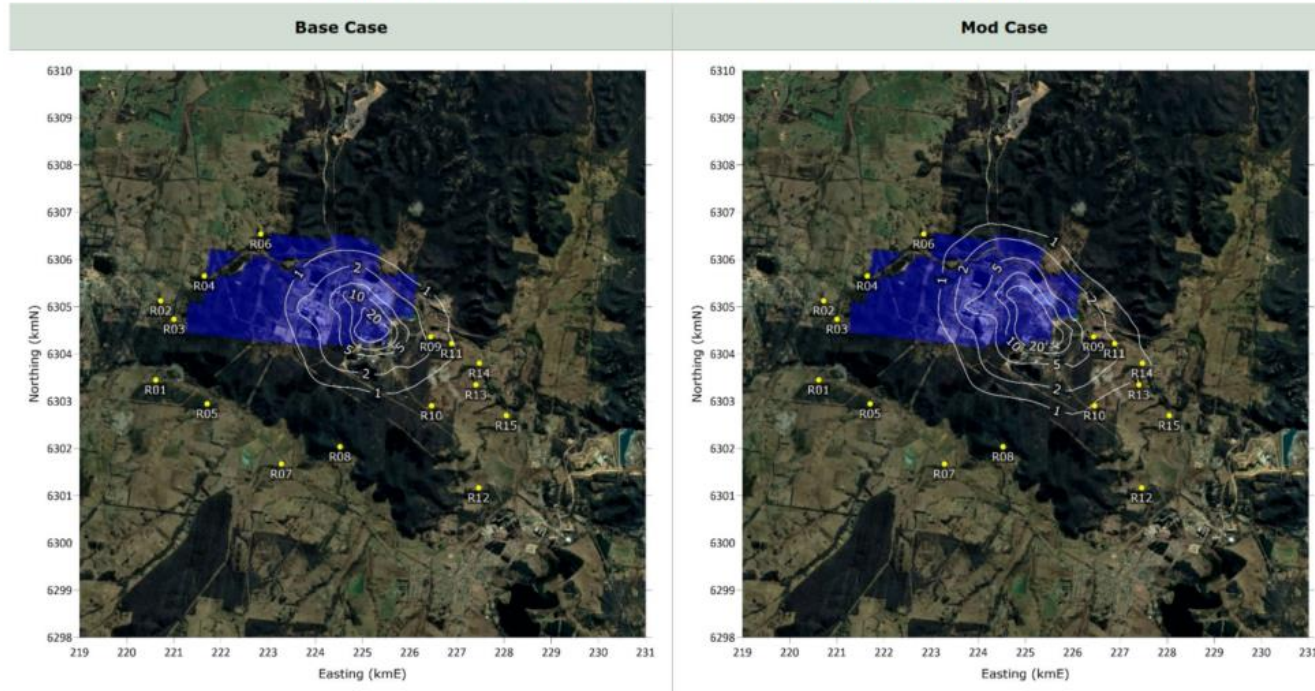


Annual Average  
PM<sub>10</sub> Criterion = 25

● Discrete Receptors    ■ MPPS Owned Land

# Air Quality

FIGURE 5-2 ANNUAL AVERAGE INCREMENTAL PM<sub>2.5</sub> PREDICTIONS ( $\mu\text{g}/\text{m}^3$ )



Annual Average  
PM<sub>2.5</sub> Criterion = 8

# Air Quality - findings

- A review of 5 years of regional ambient air quality data indicates that particulate matter levels within the region are low relative to those experienced in urban airsheds.
- The contribution from the LNAR operations for the base case and the Modification case was predicted to be small
- Current measurements indicate LNAR operations do not have a significant impact on dust levels
- Modification predicted to have minimal impact on air quality
- Recommended that existing management measures are adequate and continue to be implemented

# Noise

- Worst-case noise modelling predictions comply with the approved noise limits at sensitive receivers
- Unlikely that the Modification will contribute additional noise impacts to that previously assessed and approved

