Western Renewables Link

HISTORIC HERITAGE PEER REVIEW

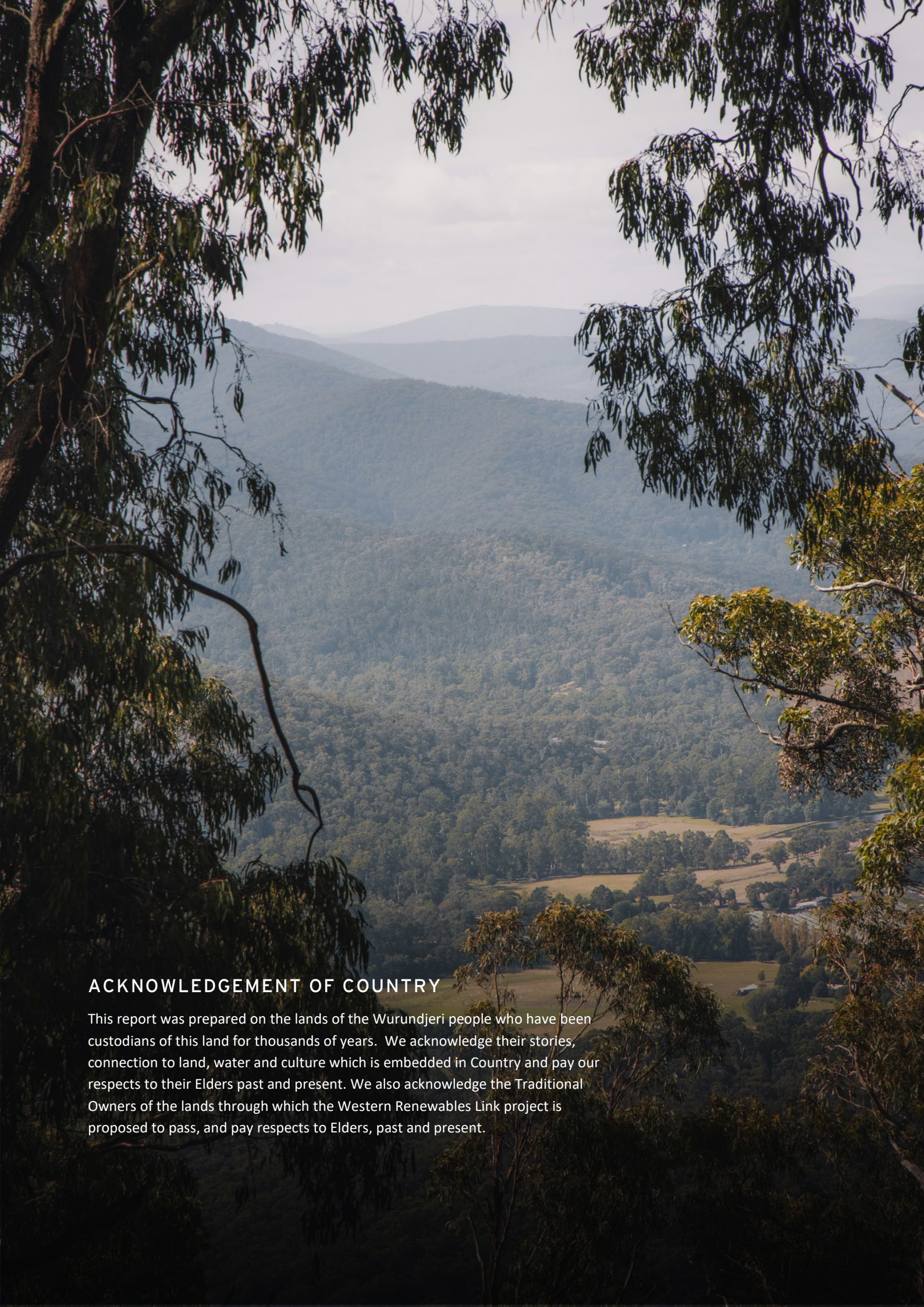
June 2025

Prepared for

AUSNET SERVICES

Prepared by

LOVELL CHEN



ACKNOWLEDGEMENT OF COUNTRY

This report was prepared on the lands of the Wurundjeri people who have been custodians of this land for thousands of years. We acknowledge their stories, connection to land, water and culture which is embedded in Country and pay our respects to their Elders past and present. We also acknowledge the Traditional Owners of the lands through which the Western Renewables Link project is proposed to pass, and pay respects to Elders, past and present.

Quality Assurance Register

The following register documents the development and issue of this report prepared by Lovell Chen Pty Ltd in accordance with our certified quality management system.

Project no.	Issue no.	Description	Issue date	Approval
20240606	A	Historic Heritage Peer Review	25 June 2025	K Gray

Referencing

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ABBREVIATIONS

Term	Abbreviation
Heritage Overlay	HO
Register of the National Estate	RNE
Victorian Heritage Inventory	VHI
Victorian Heritage Register	VHR

1.0 Introduction

1.1 Background and brief

AusNet Services has been selected to design, build, own, operate and maintain the Western Renewables Link Project (the Project) and has prepared an Environment Effects Statement (EES) in accordance with EES Scoping Requirements issued by the Minister for Planning in November 2023.

This Historical Heritage peer review report has been prepared for AusNet Services under instructions from White & Case. It addresses the historical heritage impact assessment for the EES, being the Western Renewables Link EES *Technical Report C: Historical Heritage Impact* prepared by Jacobs Group (Australia), Revision 1.0, dated 23 May 2025.

The purpose of the requested peer review was to assess whether Technical Report C adequately addresses the EES Scoping Requirements, all relevant legislation, standards and guidelines, and demonstrates that the relevant evaluation objective in the EES Scoping Requirements can be met.

1.2 Approach and methodology

This report has been prepared by Kate Gray, Director of Lovell Chen.

The peer review process commenced in late 2024 and has involved the following:

- Review of background information including plans and project description for the Project
- Review of EES Scoping Requirements
- Review of draft impact assessment reports
- Limited desktop-based research and review of relevant documents
- Targeted fieldwork (refer to section 1.3 below)
- Review of online information sources for statutory heritage controls (Victorian Heritage Database, relevant Planning Schemes and VicPlan)
- Use of satellite imagery (Nearmap).

As part of the process several meetings were held with the authors of Technical Report C to discuss particular issues and matters of clarification identified in the course of the review of draft report material.

The peer review work has been undertaken in accordance with the *Guidance Note for Ethical Practice in Undertaking Peer Reviews* (Environment Institute of Australia and New Zealand, 2018).

The approach in the Peer Review was to focus on key aspects of Technical Report C relevant to an assessment of whether the report adequately addresses the Scoping Requirements and demonstrates that the relevant evaluation objective in the EES Scoping Requirements can be met. The Peer Review does not address all sections of the report in detail.

In relation to impact assessment, given the complexity and scale of the assessment, it was beyond the scope of the Peer Review to review all aspects of the impact assessment for individual places in detail. Rather, consideration was given to the methodology adopted and the level of research and analysis supporting the assessment and whether these were appropriate to provide a robust assessment of the potential impacts of the Project.

1.3 Fieldwork

Limited and targeted fieldwork was undertaken. This was undertaken on 23 January 2025 and focused on an area north of Creswick referenced in Technical Report C as the Berry Deep Leads Mining Landscape. The fieldwork was

undertaken entirely from the public domain and comprised traversing the majority of roads within the area in a vehicle with frequent stops along these roads. The purpose of the work was to gain an understanding of the cultural landscape and consider views to and within it, including views to the remnant mining sites and landscape features.

None of the other heritage places and potential heritage places identified in Technical Report C were inspected.

1.4 EES Scoping Requirements

The EES Scoping Requirements for Cultural Heritage are reproduced below, with those relating to historical heritage bolded.

Technical Report C does not address Aboriginal cultural heritage (this is addressed in Technical Report B, the Aboriginal Cultural Heritage Impact Assessment).

Evaluation objective

Avoid, or minimise where avoidance is not possible, adverse effects on Aboriginal cultural heritage and historic heritage values.

Key issues

- Potential for destruction or disturbance of sites or places of Aboriginal cultural heritage or historic heritage significance.
- Potential for indirect impacts on sites or places of Aboriginal cultural heritage or historic heritage significance within or in the vicinity of the project area.
- Potential impacts on or loss of intangible Aboriginal cultural heritage values associated with the project area and surrounds.

Existing environment

- Review and assess previous studies, registers, geomorphology, landform and land use history to identify areas of known Aboriginal cultural heritage and model areas with the potential to contain Aboriginal cultural heritage.
- Describe the extent, nature and significance of any Aboriginal cultural heritage sites or areas of sensitivity potentially impacted by the project (including associated infrastructure or ancillary works) through consultation and investigations, ensuring adequate field assessments are conducted to verify the findings of any desktop studies.
- Identify any known or previously unidentified intangible Aboriginal cultural heritage values associated with the project area, including values associated with biodiversity, landscape or other elements.
- Liaise with registered Aboriginal parties and other Traditional Owner groups or representatives as appropriate to complement and supplement other investigations into additional values, Aboriginal places or areas of high sensitivity.
- **Review land use history, previous studies and registers and listings to identify areas of known historic heritage values and assess the potential for the Project to contain unregistered historic heritage sites.**
- **Identify and document any known and previously unidentified places, objects, sites and landscapes of historic heritage significance within the project area and its vicinity, including any necessary field investigations to supplement past studies. Assessments are to be undertaken in accordance with the Heritage Act 2017, Heritage Victoria's Guidelines for Conducting Archaeological Surveys (2020)**

or updates and other guidance documents. Maps of site extents showing their proximity to proposed works should be provided.

- **In particular identify all places on the Victorian Heritage Register, Victorian Heritage Inventory and in Heritage Overlays in relevant planning schemes that could be affected by the project.**

Mitigation measures

- **Where previously unknown heritage values are identified through project studies, consider potential for registration/listing or nomination for registration/listing under appropriate statutory systems.**
- **Describe and evaluate potential and proposed design and construction mitigation methods to avoid adverse effects on Aboriginal cultural heritage and historic heritage, and where avoidance is not possible, to minimise adverse effects.**
- Develop management and contingency measures in accordance with the requirements for CHMPs under the Aboriginal Heritage Act 2006.
- **Develop an archaeological management plan and chance finds procedure to manage historic heritage investigation/ excavation etc, consistent with the Heritage Act and relevant protocols.**

Likely effects

- Assess the potential direct and indirect effects of the project on Aboriginal cultural heritage values, and whether they can be avoided.
- **Assess the potential direct and indirect effects of the project on sites and places of historical cultural heritage significance, having regard to the Guidelines for Investigating Historical Archaeological Artefacts and Sites (Heritage Victoria, 2015) or updates and other relevant guidance documents.**
- Assess the potential direct or indirect effects on any intangible Aboriginal cultural heritage values associated with the project area or its vicinity.
- **In assessing potential effects, have regard to potential aggregated effects on heritage values to the extent that multiple sites of heritage significance may represent associated values and may collectively contribute to significant values at a regional or broader level.**

Performance criteria

- Outline any proposed commitments to avoid, mitigate and manage residual effects on sites and places of Aboriginal cultural heritage significance (through draft CHMPs as appropriate).
- **Outline any proposed commitments to avoid, mitigate and manage residual effects on sites and places of historical heritage significance, including site investigation and recording procedures (within the framework of applications for consent under the Heritage Act 2017).**

1.5 Structure of the Peer Review

Section 2 of the Peer Review addresses the Historical Heritage Impact Assessment main report as part of Technical Report C. It is arranged to reference the structure of Technical Report C and provides comment on the following key areas/sections of the report.

Peer review reference	Technical Report C reference
2.1 Method	Section 5
2.2 Existing conditions	Section 6 and appendices
2.3 Impact assessment	Sections 7-13
2.4 Environmental Performance Requirements	Section 12

For each section, the relevant Scoping Requirements are referenced.

Section 3 of the Peer Review addresses the Berry Deep Leads Mining Landscape Significance and Impact Assessment which is a stand-alone report attached at Appendix B to Technical Report C. Section 3 is similarly arranged to reference the structure of Appendix B.

Peer review reference	Appendix B reference
3.3.2 Significance assessment	Section 2
3.3.3 Impact assessment	Section 4

2.0 Historical heritage impact assessment (Main Report)

2.1 Method (Section 5, Technical Report C)

Scoping Requirements

The EES Scoping Requirements establish the methodological principles for the historical heritage impact assessment. In summary, these are:

- to identify and document historic heritage places, objects, sites and landscapes within the project area and its vicinity (including unlisted places of potential heritage significance)
- describe and evaluate proposed design and construction methods to avoid and minimise adverse effects on historical heritage
- Assess the likely effects (direct and indirect), including potential aggregated or cumulative effects
- Outline measures for the mitigation of residual effects.

Further detail is included under headings for:

- Existing environment
- Mitigation measures
- Likely effects
- Performance criteria

Technical Report C

Section 5 in Technical Report C sets out the method adopted, comprising:

- Establishment of the study area (5.2)
- Approach to the existing conditions component of the work, including desktop research, register searches, review of heritage studies, preparation of a land use history, use of 'social pinpoint' data, fieldwork and other investigations and assessment of significance (5.3)
- Risk screening to identify potential issues and impacts (5.4)
- Impact assessment method (5.5) including the method for assessing both direct physical and indirect visual impacts/impacts on setting, potential to avoid or minimise impacts, and the assessment of residual impacts.
- Assumptions and limitations (5.8)

Section 5 also describes the stakeholder and community engagement (5.6 and 5.7).

