

# **Expert Witness Statement: Planning-related bushfire matters and bushfire matters**

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**Western Renewables Link Project Inquiry and Advisory  
Committee (IAC)**

**AusNet Transmission Group Pty Ltd (AusNet) new electricity  
transmission line proposal, the Western Renewables Link**

**Planning Scheme Amendment GC209 to the Northern  
Grampians, Pyrenees, Ballarat, Hepburn, Moorabool and Melton  
Planning Schemes.**

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**Emeritus Professor Michael Buxton  
Professor Alan March**

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## **Western Renewables Link Project Inquiry and Advisory Committee (IAC)**

### **AusNet Transmission Group Pty Ltd (AusNet) new electricity transmission line proposal, the Western Renewables Link**

#### **Expert Witness Statement**

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#### **Expert Witness Statement**

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#### **1. Introduction**

##### **1.1 Name and address**

1.1.1 Michael Buxton, 255 Macclesfield Rd, Macclesfield, Victoria, 3782.

##### **1.2 Expert's qualifications, experience and area of expertise**

1.2.1 B.A., Dip.Ed., B.Ed., Ph.D (Monash); Emeritus Professor Environment and Planning, RMIT University; Hon Fellow Planning Institute of Australia; Sir James Barrett Medal 2016 for services to planning, Town and Country Planning Association.

1.2.2 Between 1986-98 I held executive officer positions at Director level in the Victorian Ministry for Planning and Environment, Department of Natural Resources and Environment and the Environment Protection Authority. Responsibilities included developing cross sectoral state environmental planning policy and programs, environmental planning for all designated urban corridors, green wedge policy and planning, greenhouse policy, open space land purchase, contributions to metropolitan planning strategy and legislation and to national parks policy.

1.2.3 Between 1993-96, at a national level, I led the intergovernmental process developing a National Greenhouse Strategy as part of Australia's reporting obligations under the Climate Change Convention and was a member of the Australian delegation to the United Nations Commission for Sustainable Development. I was a member of the Intergovernmental Committee on Ecologically Sustainable Development, the key intergovernmental committee responsible for developing and implementing national policy and implementation strategies

on ecologically sustainable development and environmental policy and for providing opinions and advice to the Victorian government on ministerial council activities.

1.2.4 I have contributed to 20 major consulting projects on international and national projects for organisations such as The World Bank, AusAid, Asian Development Bank, the Mekong River Commission, the Australian Greenhouse Office, and Federal and State government agencies.

1.2.5 I was discipline leader, Planning and Environment program, RMIT University, 1998-2004, Professor Environment and Planning and Head RMIT University Peri-urban research program, 2006-18. I have published over 80 refereed journal articles, conference papers, books, book chapters, and monographs, and a large number of other conference papers and publications on planning and environmental matters. I have been Chief Investigator or a member of 20 major research projects and have undertaken an extensive body of research on peri-urban issues, urban form and intensification, and outer urban greenfield development. Peri-urban publications include 9 major research monographs, the book *The Future of the Fringe: the crisis in peri-urban planning* (CSIRO Press, 2020) and many journal articles, book chapters and conference papers.

1.2.6 In 2001-3, I was chairperson Premier's Green Wedge Working Party which advised the Victorian government on the introduction of a legislated urban growth boundary and revised green wedge zones for Melbourne's green belt and contributed to the development of policy on the urban growth boundary and green wedge protection in the metropolitan strategy, Melbourne 2030; between 2003-8, I was a member of the Melbourne 2030 Implementation Reference Group.

1.2.7 Between 1978-84, I was a member of the Upper Yarra Valley and Dandenong Ranges Authority and assisted the development of a regional strategy plan for the Upper Yarra and Dandenong Ranges region. Between 1972-84, as a local government mayor and councillor, I led projects which developed new municipal planning schemes and other statutory and strategic responses for the Dandenong Ranges.

1.2.8 In 2010 I was a member of an expert panel which contributed to Vol 2, chapter 6, Planning and Building of the 2009 Bushfire Royal Commission final report on relating land use to fire risk. In 2020, I was a member of the expert advisory group to the Auditor General's Office in the preparation of an audit on Reducing Bushfire Risk. My peri-urban research has included detailed examinations of the bushfire risk to small lots and developments, international comparisons of the risk to life and property from land use and development, and analyses of fire behaviour, funded by research grants and published in reports and refereed and other publications.

### **1.3 Name and address**

1.3.1 Alan March, 11 Kerferd Street, Hampton, Victoria, 3188

### **1.3 Expert's qualifications, experience and area of expertise**

1.3.1 BA (dist.) Urban and Regional Planning; Master of Town and Country Planning; PhD (Urban Planning); Professor of Urban Planning and Disaster Risk Reduction.

1.3.2 I am Professor of Urban Planning and Disaster Risk Reduction at the University of Melbourne. I completed my PhD in 2004, after holding a number of positions as an urban

planner in Western Australia, the United Kingdom, New South Wales, Northern Territory and Victoria since 1993. These roles have included work in private sector and government departments, including statutory, planning and urban design.

1.3.3 I have extensive research and publishing experience in the area of urban planning and disaster risk reduction. This has primarily been oriented to bushfire, urban planning and disaster risk reduction. My research outputs include three books, 63 refereed journal articles, and many reports, studies and conference presentations. Together, these amount to over 126 peer reviewed publications and additional opinions and reports.

1.3.4 I have led or participated in many research projects focused on urban planning and disaster risk reduction. These include being lead investigator of the Wildfire Information Exchange between Australia and South America, funded by the Department of Foreign Affairs and Trade, (2022-2024). I was Chief Investigator on the Australian Research Council Project Mainstreaming Climate Change Actions in the Built Environment (2020-2024), and led the national project Integrating Urban Planning and Disaster Risk Reduction funded by the Bushfire Natural Hazard CRC (2017-2021). I led the research project Improving Building Codes for Resilience funded by Resilience NSW /CRC Bushfire Natural Hazards (2019-2020), and I was Chief Investigator for the ARC Linkage project Reducing Bushfire Risks run jointly with Vic Police and Crimestoppers. I was Lead Investigator of the Bushfire Suitability Indices funded federally by the National Disaster Research Grant (2014-2016). I was joint chief investigator for development of the Bushfire Planning and Design Qualification funded by Building Commission and DPCD, delivered since 2013 in response to the lessons learned after the 2009 Victorian Bushfires. This is an independently accredited qualification for bushfire planning and design practitioners. I was Chief Investigator in partnership with the Country Fire Authority of the project Benefits of the Wildfire Management Overlay after the 2009 Victorian fires, which contributed to the development of the current Bushfire Management Overlay.

1.3.5 I have provided key advice and opinion relating to urban planning and natural hazards. These include being the lead submitter on Urban Planning to the 2020 Royal Commission into National Natural Disaster Arrangements. I am the lead author of the Australian Institute of Disaster Resilience Handbook: Land Use Planning for Disaster Resilient Communities (2020). I was the chair of the National Planning Institute of Australia, submission to the Australian Government post 2009 Bushfires 2010. I am an adjunct researcher with the Swiss Global Risk Forum based in Davos. In 2016 I was awarded Planner of the Year by Victorian Planning Institute of Australia for my work on natural hazard resilience, followed by a Commendation for the Planner of the Year award at the National Level. I was awarded the PIA Cutting Edge Research Award in 2013.

1.3.6 Between January 2015 and December 2016 I was Director of the Bachelor of Environments at The University of Melbourne, which included ten disciplines and approximately 3000 students. From January 2017 to December 2019 I established and then was Foundation Director of the Bachelor of Design, which included approximately 3,500 students and 12 disciplines relating to the built environment, superseding the Bachelor of Environments.

1.3.7 Amongst other subjects I teach Master level students Statutory Planning and Planning Law, Bushfire Urban Planning, and Building Resilient Settlements. Between 2004 and 2013 I taught Risk Based Land Use Planning twice-yearly for Emergency Management Australia. I wrote the updated version of their handbook published in 2020 Land Use Planning for Disaster Resilient Communities.

#### **1.4 Instructions that define the scope of the opinion**

We have been engaged by Moorabool Shire Council and have been instructed by Guthrie Legal in this matter. Our broad instructions are to review the EES Materials relating to the Western Renewables Link Inquiry and Advisory Committee Environment Effects Statement & Draft Amendment GC209 insofar as they relate to planning related bushfire matters and bushfire matters. Our detailed instructions are included at Appendix 3. This opinion is based on the instructions that define the scope. We have relied on the contents of the documents provided. We believe this opinion to be complete and accurate

#### **1.5 Site inspection**

An inspection of relevant sites within of the study area in the jurisdiction of Moorabool Shire occurred on 12 October 2025 by Prof Buxton and Prof March. This was supplemented by reference to relevant documents (such as those listed below), aerial photography and other key documents referred to in the body of this opinion.

#### **1.6 Documents relied on**

The key documents relied upon include those made available as part of the Environment Effects Statement (EES).

To understand the context and general intentions of the proposed project we considered: Chapters 1-6 on Introduction, Project rationale, Legislative framework and approval requirements, EES assessment framework and approach, Project development and Project description.

In particular, the following were relied upon to prepare this current opinion.

- a. Chapter 13 Bushfire;
- b. Technical Report K Bushfire Impact Assessment;
- c. A Bushfire Peer Review by Fire Risk Consultants dated June 2025;
- d. Program Change Advice in relation to Bushfire; e. Chapter 28 Climate change;
- f. Technical Report N Climate Change Assessment;
- g. Attachment I: Project Development and assessment of alternatives. This includes Appendix B Darley Partial Undergrounding Environmental Impact Assessment;
- h. Attachment II: Assessment of feasibility for an underground 500kV transmission line for Western Renewables Link.
- i. Chapter 12 Land use and Planning;
- j. Technical Report E Land Use and Planning Impact Assessment;
- k. Attachment III Draft Planning Scheme Amendment.

Reference was also made to the Planning and Environment Act (1987) and the Moorabool Planning Scheme including amendment VC283 (acknowledging the most recent amendment at time of writing was VC289).

Some other documents are referred to in the text as relevant to specific aspects of the opinion.

## **1.7 Summary**

1.7.1 We have prepared expert opinion on Planning Scheme Amendment GC209 to the Northern Grampians, Pyrenees, Ballarat, Hepburn, Moorabool and Melton Planning Schemes in accordance with instructions included in the body of this opinion. We have addressed issues in accordance with instructions. The opinion is structured in a manner designed to answer the questions in the instructions. It examines the adequacy of the methodology used in the Technical Reports particularly the approach taken on bushfire impact assessment, including ignition risk and consequence, and whether bushfire impacts have been acceptably addressed. It examines planning and environmental matters related to the project including the incorporated document and whether the project assessment of alternatives adequately considered bushfire risk, settlement and climate change. The expert opinion examined the adequacy of the Environmental Performance Requirements proposed in Technical Report K, the potential impacts of the project on relevant access and egress issues, the potential impacts of the proposal on fire suppression and the significance of partial undergrounding of the project. Finally, it assessed the significance and acceptability of the Project with respect to bushfire impacts.

1.7.2 In summary, our expert opinion is that bushfire impacts are not adequately considered in the following ways:

- The methods used have shortcomings related to an emphasis on impacts and likelihood, rather than full risk assessment. This means that bushfire risks are not adequately accounted for and mitigated (treated);
- The methods do not adequately consider possible bushfire event scenarios, consequences, and vulnerability of humans and their settlements;
- The possibility of high consequence, low likelihood events is not addressed fully;
- The ongoing growth and change of settlements are not taken into account; and
- Impacts upon access, ingress and suppression are inadequately dealt with.

## **2.0 Bushfire Impact Assessment: Methodology and Approach Taken**

2.1 Risk Framework used to Assess the EES Methodology and Approach.

2.1.1 Built environment risks are complex and multi-faceted. The introduction of, and investment in, a large-scale infrastructure project such as the Western Renewables Link would add additional layers of complexity into an already complex bushfire risk landscape. Accordingly, it is appropriate to assess the methods used by first establishing fundamental principles.

2.1.2 In our opinion, the way the EES assesses impacts and risk is flawed. The Ministerial Guidelines for Assessment of Environmental Effects under the Environment Effects Act 1978

(Ed. 8 2023), states: "A risk-based approach should be adopted in the assessment of environmental effects. Suitably intensive methods should be applied to accurately assess matters that pose relatively high risk of significant adverse effects and to guide the design of strategies to manage those risks." (p. 9). Due to the methods used, the EES as it relates to bushfire, has not fully considered these risks in its assessment of impacts. We present below a description of key concepts that will subsequently be used to consider the approach taken and the conclusions reached by the EES. Accordingly, in this opinion, we will use the term Risk Assessment to mean a *full* risk assessment, in contrast to the proponent's tendency to assess Impacts on the basis of likelihood, which we contend to be valuable, but incomplete in this context. We use the term *risk treatment* or *treatment* to mean the proposed actions taken to *mitigate* risk.

2.1.3 Risk assessment requires the deployment and application of key concepts that have complex inter-relations, particularly in matters concerning built and natural environment settings. In simple terms, risk is the likelihood of an event occurring which leads to undesirable consequences. Risk is a result of the potential for exposure to hazards, taking into account the consequences of that exposure. A hazard is a potentially harmful substance, event or circumstance, including bushfire and related impacts (Ingles, 1991, IPCC, 2023). The AS ISO 31000:2018 Risk management - Guidelines define risk as "the effect of uncertainty on objectives". This then requires establishment of objectives regarding risks, assessment and treatment of those risks and decisions regarding the suitability of the treatment chosen.

2.1.4 The two factors, likelihood and consequence, can be divided into further components: *likelihood* of the probability of ignition from various sources, in combination with surrounding circumstances associated with ignition, and prevention or mitigation through land use planning and other techniques; and the *consequences* from exposure. Exposure is defined as the "elements within a given area that have been, or could be, subject to the impact of a particular hazard". These elements might be assets such as infrastructure, livestock dwellings and indeed humans and the things they value. Resilience is also an important concept here: 'the ability of a system, community or society exposed to hazards to resist, absorb, accommodate, adapt to, transform and recover from the effects of a hazard in a timely and efficient manner, including through the preservation and restoration of its essential basic structures and functions through risk management' (UNDRR 2017).

2.1.5 A useful primer depiction of risk in a graphic form is provided below.

$$\text{Risk} = \frac{\text{Likelihood} \times \text{Consequence}}{\text{Resilience}}$$

Source: Authors' adaption from UNDRR (2017)

2.1.6 This graphic above, while simple, illustrates the interconnections between key concepts. For example, if the likelihood of a hazardous event such as a bushfire increases, risk is higher. If the consequences of that event are more serious, risk increases. If the resilience of a system or exposed elements such as humans or the systems they rely on is higher, risk decreases. Conversely, lower resilience (including increased vulnerability) leads to higher risks.

2.1.7 Vulnerability is defined by the United Nations: Disaster Risk Reduction as “The conditions determined by physical, social, economic and environmental factors or processes which increase the susceptibility of an individual, a community, assets or systems to the impacts of hazards. This is an important aspect of risk because higher vulnerabilities significantly increase risks”.

2.1.8 Uncertainty analysis extends beyond risk assessment to situations where the nature of future possible events may not be known with the result that probabilities cannot be assigned to their outcomes (Peterson 2006, Gullett, 2000). Planning for uncertainty should involve anticipatory planning for risk from factors such as climate change at the upper levels of scenarios, a precautionary approach to decision making to reduce the likelihood of catastrophic impacts from bushfires.

2.1.9 The Australian Institute for Disaster Resilience under the auspices of the Commonwealth of Australia’s Department of Home Affairs and the revised *National Emergency Risk Assessment Guidelines 2021* (NERAG) establishes processes for assessing and treating risks, including the concepts underlying decisions. These align broadly with ISO 31000:2018. NERAG sets out many fundamental approaches such as those shown in its tables below, likelihood levels and a risk matrix in Figure 1 below.

Table 10: Likelihood level

LIKELIHOOD	ANNUAL EXCEEDANCE PROBABILITY (AEP)	AVERAGE RECURRENCE INTERVAL (ARI) (INDICATIVE)	FREQUENCY (INDICATIVE)
Almost certain	63% per year or more	Less than 1 year	Once or more per year
Likely	10% to <63% per year	1 to <10 years	Once per 10 years
Unlikely	1% to <10% per year	10 to <100 years	Once per 100 years
Rare	0.1% to <1% per year	100 to <1000 years	Once per 1000 years
Very rare	0.01% to <0.1% per year	1000 to <10,000 years	Once per 10,000 years
Extremely rare	Less than 0.01% per year	10,000 years or more	Once per 100,000 years

Table 11: Qualitative risk matrix

LIKELIHOOD	CONSEQUENCE LEVEL				
	INSIGNIFICANT	MINOR	MODERATE	MAJOR	CATASTROPHIC
ALMOST CERTAIN	Medium	Medium	High	Extreme	Extreme
LIKELY	Low	Medium	High	Extreme	Extreme
UNLIKELY	Low	Low	Medium	High	Extreme
RARE	Very low	Low	Medium	High	High
VERY RARE	Very low	Very low	Low	Medium	High
EXTREMELY RARE	Very low	Very low	Low	Medium	High

Figure 1: *National Emergency Risk Assessment Guidelines* in 2021 Likelihood and Risk Matrix

Source: National Emergency Risk Assessment Guidelines (2021) p. 40.

2.1.10 The Australian Institute for Disaster Resilience published in 2021 *Systemic Disaster Risk* (2021). This establishes more inclusive approaches to risk assessment and treatment that deal with complexity and the inter-connections between multiple systems (pp. 7-16,30-37) including dynamic change and (pp. xi-xiii).