Equipment	Predicted Noise Level	
	Blackmans Flat	Wallerawang
Dozer / Crawler	31	26
Water Truck x 2	26	21
Roller	22	<20
Dump Truck	30	25
Light commercial vehicle	26	21
Total predicted noise level during operation	35	30
Approved Day Limit		42
Approved Evening Limit		38
Approved Night Limit		35

# Other environmental aspects

## Lighting

- Portable lighting towers will be required for night-time campaigns
- Lands surrounding Mt Piper will minimise the impact of temporary lighting during night-time
- Lighting can and will be shielded and directed away from sensitive receivers

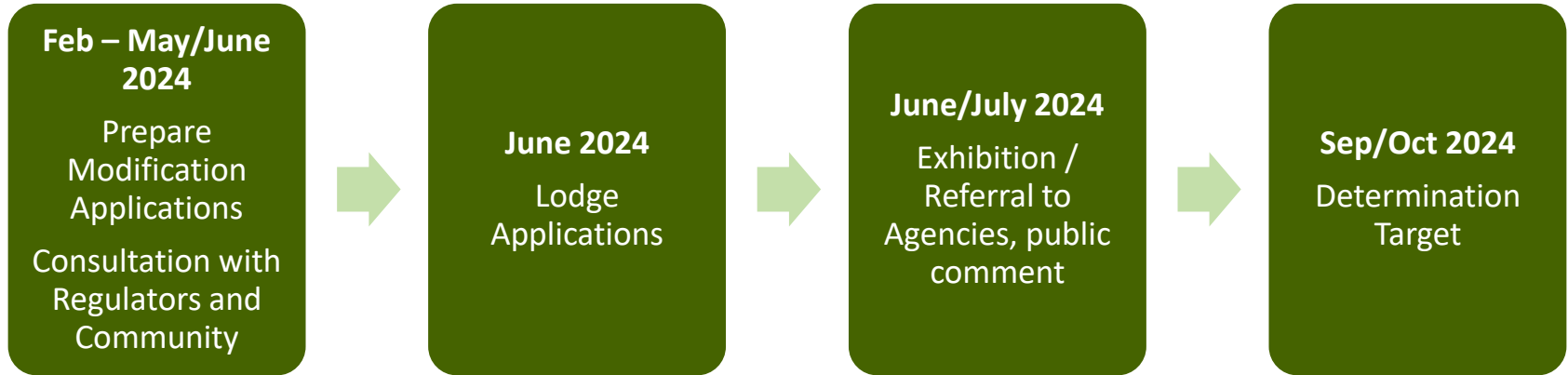
## Water

No proposed changes to water management systems for Mod

## Traffic

- No increase to the number of vehicle movements within the site
- No impacts on the external public road network