Adequacy of the response and commentary

Section 5 clearly articulates the methodology for the historical heritage assessment including identifying assumptions and limitations and the approach is consistent with the Scoping Requirements.

More detailed comments on key aspects follow:

Study area: A generous study area was established comprising all the Project Land plus a 2km corridor (1 km either side of the Proposed Route). Selected places outside the study area were also considered, based on a judgement that the potential for a broader visual impact warranted consideration/assessment. This approach is consistent with good practice; a baseline assessment area was established related to the Proposed Route but the potential to consider impacts beyond that area where needed was also recognised.

Existing conditions method: The authors consulted a comprehensive range of relevant sources to identify heritage places and potential heritage places within the study. This included a search of statutory heritage controls under the Heritage Act 2017 – the Victorian Heritage Register (VHR) and Victorian Heritage Inventory (VHI) - and the relevant planning schemes – Heritage Overlay (HO) - as well as non-statutory registers such as the National Trust of Australia (Victoria)'s registers and the archived Register of the National Estate (RNE). The authors also considered local government heritage studies and other sources to identify places that could be of potential heritage interest. All these sources are valuable inputs to the study and they also provide an understanding of heritage values of individual heritage places. In addition, community feedback (Social pinpoint data) and historical research were important inputs to the existing conditions work, supplemented by aerial photography and other materials. There were constraints on fieldwork, which was necessarily targeted and with few exceptions, was undertaken from the public domain, but this limitation was addressed where possible by consulting other sources of information, including aerial photography.

A series of places of potential significance (predominantly archaeological) were investigated in detail through a mix of historical research and fieldwork and these are documented in Appendices C, D, E, F and G. Additionally, a stand-alone significance assessment was prepared for the Berry Deep Leads Mining Landscape (Appendix B).

Overall, while there were some unavoidable constraints on the work, the methodology for documenting existing conditions across what is a very large study area is very thorough and meets the relevant EES Scoping Requirements.

Impact assessment method: The impact assessment methodology is set out in some detail at section 5.5. This section provides useful background to the impact assessment at sections 7 and 8 of Technical Report C and is important in explaining how that assessment has been conducted.

The report explains that the impact assessment is values-driven, ie: based on a case-by-case consideration of *heritage significance* (or potential for heritage significance where the values are unknown) and including consideration of the setting of individual heritage places where relevant.

Unsurprisingly, given the nature of some of the Project infrastructure, particularly the transmission towers and associated lines, there is a focus on the method used to assess visual impact. Section 5.5.1.1 in Technical Report C *Assessment of impact on heritage setting* addresses this issue in detail. It confirms that the relevant consideration for heritage is not whether the Project infrastructure is visible from or in proximity to a heritage place, but rather, whether the visual change would have a detrimental effect on *heritage significance* by disrupting the setting and/or an understanding of the heritage values. It is agreed that this is an important distinction to be drawn and is fundamental to the impact assessment. Visibility of Project infrastructure in proximity to heritage places in and of itself does not necessarily equate to a heritage impact. As part of this discussion the report explains the concept of 'setting' in a heritage context with reference to the Burra Charter, being the 'immediate and extended environment of a place *that is part of or contributes to its cultural significance and distinctive character* [emphasis added]'. The relationship between the *setting* of a heritage place and its *significance* is important. Appendix B (Berry Deep Leads Mining Landscape Significance and Impact Assessment) includes additional detail on the specific approach to visual impact assessment in that case.

Overall, the approach and method adopted for impact assessment is sound and clearly explained and is consistent with the Scoping Requirements.

2.2 Existing conditions (Section 6, Section 7 (part) and appendices, Technical Report C)

Scoping Requirements

The EES Scoping Requirements relevant to existing conditions are as follows:

Review land use history, previous studies and registers and listings to identify areas of known historic heritage values and assess the potential for the Project to contain unregistered historic heritage sites.

Identify and document any known and previously unidentified places, objects, sites and landscapes of historic heritage significance within the project area and its vicinity, including any necessary field investigations to supplement past studies. Assessments are to be undertaken in accordance with the Heritage Act 2017, Heritage Victoria's Guidelines for Conducting Archaeological Surveys (2020) or updates and other guidance documents. Maps of site extents showing their proximity to proposed works should be provided.

In particular identify all places on the Victorian Heritage Register, Victorian Heritage Inventory and in Heritage Overlays in relevant planning schemes that could be affected by the project.

Technical Report C

Section 6 of Technical Report C provides an overview of the existing conditions findings, including summary lists of places with statutory heritage controls alongside separate lists of unlisted and previously unidentified places. Significant numbers of previously unidentified places have been listed, a total of 52 in the western portion of the study area (refer to section 6.2.3) and 38 in the eastern portion of the study area (refer to section 6.3.3).

At sections 6.2.4 and 6.4 the report also provides current information on the proposed UNESCO World Heritage Nomination for the Victorian Goldfields, noting this is likely to incorporate a cultural landscape related to deep lead mining that falls partly within the study area and is not currently recognised by statutory heritage controls. A summary is provided of the findings of the significance assessment of this deep lead gold mining landscape (Berry Deep Leads Mining Landscape) as part of Technical Report C (the assessment itself is at Appendix B to Technical Report C).

A series of archaeological sites were investigated in detail in Appendices C, D, F and G to Technical Report C.

While the summary existing conditions findings are presented in Section 6 of Technical Report C, other aspects of existing conditions are found in Section 7 of the report (Construction impact assessment). There, information on individual places (listed and unlisted) is provided in tabulated form in including comments on heritage values where these are known. Refer to Table 7-1 *Historical heritage places in the western portion of the study area* and *Table 7-2 Historical heritage places in the eastern portion of the study area*. This structure allows for the consideration of details of individual places and sites alongside assessment of impacts and mitigation.

Adequacy of the response and commentary

The existing conditions work is consistent with the Scoping Requirements and appropriate for a study of this kind.

As commented earlier, the methodology is very thorough and inclusive, with a very wide range of sources of information consulted. There were limitations in terms of fieldwork but these were addressed where possible through the use of alternate sources of information.

Importantly, additional archaeological sites were added to the VHI as a result of detailed investigations and assessments (Technical Report C, p. iv), also consistent with the intent of the Scoping Requirements.

If anything, Technical Report C might be considered overly inclusive in its approach to identifying *previously unidentified places, objects, sites and landscapes of historic heritage significance within the project area and its vicinity* (as per the Scoping requirements). As well as places of documented heritage significance, the report includes sites/places where relatively little is known, and heritage significance is not established. These sites have included on the basis they have been put forward or identified as having potential heritage significance, however it is likely that if a more detailed assessment was to be undertaken, many of these would be found to be of limited or no heritage significance. This is an observation rather than a criticism of the approach, and are there no implications for impact assessment.

2.3 Impact assessment (Sections 7-13, Technical Report C)

Scoping requirements

The EES scoping requirements for impact assessment are as follows:

> **Mitigation measures**
>
> Where previously unknown heritage values are identified through project studies, consider potential for registration/listing or nomination for registration/listing under appropriate statutory systems.
>
> Describe and evaluate potential and proposed design and construction mitigation methods to avoid adverse effects on Aboriginal cultural heritage and historic heritage, and where avoidance is not possible, to minimise adverse effects.
>
> Develop an archaeological management plan and chance finds procedure to manage historic heritage investigation/ excavation etc, consistent with the Heritage Act and relevant protocols.
>
> **Likely effects**
>
> Assess the potential direct and indirect effects of the project on sites and places of historical cultural heritage significance, having regard to the Guidelines for Investigating Historical Archaeological Artefacts and Sites (Heritage Victoria, 2015) or updates and other relevant guidance documents.
>
> In assessing potential effects, have regard to potential aggregated effects on heritage values to the extent that multiple sites of heritage significance may represent associated values and may collectively contribute to significant values at a regional or broader level.
>
> **Performance criteria**
>
> Outline any proposed commitments to avoid, mitigate and manage residual effects on sites and places of historical heritage significance, including site investigation and recording procedures (within the framework of applications for consent under the Heritage Act 2017).

Technical Report C

The impact assessment and recommended mitigation measures are found at Sections 7, 8 and 9 of Technical Report C.

The focus of the impact assessment is on the construction phase (assessed at Section 7), as capturing both the physical impacts of works to construct the Project and the visual impacts of the new infrastructure as completed.

No additional issues are raised for the Operational impact assessment (Section 8) or the Decommissioning impact assessment (Section 9).

In Section 7, the impact assessment is presented in tabulated form, at tables 7-1 and 7-2, respectively for the western and eastern portions of the study area. All listed and previously unidentified (potential) historical heritage places are listed in the tables, each with an ID number, basic descriptive information, listing details where relevant and distance to the Project.

A response to the question of impact assessment and mitigation is provided for each place. These responses address both direct physical impacts and indirect visual impacts as relevant to the place.

Following tables 7-1 and 7-2, at Section 7.4 a summary table is provided for the smaller number of places that are assessed as potentially subject to impacts; this is Table 7-3 *Possible mitigation to identified impacts.* In recommending the mitigation measures in Table 7-3, reference is made to relevant Environmental Performance Requirements at Section 12 of the report.

Assessment of physical impacts

In relation to physical impacts the assessment has identified a range of impacts that might occur, including:

- disturbance of archaeological sites
- impacts on built fabric
- tree removal
- potential for construction-related impacts on trees and built structures

In some cases, the impacts can be mitigated through adjustment of the Project design to avoid a direct impact. In most other cases, the impact would occur but can be mitigated.

Places where a physical impact is anticipated and the mitigation measures are summarised in Table 7-3, at section 7.4 of the report:

Disturbance to archaeological sites: For archaeological sites in the VHI, where impacts cannot be avoided, mitigation would occur through a process of archaeological management to the satisfaction of Heritage Victoria, noting that consents under the *Heritage Act 2017* would be required. This process would occur as set out in EPR HH3. Other mitigations for archaeological sites listed at table 7-3 include the establishment of exclusion zones and installation of physical protection measures.

Impacts to built structures: Physical impacts are proposed to listed and unlisted dry stone walls (ID: 30 and ID: 127) and mitigation measures to these impacts are proposed. Other physical impacts identified are relatively minor in nature and relate to unlisted potential places.

Tree removal: A single mature Algerian Oak at 2269 Werona-Kingston Rd Kingston, estimated at approximately 130 years in age, would be removed (ID:64A), and this impact could not be mitigated.

Potential for construction-related impacts: A number of places are identified as at risk of physical damage from unintended construction-related impacts, including Kerrins Bridge, Werona-Kingston Road, Smeaton (ID:62). Protection and monitoring measures are proposed as mitigation. There are other heritage places where potential impacts on trees are proposed to be mitigated or managed with specialist arborist involvement (see, for example, the trees in the drive to Morven, 325 Lerdederg Gorge Road, Darley, ID: 111).

Assessment of visual impacts

The assessment variously considers views to and from the heritage places and the impact of Project infrastructure in proximity. Tables 7-1 and 7-2 provide a comment on potential visual impacts for most heritage places (excluding sites such as archaeological sites where the values are typically largely concealed).

As is set out at Section 5.5.1.1 of Technical Report C *Assessment of impact on heritage setting*, the approach adopted distinguishes between a visual change within or in proximity to a heritage place *per se*, and a change that has the potential to disrupt or undermine an appreciation of the heritage significance of the affected place.

In doing so, the assessment has considered whether there is a conscious setting created for the heritage place that is affected by Project infrastructure in proximity. It has also considered whether there could be significant or potentially significant views from of a heritage place, including evidence of views having influenced the design or siting of a heritage place.

For the majority of heritage places, the conclusion of the impact assessment as related to visual impacts is generally that these are low impact in a heritage context.

Adequacy of the response and commentary

Refer to section 3.3.3 for comments on the Appendix B Berry Deep Leads Mining Landscape impact assessment.

Assessment of physical impacts

As summarised in Table 7-3 of Technical Report C (commencing p. 111), the assessment of physical impacts is clear and the recommended detailed mitigation measures appear suitable to minimise adverse impacts and to ensure appropriate management measures are adopted where the impacts are to occur. Reference is made to the relevant EPRs as would be expected.

The removal of the Algerian Oak (*Quercus canariensis*) 2269 Werona-Kingston Road, Kingston (ID:64A) - listed by the National Trust of Australia (Vic) on its Significant Tree Register in 2023 - is acknowledged as a loss which is assessed a **severe** impact on the tree itself but 'in wider terms' is assessed as **low**. In reaching this conclusion, Technical Report C questions aspects of the attribution of significance in the National Trust's register entry; the point is also made that are better examples across the state. In my opinion, however, it is difficult to reconcile the impact as low where the definition for a low impact is:

> Detectable impact on the heritage values of a heritage place or object with no reduction on those heritage values.

Setting aside the level of impact attributed, it is accepted that the removal of the tree cannot be avoided because of technical and regulatory requirements and the impact cannot be mitigated. Given its recognition by the National Trust it is agreed that it would be appropriate to record the tree and immediate surrounds prior to removal and that is the recommendation in Technical Report C.

Assessment of visual impacts

The approach to the assessment of visual impacts in Technical Report C is broadly appropriate, albeit somewhat over-inclusive in the breadth of potential impacts it has considered.

The question of the setting and presentation of heritage places is typically important in impact assessment and for some places, this may include important views or visual connections within the place.