2.1.11 The Australian Institute for Disaster Resilience published *Land Use Planning for Disaster Resilient Communities* in 2020. This handbook establishes principles for urban planning and “recognises and works within the context of a range of complex interacting factors and pressures that can influence the resilience of communities” (p. 7). It also establishes core principles (summarised on its pages 9 and 10) including:

- Prioritise life and relief of suffering;
- Recognise that some land may be unsuitable for certain activities or development;
- Consider cumulative impacts of changes in development and demographics;
- Consider natural hazards early in and throughout land use planning processes;
- Use the full range of risk treatment mechanism options prioritising avoiding risks.

2.1.12 Technical Report E: Land Use and Planning Impact Assessment used a risk screening process to identify key risks to be assessed, then identified and measured potential project impacts by rating their significance from negligible, minor, moderate, major to severe according to the likely extent, magnitude and duration of changes to land use, access and amenity. Mitigation measures according to a hierarchy of ‘avoid minimise, manage, rehabilitate and offset’ contributed to the development of Environmental Performance Requirements (EPRs) which specified environmental outcomes. Cumulative impacts were also considered. Report E considered the land use planning policy framework. Potential risks included: changes in land use; disruption of access and egress; amenity impacts; and potential inconsistencies with policy.

2.1.13 In Section 6.0 of the EES Technical Report E: Land Use and Planning Impact Assessment, (starting p. 75) a description of existing conditions identified current and planned land uses which informed assessment of impacts and risk. These included land use categories (agriculture; residential; industry, mining, aviation and infrastructure; the natural environment), land tenure, titles, planning permits, proposed planning scheme amendments and land use provisions (such as policy and zones).

2.1.14 Technical Report K: Bushfire Impact Assessment addressed existing conditions related specifically to bushfire risk and, in addition to the methodology outlined for Technical Report E, identified five types of potential impact: on-site bushfire ignition (from tower failure, electrical induction); off-site bushfire ignition; impairment of fire suppression; fuel management; and limiting or blocking access and egress. Additional conditions to those in Technical Report E included a study area extending to a buffer area of 50 km from the easement centre, tower design, designation of land according to bushfire risk, bushfire hazards, fire history, bushfire risk scenarios, bushfire risk from transmission lines and landscape types. Potential impacts considered physical factors in the easement and buffer areas and were also related to the conditions specified in Technical Report E, for example, to the potential impacts upon residential and rural residential development from bushfires begun by transmission towers. The potential impacts of climate change to increasing risk were also considered by Technical Reports.

2.1.15 Technical Report K: Bushfire Impact Assessment sets out a summary of the Impact assessment method at section 5.6 starting from page 29, and dealt with in detail subsequently. Technical Report E: Land Use and Planning Impact Assessment sets out the methods used in Section 5, starting from page 66. It is our opinion after examining this Impact Assessment, that many of the fundamental approaches used in the EES fall short of being a reasonable risk assessment as would be expected in an EES, paying heed to the Ministerial Guidelines. Accordingly, actions set in place to deal with these risks (risk treatments or risk mitigation) are inadequate.

2.1.16 We consider that a more appropriate method would be to build up a full risk matrix (such as that summarised above in Figure 1) that takes account of the full range of dimensions of likelihood and consequences as the basis for decision making, consistent with the National Emergency Risk Assessment Guidelines (2021). This risk matrix would then be followed by an assessment of potential viable options, from which the most suitable risk mitigation option would be chosen.

2.1.17 The methodological shortcomings are summarised below. These are expanded upon in various parts of our expert opinion.

1. The dynamic change and growth that is likely to occur in the area has not been taken into account sufficiently, underestimating likely exposure and consequences of the bushfire hazard. This does not account sufficiently for systemic interconnected risks in the wider area.
2. There is use of likelihood in ways that are not then deployed as part of a complete risk assessment and treatment process. This does not follow the principles set out in National Emergency Risk Assessment Guidelines (2021), *National Emergency Risk Assessment Guidelines in 2021* (NERAG) or broadly with ISO 31000:2018.
3. Technical Report K proposes that the project presents a low impact because on-site ignition is highly unlikely or fire suppression is highly likely to be successful with the result that the level of residual impact is very low. This conclusion depends on the accuracy of the claim that on-site ignition is unlikely, and in our opinion, implies that as the likelihood of failure is very low, consequential impacts will likely not arise or be negligible. Technical reports provide a limited evaluation of consequential impacts particularly of potential impacts on settlements – what we would describe as risk.. In both the approach taken to the issue of on-site ignition and possible consequences of ignition, we believe therefore that the report does not include a full assessment of risk. The use of the Bushfire Management Overlay and Bushfire Prone Areas mapping has been used to determine risk beyond its intended purpose. This is explained more below.
4. The use of planning policy and lack of requirements for planning assessment under the Bushfire Management Overlay does not account properly for the correct amendment process required and intentions of planning policy in scheme amendments. Subsequently, the EPR included in the Incorporated Document does not include sufficient measures to manage risks.
5. The fire scenarios undertaken are only set out at a broad scale and do not investigate detailed and location-specific circumstances that are necessary to determine risk and the adequacy of treatments developed in terms of the settlements and people (pp. 65 – 67 and Appendix B of EES Technical Report K: Bushfire Impact Assessment).
6. The vulnerability or resilience of existing and likely future settlements, including the population itself, has not been accounted for. It is noteworthy that vulnerability and

resilience of the population will be highly variable according to location, spatial location and demographics.

7. The methods used to assess access, egress and fire suppression in EES Technical Report K: Bushfire Impact Assessment are not based on a full risk assessment. In particular, the risks of high consequence, low likelihood events are ignored (See Figure 1 above). This makes it difficult to understand what risks are actually faced in the medium to long term under a range of scenarios, particularly when paying heed to vulnerability, spatial variations in risk vulnerability and dynamic change and development.

## **2.2 Method: Inappropriate use of the Bushfire Management Overlay and Bushfire Prone Areas**

2.2.1 The Bushfire Prone Areas (BPA) and Bushfire Management Overlay (BMO) mapping has been used to determine risk beyond its correct purposes. The BPA is state-derived mapping that determines whether land is likely to be at risk of bushfire. The BMO mapping delineates areas that may be subject to extreme bushfires. While they do provide a broad starting point of likely fire intensity, these maps are established as a trigger for detailed subsequent assessment and response. These mapping starting points are then intended to be used as the basis for assessment in a specific location of the intensity and character of bushfire attack. Then, the adequacy of buildings, or planning permit applications in terms of bushfire impact are subsequently assessed according to building and or planning regulations. These maps are intended to provide the basis for taking actions via building treatment responses in AS3959:2018 and planning treatment responses via clause 44.06 Bushfire Management Overlay (and other related design clause such as 53.02 Bushfire Planning). Accordingly, in EES Technical Report K: Bushfire Impact Assessment - Appendix C. Landscape Type Analysis, the assessment used for route justification is questionable (from page 64). The Technical guide to planning permit applications within BMO areas (DELWP, 2017) is used as a categorisation of risk. Rather, this would more properly be described as a description of the hazard or of fire intensity, prior to undertaking a risk assessment based on testing of a scenario and any treatments used to reduce risks.

## **2.4 Method: Use of Planning Scheme Policies and Regulation**

2.4.1 The project is premised upon the assumption that to proceed, Amendment GC209 would preclude permits to be issued pursuant to the Planning and Environment Act (1987), as required under the various planning schemes that affect the project land. Further, it is stated correctly that:

“No permit is required pursuant to Clause 44.06 (BMO) under the Pyrenees, Ballarat, Hepburn, Moorabool and Melton Planning Schemes, and Schedule 1 to Clause 44.06 (BMO1) in the Moorabool Planning Scheme, for the Project. This reflects that:

- No subdivision is proposed to occur on land within the BMO
- Project components do not include any works or uses requiring a permit under Clause 44.06-2
- There are no applicable permit requirements under the BMO - Schedule 1 in the Moorabool Planning Scheme.” (EES Technical Report K: Bushfire Impact Assessment p.127)

2.4.2 This (above) appears to then be used to assume that no detailed bushfire related planning measures or EPR are required as part of Amendment GC209. This misinterprets the

use of policies in the planning scheme and the PPN46: Strategic assessment guidelines and Minister’s Direction No. 11 - Strategic Assessment of Amendments. These require evaluation and documentation of how an amendment addresses specified strategic considerations. The Practice Note and Ministerial Direction provide a framework for preparing and evaluating a proposed planning scheme amendment, broadening the considerations to be taken into account and possible responses. In particular, the EES downplays the importance of fundamental clauses that require consideration in an amendment of this type. (See next.)

2.4.3 Clause 71.02-3 Integrated decision making includes the following:

“... balance conflicting objectives in favour of net community benefit and sustainable development for the benefit of present and future generations. However, in bushfire affected areas, planning and responsible authorities must prioritise the protection of human life over all other policy considerations.” Clause 13.02-1S Bushfire Planning is applicable in this instance. Its Objective is: “To strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.” Under Strategies it states: “Give priority to the protection of human life by:

- Prioritising the protection of human life over all other policy considerations.
- ...
- Reducing the vulnerability of communities to bushfire through the consideration of bushfire *risk in decision making at all stages of the planning process.*” (Italics added)

2.4.4 Inappropriately minimising the importance of these clauses in the scheme amendment has led to the methods used failing to fully account for wider community impacts and required risk mitigation (or risk treatments) necessary to achieve the intent of the policy - to prioritise human life.

## **2.5 Method: Omission of Full Bushfire Impacts in Assessment**

2.5.1 EES Technical Report E: Land Use and Planning Impact Assessment sets out broad Impact Ratings at Table 5-1 Discipline Specific Impact Ratings for Land use and Planning. The derivation of these ratings is unclear. Further, following from the points made in 2.4 above, it would appear that the assessment incorrectly assumes that bushfire impacts are not relevant to these assessments.

## **3.0 Methodology and Approach Taken: Bushfire risk in terms of ignition and consequence**

3.1 Technical Report K states accurately the nature of the bushfire threat: “The project is located within a landscape that is prone to bushfire and where uncontrolled bushfire could lead to and has historically resulted in loss of life, damage to property, disruption to land uses and business activities and impacts on environmental and cultural values. Large bushfires (over 100,000 ha) have occurred in the regions surrounding the project. Smaller bushfires occur regularly”.

3.2 However, the report proposes that this threat is adequately addressed by the low likelihood of on-site ignition and by the minor consequences that would follow any transmission tower or line ignition. On-site ignition “is highly unlikely” (p 103) because controls “should minimise incidences of fire ignition” maximising the opportunity for ignition to be extinguished rather than escaping into the landscape. It concludes positively about risk from likelihood and consequence stating that “on-site ignitions are considered to

be very well controlled [likelihood], with the level of residual impact assessed to be very low (p 106) [consequence]. We consider that these assertions do not adequately address the risks associated with the project. The Technical Reports provide a limited evaluation of consequences particularly of potential risk to settlement and therefore is not a complete risk assessment.

3.3 We consider that the methodology leads to contestable conclusions about the likelihood of on-site ignition, during construction and ongoing operations. It does not adequately consider consequences from tower or transmission line ignition. Particular issues of concern include:

- the possibility of ignition from transmission towers, leading to doubt about the conclusions drawn in the Technical Reports about likelihood of bushfire ignition, particularly because extreme conditions and events might lead to equipment failure and ground to line transmission, and inhibit fire suppression. The potential impacts of on-site ignition suggest a higher rating of risk to life and property than the conclusions drawn in the reports, leading to non-compliance with clause 13.02-1S.
- the minimisation of the potential risk of bushfire to settlements outside the immediate easement, either within the 20-50 km radii or into landscapes beyond these radii because the methodology:
  - understated or ignored the potential impacts on scattered rural housing and rural-residential properties
  - understated the risk to residential development on the fringes of towns, to townships and to urban areas potentially affected by bushfire
    - ignored the potentially increased risk to human health and property from the risk to future development of the extensive number of existing rural lots in joint or separate ownership across landscapes
  - ignored the potential risk from further residential growth on the fringes of townships and the Melbourne metropolitan area.
  - understated the potential for transmission tower failure to significantly inhibit egress, leading to an increased risk to life than the conclusions drawn in the reports.
    - understated the potential impact for climate change to exacerbate fire intensity and extent leading to difficulties in predicting the impacts particularly of extreme events and assigning probabilities to consequences.
  - underestimated the difficulties from uncertainty in anticipating future risk suggesting the need for a precautionary approach to planning and project construction.
  - underestimated the risks associated with construction and the occupation and use of the Ballan Laydown and Workforce Accommodation facilities with regard to malicious fires.
  - used an overly simplistic and linear approach to risk that ignores current best practice encompassing complex and systemic risks, such as that set out in the Australian Institute for Disaster Resilience's Handbook the *Systemic Disaster Risk* (2021) or the AS ISO 31000:2018 Risk Management Guidelines – based *National Emergency Risk Assessment Guidelines 2021* (NERAG).

#### **4.0 Bushfire Impacts: the possibility of ignition from transmission towers**

4.1 Three factors raise doubt about the legitimacy of the report's assessment of the potential of on-site tower ignition as very low: firstly, questions about the resilience of transmission infrastructure designed for "reasonably foreseeable extreme wind conditions", given the effects of unforeseen catastrophic events such as the SA 'black swan event'; secondly,

extensive evidence provided of tower failure; and thirdly, the predicted probability of increased numbers of extreme events.

4.2 The Bushfire Impact Assessment states that tower design conforms to AS/NZS 7000:2006 *Overhead line design*, and AS/NZS 1170.2-2021 *Structural design actions. Part 2: Wind Actions* (Standards Australia, 2016, 2021) designed to allow for wind gust to ~200 km/h for 70, 500 kV towers. Technical Report K claims that this design standard is intended to prevent tower collapse and/or transmission lines falling to the ground under ‘reasonably foreseeable extreme wind conditions’ (p 98) including extreme convective downdraft winds and tornadoes (p 104). The report dismissed the relevance of other transmission infrastructure failures to the proposed project and assessed the level of residual impact from on-site ignitions as very low. These other failures are examined below.

4.3 Other tower failures are relevant here. Between 28 to 30 September 2016, a storm described as a “once-in-50-year” weather event led to an intense low-pressure system of “multiple supercell thunderstorms...destructive winds, very large hailstones, locally intense rainfall and at least seven tornadoes” (BoM, 2015) with winds up to 260 Km/h. The storm felled 22 transmission towers and three major transmission lines. Up to 80,000 lightning strikes also affected energy infrastructure. A state-wide blackout ensued. This event has been described as a ‘black swan’ event, or an unpredictable, rare occurrence that exceeds the expected leading to severe consequences. Technical Report K dismissed the relevance of the South Australian event because “towers that collapsed were of a superseded design that was known to be more vulnerable to extreme winds than newer towers” and because the collapse did not ignite fires (p 83). The report states that 11 events have led to the collapse of transmission towers leading to 45 structures failing because of high wind. The failure of the Dederang-South Morang No 1 line was attributed to pyroconvection but only one event, in 1981, led to ignition and fire escaping from the site. It refers to the Anakie February 2024 event where severe convective winds of up to 150 km/h affected towers but again adds that the towers were constructed to different standards to those applying to the project (p 83). However, tower failures in the National Electricity Market between 2024-2022 result from at least 14 major events, chronicled in appendix 1 to this opinion. These occurred in range of states and were caused by a wide range of causes including thunderstorms, cyclones, tornadoes, flooding and bushfires.

4.4 Despite the report’s attempt to minimise risk from ignition, the failures of other towers reasonably suggests the possibility of tower and transmission line failure particularly from extreme events and increased risk from climate change. The VAGO 2020 report noted that electricity transmission failure had caused an average of 7 fires a year (p 82). The report noted three transmission infrastructure failures caused three ground fires, one from extreme winds and two from structural failure. Infrastructure failures and on-site ignition have started ground fires but these have been suppressed before spreading. The Anakie February 2024 damage to towers, for example, resulted from extreme winds. However, the possibility that extreme events and conditions might lead to fires escaping the easement during the bushfire season is not adequately addressed. Report K’s conclusions about ignition risk imply doubt about the minimising of risk. The report states that tower protection systems ‘should’ prevent hazard from lines in contact with the ground though not necessarily flashover or sparks, though peak operating temperature would lessen risk (p 104). Controls ‘should minimise’ on-site ignition and ‘are expected to effectively address’ threats to populations with the 20-50 radius of the easement leading to controlled ignitions and very low impacts (p106).

## **5.0 Project Development and Alternatives: Planning and environmental matters**

5.1 In selecting a preferred route selection, bushfire was not considered as a factor in selecting the route for the easement and transmission line. Bushfire impacts from alternative routes were not adequately considered or assessed. The risks from bushfire arising from ignition or from bushfire to towers and the transmission line were therefore only assessed after the final route was decided.

5.2 Attachment 1 Project Development and Assessment of Alternatives, and EES Chapter 5: Project development assess route alternatives. Scoping requirements, detail the matters to be addressed in the EES, including the assessment of feasible alternatives. Alternatives assessed follow the scoping requirements including alternative corridors, routes, site locations, designs or other options for the planning, construction or operation of the Project. This process led to the proposed design, scope and route assessed in the Project's EES and described in EES Chapter 6: Project description.

5.3 Defining the area of interest considered the environmental, land use and planning constraints, and opportunities provided by existing linear infrastructure corridors. The methodology considered the physical environment, biological environment, socio-economic environment, cultural heritage environment, then applied a rating of constraints (very high, high, medium, low) to biodiversity, aboriginal cultural heritage, historic cultural heritage and land use planning considerations. Bushfire was not included. Corridor selection constraints took account of townships, rural residential and residential areas of Ballarat, Creswick, Clunes, Bacchus Marsh, Darley, Melton. Potential corridors were identified, evaluated and shortlisted considering the constraints.

