



Bushfire Risk Assessment Report

Proposed Molong BESS:

*1 Deight Street & 19 Back Saleyards Road, Molong
NSW 2866*

FOR: StorEnergy 3 Pty Limited

SLR PROJECT No: 620.041615.00009

Revision: R01-v0.4

28 August 2025



Revision Record

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R01-v0.1	16 December 2024	Dr Peter Georgiou	Dr Craig Simpson	Draft For Review
	Click to enter a date.			

Basis of Report

This report has been prepared by SLR Consulting Australia (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with StorEnergy 3 Pty Ltd (the Client). Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.



Executive Summary

Background

SLR Consulting Australia Pty Ltd (SLR) has been engaged by StorEnergy 3 Pty Ltd (herein Stor) to undertake a Bushfire Risk Assessment (BRA) for the proposed 150 Megawatt(MW)/730 Megawatt-hour (MWh) Molong Battery Energy Storage System (BESS) and associated infrastructure, herein the “Project”, to be located close to the existing Molong 132/66 kilovolt(kV) Substation operated by Transgrid:

- The BESS component of the Project would be located within a portion of Lot 99, DP1020247, 1 Deight Street, Molong, NSW.
- The BESS will connect to the adjacent Molong Substation via a transmission line and associated easement, which is located on Lot 1 DP542283, 19 Back Saleyards Road, Molong, NSW.
- The Project lies within the Cabonne Council Local Government Area (LGA).

The Project is deemed to be a State Significant Development (SSD) and therefore requires assessment and approval in accordance with Part 4, Division 4.7 of the Environmental Planning and Assessment Act 1979 (NSW). The Environmental Impact Statement (EIS) being prepared for the Project addresses the requirements of the Secretary of the NSW Department of Planning, Housing and Infrastructure, known as the Secretary’s Environmental Assessment Requirements (SEARs), as per SSD-80471210 (issued 26 March 2025).

This Bushfire Risk Assessment Report responds to the SEARs for the Project and forms part of the EIS submission for the Project, specifically with respect to the following requirement:

- *Bushfire – a bush fire hazard assessment completed by a suitably qualified consultant and identify potential hazards and risks associated with bushfires / use of bushfire prone land including the risks that a BESS would cause a bush fire and demonstrate compliance with Planning for Bush Fire Protection 2019;*

Bushfire Risk

The Project is on land is identified as being within bushfire prone land – refer Section 3.1.

Accordingly, a comprehensive Bushfire Risk Assessment (BRA) has been undertaken for the Project.

Vegetation Characteristics at the Site Relevant to Bushfire Risk

A Biodiversity Development Assessment Report (BDAR) waiver request letter has been prepared to accompany the development application of the Project – refer Section 3.3.

The outcome of the assessment was used to confirm the vegetation types immediately surrounding the Project for the determination of the Bushfire Attack Level (BAL) of the Project.



BAL (Bushfire Attack Level)

In Section 4.0 of this report, BAL calculations were made for the project.

Compliance with PBP-2019 (NSW RFS, *Planning for Bushfire Protection*, November 2019) can be achieved with a target BAL-29 level for residential development and a target BAL-12.5 level for Special Fire Protection Purpose (SFPP) developments (eg hospitals, nursing homes, etc).

For the Project, subject to PBP-2019 Section 8, the more stringent BAL-12.5 level has been recommended for the site equipment and key habitable buildings (eg the Switchroom/Control Room). This has been based on the critical infrastructure nature of the facility. With this BAL target, the maximum exposure at any point of a facility will be below 10 kW/m². The latter will ensure the safety of firefighters and other emergency workers to safely defend the facility, evacuate personnel if needed and allow access to and from all areas within the Development Footprint, appropriate for critical infrastructure required to survive an emergency scenario such as a major bushfire.

APZ (Asset Protection Zone) for the Project

The resulting APZ distances for the proposed development are shown in Figure 12.

Bushfire Risk Mitigation

Section 5.0 of this report details the management and mitigation measures that address bushfire risk of the Project – including the following:

- Asset Protection Zones (APZs) to minimise the impact of radiant heat and flame contact – refer Section 5.1.
- Construction Standards and Design to minimise building vulnerability to bushfire flames, radiation and embers – refer Section 5.2.
- Access and egress for the public and for firefighters and their equipment – refer Section 5.3.
- Adequate water supply for fire suppression – refer Section 5.4.
- Vegetation management – refer Section 5.7.

Bushfire Management Plan (BMP)

Section 5.9 details the requirements of the BMP that will be developed during detailed design stage and the need to align the BMP with other key emergency response plans that would be developed during the detailed design phase of the project.

Summary

Taking into account the above, SLR has concluded that:

- Bushfire risk issues for the project can be adequately mitigated.
- The Project will be adequately protected from the threat of a bushfire event.

In terms of the usual “Risk Matrix” approach adopted for Hazard Studies, SLR considers the residual risk associated with Bushfire hazard to the proposed development to be **LOW**, and hence adequately mitigated and managed.



Table of Contents

Basis of Report	i
Executive Summary	ii
Acronyms and Abbreviations	vii
Units.....	vii
1.0 Introduction	1
1.1 Structure of Report	1
1.2 Relevant Regulatory Documents	2
2.0 Description of the Project.....	2
2.1 Site Location	2
2.2 Project Layout	3
2.3 Development Description	4
2.3.1 Construction	4
2.3.2 Operation	5
2.3.3 BESS Units	5
2.3.4 Transmission Line	6
2.3.5 Removal of Vegetation	7
2.3.6 Fencing, Acoustic Barrier and Lighting	7
2.3.7 Water Supply.....	7
2.4 Decommissioning	7
3.0 Characteristics Relevant to Bushfire Risk of the Development Footprint and Surrounds	7
3.1 Bushfire Prone Land.....	7
3.2 Designated 10/50 Vegetation Entitlement Clearing Area	8
3.3 Vegetation Characteristics of the Development Footprint and Surrounds	8
3.4 Bushfire History	10
3.5 Topography of the Development Footprint and Surrounds	11
4.0 Bushfire Risk	12
4.1 Bushfire Attack Level (BAL).....	12
4.2 BAL Inputs.....	14
4.2.1 BAL Assessment Step 1: FDI	14
4.2.2 BAL Assessment Step 2: Vegetation Classification	14
4.2.3 BAL Assessment Steps 3 and 4: Distance to Vegetation and Slope Under Vegetation	14
4.3 BAL Calculations	15
4.4 BAL Summary	17