It is less common for longer views *from or out of a heritage place* to be defined and recognised for heritage reasons. Where this occurs, it is usually reflected in demonstrated historical associations or in the design of the heritage place as a conscious response to context, whether through siting or use of topography, or building/ landscape design. This is acknowledged in the discussion of the *Assessment of impact on heritage setting* at Section 5.5.1.1 of Technical Report C:

> Factors that would be considered in determining whether the Project will have a detrimental visual impact on the heritage significance of a place would include such things as whether or not the visual presence of the transmission line interrupts a view line that that can be demonstrably shown to have been a factor in the design or placement of a heritage place or that the line intersects the setting of the heritage place where that setting has been created for that place, such as a garden or parkland. Another factor that would be considered is where the relationship between a number of structures is interrupted or intersected by the transmission line.[1]

Perhaps the best-known example of this is the Shrine of Remembrance (VHR H8048) in Melbourne which is sited and designed with long vistas to and from St Kilda Road. This is a place of a very high order of significance, and the designated public realm vistas form part of that significance, and they are protected by statutory controls. Other examples of heritage places where views out contribute to significance of the place include the homestead Mawallok at Stockyard Hill (VHR H0563), recognised as of aesthetic significance for its designed landscape (c. 1909) associated with William Guilfoyle. The designed landscape at Mawallok is described as having been built around key views, including an axial view to Mt Cole (20 km distant). Others are Meningoort, near Camperdown (VHR H0300), sited to

1 Technical Report C, pp. 32-33.

directly face Mount Leura (approximately 10 km to the south-east) down a long axial entrance drive framed by trees and Purrumbete (VHR H0301) which is sited on a slope facing Lake Purrumbete.

In contrast, there is limited evidence to support the identification of views of heritage significance from or out of the majority of places assessed in Technical Report C. This is particularly the case given the numbers of places of potential significance where the values themselves have not been formally assessed and documented. Accepting this, the impact assessment tends to be inclusive and has considered the broader question of a potentially wider heritage setting, including longer views from heritage places, even where Project infrastructure is sited at a distance from the heritage place. In the absence of site inspections, some of the comments on views are based on available information including current landscaping arrangements and other attributes evident in aerial views. In other cases, general comments on views out are provided, noting the distances to visible Project infrastructure.

In my opinion, while otherwise not detracting from the impact assessment, this inclusive approach likely would tend to overstate the sensitivity to views out of or from heritage places, particularly where those are views from the rear of properties or other utilitarian locations, for example. For the majority of heritage places assessed, their significance does not rely on the maintenance of a broader 'setting' or context. Rather, it is the more immediate setting that is important.

Relevant to this, and importantly, in cases where Project infrastructure is within or in closer proximity to heritage places, the assessment is appropriately focused on any implications from visual impact having regard for that immediate or closer setting.

No places were identified in Table 7-3 in Section 7.4 *Mitigation of impacts* as having a visual impact.

The summary of residual impacts at *Section 7.5 Residual impact* acknowledges a generalised **low level** of residual visual impact but without specifically listing the affected places.

> The overall residual visual impact from the Project on the understanding of the heritage significance or setting of most places in the study area is considered to be low. While there is no doubt that the transmission line will be visible from many historical heritage places along the Proposed Route, it has been assessed that just being visible in a heritage place does not impact the heritage significance and ability to understand a place's historical setting. [Technical Report C, p. 125].

This comment is interpreted as reflecting on the fact that visual change may occur in or near heritage places in proximity to the Project with consequences for the way those places are experienced, but without an adverse impact on significance. Consistent with this, table 5-3 defines the levels of impact on heritage places, with Low impact defined as:

> Detectable impact on the heritage values of a heritage place or object with no reduction on those heritage values.

Low impact by definition is not an impact that would require mitigation in that there is no impact on values.

Inclusion of visual information

There is a clear logic in the way information about the heritage places and the impact assessment itself are presented. As required by the Scoping Requirements, mapping is provided at Appendix A that allows the reader to locate the unique number for each heritage place in tables 7-1 and 7-2 (numbered sequentially west to each along the proposed route) and appreciate the relationship to Project works and infrastructure.

For some places assessed in the impact assessment tables at 7-1 and 7-2, however, it would have been beneficial to include additional visual material (aerial imagery, photographs, plans as relevant) to further inform an understanding of the nature of the place and the relationship to the Project works, particularly where there is a closer interface and/or the potential for an adverse visual impact has been identified.

The appendices addressing detailed significance and impact assessments are comprehensively illustrated.

2.4 Environmental Performance Requirements

Scoping Requirements

Performance criteria

Outline any proposed commitments to avoid, mitigate and manage residual effects on sites and places of historical heritage significance, including site investigation and recording procedures (within the framework of applications for consent under the Heritage Act 2017).

Technical Report C

The identification of Environmental Performance Requirements (EPRs) is a key outcome of the impact assessment process, establishing outcomes to be achieved through the implementation of mitigation measures.

For this project four historical heritage EPRs have been developed. These address the following:

- HH1 Design and construct to avoid and minimise impacts on heritage
- HH2 Undertake archival place recording
- HH3 Manage historical archaeological sites
- HH4 Avoid and minimise impacts to historical heritage during construction

Additional (non-heritage) EPRs relating to the requirement for Construction Environmental Management Plans (EM2) and a Decommissioning Management Plan (EM11) are also referenced.

Adequacy of the response and commentary

In combination, the proposed EPRs capture the range of mitigation and management measures appropriate for application in the construction phase of the project. The EPRs relate closely to the recommended mitigation measures set out in Table 7-3.

3.0 Appendix B: Berry Deep Leads Mining Landscape Significance and Impact Assessment

3.1 Introduction and background

The 'Berry Deep Leads Mining Landscape' is located north of Creswick. This area was the focus of extensive goldmining activity in the late nineteenth century (c. early 1870s- c. 1902), specifically deep lead mining of a system known as Berry Deep Leads System.

Today, the area contains a concentration of remnant historical mine sites associated with the Berry Deep Lead System. These are variously listed in the VHR, VHI and HO While these mining sites are related to one another historically, the current heritage listings recognise them as individual heritage places/sites. Each is separately mapped and the heritage values are documented by way of individual statements of significance associated with the relevant heritage register.

The Project passes through the area following an east-west alignment north of the small township of Allendale.

While the *Berry Deep Leads Mining Landscape Significance and Impact Assessment* is a stand-alone report that forms Appendix B to Technical Report C, its findings and conclusions in relation to existing conditions and impact assessment for the Berry Deep Leads Mining Landscape are incorporated into the relevant sections of the Technical Report C main report.

Victorian Goldfields World Heritage Bid

Appendix B notes that the Berry Deep Leads Mining Landscape forms part of Australia's *Victorian Goldfields* World Heritage Bid nomination, currently in development.[2] The Victorian Goldfields is a proposed serial cultural landscape, combining a number of places across Victoria that reflect the gold rushes and their effects from 1851. The bid website advises:

> The key focus on the sites to be considered for World Heritage listing is a small series of only the most authentic, intact and globally significant sites and buildings. Most, if not all, will be publicly owned and already protected on lists like the National Heritage List, the Victorian Heritage Register & Inventory, and in local planning schemes.[3]

During the preparation of the EES, the potential inclusion of the Berry Deep Leads system/landscape in the World Heritage Bid nomination led to a request from Heritage Victoria (as a member of the EES Technical Reference Group) that:

> a further assessment of the potential impact on the Berry Deep Lead Landscape should be undertaken to better inform the EES in response to the added sensitivities that the WHL nomination imposed.[4]

As of 28 January 2025, the first step in the nomination process has occurred with the inclusion of the Victorian Goldfields on Australia's Tentative World Heritage List.

Tentative List documentation

Preliminary documentation supporting the proposed serial cultural landscape nomination has been prepared and submitted to UNESCO. The documentation can be accessed on UNESCO's website:

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2 Technical Report C, Appendix B, p.1

3 https://goldfieldsworldheritage.com.au/about-the-bid/what-listing-means/, accessed 19 June 2025

4 Technical Report C, Appendix B, p. 2.

https://whc.unesco.org/en/tentativelists/6794/ contains information about the proposed nomination and component parts that would be included. Six component parts are listed, one of which, *Creswick and the Deep Lead Landscape* (component 002), would likely include all or part of the Berry Deep Leads System. The proposed components are:

- 001 Castlemaine Goldfields and Historic Townships: lat -37.07212, lon 144.25928
- **002 Creswick and the Deep Lead Landscape: lat 37.32277; lon 143.90433**
- 003 Bendigo Historic Urban Landscape: lat -36.75798; lon 144.28017
- 004 Great Nuggets Historic Landscape: lat -36.76116; lon 143.65106
- 005 Walhalla Alpine Mining Landscape: lat 37.94024; lon 146.44942
- 006 Lalgambuk (Mt Franklin): lat -37.26550; lon 144.15047

Note that this may not be the final component list; the Tentative List documentation advises that:

> Further components are being investigated and may also be considered for the series in the course of developing a nomination dossier.[5]

No boundaries are provided for any of the components; rather, they are identified by co-ordinates. In the case of the *Creswick and the Deep Lead Landscape,* the co-ordinates are lat -37.32277 and lon 143.90433. This point is at the Berry No. 1 Gold Mine on the Daylesford Clunes Road (an important site within the Berry Deep Leads Mining Landscape assessed in Appendix B).

Note that Technical Report C includes mapping of a WHL study area / Creswick WH Component Extent (refer to Appendix C, Figure 4: Western Renewables Link and WHL Bid Assessment Areas comparison); it is understood this this mapping was provided by Heritage Victoria.

The Tentative List documentation contains preliminary information about the Outstanding Universal values. The documentation outlines broad aspects of importance across the serial cultural landscape listing including references to features of special meaning for Traditional Owners and the impact of dispossession and damage, the impact of mining and the mining sites, the evolved nature of the landscapes, and the establishment of settlements, associated infrastructure and the like.

References of relevance to the *Creswick and the Deep Lead Landscape* component are reproduced as follows. The relevant sections of the Tentative Listing documentation are referenced in square brackets, italics have been added for emphasis:

[Under *Description*]

> …
>
> [Re the six component areas] *2. Creswick and the Deep Lead Landscape as an unparalleled example of this rare type of gold mining*
>
> [Re geology and topography] The extent of the Victorian Goldfields is defined by an underlying geology that formerly hosted veins, or 'reefs', of gold-bearing quartz….
>
> … geological processes shaped the nature of mining in Victoria and defined its characteristic range of technologies as revealed by surface and shallow lead sites, *deep lead landscapes,* and quartz mines.

5 Possible additional components are identified as the Ballarat Historic Urban Landscape, Beechworth Historic Township and Sluicing Landscape, and Whroo and the Balaclava Open Cut Mine.

> [Re the different gold rush mining landscapes] *Deep lead mining is marked by mullock heaps and tailings piles that punctuate a flat and expansive landscape overlooked by ancient volcanoes. Solitary remnants of steam-pumping engine houses stand beside deep shafts.*

To be included on the World Heritage List, sites must be of Outstanding Universal Value and meet at least one out of ten selection criteria.[6] Under *Justification of Outstanding Universal Value* the following specific references to deep lead mining including north of Creswick are included:

> …
>
> Gold was emplaced in Victoria during tectonic events hundreds of millions of years ago. Subsequent erosion revealed easily worked outcrops of gold in quartz, and a geographically spread network of alluvial gold exploited in surface or shallow 'diggings' *In some parts, Australia's most recent volcanism produced a distinctive new topography of flat lava fields that buried ancient 'rivers of gold' – the 'deep leads'.*
>
> …
>
> Technological mining progress is evidenced by widespread shallow alluvial 'diggings' and hard rock open cuts such as at Castlemaine*, through 'deep-sinking' in Creswick's 'deep leads', to the deep reefs of Bendigo, Maldon, and Walhalla. The 1870s marked an engineering milestone in the greatest concentration of deep mine shafts in the southern hemisphere, in fact, at Bendigo, the deepest of any gold mines, worldwide.*

In terms of criteria, the Tentative List documentation concludes that the Victorian Goldfields as a serial cultural landscape meets two of the ten criteria:

- (iv) to be an outstanding example of a type of building, architectural or technological ensemble or landscape which illustrates (a) significant stage(s) in human history
- (vi) to be directly or tangibly associated with events or living traditions, with ideas, or with beliefs, with artistic and literary works of outstanding universal significance. (The Committee considers that this criterion should preferably be used in conjunction with other criteria).[7]

The Tentative List documentation includes a response to both criteria. Specific references to the *Creswick and the Deep Lead Landscape* are included in the response to Criterion (iv)as follows:

[Under *Criterion (iv)*]

> An exemplar gold rush landscape is set within a broader mosaic of agriculture and forest. Shallow alluvial workings and ephemeral diggers' camps, more extensive and better-preserved than in any other historic goldfield, are complemented by early and dramatic open cuts on quartz reefs (veins) that retain exceptional authenticity. *A rare and unparalleled system of ancient alluvial deposits buried by basalt lava flows ('deep leads') is marked in the open agricultural landscape by ruins of massive beam-pumping engine houses and their attendant geological triptych of waste heaps, such as north of Creswick.* Evidence of progressive and highly capitalised quartz-reef mines may be seen in Bendigo, Walhalla and Maldon, while ore-processing sites contain well preserved evidence of comparatively rare processing typologies, such as the quartz-roasting kilns and puddling mills evolved and applied on an exceptional scale. Ancillary structures include Government-owned small stamp batteries and gunpowder magazines.

6 https://whc.unesco.org/en/criteria/, accessed 2 February 2025

7 https://whc.unesco.org/en/criteria/, accessed 2 February 2025

No specific reference to the Deep Leads area near Creswick is included under Criterion (vi).