5.4 Planning factors are considered, such as rural zoning, agricultural pursuits, biodiversity, other overlays such as landscape overlays. Bushfire impacts were not considered, and potential bushfire factors were not related to planning factors such as the BMO or clause 13.02-1S.

In section 6.3 evaluation of alternative routes, bushfire was not considered in the evaluation of short-listed alternatives. Table 3.1 listed such factors as Biodiversity, Aboriginal cultural heritage, historic heritage, land use planning, landscape and visual, including bushfire.

5.5 Choice of route considered proximity to settlements but did not evaluate potential bushfire impacts on settlement outside the easement. For example, existing and proposed residential development between Caroline Springs and Bacchus Marsh had "all but closed off" the southern corridor (Figure 6.7), Section. Section 7.2 Route Selection Criteria only considered impacts within the easement, excluding broader impacts such as on settlement outside the easement. Such impacts as traversing the public conservation and resource zone and the significant landscape overlay area were listed but potential bushfire impacts were excluded. No evaluation was undertaken of potential fire impacts from proximity to public reserves when considering alternative routes. Access and egress issues were ignored.

5.6 The Creswick Plantation alternative route provides the only mention of bushfire criteria, related to the length of transmission line in the Bushfire Management Overlay which covers and extends beyond the Creswick Plantation. Bushfire risk to electricity transmission infrastructure and the public from electricity transmission infrastructure was to be managed through transmission line design and the vegetation management activities set out in the bushfire mitigation plan. Table 7.12 Creswick Plantation Alternative Route does not mention

bushfire as in the assessment criteria. In assessing impacts of alternative proposals, bushfire is not mentioned. In examining impacts near Myrniong, proximity to the town is mentioned but in relation to minimising impacts on bushland and aboriginal cultural heritage, not because of any potential danger to the township from bushfire ignition (p 113).

5.7 For section 7.8.1. New 500kV Terminal Station Near Bulgana, bushfire risk was recognised as a constraint but not evaluated. Section 7.8.2. Waubra Terminal Station realignment reduces bushfire risk in the vicinity of Lexton and Mount Beckworth but again is not evaluated. Section 7.8.4 Darley, shows the alternative southern route as closer to a number of existing residential dwellings and the residential area of Darley increasing potential visual impacts (but not bushfire risk).

5.8 Our view is that the failure to consider bushfire risk as a criterion in route selection, and the failure to assess bushfire risk to settlements in selecting the preferred route, has led to uncertainty about bushfire risk to life and property from the selected route and about whether an alternative route might have lessened risk.

## **6. Increased Bushfire Risks and Climate Change: Planning and environmental matters**

6.1 Climate change has two important implications for the project, firstly, the potential for damage to towers and transmission lines from increasingly severe extreme events, and secondly, the potential for the increased intensity and extent of any bushfires which potentially might arise from electricity infrastructure failure. The method used to address climate change by Technical Report N and Chapter 28 of the EES includes the following steps: defining a study area of approximately 20 km radius; reviewing legislation; describing existing climate conditions; identifying potential implications of extreme events; developing EPRs in response to an impact assessment.

6.2 Many researchers, such as Abram et al (2021), Lindenmayer et al (2021) and Mackey et al (2021) have concluded that climate change is the key contributor to more severe bushfires, resulting in fires in the 2019-2020 spring and summer bushfires in eastern and south-eastern Australia that were unprecedented in terms of their geographic location, spatial extent, severity and the forest types burnt. These fires were worsened by extreme weather conditions including winter drought and high spring and summer temperatures. Lagadec (2009) and Keating and Handmer (2022) have proposed a paradigm shift in relation to hypercomplex crises such as bushfires. Such researchers have concluded that mega-fires represent a new category of hazard that requires another approach to bushfire risk management in Australia. The possibility of rapid, non-linear change, once critical thresholds are exceeded will require anticipatory policy which accounts for the potential of extreme events and rejects past practice as a guide for future performance.

6.3 The World Meteorological Organization (2020) report on the world's climate found that the five years between 2014 and 2019 were the warmest on record. The Intergovernmental Panel on Climate Change (IPCC, 2018) noted that current pledges to cut CO<sup>2</sup> emissions will push global warming to 3 degrees Celsius by 2100. The 2022 State of the Climate report (CSIRO, BoM, 2022) found that Australia's climate has warmed on average by 1.47°C since national records began in 1910. The eight years from 2013 to 2020 are all among the ten warmest ever measured and 2019 was Australia's warmest on record. Since the 1950s, extreme fire weather has increased and the fire season has lengthened across much of the country resulting in more extensive, intense and frequent fires, especially in southern

Australia. Despite the relatively high rainfall in southeastern Australia from 2020-22, April to October rainfall has fallen by 10% since the late 1990s.

6.4 The CSIRO and BoM (2019) produced new regional climate change projections for Australia based on data from up to 40 global climate models, using 21 climate variables for four 20-year time periods to 2090. There is strong confidence that in south-eastern Australia high-temperature days will become more frequent and hotter; daily maximum, minimum and average temperature will rise; winter and spring rainfall will decrease and the period in drought will increase leading to decreased soil moisture; the incidence of extreme events will increase. The *State of Climate Report 2018* (CSIRO and BoM, 2018) identified a decline of around 11 per cent in the April–October rainfall in the southeast of Australia since the late-1990s. Both reports warned of a long-term increase in extreme fire weather measured in frequency and severity, and in the length of the fire season.

6.5 Report N and Chapter 28 accurately describe expected changes to climate consistent with the latest projections but several conclusions about operational impacts appear to be problematic. Firstly, the conclusion that potential damage to project infrastructure is unlikely, even with climate change, is unsubstantiated; and secondly, that structural design does not need adjustment to account for climate change “given the lack of clear scientific evidence suggesting that the severity of extreme winds in southern Australia will be significantly exacerbated by climate change”. These conclusions do not conform to the precautionary principle and ignore the need for anticipatory policy to account for the probability of increasingly extreme conditions arising from climate change. EPR CC1 requires consideration of risks to infrastructure from climate change and risks to surrounding communities, land uses, properties and environments; and CC2 to update climate risks after five yearly reviews. However, additional consideration of the adequacy of infrastructure will occur after the adoption and reiteration of the adequacy of transmission construction standards. It is our opinion that this is inadequate. In addition, periodic revision of ignition risks cannot alter the adequacy of infrastructure capability to resist any increasingly apparent extreme risks.

## 6.6 Risk and Extreme Weather Events

6.6.1 Driven by accelerating climate change, extreme weather events are becoming more common globally. In the period 2001-2020, major droughts, floods, cyclones, heatwaves and severe bushfire seasons totalled 357. For 2021 the global average for the number of recorded events grew to 432 (Lefebvre and Reinhard, 2022). Increasingly, too, these are turning into ‘disasters’ for directly impacted individuals, enterprises, governments, finance institutions, global trade and natural ecosystems (Alexandra, 2020; *The Lancet*, 2022). Australia has always been especially vulnerable to such events. The impact of extreme weather events in Australia is such that an estimated 22,000 Australians move home annually because of extreme weather events, a figure expected to rise to 38,000 annually by 2071 (Bernard, Perales and Charles-Edwards, 2024). Using a now well-established methodology for conducting extreme event attribution research, the World Weather Attribution (WWA) consortium has produced the first detailed analysis to quantify the influence of climate change on the 2019/2020 bushfires in south-eastern Australia. The conclusion of the study was that climate change boosted the bushfire threat by at least 30 per cent (van Oldenbourgh et al., 2021; Jones et al 2022).

6.6.2 Climate change has reinforced the importance of understanding the relationships between variables in a functioning system. Since 1900, 30 La Nina years have affected

Australia but recent ocean temperature variations – the La Nina phenomenon – delivered unprecedented rainfall totals across eastern Australia. Global warming is hastening moisture build-up in the atmosphere and every 1 degree Centigrade increase delivers an additional 7 per cent moisture content. El Nino events are becoming more common and are often associated with serious drought conditions and widespread forest fires in many countries. Both La Nina and El Nino phenomena are occurring against a background of accelerating global warming that is resulting in an increasing number of regions joining the growing list of fire-prone areas (Bronnimann, 2018). The trend is for fire seasons to start earlier, to last longer, and for the fires to be more intense. For example, the devastating ‘Black Saturday’ bushfire of 7 February 2009 in Victoria followed a 12-year El Nino episode and associated drought. Climate change is increasingly recognised as being responsible for other associated weather events in the form of intense hail, wind and rainstorms.

6.7 In conclusion, climate change and extreme weather events are expected to increase risk from bushfire considerably in coming decades. The uncertainty associated with each increases the difficulty in assessing their potential impacts. However, their potential impacts on the resilience of infrastructure were not adequately assessed by reference to a higher construction standard than that used in infrastructure which has previously failed. The uncertainty associated with climate change makes such confident conclusions unreliable. A combination of conditions and events may combine to allow ignition during a dangerous bushfire season and enable a fire to spread beyond the easement, in turn leading to bushfire of extreme intensity over an extensive area. This possibility was not adequately assessed. Neither were possible impacts of such events on settlement assessed outside the easement area.

## **7.0 Access, Ingress and Firefighting**

7.1 The project, if completed, will traverse six municipalities, including the Shire of Moorabool, crossing many roads and access tracks used by the general public, fire services and the operational crews undertaking maintenance.

### **7.2 Impacts on Access and Egress of People**

7.2.1 The methods used to assess access and egress in EES Technical Report K: Bushfire Impact Assessment are not based on a full risk assessment, but rather are generally based on assumptions that low likelihood means impacts are therefore low. Our opinion is that the risks of high consequence, low likelihood events are downplayed, such as tower failure and downed lines. Due to the methods used to assess impacts, this makes it difficult to understand what risks are actually faced in the medium to long term under a range of scenarios, particularly when paying heed to vulnerability, spatial variation in risk vulnerability and dynamic change and development.

7.2.2 The EES Technical Report K - Bushfire Impact acknowledges correctly at a number of points that there will be many significant impacts on access and egress for the general population and firefighting. For example, the report acknowledges: “Evacuees’ escape from fire grounds could be delayed if they awaited confirmation that the infrastructure was safe to cross or they sought alternative escape routes (where they exist). This could expose them to harm from the approaching fire” (p. 111).

7.2.3 While the report goes on to correctly acknowledge that “Key locations for this mode of potential impact exist”, (below) there are many more locations than listed in the EES (more locations are listed in our opinion below):

- Lerderderg State Park / North Darley / Coimadai: for key egress / access routes for the Lerderderg State Park to the north of Darley and from Coimadai (including the Coimadai Primary School), particularly with fires burning from the north or west.
- Long Forest: for egress / access along Long Forest Road for fires burning from the south or south-west.

7.2.4 Importantly, the acknowledgment above is not complemented by a full risk assessment and development of a risk mitigation response (risk treatment) that would adequately deal with impacts. The CFA place considerable emphasis on priority access and egress roads. It is unclear from the documentation whether the CFA endorse the proposal in terms of this impact, despite reference to consultation p. 32 and that there have been attempts to “explore and address community and fire-fighter safety concerns” (EES Technical Report K: Bushfire Impact Assessment p.32).

7.2.5 At 8.8.3 Mitigation During the Project’s Operating Life, the assessment states that: “The primary controls for these potential impacts are the standards that inform design and construction of the infrastructure and AusNet’s asset management processes, as discussed in Sections 7.6.3 and 8.4.3. These are intended to prevent tower collapse and transmission line drop under reasonably foreseeable extreme wind conditions or due to other forms of structural failure.” Our opinion is that the assessment appears to assume that meeting standards oriented to protection of the transmission lines is an adequate assessment of risk to access, egress and active firefighting response, and that this is inadequate. There is no direct assessment of impacts oriented to risk to the community, ignoring the need to account for vulnerability in a full risk assessment.

7.2.6 Appendix H. Analysis of egress of the towards low bushfire risk areas and Neighbourhood Safer Places of EES Technical Report K: Bushfire Impact Assessment (pp. 205 - 2016) seeks to understand whether impacts of the project upon egress to safer places is acceptable. However, no risk level is determined as a result of shortcomings of the methods used, nor are treatments or residual risks assessed in terms of their acceptability. Rather, a tabular description of settlements in terms of various aspects is provided.

7.2.7 Table H1, beginning on page 211, includes the following descriptive assessments:

1. Distance of settlement from the Project easement;
2. Whether there is a Neighbourhood Safer Place (NSP) – Bushfire Place of Last Resort (BPLR);
3. Whether the Easement intersects egress to Low Bushfire Risk Area (LBRA) / NSP-BPLR or Fire response access;
4. Whether the Easement intersects egress to the path to the nearest Neighbourhood Safer Place – Bushfire Place of Last Resort, Community Fire Refuge, low bushfire risk area is intersected by the easement / Proposed Route;
5. Nearest CFA Fire Station if within 10km (if at all);
6. Whether the Egress intersects a LBRA / NSP-BPLR;
7. Whether the Egress intersects a fire response access;
8. Whether there is a NSP-BPLR or Community Fire Refuge, and its location if there is.

7.2.8 Table H1 of EES Technical Report K: Bushfire Impact Assessment (mentioned above) is a useful starting point in that it shows the potential impacts of the project, but does not go beyond the descriptive elements above of potential impacts to derive a risk level as a starting point from which assessment could determine whether the project manages risks appropriately.

7.2.9 Additional to the above, assessment of people's egress is not joined in the EES with scenario modelling of possible fires, particularly in terms of possible high consequence events. As a result, it is difficult to assess impacts, risks and treatment.

7.2.10 Section 8.8.3 Mitigation During the Project's Operating Life suggests that (p.112): "Standard public safety advice for days with predicted highly elevated fire weather conditions is to leave high risk areas before extreme conditions develop and to not simply respond once a fire has ignited. Adherence to this advice would effectively mitigate potential egress (but not fire service access) issues associated with the failure of transmission infrastructure, however it is noted such advice is not necessarily followed."

7.2.11 Our opinion is that the EES erroneously uses the above to suggest that risks associated with loss of access are dealt with or even the fault of people who fail to follow advice, or that occupants will leave on high-risk days, even while evidence from previous events such as the 2009 "Black Saturday" fires suggests that this assumption is flawed. Significant complexity exists in human behaviour that might mean people do not or cannot heed advice to leave. This may be *inter alia* circumstances such as care for livestock, infirm people, children, or pets. Many people are not easily capable of taking advice, may be isolated from communications or be evacuation-fatigued.

### 7.3 Assessment of Roads and Settlements

7.3.1 Assessment of existing settlements and sites of likely future intensification indicates that many roads will potentially be impacted that could isolate people and restrict movement during high consequence events. In particular, the site visit and analysis of lot subdivision patterns, vegetation and the potential impacts of ignition caused by the transmission lines, movement restrictions associated with tower failure or downed lines indicates that many more high-risk locations exist than are acknowledged in the EES. Key examples are listed below.

7.3.2 Long Forest. The low density rural – residential settlement of Long Forest consists of a range of farms, hobby farms and dwellings accessed by a single road, the Long Forest Road. The Project easement is proposed to cross the intersection of Long Forest Road with Diggers Rest Coimadai Road to the north of as shown in Figures 2, 3, 4, 5 and 6 below. Many sites do not contain dwellings but are capable of being developed in the future. Based on the zoning of these sites it is quite possible that permits could be issued for use and development of structures in the future.

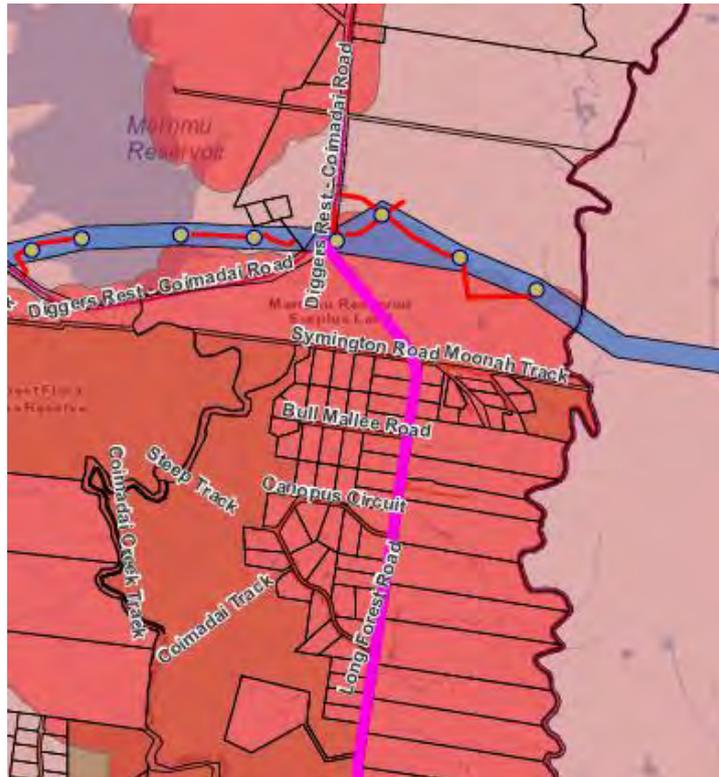


Figure 2 – Long Forest Road settlement showing project easement in blue. (Source: extract of plan provided by Moorabool Shire Council prepared on 10 October 2025 based on Victorian Government data extracted on 10 October 2025)



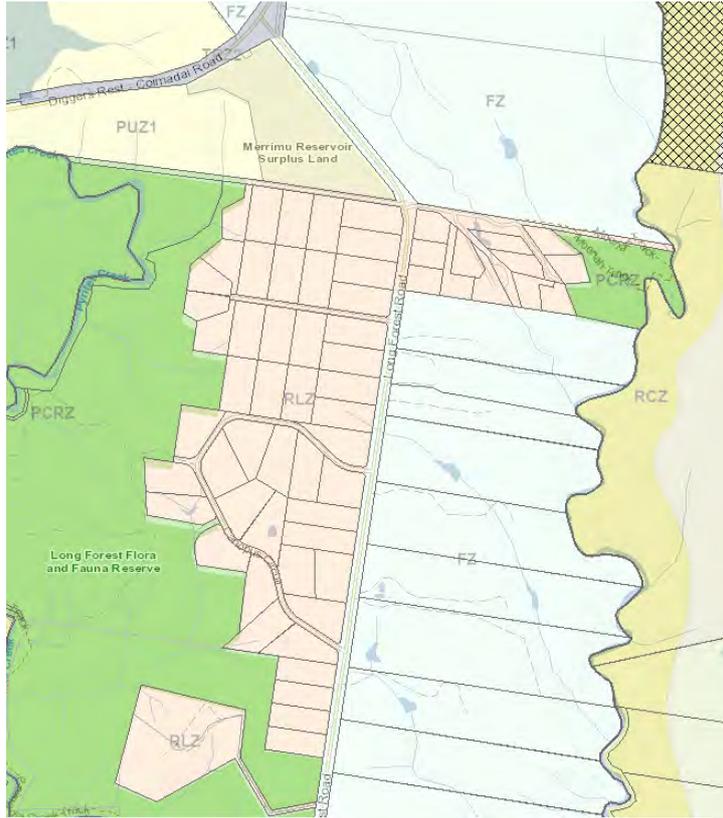


Figure 3 – Long Forest Road settlement showing zoning. FZ (Farming Zone; RLZ Rural Living Zone) Source: VicPlan, accessed 15/10/2025.