# Indicative Timeline (LNAR Mod 2)

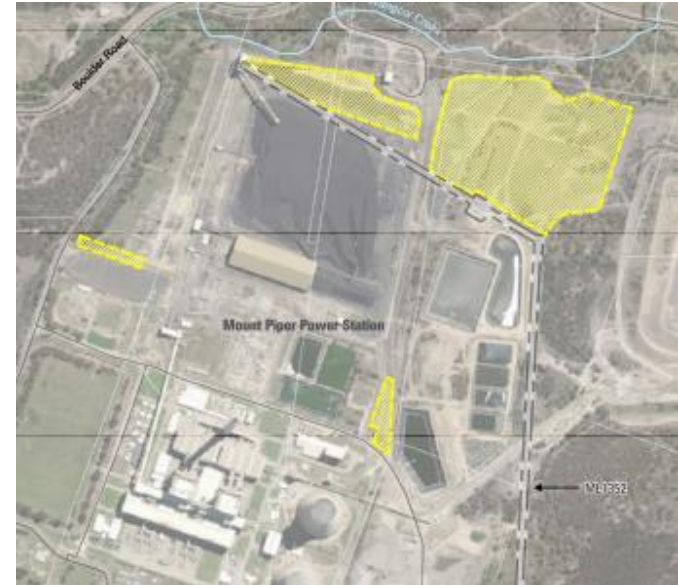


# Modification #9 to Mt Piper Development Consent

- Application and supporting modification Report currently being prepared
- Broadly scope includes environmental improvement measures including:
  - Installation of pollution control structures in stormwater drains,
  - Construction of coal stockpile stormwater ponds with combined capacity up to 100ML
  - Installation of an impermeable cap on the Mt Piper Ash repository
  - Installation of a leachate barrier management system on the eastern side of MPAR

# Pollution Control Structures

- Include the construction of two pollution control structures (PCS) on stormwater drains at the MPPS. The MPPS stormwater drains report to the eastern and western clean water drains which report to Wangcol Creek.
- The PCS will be designed to capture any incidental spills of ash, hydrocarbons (fuel, oil) sediment or process water.
- Include the installation of monitoring equipment that will provide early warning alarms to the shift leader of a spill event.
- Allow stormwater drains to be temporarily isolated to allow any contaminated water to be pumped out and treated accordingly.





# Coal Settling Pond Augmentation

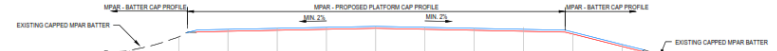
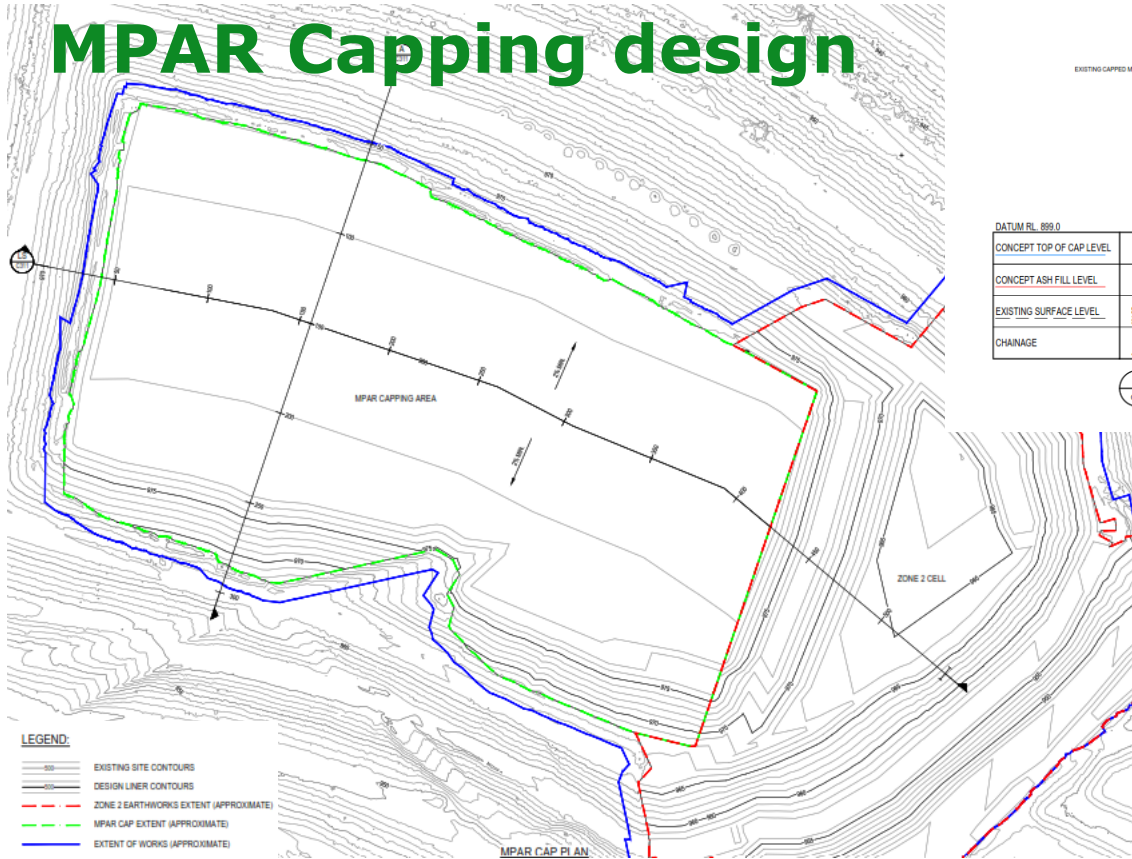
- To achieve the volume required to store the equivalent 1:100ML, 72hr rainfall event (58 ML) the Modification will utilise a combination of the available storage capacity in existing approved ponds at MPPS, additional capacity in the CSP following its augmentation and the construction of new multipurpose water storage pond(s).
- Water will continue to be treated and discharged from the CSP as currently licenced. Water will be transferred from the CSP to other ponds following high or sustained rainfall events where the maximum storage capacity of the CSP is likely to be exceeded.
- Operational controls will be implemented, including updating the existing TARP to manage the water level in the CSP.