The Tentative List documentation also includes *Statements of authenticity and/or integrity*.

In terms of *authenticity*, the Tentative List documentation includes a comment relevant to mining landscapes in general as follows:

> Victorian Goldfields is a cultural landscape that was rapidly transformed from a predominantly pastoral and forest landscape, populated by First Peoples and relatively few colonial settlers, to a gold mining landscape populated by a massive surge of immigrant gold-seekers, including significant numbers of women and children intent on settlement. Component parts, taken together, provide an overall geographical cohesion in terms of their historical landscape pattern and interrelationships, broadly from the period 1850-1900.
>
> Key elements that are part of wider social and technical systems, ranging from the built form of towns and cities to the sites of former mines, have high authenticity in relation to their form (as archaeological sites and as architectural structures), design and materials, and have been clearly identified and dated as a result of longstanding research and recording, especially by more recent intensive survey. Elements are further sustained by the comparatively high authenticity of historical character of location and setting which lends itself to an authentic experience in terms of spirit and feeling.

The Tentative List documentation also contains a discussion of the *integrity* of the serial cultural landscape and its component parts. The observations about integrity of the six component parts are general in nature:

> All component parts and their elements are in fair-good condition. All coordinate points are in public ownership with some level of public viewing or access available. The component parts do not suffer from adverse effects of development, and threats are mostly confined to bush fires with a number of areas falling within the Bushfire Management Overlay. No new mining is permitted*. The longstanding removal, as secondary aggregate, of quartz pebbles and sand from the waste heaps of degraded Deep Lead sites in the buffer zone is almost at an end.* Recreational gold prospecting and 'fossicking' is not classed as active industrial mining and is popular in Victoria. This small-scale individual's pursuit is strictly licenced, in designated areas only, under the tradition of the Miner's Right traceable to 1855. Only hand tools such as pick, shovel, sieve, pan and metal detector are allowed and disturbance to any Aboriginal place, historic place or archaeological site is strictly prohibited. Damage to any tree or shrub is also prohibited and any disturbance to the ground must be re-covered prior to leaving the search area.

The use of the term 'buffer zone' as related to the Deep Lead sites is not explained.

Finally, the Tentative List documentation includes a discussion of the methodology for the selection of the component parts for the Victorian Goldfields serial cultural landscape. The methodology included a process of 'attribute mapping' with reference to the proposed Statement of Outstanding Universal Value and its justification criteria and use of the Victorian Heritage Database and other sources.

A brief rationale and justification for the various component parts is provided and the reference component 02, *Creswick and the Deep Lead Landscape* is as follows:

> *Creswick and the Deep Lead Landscape is an unparalleled example of this rare type of gold mining.*

3.2 Rationale for Appendix B

To date there has been no formal statutory recognition of the Berry Deep Leads Mining Landscape as a broader entity/cultural landscape, as distinct from a collection of individual relict mining sites.

While the likelihood of inclusion of such a landscape in the World Heritage Bid nomination for the Victorian Goldfields had been identified during the preparation of Technical Report C, there had been no formal confirmation of its physical extent or heritage values. Since then, the WHL Tentative Listing documentation has been published and this confirms the inclusion of a relevant component part, *Creswick and the Deep Lead Landscape*. However, the documentation does not confirm boundaries of this landscape and as summarised above, it includes limited specific information on values and significant attributes.

In this context, the approach in Technical Report C was to undertake its own assessment of significance of the Berry Deep Leads System area, including the preparation of a statement of significance, and to use this as the basis for the assessment of potential impacts from the Project.[8]

This response and the methodology adopted are appropriate. Within the constraints of the limitations on the availability of information at this stage of the WHL bid nomination process, it ensures due consideration is given to that process and the heritage sensitives that are likely to arise. It is also consistent with relevant EES Scoping Requirements relating to documentation of the existing environment, as follows (emphasis added):

- Review land use history, previous studies and registers and listings to identify areas of known historic heritage values *and assess the potential for the Project to contain unregistered historic heritage sites.*
- *Identify and document any known and previously unidentified places, objects, sites and landscapes of historic heritage significance within the project area and its vicinity, including any necessary field investigations to supplement past studies*. Assessments are to be undertaken in accordance with the Heritage Act 2017, Heritage Victoria's Guidelines for Conducting Archaeological Surveys (2020) or updates and other guidance documents. *Maps of site extents showing their proximity to proposed works should be provided.*

3.3 Peer Review

3.3.1 Cultural landscapes

The significance assessment in Appendix B (Section 2) and the impact assessment (Section 3) are both based the premise there is a *cultural landscape* associated with the Berry Deep Lead goldfields.

The concept of a broader heritage landscape associated with the Berry Deep Leads System is not new. In 1989 the *Cultural Landscapes Study of Creswick Goldfields Area* prepared for the Australian Heritage Commission identified an area of approximately 2,300 hectares as the 'Berry Deep Leads Mine System.' This was subsequently included in the Register of the National Estate (RNE) as an Indicative Place.[9]

Cultural landscapes are defined in the UNESCO *Operational Guidelines for the Implementation of the World Heritage Convention* as follows:

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8 Technical Report C, Appendix B, p. 2.

9 Chris McConville and Associates, *Cultural Landscapes Study of Creswick Goldfields Area for Australian Heritage Commission*, 1989. The Australian Heritage Commission was abolished in 2004 and the RNE was closed in 2007 and is not a statutory list. Indicative places are places that were entered in the RNE database however a decision on whether a place should be entered into the RNE itself was not made before the RNE was closed. See Australian Heritage Database entry for Berry Deep Leads Mine System, place ID 100651, https://www.environment.gov.au/cgi-bin/ahdb/search.pl, see also https://www.dcceew.gov.au/parks-heritage/heritage/publications/australian-heritage-database/legal-status, accessed 30 January 2025

> Cultural landscapes … are cultural properties and represent the "combined works of nature and of man" designated in Article 1 of the Convention. They are illustrative of the evolution of human society and settlement over time, under the influence of the physical constraints and/or opportunities presented by their natural environment and of successive social, economic and cultural forces, both external and internal.[10]

In a brief publication on cultural landscapes (Understanding Cultural Landscapes), Australia ICOMOS further notes that many cultural landscapes are valued by communities because they:

- show the evolution of settlement and societies
- hold myths, legends, spiritual and symbolic meanings
- are highly regarded for their beauty
- tell us about societies' use of natural resources, past events and sustainable landuse
- display landscape design and technology achievements.[11]

Three types of cultural landscape are identified as follows:

> i) Designed landscapes, those that are created intentionally such as gardens, parks, garden suburbs, city landscapes, ornamental lakes, water storages or campuses.
>
> ii) Evolved landscapes, those that display a system of evolved landuse in their form and features. They may be 'relict' such as former mining or rural landscapes. They may be 'continuing' such as modern active farms, vineyards, plantations or mines.
>
> iii) Associative landscapes, that are landscapes or landscape features that represent religious, artistic, sacred or other cultural associations to individuals or communities.
>
> A cultural landscape may represent more than one of these three groups.[12]

The Heritage Council of Victoria published guidelines for the assessment of *Landscapes of Cultural Heritage Significance* in 2015 and this document also references the three cultural landscape types defined by UNESCO and referenced by Australia ICOMOS (designed landscapes, evolved landscapes and associative landscapes).[13]

While Appendix B does not make specific reference to these specific definitions and descriptions of cultural landscapes, the approach taken in the significance assessment clearly adopts the same principles.

Comment: The *cultural landscape* approach adopted in Appendix B takes a broad view of the heritage values of the area, looking beyond the individual heritage-listed sites and approaching the area as an integrated layered entity. This approach allows for a more holistic consideration of values and of potential impacts.

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10 UNESCO, *Operational Guidelines for the Implementation of the World Heritage Convention*, 31 July 2024, p. 47, https://whc.unesco.org/en/guidelines/, accessed 30 January 2025

11 Australia ICOMOS, *Understanding Cultural Landscapes*, https://australia.icomos.org/resources/australia-icomos-heritage-toolkit/cultural-landscapes/, accessed 30 January 2025

12 Australia ICOMOS, *Understanding Cultural Landscapes*, https://australia.icomos.org/resources/australia-icomos-heritage-toolkit/cultural-landscapes/, accessed 30 January 2025

13 Heritage Council Victoria, *Landscapes of cultural heritage significance: Assessment guidelines,* February 2015, https://assets.heritagecouncil.vic.gov.au/assets/LandscapesOfCulturalHeritageSignificance-AssessmentGuidelines2015-compressed.pdf, accessed 30 January 2025, p. 10.

The approach is also aligned with the approach in the WHL Tentative Listing documentation, where the broader proposed serial listing itself with its various rural and urban components is conceived of as a *serial cultural landscape*, specifically a *highly legible relict and associative cultural landscape.*

3.3.2 Significance assessment

Extent of assessment area

An area was defined for the purposes of the assessment, based on the extent defined in the RNE Indicative entry and the mine sites located within that area but expanded to:

> … include a wider sweep of the landscape to provide a wider context from which to view and assess its significant physical elements beyond the mine sites. These include such things as fields, fencing, wind breaks, border plantings and volcanic landscape features. The expanded assessment area also largely uses roads to define its extents and as such is more readily definable.[14]

Comment: The nominated assessment area is appropriate to form the basis of the significance assessment and impact assessment of the Berry Deep Leads Mining Landscape for the purposes of the EES. The boundaries of the area could be further refined or adjusted - there are some documented deep lead mine sites outside the assessment area, however the assessment area encompasses the core area of the Berry Deep Leads Mining Landscape, and the densest concentration of deep lead mining sites associated with the system. It focuses on the area through which the Project is proposed to run and includes extensive areas of land either side of (and including) the Project Land.

As noted earlier, Heritage Victoria provided mapping for a larger WHL study area than the area assessed in Technical Report C, extending further north and south, however the WRL assessment area is appropriate for the EES assessment.

Physical description and history

The significance assessment itself is structured in a typical manner. Section 2.3 sets out the various phases of history of the assessment area including the geological / geomorphological context, the occupation of the land by Aboriginal people, and the various pastoral, goldmining and agricultural land uses and historical phases. A high-level physical description is provided at section 2.2.

Comment: The physical description and history provide a good overview of the assessment area and reflect on the way the land has been modified and how the various historical aspects / themes / phases of occupation and land use can be read in the landscape.

The area under assessment is of significant scale and complexity and the majority of the land is privately owned and was not accessed in the course of the assessment. Additionally, while many of the elements of significance can be viewed from the public domain, the assessment area includes extensive concealed heritage fabric and evidence (including sub-surface features and archaeology). As a consequence, the physical description included in the report is general in nature rather than detailed.

Considering the purpose of the assessment and the nature of the potential impacts, this approach is appropriate.

Comparative analysis

The physical description and historical overview are followed by a comparative analysis and assessment against heritage criteria, both well-recognised as part of a standard approach to heritage assessment.

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14 Technical report C, Appendix B, p. 4

In this case the comparative analysis is organised around the levels of statutory recognition and focuses on mining sites and landscapes. It first compares the Berry Deep Leads Mining Landscape with places in the VHR under the Heritage Act 2017 (mostly goldmining sites and areas) and then goes on to compare the landscape with two of the four mining-related sites in the National Heritage List (NHL) under the *Environment Protection and Biodiversity Conservation Act 1999*, being the Australian Cornish Mine Sites at Burra and Moonta in South Australia and the Castlemaine Diggings National Heritage Park in Victoria.

In discussing the VHR-registered goldmining sites in Victoria, the analysis makes a series of observations about how the various sites demonstrate different aspects of the state's goldmining history (location, phases of the gold rushes, nature of the gold deposits, different mining techniques and technologies, etc), and comments on the different levels of intactness of particular sites. The comparative analysis concludes at (at section 2.4.1.15) that the Berry Deep Leads Mining Landscape 'is comparable with other mining sites and landscapes significant at a state level, in Victoria'.[15]

Relevantly to the question of the role the landscape might play in the WHL nomination, the comparative analysis further comments on the contribution the landscape makes to an understanding of the state's goldmining history and heritage. Specifically, the conclusion that is drawn is that the Berry Deep Leads Mining Landscape provides evidence of Victoria's goldmining history that is different to other sites and which is expressed differently and on that basis it provides a 'complementary narrative', contributing to the broader understanding of 'the diversity of mining periods and approaches in Victoria'. The two aspects that distinguish the Berry Deep Leads Mining Landscape are identified as:

- 'As a later deep leads mining location it also contributes to a greater understanding of the diverse range of mining techniques and responses used throughout the state, and is an illustration of the development of large scale corporate mining, in contrast to the earlier phase of small-scale alluvial mining that occurred at the beginning of the gold rushes'
- The landscape is able to provide a 'clearly discernible visual record of all stages of the landscape history from geological time to the present, and as such provides a valuable complementary narrative to that provided by other mining places and landscapes included in the VHR'[16]

The comparative analysis goes on to reference the National Heritage List mining sites (2.4.2) and compares the Berry Deep Leads Mining Landscape with these. The conclusions drawn in this section (at section 2.4.2.3) include a comment that that the Berry Deep Leads Mining Landscape may be of state heritage significance rather than at a national level.[17] A further section is provided (2.4.3) on *Places included in the World Heritage List*, which notes that comparisons with WHL places or components thereof are not relevant considerations for comparative analysis.[18]

Comment: The key conclusion in the comparative analysis in relation to the significance of the landscape is that it is distinctive for its ability to demonstrate a specific form of goldmining. This broadly accords with the limited information provided in the WHL Tentative List documentation where it is notes that the *Creswick and the Deep Lead Landscape is an unparalleled example of this rare form of gold mining.*

Assessment against criteria and statement of significance

Following the comparative analysis, the report assesses the Berry Deep Leads Mining Landscape against the Heritage Council of Victoria's criteria for inclusion in the VHR. Given the stated purpose of the report (to provide further assessment in the light of the future WHL serial listing nomination), the reason for the specific focus on the VHR

15 Technical Report C, Appendix B, p. 39

16 Technical Report C, Appendix B, p. 39

17 Technical Report C, Appendix B, pp. 43-44

18 Technical Report C, Appendix B, p. 43

criteria is not explicitly explained, however the criteria provide a good structure for the assessment of significance and a means of drawing out and describing the values and key characteristics of the cultural landscape. Brief comments on the assessment against criteria are included at Appendix A to this Peer Review.