Figure 4: Dwelling on Long Forest Road.



Figure 5: Dwelling on Long Forest Road.



Figure 6: Dwelling on Long Forest Road.

7.3.3 Swans Road, Darley. To the north of the Project, properties that have been developed, or are capable of development exist on Swans Road, Darley that are potentially impacted in terms of access and egress. Many vacant lots that are capable of development with the potential to place additional people at risk, shown in Figure 7 and 8 below.

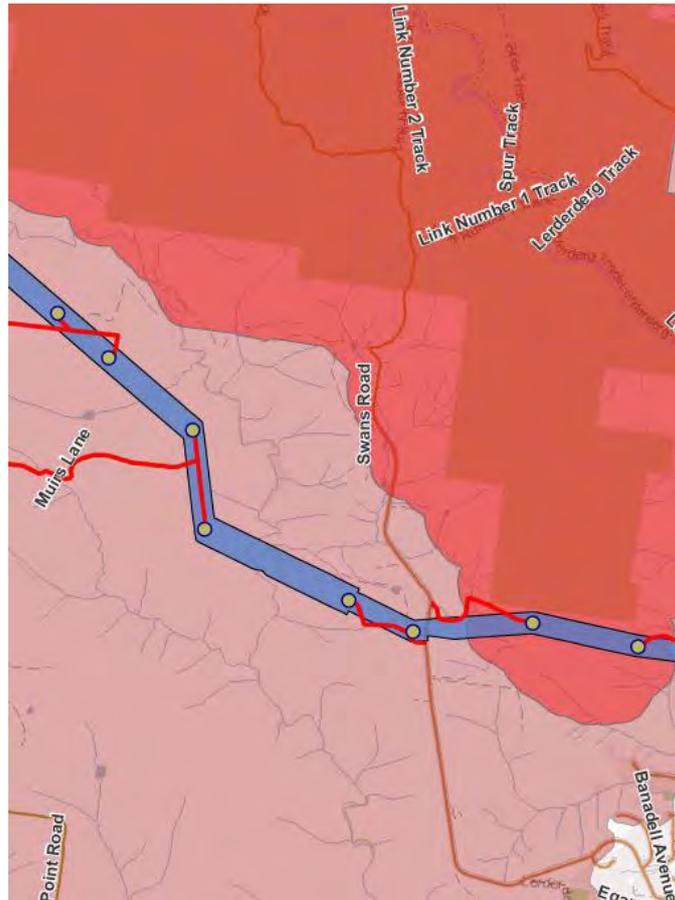


Figure 7: Swans Road, Darley. Project Easement shown in blue. (Source: extract of plan provided by Moorabool Shire Council prepared on 10 October 2025 based on Victorian Government data extracted on 10 October 2025).





Figure 8: Dwelling adjacent to Swans Road, Darley.

7.3.4 Other key roads connected with settlements and the movements of people potentially impacted in terms of access and egress in the Shire of Moorabool include:

- Greendale Myrning Road, Greendale; and Blakeville Road, Ballan.
- Ballan-Daylesford Road, Stone Hut Lane and Rigneys Lane (Figure 9 below).

Note that if users of these roads were not able to cross the Project easement it would render many of the surrounding roads inaccessible in an emergency event.

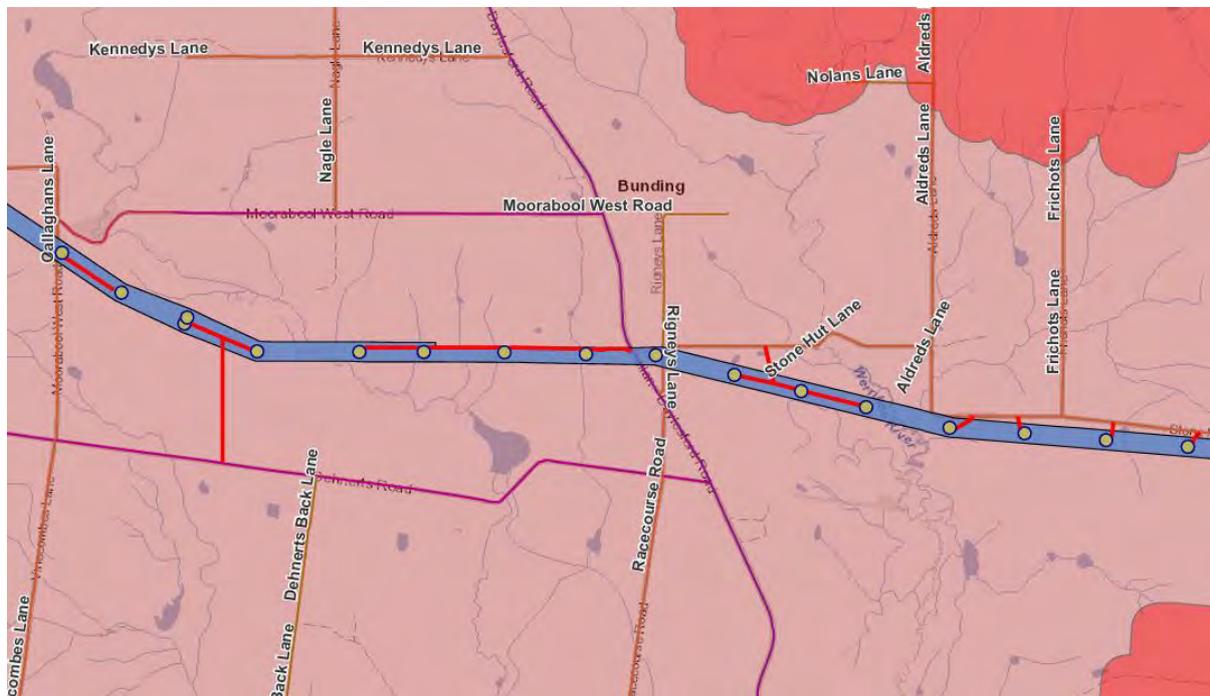


Figure 9: Ballan-Daylesford Road, Stone Hut Lane and Rigneys Lane with Project easement shown in blue. (Source: extract of plan provided by Moorabool Shire Council prepared on 10 October 2025 based on Victorian Government data extracted on 10 October 2025).



7.3.5 The intersection of Greendale- Myrning Road with Fowlers Lane is shown in Figure 10 below. Note that this road to the north is shown within the BMO shown in red due to its proximity to forest and woodland vegetation.

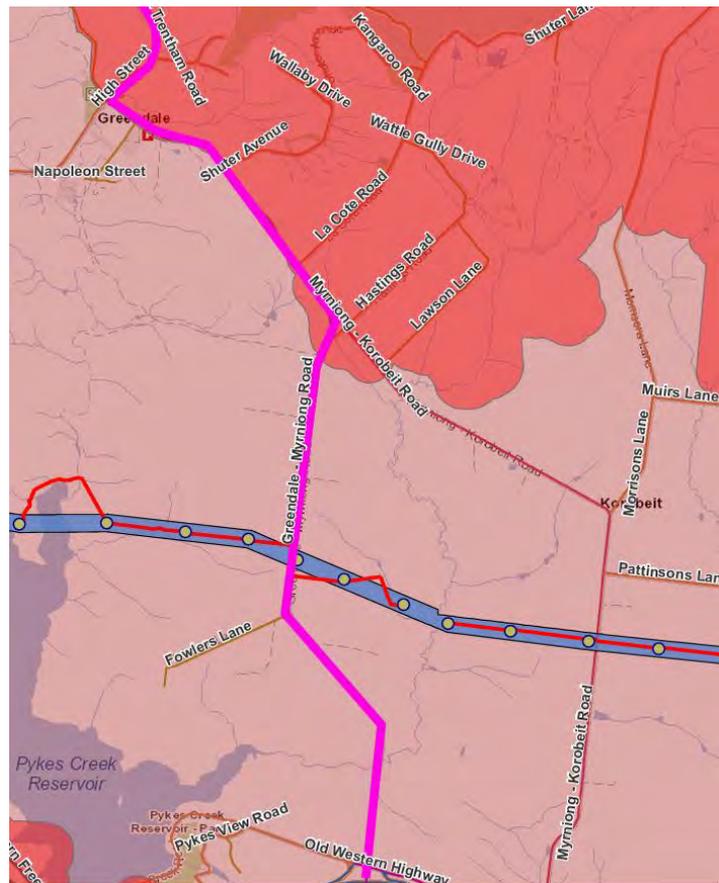


Figure 10 - The intersection of Greendale- Myrning Road with Fowlers Lane and the Project shown in blue. (Source: extract of plan provided by Moorabool Shire Council prepared on 10 October 2025 based on Victorian Government data extracted on 10 October 2025)



## 7.4 Impacts on access and egress of people in Darley

7.4.1 Darley is of particular concern in terms of access and egress, as well as the impacts of modelled fire impacts. In EES Technical Report K: Bushfire Impact Assessment, Figure B-5. Modelled flame height within Project easement, Lerderberg State Park – North Darley shows

the modelled interaction of a fire with the north part of the settlement, as shown in the excerpt from the EES shown below in Figure 11.

7.4.2 In EES Technical Report K: Bushfire Impact Assessment, B.2 Lerderderg State Park – North Darley (pp. 146-151) a number of fire approach scenarios are modelled showing potential encroachment of fires over North Darley (Figure 11 below).

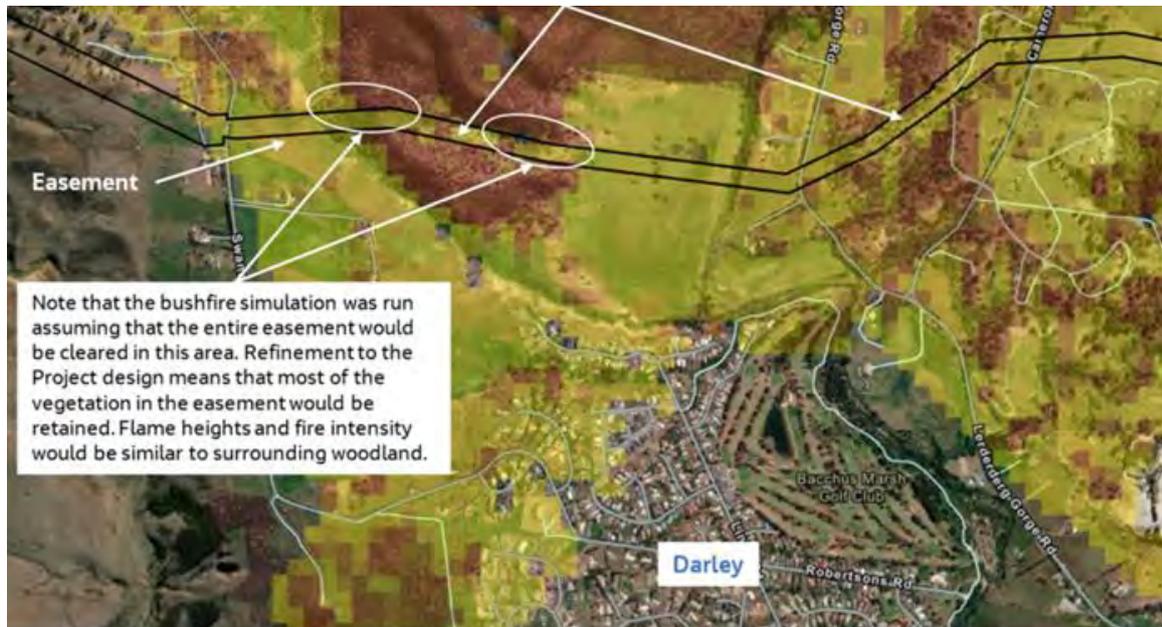


Figure 11: Excerpt from EES Technical Report K: Bushfire Impact Assessment, Figure B-5. Modelled flame height within Project easement, Lerderderg State Park – North Darley

7.4.3 Figure 12 below shows North Darley including its roads, with CFA Priority Access and Egress Roads in pink.

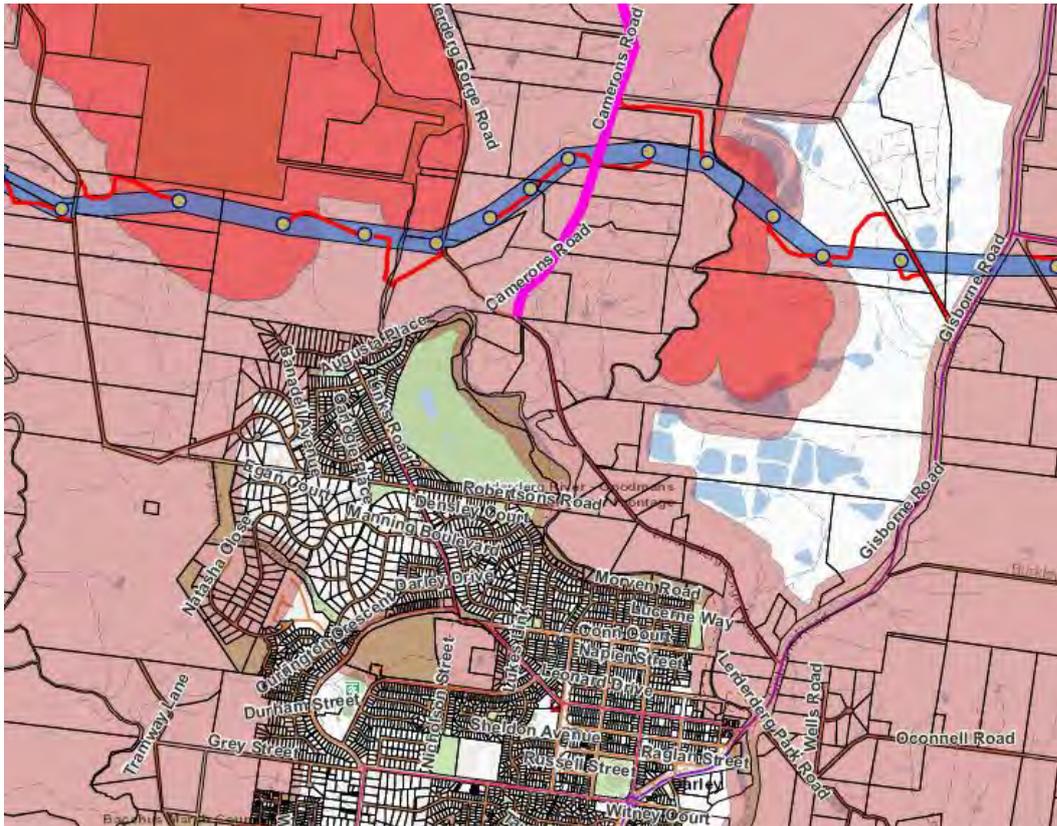


Figure 12: North Darley roads, with CFA Priority Access and Egress Roads in pink. Red areas are vegetated and included in the BMO. (Source: extract of plan provided by Moorabool Shire Council prepared on 10 October 2025 based on Victorian Government data extracted on 10 October 2025).



7.4.4 Figures 11 and 12 combined demonstrate potential significant impacts of a modelled fire from the north upon north Darley. Vehicle access is already limited in the north part of Darley. If the combined impacts of a bushfire from the north and downed power lines were to eventuate, access and egress would be significantly compromised. The layout of roads has minimal redundancy, putting people at risk if any single road were to be compromised. While retreat in a southward direction using internal streets may be a viable option, the possibility of isolation due to loss of external or internal roads, the possibility for fires burning flammables within the settlement combined with smoke, darkness and loss of communications combined are significant risks. This has not been assessed as part of the EES.

7.4.5 In the EES Technical Report K: Bushfire Impact Assessment G.2 North Darley (p.200) The case study (Figure G-2) (Figure 13 below) considers the potential effect of transmission tower collapse on access and egress in the North Darley area. It suggests that: “If a transmission tower collapsed during a bushfire approaching this area under scenario #1, it could affect access and egress at positions A or B, but not both locations (due to design that avoids cascading failures). For those egressing along Lerderderg Gorge Road (not a defined

fire access / egress route), there is no alternative safe route. While there is an unnamed road that connects to Camerons Road, it does not appear to have been maintained. Those egressing along Camerons Road would need to divert through bushland, along Seereys and Russells Roads, towards the Bacchus Marsh–Gisborne Road. While this provides an alternative egress route, travel along Seereys Road could be dangerous if the area was under ember attack and spot fires were igniting as people were evacuating. The likelihood of either incident during a fire event is exceedingly low”.