5.0 Bushfire Risk Mitigation and Management.....	18
5.1 Asset Protection Zone	18
5.2 Construction Standards and Design	20
5.3 Access	21
5.4 Water Supply.....	23
5.5 Landscape Management.....	24
5.6 Proposed Noise Wall.....	25
5.7 Vegetation Clearing.....	25
5.8 Management of Bushfire Risk Initiators	26
5.9 Bushfire Management Plan (BMP)	26
5.9.1 Detailed Requirements of the BMP	26
5.9.2 RFS Engagement.....	27
5.9.3 Community Engagement.....	27
5.9.4 Local Firefighting Resources	27
5.9.5 Bushfire Initiator Risk Management – refer Table 4	28
5.9.6 Other Management and Mitigation Aspects	28
5.9.7 Alignment of the Overall BMP with Other “Plans”	28
6.0 Conclusions.....	28
7.0 Feedback.....	29

Tables

Table 1	BESS Specifications	6
Table 2	AS3959:2018 Bushfire Attack Levels (BALs)	14
Table 3	Vegetation Distance and Slope Parameters used for the BAL Calculations	15
Table 4	Potential Bushfire Initiators	26

Figures

Figure 1	Molong BESS Location	3
Figure 2	BESS Footprint General Layout.....	4
Figure 3	Indicative Image of BESS Modules.....	6
Figure 4	RFS Bushfire Mapping Tool – Bushfire Prone Land.....	8
Figure 5	RFS Bushfire Mapping Tool – 10/50 Clearing Areas.....	8
Figure 6	Representative Site Photos of Surrounding Vegetation	9
Figure 7	Vegetation Mapping of Project Footprint and Surrounds	10



Figure 8	NPWS Wildfire Events – Fire Historical Database (SEED Mapping Tool)	11
Figure 9	Topography of Development Footprint and Surrounds.....	12
Figure 10	BAL Analysis Methodology	13
Figure 11	Sample BAL Calculation using the CSIRO BALA Tool.....	16
Figure 12	Asset Protection Zones for the Project.....	19
Figure 13	Firefighting Access Characteristics at the Project Site	22
Figure 14	Location of Proposed Dedicated Firefighting Water Supply	24

Appendices

Appendix A Vegetation Descriptions taken from AS3959:2018



Acronyms and Abbreviations

APZ	Asset Protection Zone
BAL	Bushfire Attack Level
BDAR	Biodiversity Development Assessment Report
BESS	Battery Energy Storage System
BRA	Bushfire Risk Assessment
BMP	Bushfire Management Plan
FDI	Fire Danger Index
FTE	Full-Time Equivalent
LGA	Local Government Area
RFS	Rural Fire Service
SEARs	Secretary Environmental Assessment Requirements
SLR	SLR Consulting Australia Pty Ltd
SSD	State Significant Development
Stor	StorEnergy 3 Pty Ltd
VMP	Vegetation Management Plan

Units

kL	Kilolitre (1,000 litres)
km	Kilometre (1,000 metres)
kV	Kilovolt (1,000 volts)
kVA	Kilovolt Amps
kW	Kilowatt (1,000 watts)
m	Metre
MW	Megawatt (1 x 10 ⁶ watts)
MWh	Megawatt-Hour



1.0 Introduction

SLR Consulting Australia Pty Ltd (SLR) has been engaged by StorEnergy 3 Pty Ltd (herein Stor) to undertake a Bushfire Risk Assessment (BRA) for the proposed 150 MW/730 MWh Molong Battery Energy Storage System (BESS) and associated infrastructure, herein the “Project”, to be located close to the existing Molong 132/66 kV Substation operated by Transgrid:

- The BESS component of the Project would be located within a portion of Lot 99, DP1020247, 1 Deight Street, Molong, NSW.
- The BESS will connect to the adjacent Molong Substation via a transmission line, whose proposed easement forms part of the Project. The Project therefore also includes land located on Lot 1 DP542283, 19 Back Saleyards Road, Molong, NSW.
- Together, the area of land on the two lots described above are referred to herein as the “Project Lots”.
- The Project lies within the Cabonne Council Local Government Area (LGA).

The Project is deemed to be a State Significant Development (SSD) and therefore requires assessment and approval in accordance with Part 4, Division 4.7 of the Environmental Planning and Assessment Act 1979 (NSW). The Environmental Impact Statement (EIS) being prepared for the Project addresses the requirements of the Secretary of the NSW Department of Planning, Housing and Infrastructure, known as the Secretary’s Environmental Assessment Requirements (SEARs), as per SSD-80471210 (issued 26 March 2025).

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- *Bushfire – a bush fire hazard assessment completed by a suitably qualified consultant and identify potential hazards and risks associated with bushfires / use of bushfire prone land including the risks that a BESS would cause a bush fire and demonstrate compliance with Planning for Bush Fire Protection 2019;*

1.1 Structure of Report

The remainder of this BRA report is structured as follows:

- Section 2.0 Description of the Project
- Section 3.0 Project Lots and Surrounds: Vegetation and Ground Slopes
- Section 4.0 Bushfire History and Bushfire Zoning of the Project Lots
- Section 5.0 Determination of the BAL (Bushfire Attack Level) and APZ (Asset Protection Zone) for the Project.
- Section 5.0 Bushfire Mitigation and Controls
- Section 5.0 Recommendations for the Project’s Bushfire Management Plan
- Section 6.0 Summary and Conclusions



1.2 Relevant Regulatory Documents

The BRA has been undertaken in accordance with the following regulatory standards and guidelines (listed alphabetically by sub-section):

Australian Standards (AS)

- 1 AS 3959-2018, *Construction of Buildings in Bushfire-Prone Areas*, incorporating amendments 1 and 2, 2018.

Cabonne Shire Council

- 1 Cabonne Shire Council, *Bushfire Prone Land Map*, 2022.
- 2 Cabonne Shire Council, *Development Control Plan No.5 – General Rural Zones* 1992.
- 3 Cabonne Shire Council, *Local Environmental Plan 2012*.