The significance assessment section of the report concludes with a statement of significance in the typical *What is significant?, How is it significant?* and *Why is it significant?* format. The statement is detailed and wide-ranging in its coverage of the historical development and physical characteristics of the landscape and in describing those aspects and features that reflect the various phases of land use. It generally reflects the assessment against criteria and also draws in additional historical and descriptive material from section 2. The *Why is it significant* part of the statement references the relevant criteria, those being A, B, C, D and F.

In addition to the statement, Appendix B includes a summary of key elements demonstrating significance:

- Volcanic geomorphology – volcanic cones, undulating nature of the landscape, presence of the 'buried rivers of gold', and volcanic soils conducive to agriculture and grazing
- Subdivision layout – fence lines, roads and road reserves, windbreaks, and border and roadside tree plantings
- Mining – mining sites, mullock heaps, settling ponds and remnant structures.
- Agriculture and grazing – cleared open paddocks and landscapes between the mining sites, fences, windbreaks and farm structures.[19]

Summary comment on significance assessment

While there are some clear limitations on the scope of the work, the significance assessment for the Berry Deep Lead Mining Landscape has been undertaken to a high standard using appropriate methodologies, including review of previous assessments and additional historical research, fieldwork, comparative analysis and assessment against criteria.

In terms of the assessment conclusions, it would be expected that any assessment of heritage significance for a place (cultural landscape) this large and complex would be open to interpretation. Different conclusions could be drawn in terms of the extent of the landscape, how it should be mapped, its level of significance - local, state, national - and the heritage values identified. In this case, it would be expected that such refinements would go to issues of emphasis and detail, however, rather than the substance of the assessment.

The core findings of the assessment are supported, ie: that the area is a cultural landscape where the heritage values are focussed on the distinctive history of deep lead mining but the values extend beyond the individual relict mining sites themselves (with their historical, archaeological and technical values) to encompass relationships with the broader landscape, its geology and geomorphology and the patterning of evolving land uses.

These findings provide an appropriate basis for assessment of potential impacts from the Project on the Berry Deep Leads Mining Landscape cultural landscape, with the caveat that impacts on any individually listed heritage places should also be considered with reference to the significance of these places.

19 Technical Report C, Appendix B, p. 59

3.3.3 *Impact Assessment*

Approach

The approach in impact assessment in Appendix B is to consider the potential for both physical and visual impacts of the Project to have an adverse impact on significance. The physical and visual impacts are considered separately.

This approach is consistent with the EES Scoping requirements which require the assessment of 'potential direct and indirect impacts of the project on sites and places of historical cultural heritage significance …'

While both are addressed, the focus in the impact assessment is on visual impacts, reflecting the fact that the majority of direct impacts have been avoided through adjustments to Project design, and the nature of the Project, which proposes the introduction of new linear infrastructure of scale and visual prominence extending through the Berry Deep Leads area.

Physical impacts

In considering physical impacts from the Project and the potential for an impact on significance, the key issue is whether there would be a direct physical impact on one or more of the mining sites resulting in damage to or disturbance of the physical fabric, including archaeology.

The Project is close to mining sites either side of Kingston Road and works would be required on the edge or within the mapped extent of three mining sites (Lone Hand Mine 2, West Ristori Mine and Lone Hand Mine no. 1, ID: 49, 50, 51) subject to HO and VHI listings. The potential for physical impacts on all three sites is included in the Technical Report C main report and mitigation measures are identified. Refer to Table 7-3. The residual impact identified is low.

Other *physical impacts* from the Project would occur from temporary construction infrastructure within the broader landscape but the assessment concludes there would be no adverse impacts on significant elements.

Comment: The conclusion in relation to physical impacts is appropriate.

Visual impacts

Basis of the assessment

The question underpinning the visual impact assessment is whether the Project infrastructure disrupts or detracts from an understanding of the components which make up the identified cultural landscape - or the relationships between those components - in a manner that has an adverse impact on the significance of the cultural landscape.

These are the key elements demonstrating significance at section 2.7 of Appendix B:

- Volcanic geomorphology – volcanic cones, undulating nature of the landscape, presence of the 'buried rivers of gold', and volcanic soils conducive to agriculture and grazing
- Subdivision layout – fence lines, roads and road reserves, windbreaks, and border and roadside tree plantings
- Mining – mining sites, mullock heaps, settling ponds and remnant structures
- Agriculture and grazing – cleared open paddocks and landscapes between the mining sites, fences, windbreaks and farm structures.

Methodology

The primary visual impact of the Project is associated with the transmission towers (60-80m in height) at approximately 450-550m spans supporting lines suspended transmission lines). The towers would be constructed on an east-west alignment through the central section of the Berry Deep Leads Mining Landscape.

In Appendix B the approach to the assessment of the visual impact of the Project from a heritage perspective was to select a number of viewpoints (six)within the landscape and to consider the impact on these. Photomontages were prepared by Landform Architects to support the assessment and these appended to Appendix B.

The basis for the selection of the six viewpoints is explained at section 4.3.1.1. In summary, the locations were chosen having regard for the following (paraphrased):

- **Variations in topography** (considering the undulating landscape to select viewpoints which allowed views to multiple landscape elements and an appreciation of the relationships between these)
- **Sites that allowed views into, and through, the landscape from each cardinal point** (viewpoints on the northern, southern and western edges, no significant views were available from the east)
- **Locations along routes that viewers will most likely travel along through the landscape or sites that they are most likely to visit within it** (focus on the more readily accessible routes, including West Berry Road, Daylesford Clunes Road, Creswick Lawrence Road and the overlay of the Buried Rivers of Gold touring route which includes viewing points and mapping for mine sites)
- **Locations in close proximity to a number of mine sites**
- **Visibility of, and proximity to, the Project**, including locations where the Project will be very evident and others where it is less obvious or fully or partly concealed.[20]

The six selected viewpoints are:

1. Wrigleys Road, west of Australasian No.23 Mine, looking north
2. West Berry Road, looking north
3. Creswick Lawrence Road at the Madame Berry West No.1 Mine.
4. Daylesford Clunes Road, near the Berry No.1 Mine, looking south east.
5. Daylesford Clunes Road, looking south.
6. Intersection of Beaconsfield Road and Ewen Charlesons Road looking south east toward the Lord Harry Mine.

Each of the six views was analysed and described in terms of its existing conditions, noting elements and relationships that demonstrate the valued characteristics of the cultural landscape. Based on modelling and photomontages by Landform Architects, the impact of the Project on the viewer's ability to view and appreciate those aspects was then assessed.

Comment: In commenting the methodology, a key question is whether the selection of viewpoints is an appropriate approach having regard for the purpose of the impact assessment. Related to this is the question of the specific viewpoints (number and location) selected.

It is acknowledged that the distinctive visual characteristics of the Berry Deep Leads Mining Landscape can be appreciated in myriad ways, including when moving through the landscape, and not confined to a series of static viewpoints. While recognising that part of the experience of this landscape is through moving through it, the careful selection and analysis of a series of viewpoints is a reasonable and appropriate means through which to assess the potential visual impacts of the Project on the viewer's experience and understanding of the environs as a cultural landscape.

20 Technical Report C, Appendix B, pp. 60-61

In selecting the viewpoints, while there would be a range of viewpoints located on private land, for the purposes of this assessment, it is considered important that the selected viewpoints are from the public domain, and within that, from locations that are readily accessible, thus prioritising the public's ability to appreciate and understand the place.

Beyond that, it is important that viewpoints are included that allow for an appreciation of the key characteristics of the cultural landscape as well as viewpoints that include the Project to a greater or lesser extent.

In that context, topography has a significant bearing on the way this landscape is experienced, not only because there are topographical features that are important but also because the open and gently undulating nature of the land creates a series of 'horizons' where landscape views and elements are variously revealed and fully or partly concealed when moving through the area. Topography is also significant in terms of the placement of the Project and assists in moderating its visual presence within the environment.

Appendix B comments on this issue in the impact assessment conclusion at Section 4.5:

> The topography of the Berry Deep Leads Mining landscape is undulating and is characterised by a number of conical hills formed from volcanic cones and a ridge of higher ground that runs approximately west to east through the landscape, which slopes toward Glendonald Creek and its tributaries to the south and to Birch Creek in the north. The Project is proposed to run west to east, roughly parallel to the ridge of higher ground, on its northern side. The location of the towers in relation to this ridge will reduce their visual prominence in the western and middle sections of the landscape, when viewed from the south. At the eastern end of the landscape, the Project passes to the south of the volcanic cone of the Birch's Bald Hill which completely masks views of the towers from viewpoints in the north.[21]

Coming from the west, the alignment of the Project broadly follows the road reserve for Three Chain Road which becomes Kingston Road and continues due east where Kingston Road angles away to the south-east.

Of the six selected sites, four are to the north of the Project and two are to the south. All are all publicly accessible and in combination they present a variety of perspectives on the cultural landscape. Because of the mostly open nature of the landscape (even considering the impact of topography), the majority of the views are expansive and include a mix of closer and more distant elements which can be viewed in combination. The selected views all include visible evidence of deep lead mining, most obviously and typically the mullock heaps and remnant built structures where these survive. Views of the mining sites vary in terms of the distance from the viewer, with some views allowing for closer appreciation of the sites while more typically they are recognisable as distant features. A number of the sites afford views of multiple mine sites from a single location which reflects strongly on the intensive nature of the mining activities across the area. The majority of the sites also include significant topographical/geomorphological features, evidence of subdivision layouts and other aspects identified as contributing to the cultural landscape.

Some observations on the selected viewpoints:

- As is noted in the report, views from the eastern edge of the area and north-east were excluded because of the impact of rising land and limited visibility of mining sites from accessible locations on Creswick Newstead Road and the eastern end of Beaconsfield Road.
- Apart from Viewpoint 6 (at the corner of Beaconsfield Road), no sites were included on Ewen Charleson Road which runs north-south through the landscape. There are multiple mine sites to either side which can be viewed when travelling along the road, however it may have been excluded on the basis it is an unmade road less likely to be accessed.

21 Technical Report C, Appendix B, p. 78

- In terms of the visibility of the Project, the selected viewpoints include closer and more distant views, and a mix of views affected by topography (ie: where the topography variously would conceal and/or reveal the towers and transmission lines).
- As would be expected, for a number of selected viewpoints, there are additional viewing positions which can be identified along the same roadways - some in quite close proximity and others at more of a distance. When compared to the selected viewpoints, these may not be as expansive or include as wide a range elements that contribute to the makeup of the cultural landscape as the selected viewpoints but they contribute to the overall experience. Some are referenced in Table 1 below. It is not suggested these additional views should have been assessed, rather, to note that the selected views are only part of the broader appreciation of the cultural landscape.

Impact assessment

Using the six viewpoints, the visual assessment has considered whether the Project would block or impede views to the significant landscape elements. As relevant to particular views, the assessment has also considered the presence of the towers and transmission lines, including the perception of scale of the landscape elements within the views as compared with that of the towers. This is particularly relevant when the Project is visible in the backdrop.

The overall focus of the assessment is the potential for the siting and scale of the Project to disrupt or undermine an appreciation of the significant elements within the landscape and the relationships between them with an adverse effect on heritage significance.

The following table provides a summary response to the impact assessment for the six views.

Table 1 Comment on Appendix B impact assessment of Viewpoints 1-6

Viewpoint	Appendix B assessment	Additional comment
Southern views The two southern views are Viewpoint 1 in Wrigley Road and Viewpoint 2 in West Berry Road, looking north towards the Project. Both are located on the western side of the Berry Deep Leads Mining Landscape.		
Viewpoint 1 Wrigleys Road, west of Australasian No. 23 Mine, looking north	Impact assessment conclusions are generally agreed. The Project would be distant in views to the north and east and would be partly concealed in views to the west.	Additional/alternative views are available from further east on Wrigleys Road, including closer views to the north to the Davies Junction no. 2 (Figure 1) and Charleston & Davies mines. The Project would be a similar distance to the north as a backdrop element in these views.
Viewpoint 2 West Berry Road, looking north	Impact assessment conclusions are generally agreed. The towers and transmission lines would be closer and more prominent in this view (approximately 1.5km away as compared with 3.6km for Viewpoint 1). However, the mullock heap at the West Berry Consoles No. 1 mine would still be the dominant feature, viewed in combination with the hill to the north beyond the intersection of West Berry and Creswick Lawrence Road.	Views to the north are less expansive than those from Wrigleys Road (eg Viewpoint 1) as they are limited by rising ground to the north and east. Note there are additional good views into the landscape from points further east on West Berry Road. Further east again, multiple mine sites can be viewed walking around in the vicinity of the intersection of Ewen Charles Road and West Berry Road.