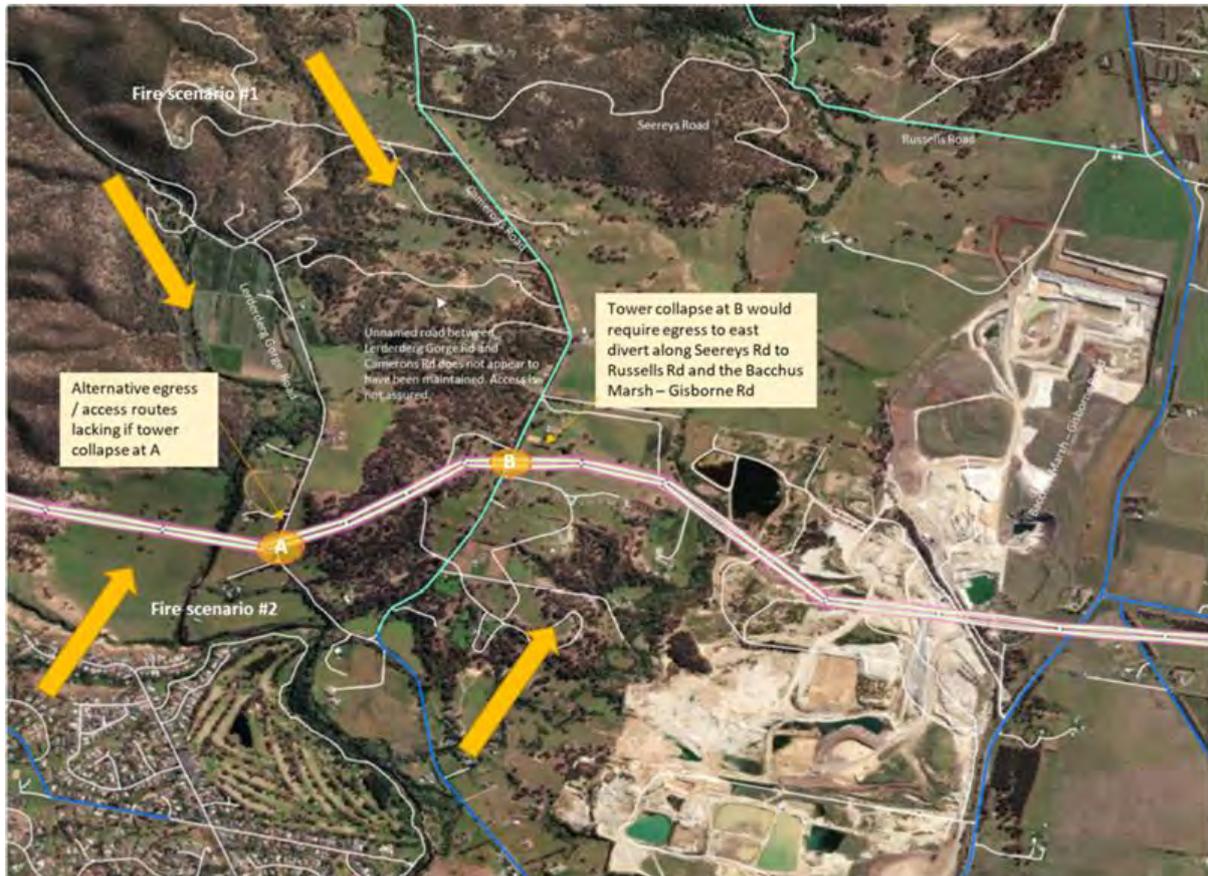


Figure 13 Source: Figure G-2. Influence of the Project on use of fire control lines and potential fire access / egress routes in the North Darley area. EES Technical Report K: Bushfire Impact Assessment (p. 201)

7.4.6 The above assessment fails to consider the consequences of what is correctly described as an unlikely event, rendering it less effective as a risk assessment. This demonstrates the tendency of the EES generally to put aside acknowledgement of impacts and subsequently the full assessment of risk. It does so by suggesting that there are low likelihoods of bushfire events having impacts on towers and transmission lines. Rather, it is our opinion that the impacts and subsequent outcomes of low likelihood, high consequence events are high. We consider that the possible impacts on access and egress for firefighting and people in general in possible extreme bushfire events have not been adequately dealt with in the EES.

## 7.5 Impacts on firefighting response, including access and egress

7.5.1 The Project will have potential impacts upon a number of inter-related aspects that relate to firefighting. These include access and egress and fire suppression capabilities, dealt with in turn below.

7.5.2 Firefighting: Access and Egress. Appendix F. Proximity of transmission towers and transmission lines to municipal fire roads and other roads acknowledges that there are risks associated with transmission lines blocking roads. “A transmission tower or line to block a road used by people to escape from an approaching bushfire or a road used by emergency services to gain access to active fire grounds ... Such a blockage would result from structural failure of the tower and / or transmission line(s). This may be in response to damage (e.g.) from extreme wind conditions, impact by farm machinery or other vehicles or sabotage. Were such a structural failure to coincide with a local bushfire emergency, the curtailment and / or disruption to access and egress could exacerbate bushfire impacts on people and property” (pp. 198).

7.5.3 The report goes on to acknowledge that potential impacts upon Moorabool Shire are significant (p. 198):

“Analysis of the Proposed Route shows that it intersects municipal fire roads at 33 different locations, two of which are strategic fire access roads (Cameron’s Road, North Darley and Long Forest Road, north-east of Bacchus Marsh. The transmission line crosses the Diggers Rest-Coimadai Road at two locations.”

7.5.4 Key locations where risks are high include where the project will cross the Diggers Rest - Coimadai Road and Long Forest Road Intersection (Figure 14). If towers fail or lines are downed there will likely be significant impacts on suppression due to the presence of significant vegetation and the reliance of the CFA on Long Forest Road as a Priority Access Egress Road (shown in pink).

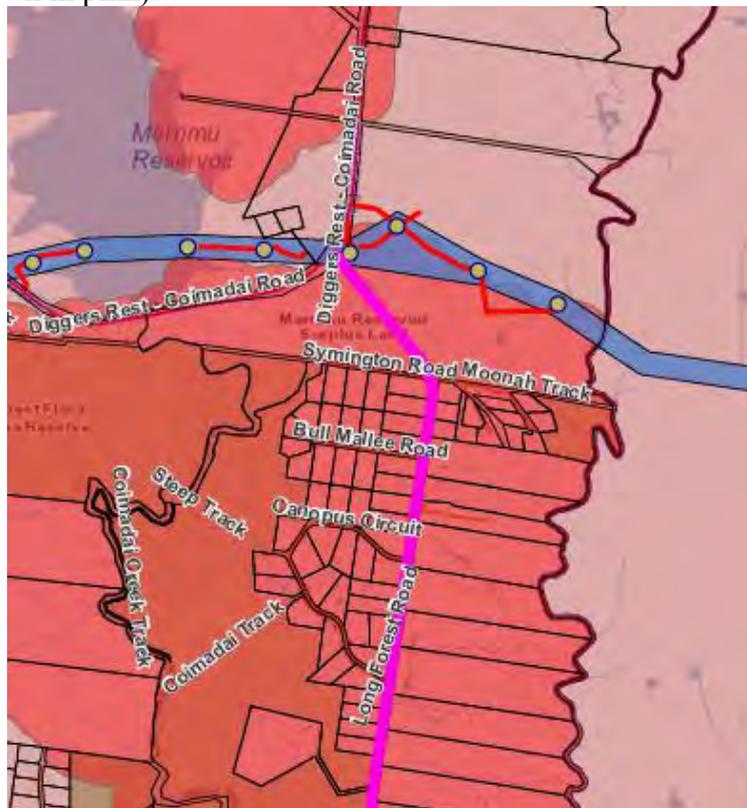


Figure 14 – Diggers Rest - Coimadai Road and Long Forest Road Intersection with project easement in blue. (Source: extract of plan provided by Moorabool Shire Council prepared on 10 October 2025 based on Victorian Government data extracted on 10 October 2025)



7.5.5 As shown in Figure 15 below, the project intersects with Camerons Road (a CFA Access Egress Priority Road), Lederberg Gorge Road and Swan Road to the north of Darley. Combined, the risk of downed power lines or transmission tower collapse at one or more of these intersections during a fire event would significantly impact on fire suppression activities. The road system has limited redundancies, meaning that loss of even one would significantly reduce response capabilities.

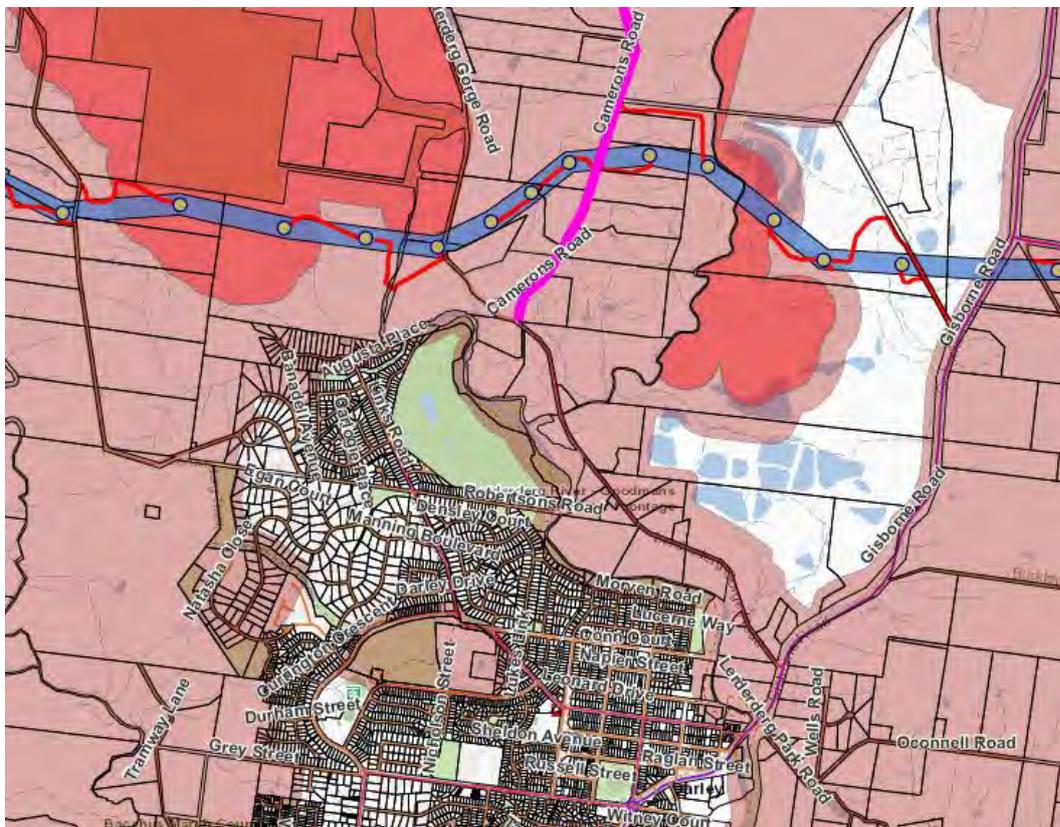


Figure 15 -North Darley roads, with CFA Priority Access and Egress Roads in pink. Red areas are vegetated and included in the BMO. (Source: extract of plan provided by Moorabool Shire Council prepared on 10 October 2025 based on Victorian Government data extracted on 10 October 2025)



7.5.6 The Project also crosses CFA Priority Access egress roads at Greendale-Myrning Road, Greendale, and Blakeville Road, Ballan. The loss of these roads would have significant impacts on suppression, particularly for settlements such as Ballan to the south.

7.5.7 Appendix G of EES Technical Report K: Bushfire Impact Assessment sets out case studies of the potential influence of the Project on fire control lines and fire access roads. One study at North Darley (p. 201) acknowledges the possible high speed of the fire in certain scenarios and that loss of access due to downed lines or tower collapse would significantly impact suppression response (excerpt below at Figure 16). However the EES concludes that the “likelihood of either incident during a fire event is exceedingly low” (p. 201) Importantly, this is not a risk assessment, but rather a statement of the likelihood of a transmission tower collapsing. If a risk assessment were to be undertaken it would consider the proximity of the Darley settlement, the limited redundancies in this road system, the undulating terrain and likely encroachment of the northern part of the settlement under some fire scenarios. This would result in a much higher risk assessment such as medium to high due to the introduction of consequences and vulnerability factors. Even if a bushfire scenario is considered low likelihood, as shown Figure 1, if the consequences are major or catastrophic, risks are considered high. It is our opinion that the EES has not adequately accounted for these matters.

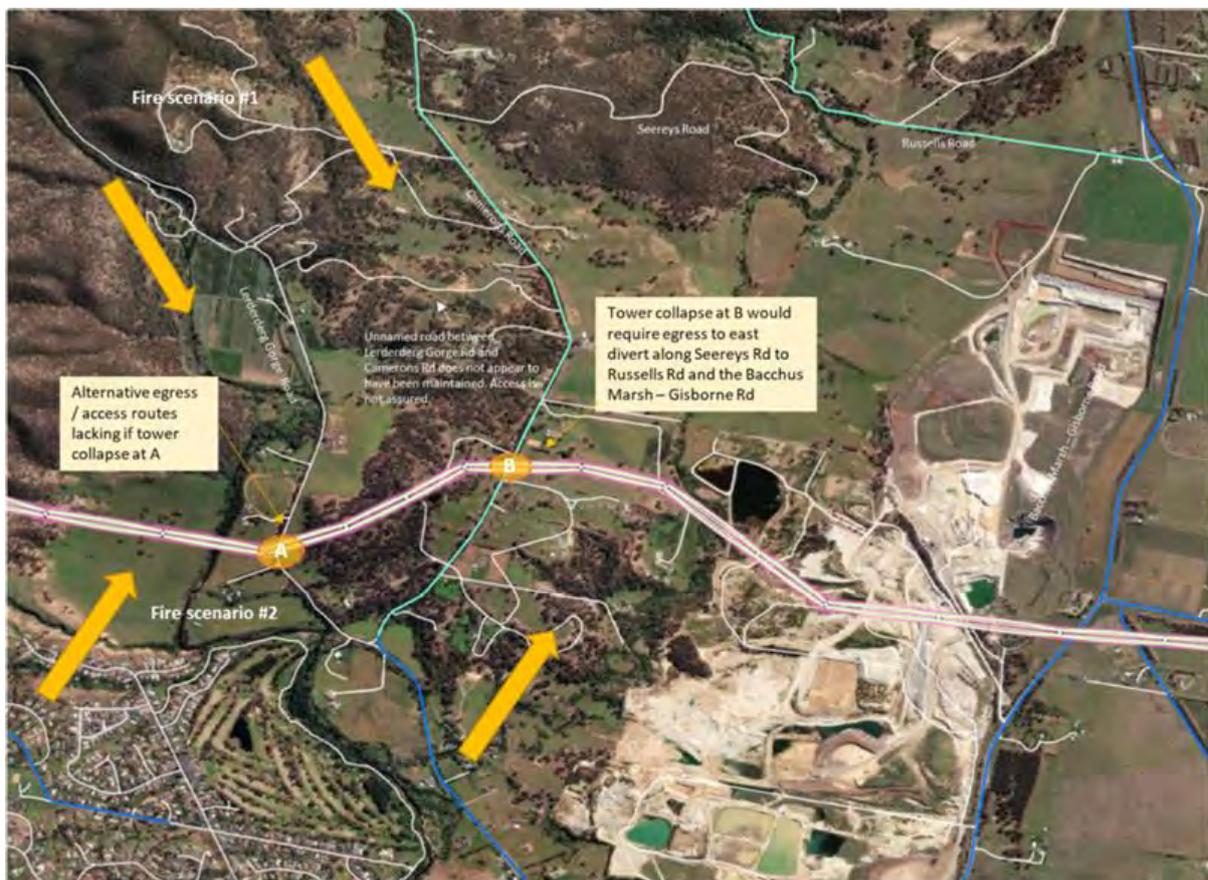


Figure 16: Influence of the Project on use of fire control lines and potential fire access / egress routes. Source: Appendix G of EES Technical Report K: Bushfire Impact Assessment (p.201)

7.5.8 The EES Technical Report K: Bushfire Impact Assessment highlights that there may be impacts on fire response in key locations, such as the complex intersection of Bachus-Marsh-Gisborne Road, Diggers Rest-Coimadai Road and Bences Road. As shown in Figure 17 below, loss of access due to tower failure or downed lines would significantly impair

response. The EES states that “Depending on the relative orientation of the approaching fire front and the control line / fuel break, this could reduce their effectiveness and impair aspects of the fire response” (p. 110). However, the consequences and risks of this are downplayed, with the added suggestion that “It may be necessary for CFA to develop specific fire response tactics to address potential disruptions to the use of fire control lines and fuel breaks in areas where these are crossed by the Project. This should help to reduce this potential source of residual impact” with no explanation of how this would occur. We have read the CFA document (Cover Sheet 159 including a letter dated 15 August 2025). The CFA acknowledges that some consultation has occurred and that in the report “there is sufficient information contained... to be able to determine the bushfire risk and identify the required bushfire protection measures” (p.2). However, the CFA then expresses in the remainder of its statement that it seeks “further clarification regarding the drafting of the bushfire requirements” oriented to workforce accommodation, terminal and other matters. We are of the opinion that the information in the EES is inadequate in terms of the ways that impacts upon access and ingress in a number of locations including North Darley.