NSW Department of Planning

- 1 NSW Department of Planning, *Draft Bushfire Policy for Land Use Planning* (2024).
- 2 NSW Department of Planning, *Draft (updated) Local Planning Direction 4.3, Planning for Bushfire Protection* (2024).
- 3 NSW Department of Planning, *Draft (updated) Bushfire Planning System Circular* (2024).

NSW Rural Fire Service (RFS)

- 1 NSW RFS, *Planning for Bushfire Protection*, November 2019.
- 2 NSW RFS, *Planning for Bushfire Protection Addendum*, November 2022.
- 3 NSW RFS, *10/50 Vegetation Clearing Code of Practice for New South Wales*, September 2015.
- 4 NSW RFS, *Local Government Areas Fire Danger Index (FDI)*, May 2017.
- 5 NSW RFS, *Bushfire Environmental Assessment Code*, July 2021.
- 6 NSW RFS, *Bushfire Environmental Assessment Code – Supporting Document: Burning Adjacent to Powerline Guidelines*, July 2021.
- 7 NSW RFS, *Fire Trail Standards*, v2.0 November 2023.

2.0 Description of the Project

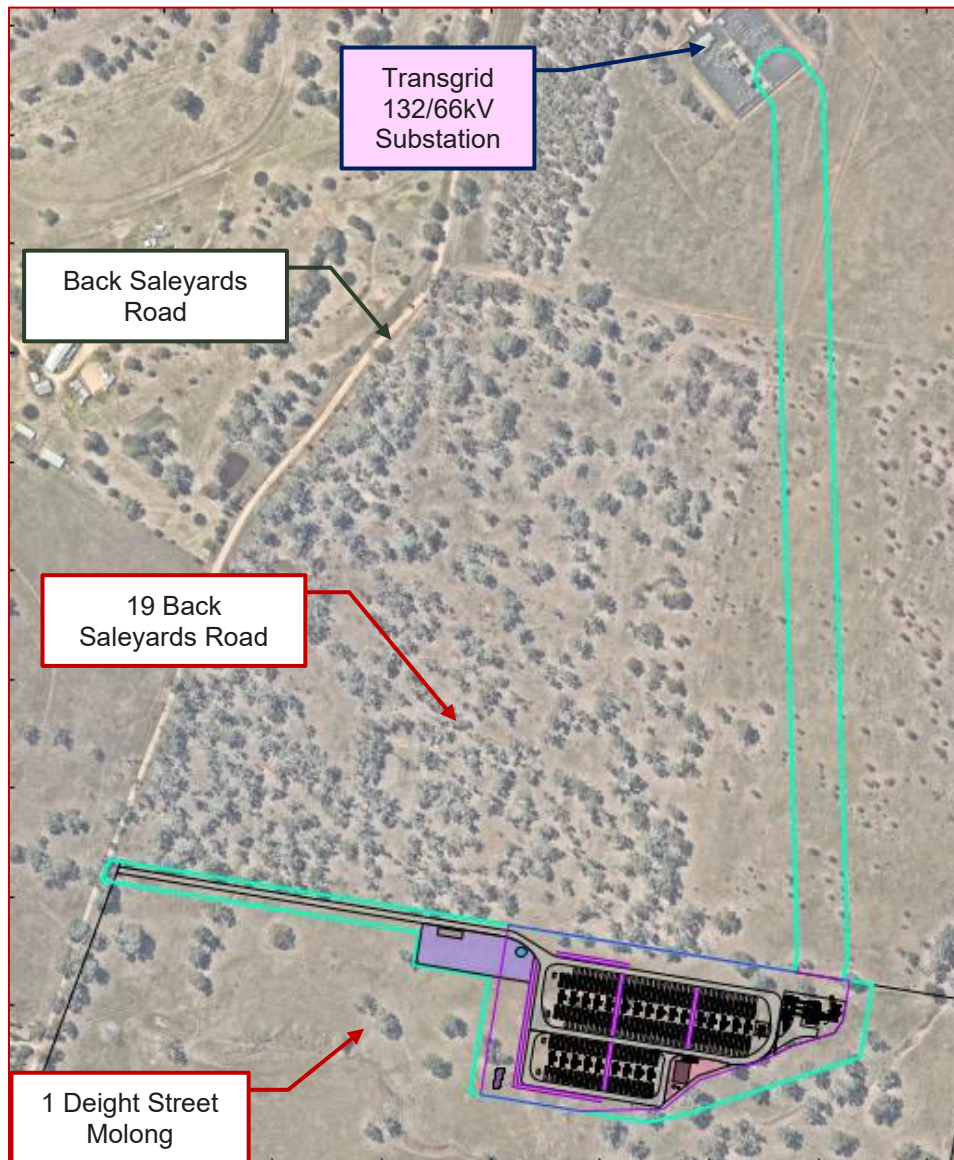
2.1 Site Location

The proposed Molong Battery Energy Storage System (BESS), herein “the Project”, will involve the development, construction, operation, and eventual decommissioning of a BESS with a capacity of 150 MW/730 MWh connecting via transmission line directly to the existing Molong 132/66 kV Substation, operated by TransGrid – refer Figure 1.

- The BESS component of the Project would be located within a portion of Lot 99, DP1020247, 1 Deight Street, Molong, NSW.
- The BESS will connect to the adjacent Molong Substation via a transmission line, whose proposed easement forms part of the Project. The Project therefore also includes Lot 1 DP542283, 19 Back Saleyards Road, Molong, NSW.
- The Project lies within the Cabonne Council Local Government Area (LGA).