Viewpoint	Appendix B assessment	Additional comment
		Good views are also available from Creswick Lawrence Road looking west toward Cattle Station Hill with the West Berry Consoles No. 1 mine in the foreground.
Northern views The northern views 3-6 are located at varying distances from the project works and are also in the western half of the Berry Deep Leads Mining Landscape.		
Viewpoint 3 Creswick Lawrence Road at Madame Berry West No. 1 Mine	Impact assessment conclusions are generally agreed. The towers and transmission lines would be relatively close (450m) in this view and would be dominant in views looking south-west. Accepting that relative closeness, the distance between the towers is such that the reading of the landscape in that direction - both forward of and behind the towers - could be maintained. The more important views from Viewpoint 3 are the west/north-west with the mine site in the foreground and in these the transmission line would be visible and prominent but would sit in the periphery. It is noted that the close proximity of the Madam Berry West 1 Mine to Creswick Lawrence Road provides an opportunity for closer views of interest to this site, from Viewpoint 3 and locations further to the north (Figure 5). Overall, the ability to read the landscape would be maintained and not undermined.	Views in this general location (including views of the Madam Berry West No. 1 Mine) vary depending on the specific position in Creswick Lawrence Road and on the direction of the view. The road is lower to the north and rises up on approach to Viewpoint 3 (Figure 3) – while not modelled, it is assumed the towers and transmission lines would be in the backdrop in these views. The mullock heap has limited presence from the south (at Kingston Road/Three Chain Road reserve) where the road slopes down again.
Viewpoint 4 Daylesford Clunes Road near the Berry No. 1 Mine, looking south east	Impact assessment conclusions are generally agreed. The prominence of the VHR-listed Berry No. 1 Deep Lead Mine would be undiminished in this view. The towers and transmission lines would be distant and partly obscured by Birch's Bald Hill (to the south-west) and vegetation (to the south)	There are additional closer detail views into this significant mining site, see Figure 6.
Viewpoint 5 Daylesford Clunes Road, looking south	Impact assessment conclusions are generally agreed. This is a very expansive view in which the various aspects of the cultural landscape are readily apparent. The towers and	-

Viewpoint	Appendix B assessment	Additional comment
	transmission line would be distant and a minor backdrop presence only, and would themselves be partly obscured by Birch's Bald Hill.	
Viewpoint 6 Intersection of Beaconsfield Road and Ewen Charlesons Road, looking south east toward the Lord Harry Mine	Impact assessment conclusions are generally agreed. The viewing point has some constraints including the obscuring effect of vegetation, as is noted in the report. The Project similarly will be partly obscured by Birch's Bald Hill and where it is visible it will be relatively distant.	Despite the various constraints, this is an example of a location where multiple views into the landscape are available when moving to different positions in the immediate vicinity, including views north from Beaconsfield Road towards Berry Consols No. 1 and No. 2 mines. Note that closer views of the Lord Harry Mine on the edge of Birch's Bald Hill are available within Beaconsfield Road east of Viewpoint 6. There are also views to both north and south from points in Beaconsfield Road to the west of Viewpoint 6 albeit these are very limited because of the windrow planting. The Project would be at a similar distance and a backdrop element in these other views within Beaconsfield Road.

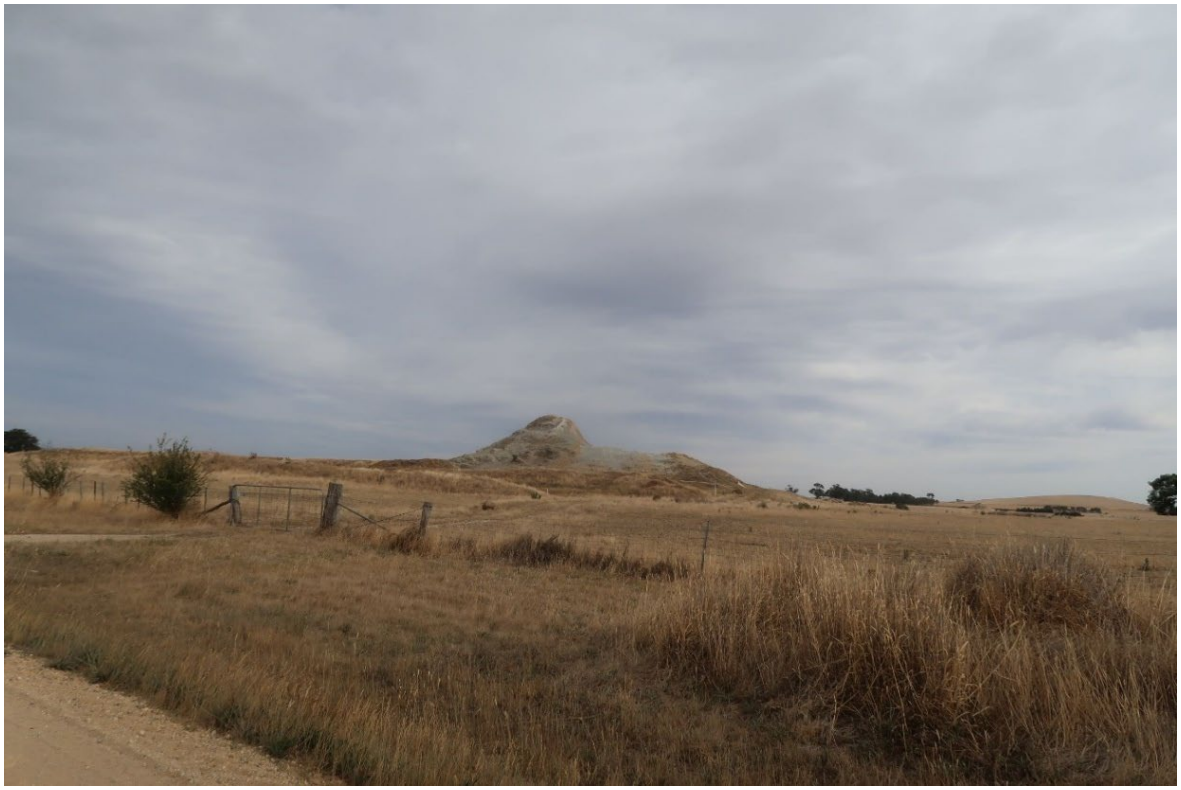

Figure 1 View of Davies Junction 2 Mine, in Wrigleys Road east of Viewpoint 1
Source: Lovell Chen, 2025

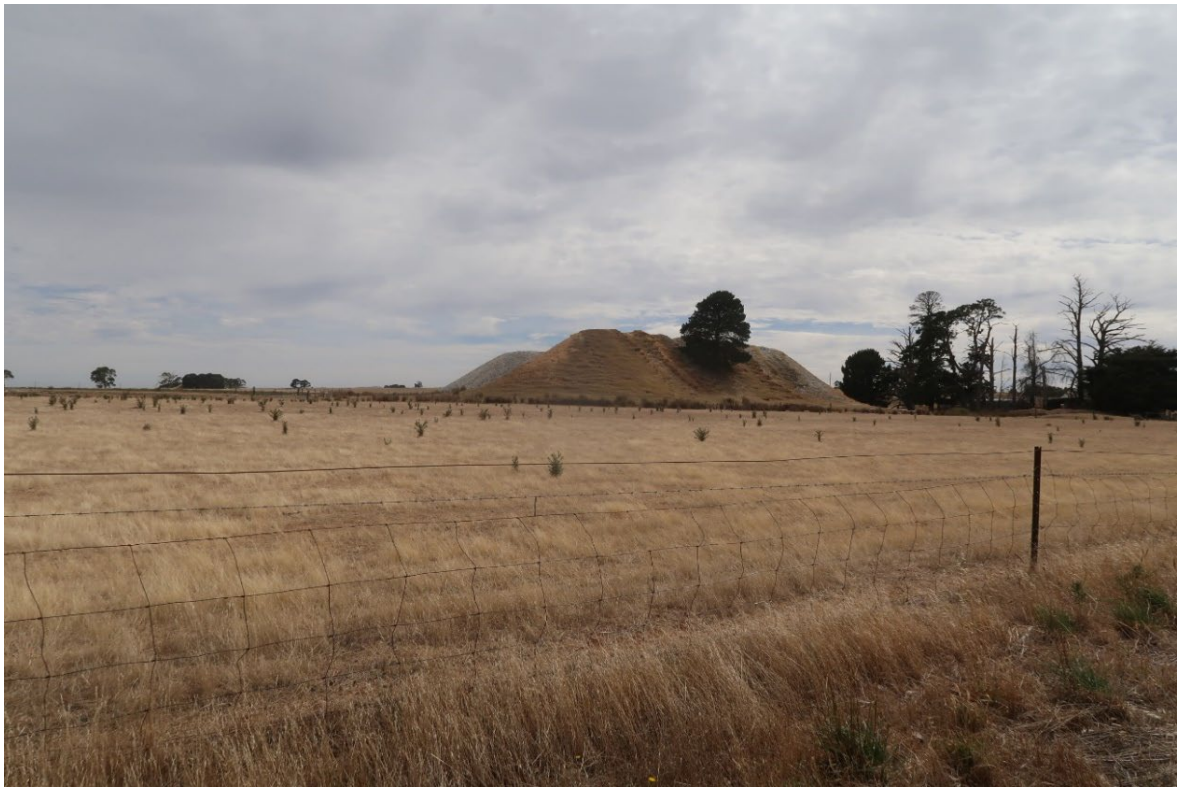

Figure 2 West Berry Consols No. 2 Mine viewed from West Berry Road west of Viewpoint 3
Source: Lovell Chen, 2025

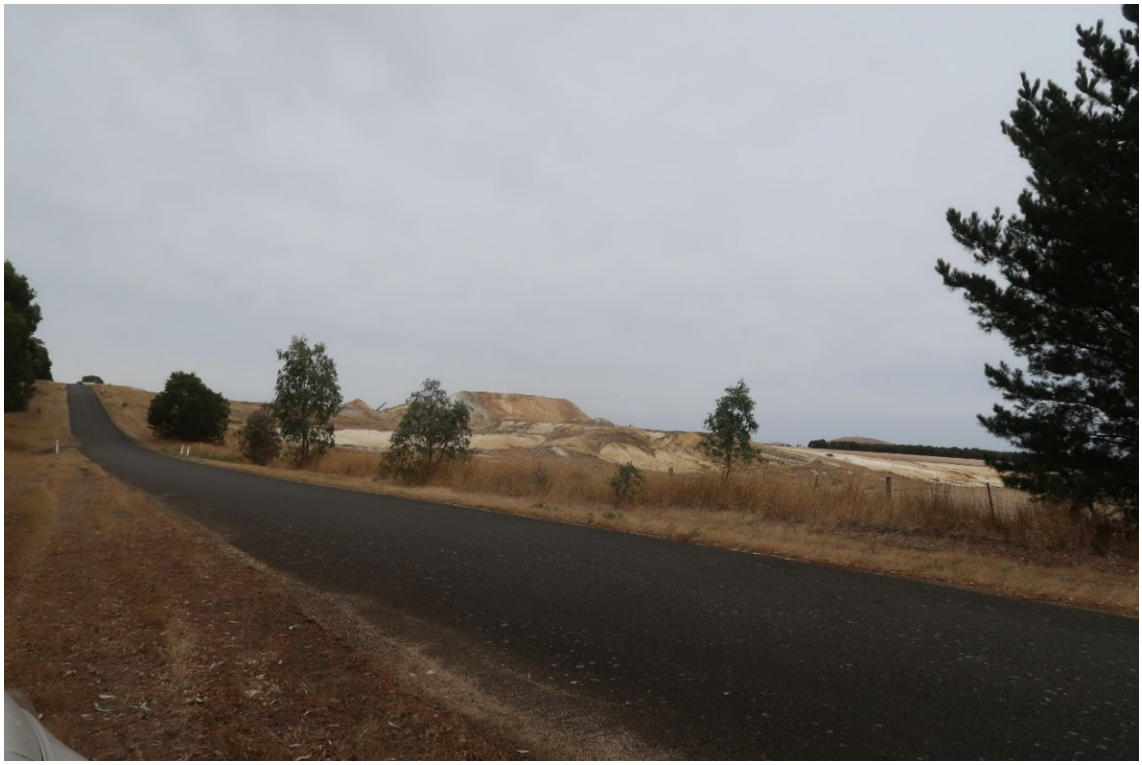

Figure 3 View looking south-west towards the Madame Berry West 1 Mine from Creswick Lawrence Road, north of Viewpoint 3
Source: Lovell Chen, 2025