# MPAR Capping design

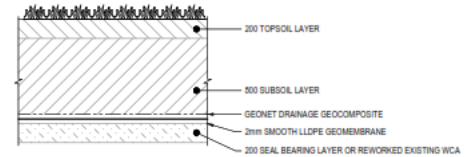
- Installing HDPE or equivalent synthetic liner as a capping material on the top, flat section of MPAR to prevent the infiltration of water into the ash repository, from rainfall events and dust suppression.

# MPAR Capping design



DATUM RL 899.0	
CONCEPT TOP OF CAP LEVEL	
CONCEPT ASH FILL LEVEL	
EXISTING SURFACE LEVEL	
CHAINAGE	

**A CROSS SECTION**  
SCALE 1:100M - 1:100V



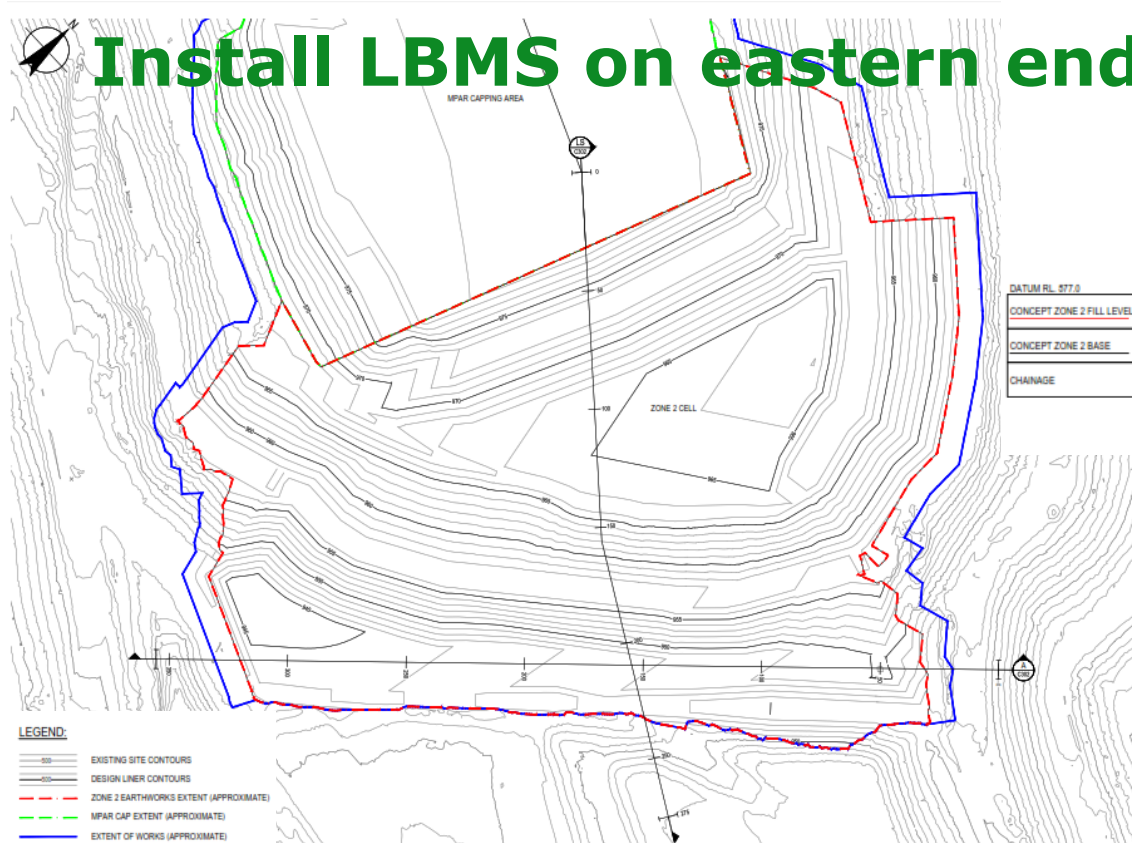
**TYPICAL CAPPING SYSTEM PROFILE**

**1 DETAIL**  
SCALE 1:20

# Install LBMS on eastern end of MPAR

- Install a leachate barrier management system (LBMS) on the eastern end of MPAR to allow for the placement of additional BCA.
- The LBMS would be integrated into the currently approved LBMS on LNAR.
- Will allow BCA to be placed in the void between the MPAR and the approved LNAR.
- Would make it easier to manage and integrate the placement of BCA at the interface between MPAR and LNAR.