Figure 1 Molong BESS Location



2.2 Project Layout

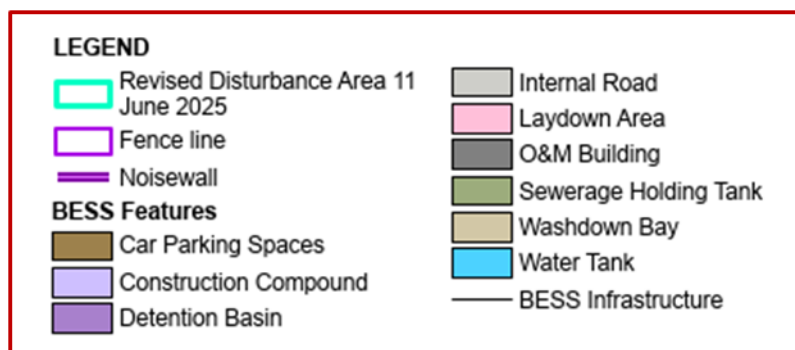
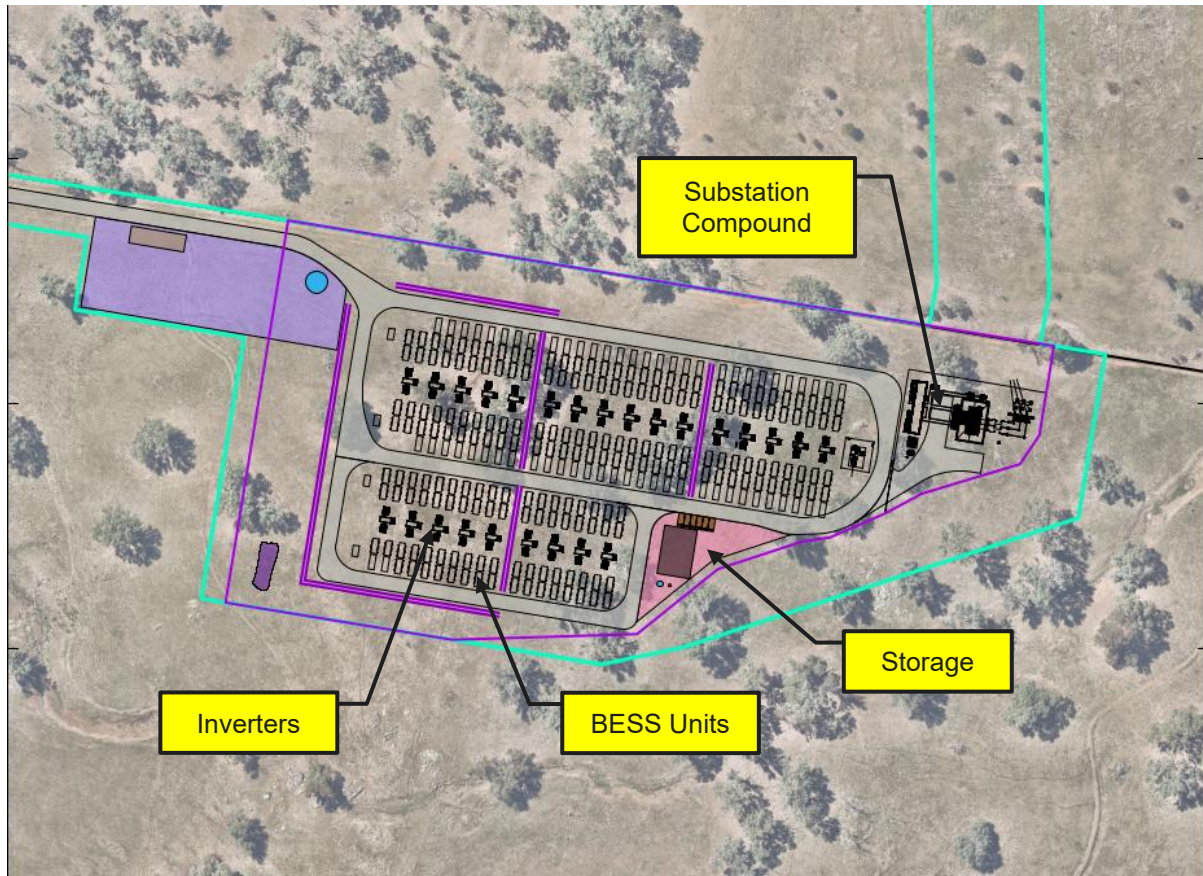
As previously noted, the Project lies within two lots:

- Lot 99 DP1020247, is part of a privately owned site. The portion of the Development Footprint within this Lot will be leased from the landowner.
- Lot 1 DP542283, owned by Transgrid. The portion of the Development Footprint within this Lot will be covered by an easement.

The concept design layout of the Project is shown Figure 2.



Figure 2 BESS Footprint General Layout



2.3 Development Description

2.3.1 Construction

It is anticipated that the construction and commissioning phase will last approximately 22 months from construction start to the end of reliability testing. Over that time, the main construction activities will include:

- Transportation of construction personnel, associated heavy and light vehicles, and materials to and from the site on a day-to-day basis, dependent on construction schedule.



- Site establishment works including vegetation clearing within the Development Footprint, bulk earthworks, and a temporary construction compound.
- Roadworks to formalise internal site access road to accommodate heavy vehicles, including a new driveway crossover.
- Construction of hardstand, gravel all weather access road and sealed BESS internal roads and curbing.
- Construction of project substations including installation of earthing grid, benching works, transformer bunding, installation of 33kV/132kV main transformer outdoor switchgear, HV busbar and support structure, overhead gantry structures, auxiliary transformer, harmonic filters, and reactive plant.
- Construction of overhead 132 kV transmission line to facilitate connection to the existing Transgrid Molong 132/66kV transmission substation immediately adjacent to the BESS to the north.
- Installation of underground 33kV reticulation cabling, auxiliary transformers, battery enclosures, and inverter & transformer stations.
- Construction of ancillary works including parking areas, water tank, storage structures, stormwater management infrastructure (e.g. bioretention basin), fire water retention solution, security cameras, security lighting, noise walls and fencing.
- Acoustic attenuation measures, to be determined as part of detailed assessment.
- Cold and hot commissioning of BESS and substation equipment.
- Removal of temporary construction facilities, and rehabilitation of disturbed areas following completion of construction of the Project.

2.3.2 Operation

The Project is proposed to self-operate 24 hours a day / 7 days a week and will be monitored remotely. Details of the operational stage include:

- During operation, it is anticipated that approximately 2 FTE job will be required for the ongoing maintenance and management of equipment, site buildings and landscaping, as well as receipt of goods deliveries and waste removal tasks.
- The BESS will require periodic maintenance by authorised staff. Otherwise, the facility is restricted to the public.
- Emergency response and maintenance activities may be required to be undertaken out of hours.