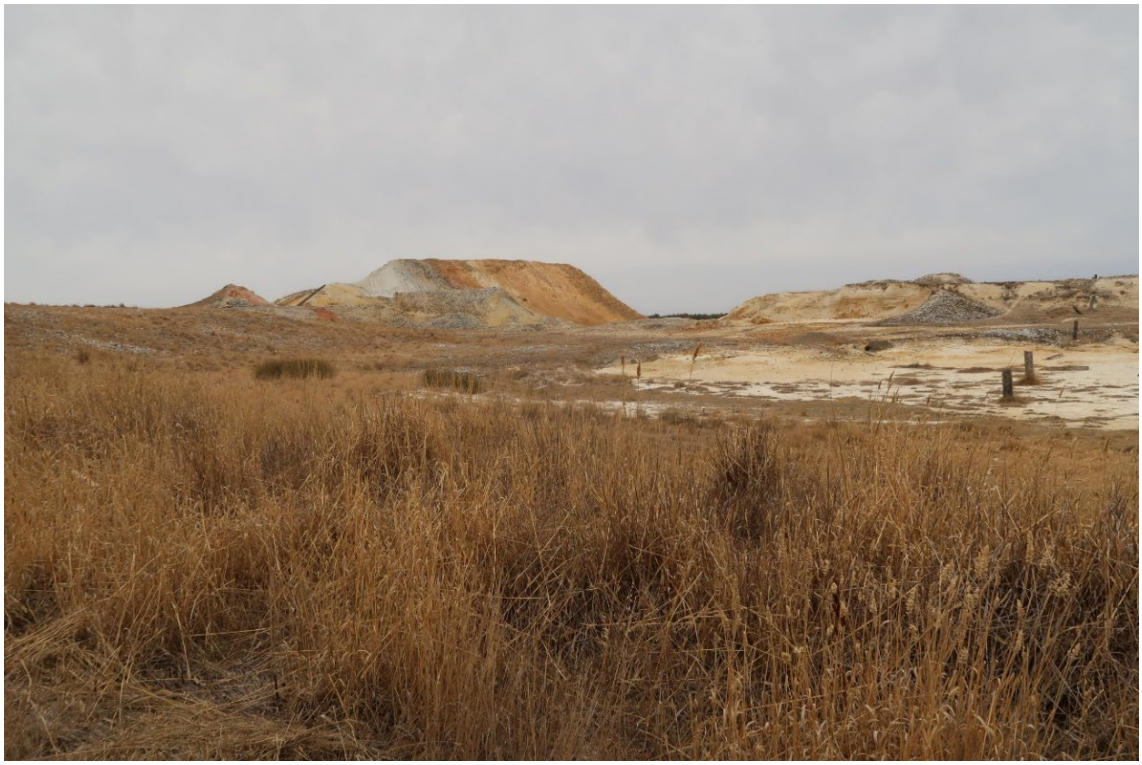

Figure 4 Closer view of the Madame Berry West No. 1 Mine
Source: Lovell Chen, 2025

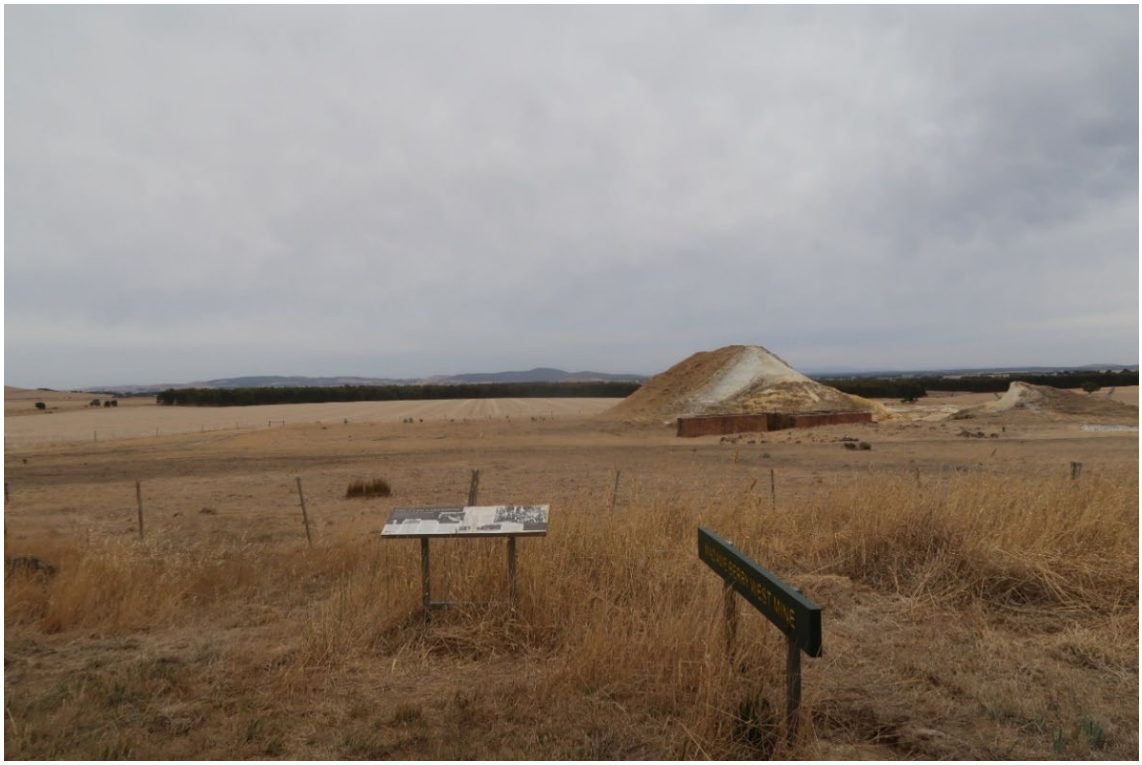

Figure 5 Another view of the Madame Berry West No. 1 Mine site, including site interpretation
Source: Lovell Chen, 2025

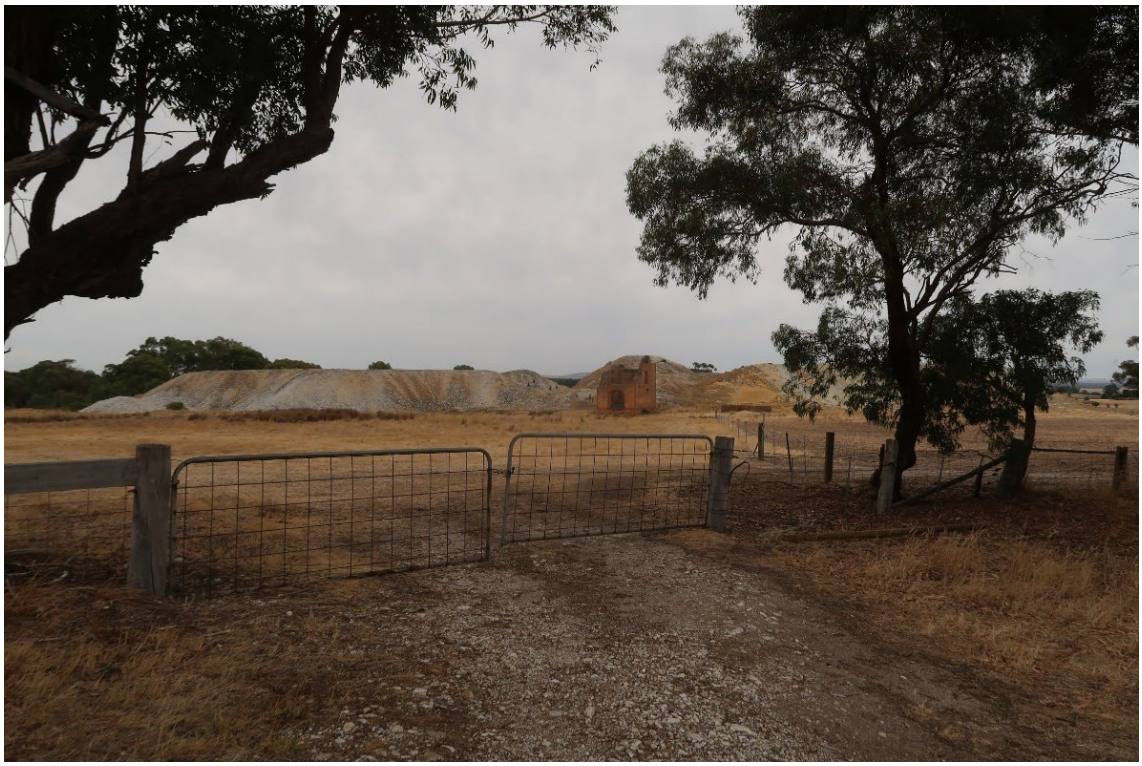

Figure 6 View into the Berry No. 1 Deep Lead Mine site from Daylesford Clunes Road south-west of Viewpoint 4
Source: Lovell Chen, 2025

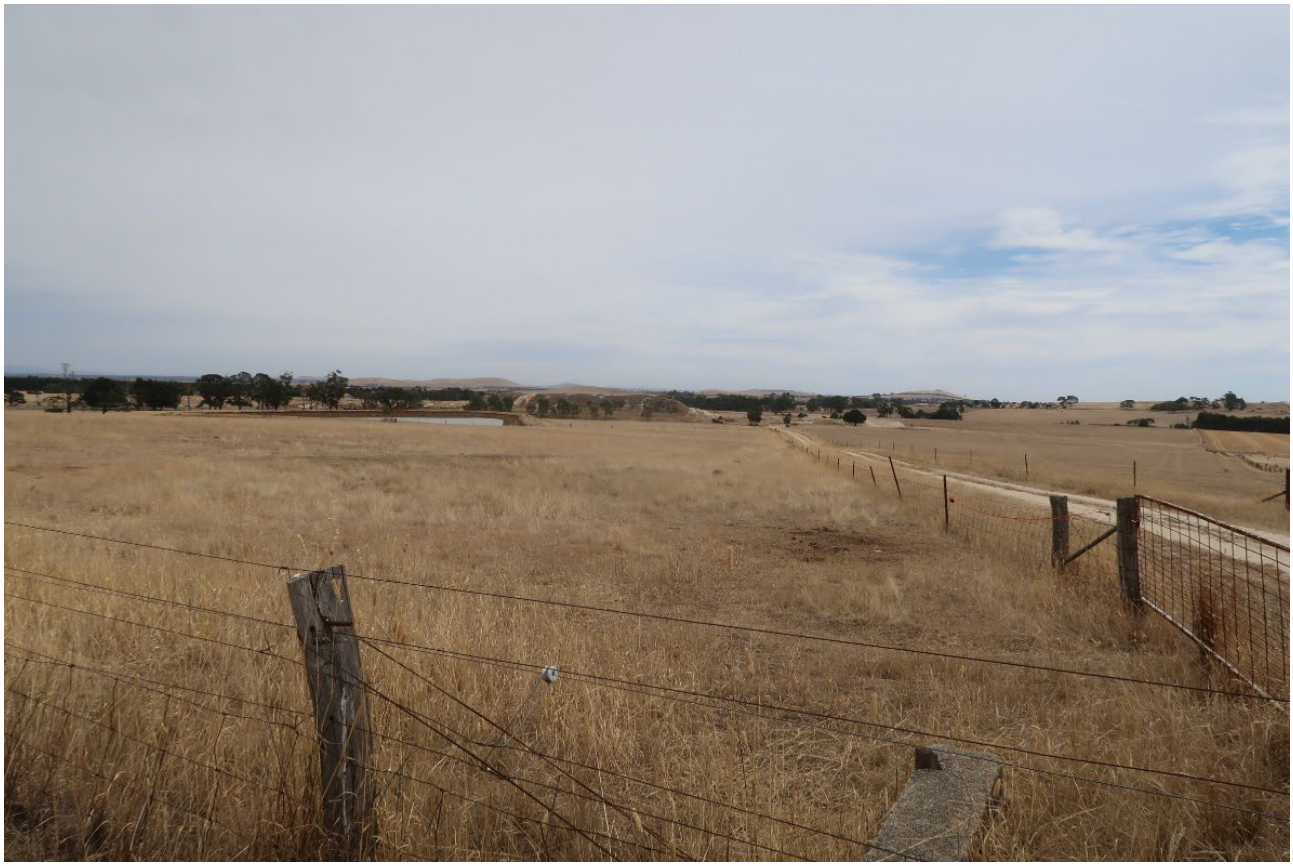

Figure 7 View from Beaconsfield Road opposite Viewpoint 6 looking north toward Berry Consols No. 1 Mine
Source: Lovell Chen, 2025

Summary conclusion on impact assessment

The impact assessment in Appendix B includes a Conclusion at Section 4.5.

The conclusions drawn there are considered to be soundly based and reasonable and have been reached based on an appropriate methodology.

In terms of the visual impact assessment, as indicated above, it would be possible to nominate additional or alternative viewpoints and the Project may be shown to be more or less prominent in such views. This reflects the visually open nature of the landscape and the wide variety of available viewing points. My view is, however, that the viewpoints selected are appropriate to the assessment and additional analysis is unlikely to result in a material change to the conclusions in relation to the visual presence of the Project and the potential for an adverse impact on its significance as a cultural landscape.

In its conclusions in relation to visual impacts, Appendix B notes that the significance of Berry Deep Leads Mining Landscape is as an evolved cultural landscape. This is a living rather than a static landscape, actively farmed, occupied and evolving, where change is ongoing. As is commented in the Appendix B, this is in contrast with other landscapes which reflect a particular historical period and condition and which may have less capacity to accommodate change.

It is clear that of the historical layers that are present and demonstrated, the critical one and the reason for the identification of the Berry Deep Leads Mining Landscape as a landscape of heritage significance, is the history of deep lead mining - as is indicated in the Tentative List documentation for the WHL nomination for the Victorian Goldfields. In this regard, even with the visual presence of the Project the ability to appreciate the relict mining sites, their

characteristic/recognisable forms and distribution across the landscape, and their relationship with the volcanic geomorphology will all be maintained.

There will be a visual impact and views within the landscape - including the mining sites - will be affected by the Project infrastructure, but not in a manner that would prevent an understanding of the identified values.

It should also be recognised that there are other critical aspects of significance related to deep lead mining as expressed in the statement of significance that would not be affected by the Project. Assuming the mitigation measures nominated, these would include the archaeological significance (under Criterion C) and technical significance (Criterion F), both of which derive from the physical fabric and historical documentation for the individual mine sites. The historical significance of the Berry Deep Lead system mines, regardless of whether they are considered individually or collectively, would also be unaffected.