Figure 17: Excerpt of Case study providing an example of situations where the Project may influence the effectiveness of municipal fire control lines and / or fuel breaks in supporting fire responses.

Source: EES Technical Report K: Bushfire Impact Assessment (p. 110).

## 8.0 Bushfire Impacts and Assessment of Consequence: Planning and environmental matters

8.1 Technical Report E (Land Use and Planning) identifies potential land use risks as potential changes in land use, disruption of access, amenity impacts and inconsistencies with policy (p 69). Land use categories potential affected are: agricultural land, residential and community facilities, industry, mining, aviation and infrastructure and natural environment (p

77). The route also traverses bushland or environmentally significant land in four shires including the intended Wombat-Lerderberg National Park in the Shire of Moorabool along with major waterways. About 93 per cent of land within the easement project area is zoned in various forms of rural zoning, affecting about 2,407 ha of agricultural land and will permanently constrain the use of about 1,270 ha for various rural related uses. Some rural activities will be constrained and buildings prohibited within the easement. Construction impacts were assessed as minor. Operational effects were 'expected' to be minimal. Technical report K examined the potential consequence of bushfire within the 20 km radius study area on settlement, economic features, agricultural land uses, and cultural values. The municipalities with the greatest loss concentrations in the catastrophic and major categories were Hepburn and Moorabool Shires at 58 and 28 types respectively. Bushfires also potentially affect biodiversity.

## 8.2 Risks to settlements

8.2.1 The risk assessment based on consequence is flawed on a number of grounds related to the analyses of potential impacts on settlement. Two factors contributing to increased levels of bushfire risk from radically changing environmental conditions are existing and potential settlement patterns, and anthropogenic climate change. Technical reports minimise or ignore the risks to settlement in the following ways: the risk from bushfire to settlement patterns outside the easement and within the 20-50 km radii are not assessed; the potential impacts from bushfire to broader settlements are ignored; specifically, the risk to the large number of dispersed dwellings on rural and rural-residential properties is ignored; potential impacts on townships, on residential development on the fringes of towns, larger regional centres and metropolitan settlement are not assessed; the potential for harm or damage from bushfire to dwellings constructed incrementally on the large number of rural and rural-residential lots is ignored, and on the growth of residential development on the fringes of towns and metropolitan settlement is minimised. These omissions result in serious limitations to the evaluation of potential consequences of ignition. They also contradict the requirements of clause 13.02-1S requiring priority consideration to be given to the protection of human life above all other policy positions.

## 8.3 Settlement types at risk

8.3.1 The assessment of consequences does not adequately assess risk to settlement within the identified 20-50 km study areas radius from the easement or landscapes beyond. Although the report identifies settlements and dispersed rural housing extending considerable distances from the easement which are potentially subject to risk, it considers impacts only within the study area defined as the project land conforming to the easement followed by the transmission line. It identifies 32 dwellings located within 150 m of the proposed route. The land area traversed by the project is significant in an easement 70-100m wide broadened with a buffer to 100-170m extending 190 km.

8.3.2 Types of settlement potentially affected by any bushfire ignited by transmission towers are outlined in 8.2.1.

8.3.3 The reports cite 110 gazetted townships, 45 within 10 of the route and 10 within 1 km. Nearest settlements include:

- within Melbourne's urban growth boundary: three urban precincts adjoining the study area and within 1 km

- Peri-urban areas: Merrimu adjoining, Darley within 1 km, Bacchus Marsh within 2 km
- 18 townships ranging from adjoining to within 5 km
- 5 large regional settlements within 5-24 km.

8.3.4 Technical Report K recognises that urban and rural residential development within the 20 km radius is the second most common land use category (after agriculture and horticulture) at 14.6% of the study area, particularly around Bacchus March, Ballarat and Melton. Much rural residential development is located near native vegetation particularly the Wombat, Lerderderg, Creswick, Mount Cole and Pyrenees State forests or parks. The route traverses the highest risk landscape types between North Darley and Long Forest and near 5 other towns (p 87). The report also recognises that urban land may increase around major population centres such as Bacchus Marsh, Ballarat and Melton with a change from rural residential and rural uses to urban. We are instructed that with respect to the housing target for 20,000 homes in Moorabool Shire per the recent planning scheme amendment, this target would include the homes already planned for Merrimu PSP and the Ballan amendment. This leaves a potential 12,000+ homes to be built in the Shire pursuant to Plan for Victoria.

8.3.5 Yet the reports do not adequately identify and quantify the risk to the different settlement types, and derives conjectural conclusions. Report K, for example, accepts that there may be ‘some impact’ on land use and settlement patterns from any on-site ignitions, and that increased numbers of people and properties ‘may’ be affected by on-site ignition as populations arise around major centres. However, it considers that such growth ‘should generally’ be confined to areas with low bushfire risk (p 103).

8.3.6 The extensive 2019-20 Australian bush fires demonstrated that dispersed houses on rural lots, rural-residential lots and residential pockets on the fringes of townships in rural balance areas are at greatest risk from catastrophic bushfire. Earlier reports (Miller et al, 1984; New South Wales Joint Select Committee on Bushfires, 2002; Ellis et al, 2004) have reinforced the argument that the proliferation of small rural-residential lots outside townships and the boundaries to cities has placed large numbers of Australian residents in areas of high risk. The 2009 Bushfires Royal Commission also devoted considerable attention to the potential danger from the proliferation of small lots in rural landscapes and around major cities and towns. It considered the possible impacts of future fires on increased regional and rural populations arguing that it is vital that regional planning “deals with bushfire risk management – in particular, in the context of small undeveloped rural lots and the urban growth of Victoria’s regional cities”. Development of many rural lots “scattered across the landscape has the potential to greatly increase bushfire risk, especially if the blocks are too small to create defensible space around dwellings (Teague et al, 2010:13).”

#### 8.4 Settlement risk and Dispersed housing approvals under rural zones.

8.4.1 Large numbers of dwellings are dispersed through rural zones, particularly, the Farming Zone and the Rural Living Zone and continue to be approved across rural landscapes outside cities and towns. Previous bushfires have demonstrated the high and sometimes extreme risk to such dwellings often from bushfires with distant origins. Figure 18 demonstrates this particularly in the Farming Zone of Moorabool Municipality.

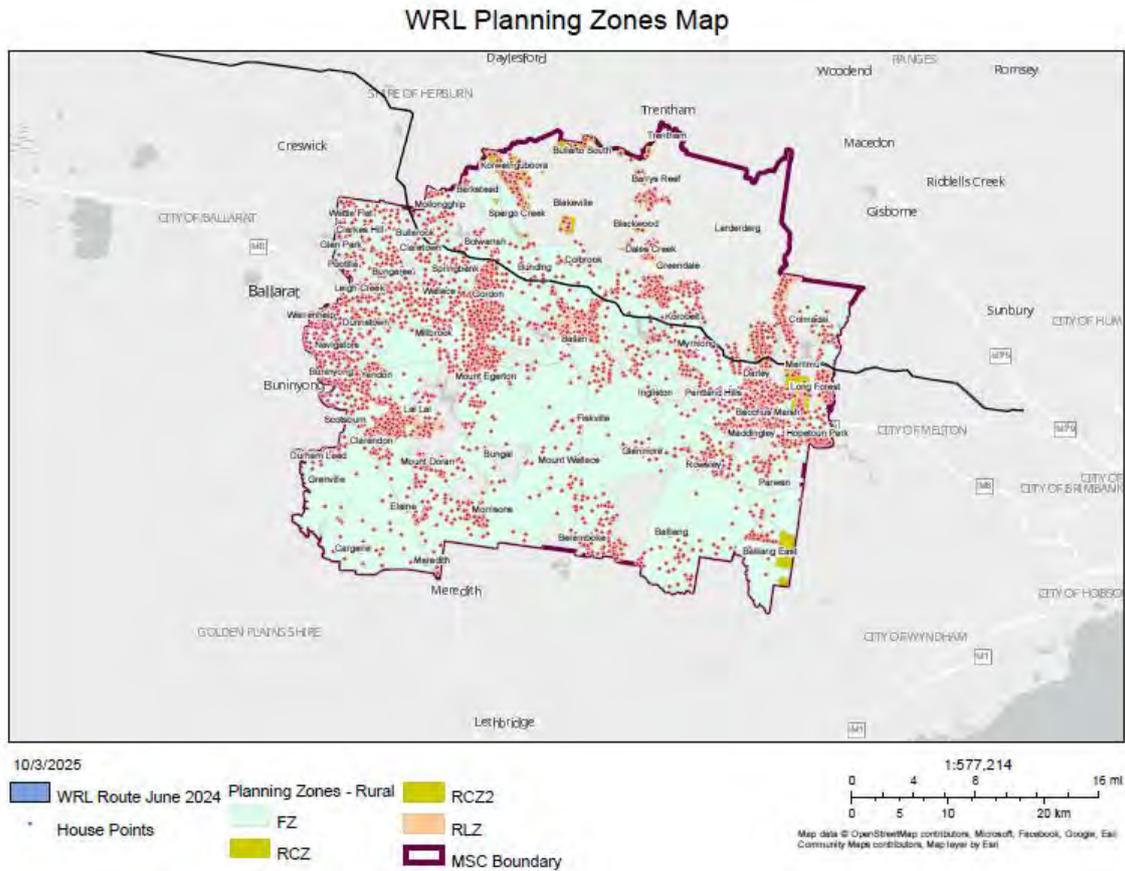


Figure 18: Dispersed rural dwellings Moorabool. (Source: Map provided by Shire of Moorabool prepared on 3 October 2025 based on Victorian government data extracted on 3 October 2025).

8.4.2 One study of approvals prior to the ‘Black Saturday’ fires showed that in the ten years to 2009, over 4,000 houses were built in the rural zones of five peri-urban councils, including Moorabool, with the same building rate continuing after the 2009 bushfires (Buxton et al, 2011a). Another study of municipalities in the Ballarat-Bendigo region, which included some traversed by the proposed transmission line, showed that 2334 dwellings were approved between 2007-2013 and that approvals continued in the years after the 2009 fires, see appendix 1. Large numbers of dwellings destroyed in the 2009 fires were constructed in the Rural Living Zone, with 37 per cent of fire affected lots sized 2 hectares or less, and that zone exhibiting the highest development intensity, with up to 26.27 permits per 1000 ha in the RLZ of Hepburn. Only in Macedon Ranges the Rural Conservation Zone has more intense rate for development of new dwellings than the RLZ (21.77 against 19.55 per 1000 ha) (Llausàs, Buxton and Beilin 2016).

8.4.3 Many vacant lots in the municipality provide capacity for development and further subdivision. Substantial additional development capacity exists in rural zones because of the large number of existing rural lots of various sizes and the potential for dwellings to be constructed on many of these, together with future subdivision potential leading to further dwelling construction. The large and varied sizes of lots in rural zones is shown for Moorabool municipality in Figure 19 below.

### WRL Planning Zones - Rural parcels

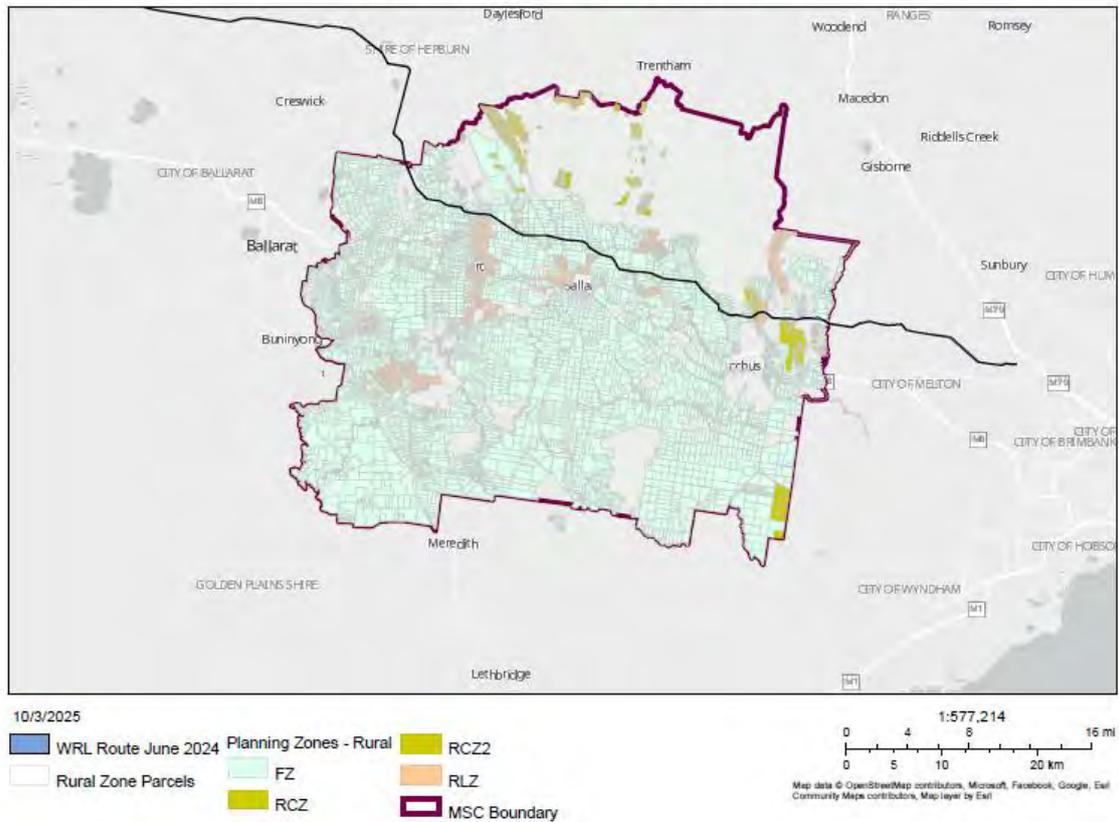


Figure 19: Rural lot parcels in Moorabool. (Source: Map provided by Shire of Moorabool prepared on 3 October 2025 based on Victorian government data extracted on 3 October 2025).

8.4.4 A study of the Ballarat-Bendigo region (Buxton, Phelan et al, 2014), between the bushfires of 2009 and 2019-20, provides detail of the potential scale of dwellings to increase risk to life and property from bushfire. In this region, 79,075 lots existed in the three rural zones (Farming, Rural Conservation and Rural Living zones) while three zones on the fringes of townships (Township, Urban Growth and Comprehensive Development zones) contained 31,316 dwellings. Total development capacity of 87,195 lots in the six zones is comprised of 47,759 existing vacant lots and a potential 39,436 through subdivision under current planning schemes, including the three township zones currently in rural use, while projected rural dwelling demand was only 15,010.

8.4.5 The vast majority of existing lots, 71,990, were situated in the three rural zones. Large numbers of these lots are situated away from population centres where demand for new dwellings is low because of slow population growth. Yet extensive subdivision capacity of 39,436 lots potentially exists in the three township zones under existing planning rules. This potentially increases risk from bushfires from development on the fringes of towns. For example, the Urban Growth and Comprehensive Development zones on the fringes of Ballarat Inner North, accounted for 21,231 potential lots. In some locations, rural development could substantially alter landscapes, for example through the projected construction of 5,851 rural dwellings in the Shire of Macedon Ranges. The Farming Zone contained by far the greatest number of existing rural lots, 47,732 on 710,686 hectares, and therefore the greatest potential development capacity. Many small lots zoned Rural Living also exist, totalling 15,000, and Rural Conservation lots totalled 9,000. Most lots are small,

with almost 75 per cent ten hectares or less on 93,994 hectares. Shires such as Hepburn and Moorabool include fragmented rural landscapes with many small lots which are not necessarily used for farming.

## 8.5 Fire extent and settlement

8.5.1 The risks to such settlement from bushfires is heightened by the evidence of the extensive areas affected by bushfires historically and the speed at which bushfires travel over such large distances. Over 500 bushfires occurred within the 50 km study area between 1980-2023 in size to over 120,000 ha, with an average size of about 1,300 ha at an average of 12 a year up to 39 a year at an average of over 10,000 ha a year. Only 6 bushfires have intersected the project land (Report K pp 59-60). Report K recognises that the study area includes ‘some particularly high-risk areas’ particularly around the Wombat Forest, south of Daylesford, Lederberg park, and north of Bacchus Marsh, and around Creswick. This historic risk is heightened by the impacts of climate change. Bushfire history, figure 6-13 shows the extensive range of previous bushfire activity including on significant areas of private land outside public land forests. Figures 12-6 to 12-9 of Chapter 12 when compared to figure 1-13 of Report K shows that bushfires have burnt areas adjoining or within five km of many settlements of various sizes including large towns particularly in the Shire of Moorabool.

8.5.2 Assessment of consequences of ignition should take account of the potentially vast extent of bushfire events particularly in South-Eastern Australia. Victoria has a land area of some 230,000 sq. kms, equating to around three per cent of Australia’s land area. However, it is one of the world’s most fire-prone regions, historically sustaining about 50 per cent of the economic damage from the country’s bushfires (Buxton et al, 2011b). A substantial Australian population now lives in existing urban-edge localities which are among the most fire-prone in the world.

8.5.3 Every Australian State now experiences major bushfires, including cool temperate, tropical and subtropical areas, and coastal areas of New South Wales. The 1983 ‘Ash Wednesday’ fires resulted in 47 deaths and the loss of over 2000 properties in Victoria, and 28 deaths and the loss of over 380 homes in South Australia. This fire burnt down, or severely affected, six townships. In the 2009 ‘Black Saturday’ fires on the periphery of Melbourne, 173 lives were lost, over 3500 buildings were destroyed and 414 people were injured. The 2009 bushfires ranked as Australia’s most serious civilian tragedy and one of the world’s ten most deadly recorded bushfires (Teague et al, 2010). Again, a number of townships were destroyed, including Marysville and Kinglake, but a significant feature was the devastation of a large area of rural land in Melbourne’s broader peri-urban area (Fisher, 2012). The Final Report into the 2009 fires estimated their cost at a conservative \$AUS4.4 billion based on a figure of \$645 million for lives lost and \$1.2 billion for successful insurance claims (Teague et al., 2010).