Key Access Characteristics:

- Access to and from the Project will be provided from a new driveway crossover along Back Saleyards Road, with primary access from the north (Euchareena Road).
- The proposed internal roads will accommodate firefighting access during an emergency situation.

2.3.3 BESS Units

Essential specifications for the proposed BESS units are shown in Table 1.



Table 1 BESS Specifications

Specification	Detail
Battery Chemistry	LFP - Lithium Iron Phosphate
Number of enclosures	Up to 264 battery enclosures (6 m container frame) with an estimated 4 MWh to 5 MWh per enclosure.
Dimensions	6 m container (6.058m x 2.438m x 2.891m)
Weight	43,000 kg each
Inverters	50 Inverters (approximately 4,400 kVA)
MV Transformers	Up to 50 MV inverter transformers and auxiliary supply transformers
Substation	1 x 180 MVA main transformer and associated 132kV and 33 kV switchgear, control and switchroom buildings, auxiliary transformers and reactive power plant.

An indicative image of a BESS site is shown in Figure 3.

Figure 3 Indicative Image of BESS Modules



2.3.4 Transmission Line

A new overhead transmission line (132 kV) will be constructed to connect the BESS and its own Substation to the existing Transgrid Molong 132/66 kV transmission substation to the north:

- The transmission line connection will be facilitated via above-ground transmission lines approximately 900 m in length.
- The transmission line route will run north from the eastern extent of the Indicative BESS Footprint – refer Figure 1.
- A 45m wide easement is proposed for the transmission line.
- The transmission line will likely include 6-8 poles up to 18 m in height above ground with a minimum ground clearance of 7.5 m – this will be subject to detailed line design.



2.3.5 Removal of Vegetation

The Project, including the proposed access road, BESS facility and connecting transmission line route and associated easement will require the clearing of some areas of native vegetation.

2.3.6 Fencing, Acoustic Barrier and Lighting

- The BESS will be secured by chainmesh security fencing.
- An acoustic barrier is proposed along the western and part northern and part southern boundaries of the BESS.
- Motion sensor lighting for the Project will be installed for security purposes. Night-time lighting will also be used for critical and emergency works purposes.

2.3.7 Water Supply

Construction

Water will be required during the construction phase for dust suppression, general construction, and maintenance activities:

- This water will be brought to site in water tankers. Construction water requirements for the Project are anticipated to be sourced from local bulk water supplies.
- Wastewater during construction will be captured and appropriately removed from site and disposed of in accordance with the council/water authority requirements.
- Potable water may be transported to site in bottles for use by the construction workforce. If utilised, toilet facilities will involve waterless toilets (or equivalent) that are emptied off-site.

Operation

A 150 kilolitre (kL) water supply (above-ground water tanks) dedicated for firefighting purposes will be constructed at an early stage of the Construction phase. This water supply will remain available for firefighting purposes only, during construction and the operation as well as final de-commissioning.

2.4 Decommissioning

The operational life of the Project will be determined by the evolving nature of the technology, however, it is anticipated that the lifespan will be approximately 30 years.

At end-of-life, the Project would be decommissioned, and the infrastructure removed, with the Development Footprint being returned as close as possible to its original state and use.

All decommissioning, recycling and restoration activities would be in accordance with permits, approvals and regulatory requirements at the time.

3.0 Characteristics Relevant to Bushfire Risk of the Development Footprint and Surrounds

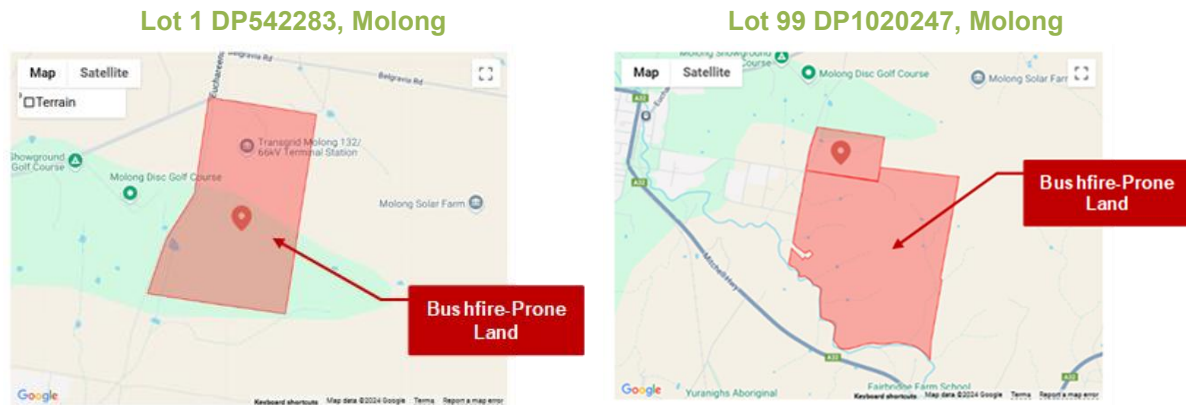
3.1 Bushfire Prone Land

A search on the NSW Rural Fire Service (RFS) website, using the RFS mapping tool, revealed that the Project Lots ARE identified as being within bushfire prone land – refer



Figure 4. Accordingly, a comprehensive Bushfire Risk Assessment (BRA) has been undertaken for the Project.

Figure 4 RFS Bushfire Mapping Tool – Bushfire Prone Land



<https://www.rfs.nsw.gov.au/plan-and-prepare/building-in-a-bush-fire-area/planning-for-bush-fire-protection/bush-fire-prone-land/check-bfpl>

3.2 Designated 10/50 Vegetation Entitlement Clearing Area

The NSW Rural Fire Service (RFS) mapping tool also indicates that the Project Lots are identified as being within designated 10/50 vegetation entitlement clearing areas – refer Figure 5.

Figure 5 RFS Bushfire Mapping Tool – 10/50 Clearing Areas



Source: <https://www.rfs.nsw.gov.au/plan-and-prepare/1050-vegetation-clearing/tool#tool>

3.3 Vegetation Characteristics of the Development Footprint and Surrounds

A Biodiversity Development Assessment Report (BDAR) is being prepared to accompany the development application of the Project.