The following are excerpts from the WHL Tentative Listing documentation:

- Deep lead mining is marked by mullock heaps and tailings piles that punctuate a flat and expansive landscape overlooked by ancient volcanoes. Solitary remnants of steam-pumping engine houses stand beside deep shafts.
- In some parts, Australia's most recent volcanism produced a distinctive new topography of flat lava fields that buried ancient 'rivers of gold' – the 'deep leads'.
- Technological mining progress is evidenced by widespread shallow alluvial 'diggings' and hard rock open cuts such as at Castlemaine, through 'deep-sinking' in Creswick's 'deep leads', to the deep reefs of Bendigo, Maldon, and Walhalla. The 1870s marked an engineering milestone in the greatest concentration of deep mine shafts in the southern hemisphere, in fact, at Bendigo, the deepest of any gold mines, worldwide.
- A rare and unparalleled system of ancient alluvial deposits buried by basalt lava flows ('deep leads') is marked in the open agricultural landscape by ruins of massive beam-pumping engine houses and their attendant geological triptych of waste heaps, such as north of Creswick.

While it would be a major new presence, the Project would not adversely impact on an understanding of these attributes (as evident in the Barry Deep Leads landscape) as evidence of deep lead mining.

Evidence of other layers of occupation of the landscape will equally remain legible, including evidence of the subdivision layout and agriculture and grazing. The impact assessment notes that the Project is aligned with historic boundary lines, being the road reserves of the Three Chain Road and Kingston Road, thus maintaining 'the visual order of the landscape.'[22]

4.0 Conclusion

In summary, the conclusions of the Peer Review are as follows:

- Technical Report C adequately addresses the EES Scoping Requirements and all relevant legislation, standards and guidelines
- The report demonstrates that the relevant evaluation objective in the EES Scoping Requirements (Avoid, or minimise where avoidance is not possible, adverse effects on Aboriginal cultural heritage and historic heritage values) can be met.
- The proposed historic heritage EPRs are suitable to avoid, mitigate and manage residual effects on heritage places.

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APPENDIX A

Comment on Assessment Against Criteria

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COMMENT ON ASSESSMENT AGAINST CRITERIA

The following table includes brief comments on the assessment against the Heritage Council of Victoria criteria at Section 2.5 in Appendix B.

Criterion	Technical Report C, Appendix B assessment Criterion met at a state level?	Peer review comment
Criterion A IMPORTANCE TO THE COURSE, OR PATTERN OF VICTORIA'S CULTURAL HISTORY	Yes The pattern of lots and subdivision across the Berry Deep Leads Mining Landscape is not in itself significant at state level, as the pattern of similar processes of the subdivision of squatting leases into agricultural lots is prevalent throughout the state. However, when combined with the geological landscape, relict mine sites and farming infrastructure, the remnant elements of the township of Allendale, and the former Creswick to Daylesford Railway, the pattern and process of land subdivision provides an important on-ground framework and context through which to understand the evolution of land use in the Berry Deep Leads Mining Landscape from the end of the squatting period to the present. Alone, the framework of lots in the landscape is only significant at a local level for demonstrating the how the subdivision of land was enacted in this region. However, in the context of framing the other contributing elements in the landscape and in conjunction with these elements, combined with the open nature of the landscape, the Berry Deep Leads Mining Landscape provides a clear illustration of the sweep of Victoria's history in a single glance, and can be considered to be of state significance.	This criterion is concerned with the relationship of a place to an event, phase, period, process, function movement or way of life of historical importance. The assessment response to this criterion focusses on the pattern of land subdivision, with some reference to other elements and phases, leading to a broad claim that the place clearly illustrates 'the sweep of Victoria's history in a single glance'. Mining is referenced in the response to Criterion A but only briefly; this is surprising given a fundamental basis for the identification of the cultural landscape is its mining history and the presence of relict mining sites. An alternative response to historical significance might reflect on the association with and ability to demonstrate a particular phase of mining (deep lead mining) of importance to Victoria's goldmining history, and this association is given further meaning and value by the way the evolved landscape also reflects on the longer history of the land and its characteristics (especially geological and geomorphological). These are all aspects of significance that are referenced elsewhere in the assessment of significance but not under Criterion A.
Criterion B POSSESSION OF UNCOMMON, RARE OR ENDANGERED ASPECTS OF VICTORIA'S CULTURAL HISTORY	Yes The Berry Deep Leads Mining Landscape is significant at a state level for being a landscape that has the rare ability to provide a clearly discernible visual record of all stages of the landscape's history from	The basis for rarity (the place is rare in terms of its ability to provide a visual record of all stages of its history) is very specific and the descriptive text seems more relevant to Criterion A.

Criterion	Technical Report C, Appendix B assessment Criterion met at a state level?	Peer review comment
	geological time to the present. As such it provides a valuable complementary narrative to that provided by other gold related sites and landscapes in Victoria, each of which represent different phases and approaches associated with each period, and to the specific geomorphic conditions that determined the mining techniques that were required to extract and process the gold. Additionally, the nature of the geomorphic conditions relates directly to the presence of the productive volcanic soils which have influenced the presence of grazing and agriculture. The landscape also has the ability to illustrate its own evolution from its volcanic geological past through various phases of Indigenous and non-Indigenous human occupation in Victoria, including gold mining and agriculture, to the present. The open nature of the landscape facilitates views through and allows a clear reading of all of the aspects that contribute to its understanding as a cultural landscape. As such the Berry Deep Leads Mining Landscape can be read as a complete and cohesive whole. The landscape is set amongst a series of volcanic cones whose volcanic activity caused the ancient gold bearing riverbeds to be buried and conserved below the ground surface. It was these specific geomorphic conditions that created the deep leads of the 'rivers of gold' and shaped the mining responses required to extract and process the gold. This is unlike other mining sites or landscapes in Victoria. The form of the subdivision of the land in the Berry Deep Leads Mining Landscape is clearly apparent in the landscape through the discernible layout of the area's roads, fence lines and wind breaks. The	The response suggests that the place provides in microcosm an illustration of evolution and changes land use from Indigenous occupation to the present in regional Victoria which is not like any other. However, the concept of the 'rarity' of landscapes that can illustrate an evolution of land use over time is not well established. There would be many landscapes/places/precincts (both related to mining and other aspects of the state's history) that can illustrate their own evolution over time. This criterion (rarity) may be more relevant to the association with deep lead mining.

Criterion	Technical Report C, Appendix B assessment Criterion met at a state level?	Peer review comment
	subsequent uptake of the land for agriculture illustrates the evolution of land use following the decline of gold mining in Victoria. The volcanic history and the subsequent productive soils also influence the presence of grazing and agriculture in the landscape. As a landscape the Berry Deep Leads provides in microcosm an illustration of the evolution of land use from Indigenous occupation to the present in regional Victoria, which is not like any other.	
Criterion C POTENTIAL TO YIELD INFORMATION THAT WILL CONTRIBUTE TO AN UNDERSTANDING OF VICTORIA'S CULTURAL HISTORY	Yes The Berry Deep Leads Mining Landscape is richly populated by an extraordinary number of mine sites in a relatively compact area that are included in the Victorian Heritage Inventory. Individually each site is of archaeological significance for its ability to yield artefacts and evidence which will be able to provide significant information about the technological history of gold mining in Victoria. Collectively, the potential that these mines sites have to provide detailed information regarding the development and execution of mining practices related to the highly sophisticated methods of later deep lead mining at a state level is rare.	This criterion is frequently applied to archaeological sites or other places where evidence may be concealed. The Appendix B response references the concentration of VHI (and VHR) – listed archaeological sites related to gold mining as rare in a state context and then specifically references the potential for the sites within the defined landscape collectively to provide important information on deep lead mining practices. The historical and archaeological values of the site are already recognised individually in the VHR/VHI, in many cases based on earlier historical assessments and heritage surveys. Given the common/interlinked history and attributes of the mining sites across this area, they clearly collectively form an archaeological research resource of significance.
Criterion D IMPORTANCE IN DEMONSTRATING THE PRINCIPAL CHARACTERISTICS OF A CLASS OF CULTURAL PLACES AND OBJECTS	Yes The Berry Deep Leads Mining Landscape can clearly demonstrate the phases of human occupation and use from the pre-European settlement through grazing, the subdivision and sale of land in the mid-19th century, gold mining, and most recently, agriculture. The natural condition of the	Criterion D is concerned with the concept of 'representativeness' and the ability of a place to demonstrate the characteristics of a class of place or 'place type'. It is applied here to a cultural landscape that is significant for its evolved and evolving nature and its ability to demonstrate multiple historical phases and

Criterion	Technical Report C, Appendix B assessment Criterion met at a state level?	Peer review comment
	land is defined by the undulating nature of the landscape, the creeks and the volcanic cones. The impact of squatting and grazing is less evident, but the subdivision of the land of the squatting runs, mining, and agriculture are now the dominant themes visible in the landscape. The presence of gold mining activity is apparent through the remnant tailings and mullock heaps associated with the various mines that operated here, some of which also include remnant structures associated with mining. Also apparent in this landscape is the demonstration of Victorian Colonial Government processes that followed the 1847 Orders in Council, which saw, across the Colony, the process of subdividing and selling off lots of land that had until then been parts of the vast and informal squatting runs. There is often the misconception that the Orders in Council provided a mechanism for squatters to acquire security of tenure of the vast tracts of land they occupied by allowing them to formalise leases on the land they occupied, and the provision of pre-emptive rights to further lease or purchase a portion of a run reinforces this notion. However, while the Orders in Council gave this impression, the reality was that land not covered by a pre-emptive right could be sold or reserved for public use by the Government if it was not under lease. As noted in the history in this assessment, rather than the lots in this area going directly to other grazing or agricultural land holdings, they were bought by mining speculators and subsequently leased to other mining interests. The location of the mines, although subject to their proximity to access to the deep leads, are also largely dictated by the lots that the mining companies leased, and as such the location	themes. It is not clear whether this is consistent with the concept of a defined 'class of cultural places and objects' and Criterion A (historical significance) may be more relevant.

Criterion	Technical Report C, Appendix B assessment Criterion met at a state level?	Peer review comment
	of the mines were also determined by the subdivision of the land. Following the dissolution of the mines and the resale of these lots back to grazing and agriculture, the pattern of organisation that these subdivisions overlaid on the landscape is now reflected by activities associated with agriculture, and by the formation of roads, windbreaks and fence lines. As such the 1850s process of subdivision also played an important part in creating the form and expression of the landscape as it appears today.	
Criterion E IMPORTANCE IN EXHIBITING PARTICULAR AESTHETIC CHARACTERISTICS	N/A	It is agreed that the landscape does not have outstanding aesthetic values, natural beauty, design features or picturesque views and vistas as might be contemplated under Criterion E
Criterion F IMPORTANCE IN DEMONSTRATING A HIGH DEGREE OF CREATIVE OR TECHNICAL ACHIEVEMENT AT A PARTICULAR PERIOD	Yes The Berry Deep Leads Mining Landscape is of state significance for its contribution to the development of deep lead mining practices in Victoria. The Berry Deep Leads Mining Landscape has the ability to demonstrate the sophisticated mechanised and industrial scale of gold mining systems and financing models of later phases of gold mining that occurred in the Colony of Victoria, in response to the demands that extracting gold from more deep and dangerous locations required. As the 19th century progressed from the early discoveries of gold in 1851, the accessibility of the available gold became harder to extract as the more easily obtained	The discussion in response to Criterion F around advances in mining practices and technological achievements in the deep lead mining of the Berry Deep Lead system is consistent with previous historical accounts and heritage assessments including those by Fahey and Bannear.[1] Relatively little information is provided on the way in which the place and its component parts in their modified condition are able to demonstrate these practices and achievements. The discussion under Integrity and intactness at section 2.6 of the report suggests that many of the mine sites 'have undergone dramatic change and have lost most if not all of their original fabric, which would otherwise

1 Charles Fahey, *The Berry Deep Lead: an Historical Assessment*, Historic Places Branch, Public Land Management and Forests Division, Department of Conservation, Forests and Land, 1986 and David Bannear, *Historic gold mining sites in the south west region of Victoria: Report on cultural heritage*, Department of Natural Resources & Environment, 1999

Criterion	Technical Report C, Appendix B assessment Criterion met at a state level?	Peer review comment
	deposits were exhausted. A range of practices and technologies were adopted from overseas or generated in the Colony, and developed to meet the increasingly specific demands of the Victorian Goldfields. Although much of the mining technology used in the Berry Deep Lead mines was not conceived there, the demands of the mines that required specialist tunnelling and excavation methods in the unstable washes, and the need for high-capacity dewatering methods, fostered the enlargement, improvement and refinement of mining and process associated with mining at depth. This in turn provided technical impetus to later mining endeavours in Victoria. The Berry Deep Leads mines can be seen as a valuable and important step in the evolution of mechanised and industrialised mining in the state.	demonstrate the operations of the places as later 19th century gold mines'. Regardless, there is no question that Criterion F is relevant when assessing the significance of the Berry Deep Lead System and associated mining sites.
Criterion G STRONG OR SPECIAL ASSOCIATION WITH A PARTICULAR PRESENT-DAY COMMUNITY OR CULTURAL GROUP FOR SOCIAL, CULTURAL OR SPIRITUAL REASONS	N/A	Agree this criterion is not relevant
Criterion H SPECIAL ASSOCIATION WITH THE LIFE OR WORKS OF A PERSON, OR GROUP OF PERSONS, OF IMPORTANCE IN VICTORIA'S HISTORY	N/A	Agree this criterion is not relevant.

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