8.5.4 The 2019-20 fire season extended across Australia burning some 18.5 million hectares, destroying over 3,500 houses, killing 34 people, and leading to insurance losses of over \$1.3 billion (Centre for Disaster Philanthropy, 2020). Total damages from the ‘Black Summer’ fires of 2019/2020 have been assessed at around \$100 billion (AUD) (Read & Denniss, 2020). Almost three billion animals were also killed or displaced (World Wildlife Fund for Nature, 2020). For comparison, these fires were almost twice the size of the 2009 fires. In Eastern Australia, they burnt an almost continuous 1,160 km band from sub tropical South Eastern Queensland to South Eastern Victoria across an area of over 7 million hectares of which 5.7 million hectares of forest and woodland burnt (Bushfire Recovery Project, 2021).

These fires burnt down or severely damaged multiple towns and burnt for three months through public forest before being eventually halted only by reaching the ocean.

8.5.5 A new level of risk can now be applied to metropolitan areas. A more recent feature of fires is the tendency for fires to enter established urban areas of large cities. The Sydney 2001–2002 bushfires and the 2009 Narre Warren and Bendigo fires in Victoria entered established urban areas, sometimes for considerable distances, resulting in the loss of over 100 Sydney and 53 Bendigo homes. The 2003 Canberra firestorm, destroying over 480 houses and killing 4 people, is the most notable example of a bushfire causing devastation in Australian suburban environments since the Hobart fire of 1967. The 1967 ‘Black Tuesday’ fires in Tasmania resulted in a record insurance payout for Australia. Some 1300 homes were destroyed and 62 lives lost in a fire that burnt approximately 3000 sq. kms. and came within 2 km of the Hobart CBD (Chambers & Brettingham-Moore, 1967). This tendency has important potential implications for an assessment of consequence of ignition from this project given the proximity to large urban areas and large towns, including expanding metropolitan areas of the urban fringe.

8.5.6 We find that the assessment of bushfire risk in the Technical Reports is not acceptable as an adequate response to bushfire risk. In our view, the conclusions about the unlikely event of on-site ignition rely unreasonably on the assumption that past practice and events are a sufficient guide to future situations. The assessment of the likelihood of on-site ignition relies on confidence in the stability of towers through a higher standard of construction than those affected by extreme events, the unlikelihood of ground to wire conductivity, effective fire suppression and the resistance of transmission infrastructure to off-site bushfire. However, the project assessment’s unequivocal conclusions that the project represents a low or very low bushfire risk is not supported by a more extensive analysis of risk.

8.5.7 The Technical Reports conclude that the risk from bushfire is low because the unlikelihood of on-site ignition or of fire escaping the easement minimises the potential impacts of ignition. But we believe that this conclusion is flawed. The probability of worsening environmental conditions and the high confidence in the possibility of a confluence of extreme events reduces the legitimacy of probabilities being assigned to outcomes in the ways the Technical Reports conclude. It does not follow that even if the likelihood of failure is very low, consequential impacts will likely not arise or be negligible. Impacts from unlikely events may be catastrophic and often have been so.

8.5.8 In our opinion, the reports also fail to adequately consider some important environmental impacts which should have formed an essential part of the assessment process. The principal omission is the full consideration of the potential impacts of bushfire arising from the project on settlement. Such settlement patterns are varied and complex. The assessment considers many factors within mapped radii but not settlement. It conspicuously fails to conform to the requirement in planning schemes to “strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.” The exclusion of the element of settlement is a fundamental omission which unacceptably influences the conclusions drawn about low risk from the project. We also believe that some conclusions drawn on other matters such as access and egress are not justified and that the project assessment unreasonably minimises potential impacts again on life and property in certain locations from infrastructure failure.

8.5.9 These factors, we believe, have led to a flawed assessment of risk in the technical reports. Such flaws may be highly significant if the assumptions and conclusions in the assessment about the possibility of on-site ignition prove incorrect. In such situations, the understating of potential impacts and the resulting conclusions about low and very low risk from the project may have serious consequences for life and property and a wide range of other affected parties.

## **9.0 Undergrounding: Planning and environmental matters**

9.1 Section 7.9.2. Evaluation of Partial Underground Routes considered undergrounding options and preferred the overhead route after considering such factors as biodiversity, visual amenity, ground disturbance, the cost of undergrounding and limited availability high voltage underground cables. The evaluation accepted that partially undergrounding the route would reduce bushfire risk:

“From a bushfire perspective, the partial underground routes have fewer impacts during operation. Overhead routes pose constraints on bushfire responses in the immediate vicinity of the transmission lines and access and egress issues associated with failure of a tower or fallen conductors during a bushfire event. The probability of tower collapse or conductor fall occurring at the same time as a significant bushfire event affecting the area in vicinity of the Project is exceedingly low” (p 137), and “ There are greater operational bushfire impacts associated with the proposed overhead route, compared to partial underground route. These include constraints on bushfire responses in the immediate vicinity of the transmission lines and access and egress issues associated with failure of a tower or fallen conductors during a bushfire event. While there are effective mitigations for these potential impacts, partial undergrounding would eliminate most potential operational bushfire impacts” and “Undergrounding in the Lerderderg Gorge Rd – Camerons Rd area would address the risk of blocked egress following tower or conductor collapse and associated community perceptions of this risk” (p 145).

9.2 No assessment of potential bushfire impacts was conducted for Appendix B Darley partial undergrounding environmental impact assessment. A comparison of the proposed overhead route and partial underground routes in terms of bushfire risk was considered for the Darley area but made general unevaluated conclusions. No evaluation of bushfire risk was made for alternative projects in section 9 other than reference to length of transmission line in the Bushfire Management Overlay, and again, no evaluation was conducted.

9.3 In conclusion, the assessment accepts that partial undergrounding would pose a lower risk from bushfire than overhead infrastructure and conducted limited assessments of bushfire impacts yet preferred the overhead option on a range of other criteria. Undergrounding would reduce risk particularly in the Darley area and clearly is the preferred option on the criterion of bushfire risk. Rejecting the undergrounding option on the basis of factors such as cost involves an attempt to balance competing objectives. No satisfactory method of calculation costs and benefits from such an attempt was undertaken. The overhead option may achieve a lower construction cost, for example, but may also lead to high economic and social cost from eventual loss of dwellings if a bushfire eventuated from the adopted option.

## **10.0 Proposed Environmental Performance Requirements**

10.1 Technical Report K includes proposed Environmental Performance Requirements, as does Table 29.2 of Chapter 29 Environmental Management Framework.

10.2 It is noted that there is no Bushfire EPR proposed (see 29.9.2) in Chapter 29 Environmental Management Framework. As stated in the EES:  
“Bushfire is not addressed in the EPRs as there is a condition included in the draft Incorporated Document that defines the requirements. This is provided in Table 29.10.”

10.3 Examination of Table 29.10 reveals that this relates to the preparation of a Construction Bushfire Management Plan only, ignoring the need for bushfire management for the lifetime of the project. More detail is provided on this in commentary provided in the next section regarding the Incorporated Document.

10.4 We consider that this omission should be rectified to ensure ongoing management of bushfire risks occurs.

## **11.0 Incorporated Document: Planning and environmental matters relating to bushfire**

11.1 Assumptions: the Incorporated Document.

11.1.1 To proceed, the proposal would either require many permits to be issued pursuant to the Planning and Environment Act (1987), as required under the various planning schemes that affect the project land, or by way of a Planning Scheme Amendment as proposed via s 20(4) of the Planning and Environment Act (1987), being Amendment GC209.

11.1.2 It is assumed here that the Minister’s use of 20(4) of the Planning and Environment Act (1987) is an appropriate use of powers in this circumstance, so we have not provided commentary or opinions on that aspect.

11.2 Summary of GC209.

11.2.1 Attachment III Draft Planning Scheme Amendment sets out a proposed amendment that would facilitate the project from an urban planning perspective.

11.2.2 A Group of Councils (GC) planning scheme amendment is proposed to introduce a Project-specific planning control in the form of an incorporated document into each of the six affected planning schemes.

11.2.3 It would include the following aspects that affect the Moorabool Planning Scheme, as set out Attachment III Draft Planning Scheme Amendment (pp. 9-10).

- Apply a Specific Controls Overlay (SCO8) to the Project Land through Clause 45.12 (Specific Controls Overlay) of the Moorabool planning schemes.
- Insert a Project-specific Incorporated Document into the planning scheme. Clause 45.12 (Specific Controls Overlay) is used to apply specific controls designed to achieve a particular land use and development outcome in extraordinary circumstances. Land affected by the Specific Controls Overlay may be used or developed in accordance with a specific control contained in the corresponding incorporated document, which would be identified in the Schedule to Clause 45.12.

- Insert the following incorporated document into all six planning schemes to facilitate the use and development of the Project: “Western Renewables Link, Incorporated Document, XXX 2025” (the Incorporated Document). The Incorporated Document would contain the conditions of approval that apply to the use and development of land for the Project.
- Amend the Schedule to Clause 66.06 (Notice of permit applications under local provisions) to require notice to be given to AusNet Transmission Group Pty Ltd in relation to any application for a planning permit on the land subject to the Specific Controls Overlay (SCO8).
- Amend the Schedule to Clause 72.01 (Responsible authority for this planning scheme) to make the Minister for Planning the responsible authority for administering and enforcing the provisions of the Moorabool Planning Scheme as they relate to the use and development of land for the Project.
- Amend the Schedules to Clause 72.03 (What does this planning scheme consist of?) to reflect the newly inserted or amended Planning Scheme Maps.
- Amend the Schedule to Clause 72.04 (Incorporated Documents) of the Moorabool Planning Scheme to include a new Incorporated Document titled “Western Renewables Link, Incorporated Document, XXX 2025” (the Incorporated Document) to facilitate the use and development of the Project.
- Amend existing or insert new Planning Scheme Maps to reflect the application of the Specific Controls Overlay schedule 8:
- 9SCO, 11SCO, 13SCO, 14SCO, 28SCO, 29SCO, 31SCO, 38SCO (new)

### 11.3 Assessment of Incorporated Document

11.3.1 After considering the draft amendment, this general approach and use of statutory mechanisms approach and use of provisions is appropriate to the circumstance, except for the detailed content of aspects of the Project-specific Incorporated Document.

### 11.4 Summary of Incorporated Document

11.4.1 Attachment III Draft Planning Scheme Amendment, Appendix B includes the Incorporated Document (p.74). The Incorporated Document includes the requirement for preparation and approval of an Environmental Management Framework (EMF) for the Project. This is intended to manage environmental effects of the Project. In turn, the EMF requires the preparation of Environmental Performance Requirements EPRs which set out the environmental standards and outcomes that must be achieved during all stages. The Incorporated Document requires that before the use or development starts (excluding preparatory buildings and works and development and use associated with the temporary workforce accommodation facilities), an EMF must be prepared to the satisfaction of the Minister for Planning.

### 11.5 Policy Context of Amendment

11.5.1 Clause 71.02-3 Integrated decision making includes the following:  
 “...balance conflicting objectives in favour of net community benefit and sustainable development for the benefit of present and future generations. However, in bushfire affected areas, planning and responsible authorities must prioritise the protection of human life over all other policy considerations.”

11.5.2 As set out in 2.4.3 above, Clause 13.02-1S Bushfire Planning is applicable in this instance. Its Objective is: “To strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.” Under Strategies it states: “Give priority to the protection of human life by:

- Prioritising the protection of human life over all other policy considerations.
- ...
- Reducing the vulnerability of communities to bushfire through the consideration of bushfire *risk in decision making at all stages of the planning process.*” (Italics added)

## 11.6 Assessment of Incorporated Document

11.6.1 Clause 4.8 Environmental Management Framework sets out a variety of matters for which EPRs must be prepared. It is a notable omission that Bushfire is not one of these, given the impacts upon the project that bushfire might have, and which bushfires might have upon the surrounding area, including increased risks because of the project. This omission should be addressed if the project were to go ahead.

11.6.2 We are of the opinion that to achieve the objectives of Clause 13.02-1S Bushfire Planning and Clause 71.02-3 Integrated decision making a number of matters need to be addressed by a bushfire specific EPR that reduces ongoing bushfire risks after construction is completed. At a minimum, suggested starting points for this include:

- Vegetation controls, beyond those operationally required of Ausnet by other legislation and regulation.
- Access and response roads for active firefighting, that integrate with wider road and fire access systems, acknowledging constraints to this near power transmission lines.
- Provision of water storage and access points to facilitate and improve fire response.
- Provision of water point and access signage.

11.6.3 It is noted that 4.11 Bushfire Management (p.7) includes a requirement at 4.11.1 “Before development starts, a Construction Bushfire Management Plan must be prepared in consultation with the relevant fire authority and must address the following...”

11.6.4 The included matters to be addressed in the Construction Bushfire Management Plan are appropriate, but there is no reference to staging of the project on a seasonal basis. As the EES and others have affirmed some parts of the route are considerably higher risk by virtue of vegetation and topography and proximity to settlements. It is recognised that many factors influence staging. However, given that bushfire risks vary considerably by season, it is of concern that no provisions will direct construction to low-risk areas during the bushfire season.

## 12.0 Declaration

### 12.1 Expert declaration

I have made all the inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Inquiry and Assessment Committee.

Michael Buxton



Signed (above)

Date: 16/10/2025

### 12.2 Expert declaration

I have made all the inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Inquiry and Assessment Committee.

Alan March



Signed (above)

Date: 16/10/2025

## Appendix 1

Number and intensity of approved new dwelling/s in the study region between 2007 and 2013 by LGA and rural zone. Intensity is defined by the number of approved planning permits per 1000 ha of the corresponding zone. Source: adapted from DTPLI (2013a).

	New dwelling/s	
	Approvals	Intensity
<b>Ballarat</b>	<b>166</b>	
Rural living	82	14.88
Rural farming	70	1.46
Rural conservation	9	7.99
<b>Central Goldfields</b>	<b>143</b>	
Rural living	63	8.78
Rural farming	67	0.70
Rural conservation	11	1.18
<b>Greater Bendigo</b>	<b>532</b>	
Rural living	179	5.82
Rural farming	220	1.42
Rural conservation	91	2.85
<b>Hepburn</b>	<b>493</b>	
Rural living	148	26.27
Rural farming	321	3.23
Rural conservation	10	3.55
<b>Macedon Ranges</b>	<b>445</b>	
Rural living	135	8.43
Rural farming	84	0.99
Rural conservation	220	4.62
<b>Moorabool</b>	<b>372</b>	
Rural living	116	19.55
Rural farming	160	1.20
Rural conservation	87	21.77
<b>Mount Alexander</b>	<b>183</b>	
Rural living	17	9.43
Rural farming	150	1.26
Rural conservation		
<b>Total</b>	<b>2334</b>	

## Appendix 2

### Severe thunderstorm and tornado outbreak South Australia 28

September 2016, BoM 2016.

Friday 16<sup>th</sup> December 2022 WattClarity Global-Roam.

<https://wattclarity.com.au/articles/2022/12/how-common-are-islandings-and-transmission-tower-failures-in-the-nem/>

How often these have occurred and what causes have been involved.