The following are the relevant key findings of the BDAR in relation to this Bushfire risk Assessment:

- The Development Footprint and surrounds includes areas of remnant woodland, regrowth woodland and non-native vegetation. Areas of remnant woodland include



mature canopy species dominated by Yellow Box (*E. melliodora*) and Apple Box (*E. bridgesiana*), with lower strata mostly absent and dominated by introduced species.

- Evidence of regrowth woodland vegetation was observed in some areas with juvenile growth of woodland canopy species Yellow Box, Apple Box and Blakelys Red Gum (*E. blakelyi*), native shrub layer including Silver Wattle (*Acacia dealbata*), with the native groundcover absent.
- Non-native vegetation consists of exotic pasture with introduced forbs and grasses including High Threat Weed (HTW) Great Brome (*Bromus diandrus*), and non-HTWs Patersons Curse (*Echium plantagineum*), Meadow Salsify (*Tragopogon pratensis*) and Clovers (*Trifolium* spp.).

Following the vegetation assessments, the Development Footprint was confirmed to consist of the following communities:

- PCT 277: Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW Southwestern Slopes Bioregion.
- PCT 0: Non-native vegetation.

A representative photo of the above is shown in Figure 6.

Figure 6 Representative Site Photos of Surrounding Vegetation



The general description above is reflected in the Vegetation Zoning found within the mapping tool of NSW Department of Planning e-Planning (Map Service 7) – refer Figure 7.

<https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address>



Figure 7 Vegetation Mapping of Project Footprint and Surrounds



The following is noted:

- The Development Footprint lies in Vegetation Category 3 zoning.

According to NSW RFS *Guide for Bushfire Prone Land Mapping* (Version 5b, 2015):

- Vegetation Category 3 is considered to be medium bush fire risk vegetation. It is higher in bushfire risk than Category 2 (and the excluded areas) but lower than Category 1. It is represented as dark orange on a Bush Fire Prone Land map and consists of:
 - Grasslands, freshwater wetlands, semi-arid woodlands, alpine complex and arid shrublands.
- In the absence of a detailed bushfire risk assessment, the general guidance is for Vegetation Category 3 to be given a 30 m buffer.

3.4 Bushfire History

The NSW Government SEED initiative mapping tool documents historical NPWS wildfires in NSW. The results for the broad area surrounding the Project are shown in Figure 8.

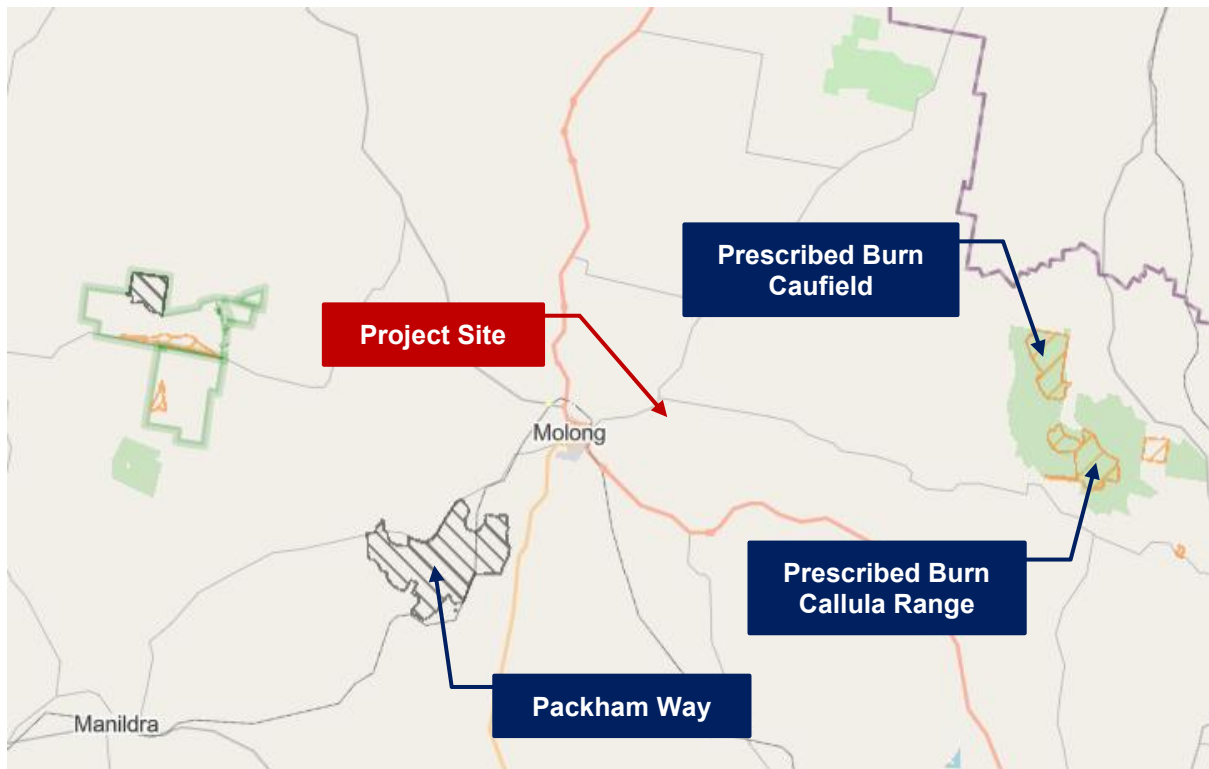
The two nearest document wildfire / prescribed burn events are:

- “Packham Way” Wildfire:
 - 2006-07 Season 1,035 ha
 - Approximately 6.5 km southwest of the Development Footprint at closest point.



- “Caufield” Prescribed Burn:
 - 2006-07 Season 246 ha
 - Approximately 13 km east of the Development Footprint at closest point.
- “Callula Range” Prescribed Burn:
 - 2008-09 Season 245 ha
 - Approximately 13 km east of the Development Footprint at closest point.

Figure 8 NPWS Wildfire Events – Fire Historical Database (SEED Mapping Tool)



The absence of documented wildfires in the immediate vicinity of the Project indicated by the SEED mapping tool is in line with the generally medium bushfire risk profile of the Development Footprint and surrounds as suggested in Figure 7.