- Would improve operational efficiency and allow for better management and handling of ash, brine and salts when they become available for placement on the ash repositories.
- The increase in the volume of brine, mixed and lime salts has made it integral that all areas in MPAR and LNAR have the capacity to receive BCA in a lined area.

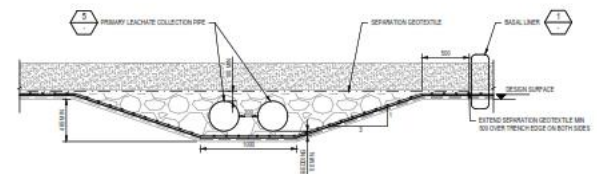
# Install LBMS on eastern end of MPAR



DATUM RL 377.0

CONCEPT ZONE 2 FILL LEVEL	0+00	0+10	0+20	0+30	0+40	0+50	0+60	0+70	0+80	0+90	0+100	0+110	0+120	0+130	0+140	0+150	0+160	0+170	0+180	0+190	0+200	0+210	0+220	0+230	0+240	0+250	0+260	0+270	0+280	0+290	0+300	
CONCEPT ZONE 2 BASE	377.1	377.2	377.3	377.4	377.5	377.6	377.7	377.8	377.9	378.0	378.1	378.2	378.3	378.4	378.5	378.6	378.7	378.8	378.9	379.0	379.1	379.2	379.3	379.4	379.5	379.6	379.7	379.8	379.9	380.0	380.1	380.2
CHAINAGE	0+00	0+10	0+20	0+30	0+40	0+50	0+60	0+70	0+80	0+90	0+100	0+110	0+120	0+130	0+140	0+150	0+160	0+170	0+180	0+190	0+200	0+210	0+220	0+230	0+240	0+250	0+260	0+270	0+280	0+290	0+300	