Date	Approx. Location	Cause(s)	Description
12 <sup>th</sup> November 2022	Taillem Bend, SA	Thunderstorms / Strong Winds	 <p><i>Source: ElectraNet</i> Thunderstorms and strong winds <a href="#">bring down a transmission tower</a> near Taillem Bend.</p>
14 <sup>th</sup> October 2022	Poatina, TAS	Landslide / Flooding	 <p><i>Source: TasNetworks</i> A landslide near the town of Poatina <a href="#">displaces the foundations of a tower carrying a 220kV line</a> that runs through the middle of the state.</p>
7 <sup>th</sup> May 2020	Tamworth, NSW	Thunderstorms / Strong Winds	 <p><i>Source: TransGrid</i></p>

			A section of the QNI interconnector that lies near Tamworth is <a href="#">damaged during a thunderstorm</a> .
<b>31<sup>st</sup> January 2020</b>	<b>Cressy, VIC</b>	Thunderstorms / Strong Winds	<p>Source: <i>Energy Networks Australia</i> Six transmission towers that form part of the Heywood Interconnector <a href="#">collapse in Western Victoria</a>.</p>
<b>4<sup>th</sup> January 2020</b>	<b>Gadara, NSW</b>	Bushfires	 <p>Source: <i>TransGrid</i> Bushfires <a href="#">burn through several wood pole structures</a> in Southern NSW. Parts of the VNI interconnector <a href="#">are temporarily shut off</a>.</p>

<p><b>31<sup>st</sup> March 2017</b></p>	<p><b>Clarke Creek, QLD</b></p>	<p>Tropical Cyclone Debbie / Flooding</p>	 <p><i>Source: Powerlink</i>  Flooding associated with Tropical Cyclone Debbie causes several towers to fail. In total, <a href="#">nineteen transmission towers are replaced</a> after being damaged by the floodwaters.</p>
<p><b>28<sup>th</sup> September 2016</b></p>	<p><b>Melrose, SA, and other areas of the state</b></p>	<p>Tornadoes / Strong Winds</p>	<p><i>Source: ABC</i>  Several towers collapse near the town of Melrose, later found to be one of the root causes of the SA system black event. In total, <a href="#">more than twenty transmission towers</a> across the state collapsed during the weather event.</p>
<p><b>15<sup>th</sup> January 2014</b></p>	<p><b>Pyramid Hill, VIC</b></p>	<p>Thunderstorms / Strong Winds</p>	<p>Six towers fail during a thunderstorm on the <a href="#">220kV Bendigo to Kerang line</a> in a similar incident to 2010. It was later stated that the towers on the line, constructed in 1961, were <a href="#">structurally inadequate for high-intensity winds</a>.</p>
<p><b>3<sup>rd</sup> February 2011</b></p>	<p><b>Cardwell, QLD</b></p>	<p>Tropical Cyclone Yasi / Strong Winds</p>	<p>Two transmission towers in North Queensland <a href="#">are ‘flattened’</a> by cyclonic winds. Wind-borne debris also cause several line trips in the area.</p>

<p><b>12<sup>th</sup> January 2010</b></p>	<p><b>Pyramid Hill, VIC</b></p>	<p>Thunderstorms / Strong Winds</p>	 <p><i>Source: Bendigo Advertiser</i> Thunderstorms and strong winds <a href="#">topple five towers</a> on the 220kV Bendigo to Kerang line in Northern Victoria.</p>
<p><b>12<sup>th</sup> December 2009</b></p>	<p><b>North-East Victoria</b></p>	<p>Bushfires / Strong Winds</p>	<p><a href="#">One suspension tower fails</a> on the <a href="#">330kV South Morang to Dederang line</a> – from a combination of north-westerly winds, and the convection effect of bushfires.</p>
<p><b>21<sup>st</sup> September 2009</b></p>	<p><b>Broken Hill, NSW</b></p>	<p>Dust Storms / Strong Winds</p>	<p><i>Source: ABC</i> <a href="#">Five transmission towers snap at ground level</a> and collapse <a href="#">during a dust storm</a> close to Broken Hill.</p>
<p><b>8<sup>th</sup> December 2008</b></p>	<p><b>Dystart, QLD</b></p>	<p>Thunderstorms / Strong Winds</p>	 <p><i>Source: Courier-Mail</i> Seven transmission towers are <a href="#">severely damaged</a> north of the town of Dystart during a summer thunderstorm.</p>

<b>20<sup>th</sup> March 2006</b>	<b>Innisfail, QLD</b>	Tropical Cyclone Larry / Strong Winds	Five transmission towers along the Palmerston Highway and near the town of Babinda <u>are destroyed by cyclonic winds.</u>
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## Appendix 3 – Instructions to Experts

Our Ref: GG:040-001

**Confidential**

**Professor Michael Buxton**  
RMIT University  
&  
**Professor Alan March**  
The University of Melbourne

**By email only:**

19 September 2025

Dear Professor Buxton and Professor March

**WESTERN RENEWABLES LINK INQUIRY AND ADVISORY COMMITTEE  
ENVIRONMENT EFFECTS STATEMENT & DRAFT AMENDMENT GC209  
LETTER OF INSTRUCTION**

We act for Moorabool Shire Council (**Council**) in relation to the above matter.

**Introduction**

The purpose of this letter of instruction is to provide background information in relation to the above matter and to formally engage you to provide independent expert opinion. References to specific documents in this letter are hyperlinked for your ease of reference and are available from the Department of Transport and Planning website<sup>1</sup> or the Western Renewables Link website<sup>2</sup>. We are happy to provide a hardcopy brief of documents if this would assist.

AusNet Transmission Group Pty Ltd (**AusNet**) has proposed a new electricity transmission line between Bulgana in Victoria's west and Sydenham in Melbourne's north-west called the Western Renewables Link (the **Project**). The Project includes the construction, operation and decommissioning of a 500kV double circuit overhead transmission line. The Project traverses Moorabool Shire.

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<sup>1</sup> <https://www.planning.vic.gov.au/environmental-assessments/browse-projects/western-renewables-link>

<sup>2</sup> <https://www.westernrenewableslink.com.au/planning/ees-landing/>

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Level 35, 477 Collins Street  
Melbourne  
Victoria 3000  
ABN: 48 535 041 917

## Background

1. On 11 August 2023, AusNet made a [referral](#) of the Project under the *Environment Effects Act* 1978.
2. On 22 August 2023, the Minister for Planning made a [decision](#) to require AusNet to prepare an Environment Effects Statement (**EES**) under the *Environment Effects Act* 1978 to assess the potential environmental effects of the Project. The decision replaces an earlier decision made by the then Minister for Planning on 4 August 2020. The Minister for Planning also issued [reasons](#) for the decision.
3. [Scoping Requirements](#) dated November 2023 were issued for the EES. These set out additional details with respect to the EES.
4. The EES is a comprehensive environmental assessment that describes the potential environmental, economic and social impacts of the proposal.
5. A planning scheme amendment is proposed as the primary approval for the Project. The Project proposed to be delivered through Planning Scheme Amendment GC209 to the Northern Grampians, Pyrenees, Ballarat, Hepburn, Moorabool and Melton Planning Schemes. A draft Planning Scheme Amendment has been published with the EES. In Moorabool Shire, the Planning Scheme Amendment would amend the Schedule to Clause 45.12 (Specific Controls Overlay) to introduce a new Incorporated Document, the “Western Renewables Link, Incorporated Document XXX 2025” to facilitate the use and development of the Project on land relating to the Project. It would also include Schedules to Clause 72.03 and amend existing or insert new planning scheme maps to reflect the application of the Specific Controls Overlay. Subject to the outcome of the EES process, AusNet has stated that it would request that the Minister for Planning exempts notice requirements, adopt and approve the Planning Scheme Amendment GC209.
6. On 25 June 2025, the Minister for Planning appointed the Western Renewables Link Project Inquiry and Advisory Committee (**IAC**). The IAC is appointed to inquire into, and report on, the Project and its environmental effects in accordance with its [Terms of Reference](#).
7. The IAC is appointed pursuant to:
  - a. section 9(1) of the *Environment Effects Act* 1978 as an inquiry; and
  - b. part 7, section 151(1) of the *Planning and Environment Act* 1987 as an advisory committee, to consider the draft planning scheme amendment GC209 to the

Northern Grampians, Pyrenees, Ballarat, Hepburn, Moorabool and Melton Planning Schemes.

8. A Public Hearing has been listed in the matter from 27 October 2025. At the date of this letter, a timetable has not been set down by the IAC. The IAC will not hold public hearings between 19 December 2025 and 18 January 2025. A further update will be provided to you in due course in relation to the hearing timetable.

### **EES Materials**

9. The EES is comprised of 30 Chapters and 20 technical reports and a number of attachments.
10. Other documents have also been exhibited with the EES. These are located on a webpage titled “Peer reviews and additional information”. Please note that the website currently states: “Submissions should not be based on the information on this page and instead should be based on the EES and draft Planning Scheme Amendment (PSA), which can be found on our Environment Effects Statement page”. We have raised this with the IAC. For the purposes of your evidence, please take this material into account as relevant.
11. Documents relating to bushfire matters include:
  - a. [Chapter 13 Bushfire](#);
  - b. [Technical Report K](#) Bushfire Impact Assessment;
  - c. A [Bushfire Peer Review](#) by Fire Risk Consultants dated June 2025;
  - d. [Program Change Advice](#) in relation to Bushfire;
  - e. [Chapter 28](#) Climate change;
  - f. [Technical Report N](#) Climate Change Assessment;
  - g. [Attachment I](#): Project Development and assessment of alternatives. This includes Appendix B Darley partial undergrounding environmental impact assessment; and
  - h. [Attachment II](#): Assessment of feasibility for an underground 500kV transmission line for Western Renewables Link.
12. Other relevant documents relating to the Project and its development can be found at:
  - a. Chapters 1-6 on [Introduction](#), [Project rationale](#), [Legislative framework and approval requirements](#), [EES assessment framework and approach](#), [Project development](#) and [Project description](#) respectively;
  - b. [Chapter 12](#) Land use and planning;
  - c. [Technical Report E](#) Land Use and Planning Impact Assessment;

- d. [Attachment III](#) Draft Planning Scheme Amendment.

**Your engagement**

13. We are instructed to engage you to:
- a. review the EES Materials;
  - b. confer with instructing solicitors and Counsel, Louise Hicks, where necessary;
  - c. prepare an expert report which addresses planning related bushfire matters and bushfire matters;
  - d. as necessary, participate in any joint expert meeting (conclave); and
  - e. appear at the EES Hearing for the purposes of presenting your expert opinion concerning these matters.
14. A supplementary letter of instruction will be provided in relation to specific matters on which your expert opinion is sought.
15. At the date of this letter the IAC has not issued directions in relation to the date for filing of expert evidence. We presently anticipate this to be on or after **Monday 13 October 2025** and we will provide a further update once the due date for expert evidence is confirmed.

**Duty of expert witness**

16. We attach a copy of Planning Panels Victoria, Practice Note 1 in relation to Expert evidence. Please ensure that you read this prior to preparation of your expert report.
17. Please note that an expert witness:
- a. has a paramount duty to the IAC and not to the party retaining the expert;
  - b. has an overriding duty to assist the IAC on matters relevant to the expert's expertise; and
  - c. is not an advocate for a party to a proceeding.

**Client details – Fee estimates and invoicing**

18. Please arrange for your fee estimate and invoices to be provided directly to our mutual client:

Catherine McLay  
Special Projects Lead  
Moorabool Shire Council  
PO Box 18, Ballan, VIC 3324

By email to: [cmclay@moorabool.vic.gov.au](mailto:cmclay@moorabool.vic.gov.au)

**Confidentiality**

19. This letter and all future communications between you and Guthrie Legal and/or Counsel are confidential (**Confidential Information**) and are subject to a claim for privilege and must not be disclosed without our consent or the consent of our client.
20. The duty of confidentiality will continue beyond the conclusion of your instructions.
21. You must take all steps necessary to maintain Confidential Information and notes in strictest confidence.

**Change of opinion**

22. If for some reason, you change your opinion after delivering your report, please advise us as soon as possible. If that change is material, a supplementary report will need to be prepared, which explains the reasons for the change in your opinion.

**Further information**

23. If you require any other information or data, please let us know.

Should you have any queries in relation to this letter, please do not hesitate to contact Gabrielle Guthrie on 0450 266 779.

Yours faithfully



Gabrielle Guthrie  
**Principal**  
Guthrie Legal

Email: [gabrielle@guthrie-legal.com](mailto:gabrielle@guthrie-legal.com)  
Tel: 0450 266 779

Att: Planning Panels Victoria - Practice Note 1

## Planning Panels Victoria | Practice Note 1

This Practice Note advises on practices which an expert witness must meet when participating in a hearing at Planning Panels Victoria (PPV).

### Duty of an expert witness to PPV

1. An expert witness:
  - a. has a paramount duty to PPV and not to the party retaining the expert
  - b. has an overriding duty to assist PPV on matters relevant to the expert's expertise
  - c. is not an advocate for a party to a proceeding.

### Report form and content

2. The expert witness report must be provided electronically unless specified otherwise and include:
  - a. the expert's name and business address
  - b. the expert's qualifications and experience
  - c. a statement identifying the expert's area of expertise to make the report
  - d. a statement identifying any other significant contributors to the report and where necessary outlining their expertise
  - e. all instructions that define the scope of the report (original and supplementary and whether in writing or oral)
  - f. the identity of the person who carried out any tests or experiments upon which the expert has relied on and the qualifications of that person.
3. The expert witness must be in an unlocked form (content can be searched and copied).

### Where an expert has prepared a report that has been used to inform the preparation of an amendment or proposal

4. The expert should not provide a revised version of that report.
5. The expert should provide a brief report that includes:
  - a. an unambiguous reference to the report, or reports that the expert relies upon
  - b. a statement identifying the role that the expert had in preparing or overseeing the exhibited
  - c. report(s) a statement to the effect that the expert adopts the exhibited report and identifying:
    - any departure of the expert from the finding or opinions expressed in the exhibited report
    - any questions falling outside the expert's expertise
    - any key assumptions made in preparing the report
    - whether the exhibited report is incomplete or inaccurate in any respect.

### Where a report has not been used to prepare an amendment or proposal

6. The report should include:
  - a. the facts, matters and all assumptions upon which the report proceeds
  - b. reference to those documents and other materials the expert has been instructed to consider or take into account in preparing his or her report, and the literature or other material used in making the report
  - c. a summary of the expert's opinion or opinions
  - d. a statement identifying any provisional opinions that are not fully researched for any reason (identifying the reason why such opinions have not been or cannot be fully researched)
  - e. a statement setting out:
    - any questions falling outside the expert's expertise
    - whether the report is incomplete or inaccurate in any respect.

### Expert declaration

7. The expert must declare at the end of the report:

*I have made all the inquiries that I believe are desirable and appropriate and no matters of significance which I regard as relevant have to my knowledge been withheld from the Panel.*

8. If the expert will be presenting evidence from a different location by video conference, they must append:

*I confirm I:*

- *will be alone in the room from which I am giving evidence and will not make or receive any communication with another person while giving my evidence except with the express leave of the Panel*
- *I will inform the Panel immediately should another person enter the room from which I am giving evidence*
- *during breaks in evidence, when under cross-examination, I will not discuss my evidence with any other person, except with the leave of the Panel*
- *I will not have before me any document, other than my expert witness statement and documents referred to therein, or any other document which the Panel expressly permits me to view.*

### Report circulation and timing

9. Expert witness reports must be submitted five working before the Hearing commences, or another date directed by PPV. An earlier date will be specified for more complex reports.
10. Parties must identify at the Directions Hearing, the evidence (if any) they will be calling at the Public Hearing.

### Privacy

11. Expert witnesses need to be aware of their obligations under the *Information Privacy Act 2000*, particularly when using personal information in submissions they have received as a third party.
12. Copies of witness reports are usually posted on the planning authority's website. Where possible, the report of an expert should not refer to any individual submitter by name and if necessary, submitters should be referred to by submission number.

13. For more information on privacy, refer to the separate PPV Guide to Privacy at Planning Panels Victoria.

### **Where the expert changes their opinion on a material matter**

14. An expert witness who changes an opinion on a material matter on the basis of another expert's report or for any other reason must communicate that change of opinion in writing to the party retaining the expert and that party must file with the Panel, notice of such change of opinion as soon as practicable.
15. Such a document must specify reasons why the opinion has changed.

### **Where the Panel directs expert witnesses to meet**

16. Expert witnesses retained by parties are encouraged to meet to narrow any points of difference between them and to identify any remaining points of difference. Experts may be directed to meet.
17. If expert witnesses meet, they must each set out in writing by a document filed with the Panel any agreed points and all remaining points of difference.
18. If any expert witness directed by the Panel to meet with any other expert is instructed not to reach agreement in respect of points of difference, the fact of such instructions must be reported in writing to the Panel by the expert witness.

Our Ref: GG:040-001

**Confidential**

**Professor Michael Buxton**  
RMIT University  
&  
**Professor Alan March**  
The University of Melbourne

**By email only**

3 October 2025

Dear Professor Buxton and Professor March

**WESTERN RENEWABLES LINK INQUIRY AND ADVISORY COMMITTEE  
ENVIRONMENT EFFECTS STATEMENT & DRAFT AMENDMENT GC209  
SUPPLEMENTARY LETTER OF INSTRUCTION**

We continue to act for Moorabool Shire Council (**Council**) in relation to the above matter.

**Introduction**

1. The purpose of this supplementary letter of instruction is to outline specific matters on which your expert opinion is sought.

**Expert opinion**

2. Your opinion is sought on the following matters:

***Bushfire***

- a. having regard to Technical Report K – Bushfire Impact Assessment, and any other matters you consider relevant, please provide your opinion on the approach taken with respect to bushfire impact assessment, including but not limited to, the treatment of ignition risk;
- b. having regard to Technical Report K – Bushfire Impact Assessment and any other matters you consider relevant, please provide your opinion on the extent

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to which bushfire impacts have been acceptably addressed and to the extent that they have not, your opinion on those impacts;

***Planning and environmental matters relating to bushfire***

- c. having regard to Attachment I and any other matters you consider relevant, please provide your opinion on the extent to which Project development and assessment of alternatives have taken account of bushfire impacts;
- d. having regard to Technical Report K – Bushfire Impact Assessment, Technical Report E – Land Use and Planning Impact Assessment, and Technical Report N – Climate Change Impact Assessment, and any other matters you consider relevant, please provide your opinion on planning or environmental considerations within Moorabool Shire (including, but not limited to, settlement, climate change and natural hazards) and whether or not the Project has acceptably taken account of such matters. To the extent that it has not, please provide your opinion on those matters;
- e. please provide your opinion on the conclusions of the Technical Report K - Bushfire Impact Assessment, including but not limited to:
  - i. impacts on access and egress of people;
  - ii. impacts on access and egress of people in Darley; and
  - iii. impacts on firefighting response, including access and egress, fire suppression and aerial firefighting.
- f. please provide your opinion on the significance and acceptability of the Project with respect to bushfire impacts;
- g. please provide your opinion on the conclusions with respect to bushfire impact for:
  - i. partial undergrounding at Darley (see Attachment I and Appendix B of Attachment I, Darley partial undergrounding environmental impact assessment; and
  - ii. route undergrounding (Attachment II);
- h. please provide your opinion on the Proposed Environmental Performance Requirements proposed in Technical Report K and represented in Table 29.2 of Chapter 29 – Environmental Management Framework;

**GUTHRIE LEGAL**  
ENVIRONMENT & PLANNING LAW

- i. please provide your opinion on the Incorporated Document presented in Attachment III; and
- j. please provide your opinion on any other matter you consider relevant to:
  - i. planning and environmental matters relating to bushfire; and/or
  - ii. bushfire matters in Moorabool Shire.

Should you have any queries in relation to this letter, please do not hesitate to contact Gabrielle Guthrie on 0450 266 779.

Yours faithfully



Gabrielle Guthrie  
**Principal**  
Guthrie Legal

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Tel: 0450 266 779