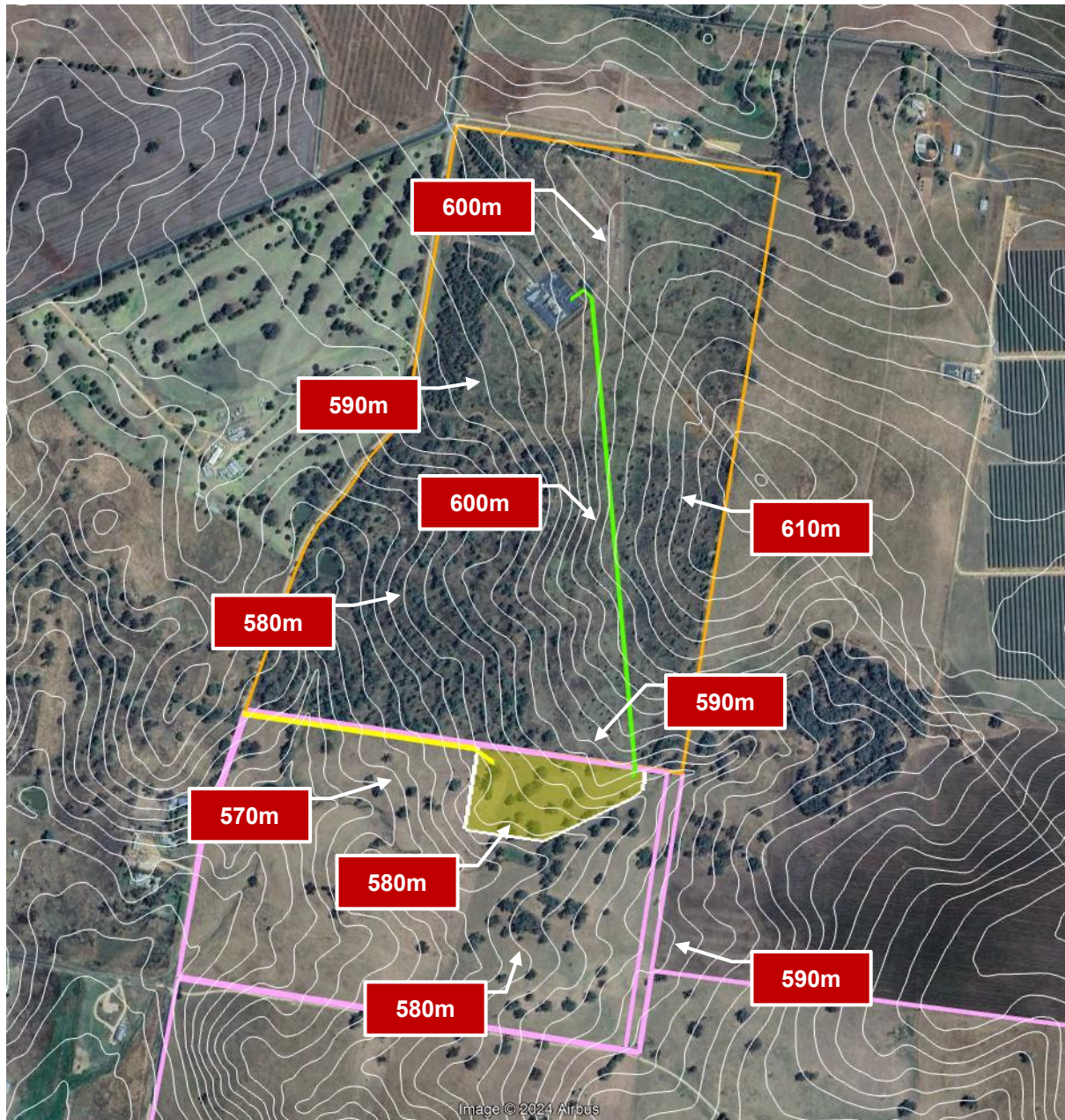
3.5 Topography of the Development Footprint and Surrounds

As shown in the 2 m contour intervals in **Figure 9**, the topography surrounding the Project varies with a general increase in elevation from west to east:

- Elevations across the BESS Footprint vary from RL.590m at the northeast end to RL.578m at the southwest corner. Elevations along the Transmission Line easement vary from RL.600m at the northern end to RL.588m at the southern end.



Figure 9 Topography of Development Footprint and Surrounds



In terms of bushfire risk, the immediate land surrounding the Development Footprint boundaries varies from “flat”, ie zero slope, to 5° DOWNslope to the west and 5° UPSlope to the east.

4.0 Bushfire Risk

4.1 Bushfire Attack Level (BAL)

A key input in the assessment of bushfire risk is to determine the BAL (Bushfire Attack Level) of the area of interest. The Molong BESS BAL has been assessed according to:



- Australian Standard AS3959:2018, “*Construction of Buildings in Bushfire-Prone Areas*”.

In AS3959:2018, BAL is defined as:

- A means of measuring the severity of a building’s potential exposure to ember attack, radiant heat and direct flame contact, using increments of radiant heat expressed in kW/m², and the basis for establishing the requirements of construction to improve protection of building elements from attack from bushfire.

The steps involved in assessing a site specific BAL are shown in Figure 10.