**LS LONGITUDINAL SECTION**  
 SCALE 1:1000H - 1:1000V



**PRIMARY LEACHATE COLLECTION PIPE TRENCH**

**3 DETAIL**  
 SCALE 1:20

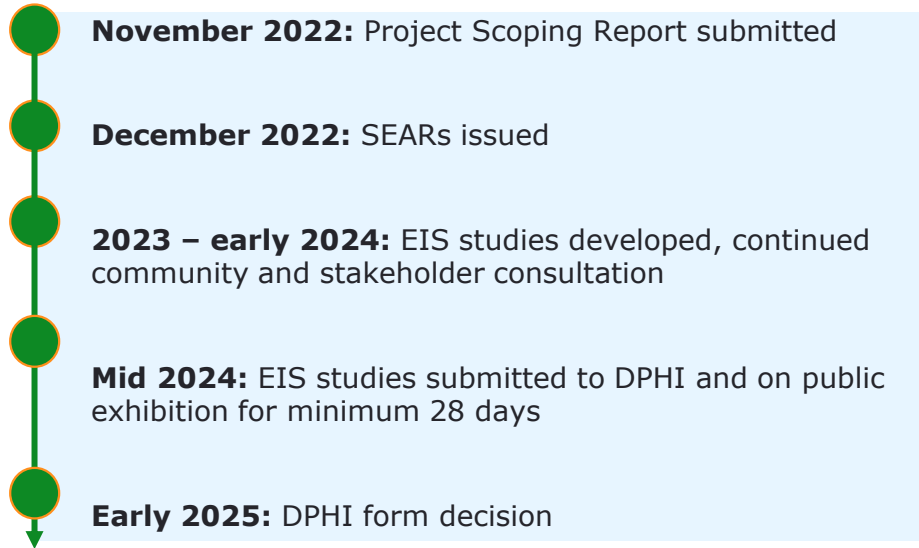
# Indicative Timeline (MPAR Mod 9)



# **Project – Mt Piper Battery Energy Storage System (BESS)**

# EIS now on Public Exhibition

The Mt Piper BESS Environmental Impact Statement (EIS) accompanies the development application (DA) to the NSW Department of Planning, Housing and Infrastructure (DPHI).



## Technical studies completed:

- Noise & Vibration
- Traffic & transport
- Visual Amenity
- Socio-economic
- Bushfire
- Hazards & Risks
- Biodiversity
- Cultural Heritage
- Surface water & groundwater
- Soils & geology
- Contamination & waste
- Land use planning
- Electromagnetic Fields (EMF)



# Next steps



**May 2024:** EIS studies were submitted to the NSW Department of Planning, Housing and Industry

**31<sup>st</sup> May 2024:** EIS studies were released on the DPHI [Major Projects website](#) for **public exhibition** for a minimum of 28 days.

**June 2024:** EIS exhibition and community drop-in sessions advertised

- 1-3pm Thursday 13<sup>th</sup> June
- 10am-12pm Tuesday 25<sup>th</sup> June

Interested parties can make written submissions to DPHI about the EIS until 27<sup>th</sup> June.

If you have questions or feedback about the project, please get in touch:  
[community@EnergyAustralia.com.au](mailto:community@EnergyAustralia.com.au)  
1800 574 947

Make a submission



<https://www.planningportal.nsw.gov.au/major-projects/projects/mt-piper-battery-energy-storage-system>

# Lake Lyell Pumped Hydro

# LLPHES Update Summary

- **Benefits Sharing:** Workshops with the community are planned for the first week in July to further develop Benefits Sharing plans. Two themes to be explored are:
  - Skills, Training Services and Infrastructure
  - Tourism, recreation Heritage and Environment
- **EIS:** Field work is wrapping up with data now being analysed for inclusion in the technical reports which will be included in the EIS.
- **Design:** Preliminary design is advanced confirming the concept arrangement as feasible
- **Capacity:** Peak power capability of up to 440MW is possible for a short duration while base capacity of 335MW x 8 hours (2680MWhrs storage) is maintained.
- **Program:** EIS prepared Q4 2024, FID Q4 2025, Construction 2026-2030

# LLPHES Worker Village preferred location on Magpie Hollow Road