Figure 10 BAL Analysis Methodology

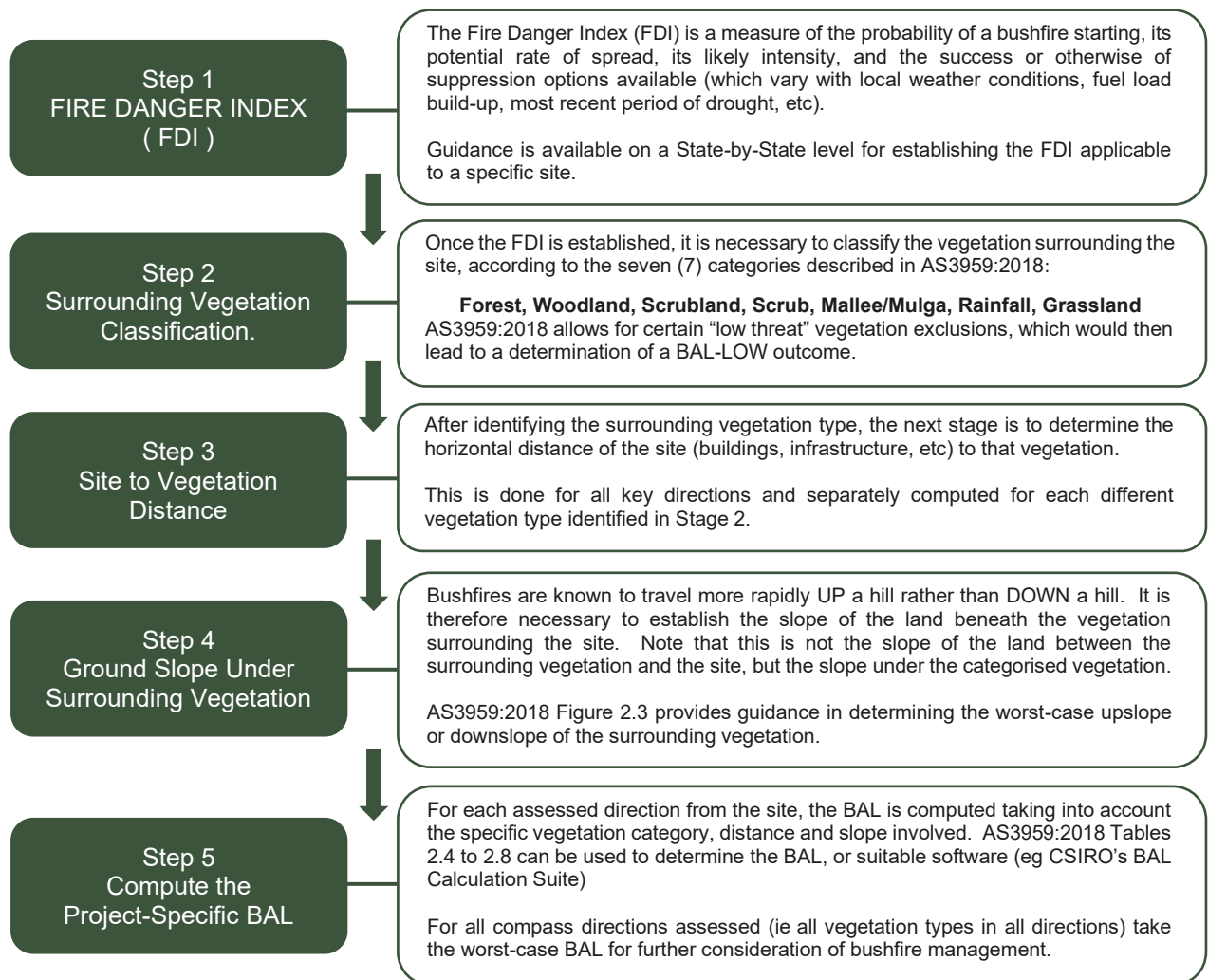


Table 2 lists the six BALS defined in AS3959:2018.

Table 2 AS3959:2018 Bushfire Attack Levels (BALS)

Bushfire Attack Level (BAL)	Classified Vegetation within 100m of the site and heat flux exposure threshold	Description of Predicted Bushfire Attack and Levels of Exposure
BAL - LOW		There is insufficient risk to warrant specific construction requirements
BAL - 12.5	$\leq 12.5 \text{ kW/m}^2$	Ember Attack
BAL - 19	$> 12.5 \text{ kW/m}^2$ and $\leq 19 \text{ kW/m}^2$	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux
BAL - 29	$> 19 \text{ kW/m}^2$ and $\leq 29 \text{ kW/m}^2$	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux
BAL - 40	$> 29 \text{ kW/m}^2$ and $\leq 40 \text{ kW/m}^2$	Increasing levels of ember attack and burning debris ignited by windborne embers together with increasing heat flux with the increased likelihood of exposure to flames
BAL - FZ	$> 40 \text{ kW/m}^2$	Direct exposure to flames from fire front in addition to heat flux and ember attack

4.2 BAL Inputs

4.2.1 BAL Assessment Step 1: FDI

The FDI for the Molong LGA has been determined to be **80**.

This was based on:

- NSW RFS, May 2017, *NSW Local Government Areas FDI*:
development.policy@rfs.nsw.gov.au

4.2.2 BAL Assessment Step 2: Vegetation Classification

The vegetation types surrounding the Project were discussed in Section 3.3.

The vegetation categories defined in AS3959:2018 are listed in Appendix A along with descriptive summaries.

Of specific interest in relation to the BAL calculation are:

- Open/Sparse Woodland and Grassland.

4.2.3 BAL Assessment Steps 3 and 4: Distance to Vegetation and Slope Under Vegetation

As shown in Section 3.5, the topography surrounding the Development Footprint varies from essentially flat (north to south) to downhill (westwards) and uphill (eastwards).

Table 3 lists the distance to vegetation distance and slope parameters used in the BAL calculations. The distance is taken from the nearest boundary of the Development Footprint to the BESS Infrastructure and the transmission line easement axis for the remaining areas of interest.



Table 3 Vegetation Distance and Slope Parameters used for the BAL Calculations

Site	Direction	Regional Ecosystem Classification	Min. Distance to Vegetation from Site Boundary	Slope Under Vegetation
BESS	NW	Open/Low Woodland	0 m	Flat - 0°
BESS	N (central)	Grassland	0 m	Flat - 0°
BESS	NE ∪ E	Open/Low Woodland	0 m	UPslope - 5°
BESS	E ∪ S	Open/Low Woodland	0 m	Flat - 0°
BESS	SW ∪ W	Grassland	0 m	DOWNSlope - 5°
TL	E	Grassland	0 m	UPslope - 5°
TL	W	Grassland	0 m	DOWNSlope - 5°

On the basis of the vegetation distances shown in Table 3, the vegetation required for the BAL assessment of the site is the Grassland and Woodland categories immediately surrounding the BESS Footprint to the east and south and within the proposed transmission line easement.

4.3 BAL Calculations

The BAL Calculation for the Project has been carried out using:

- CSIRO's BALA (Bushfire Attack Level Assessment) Tool

<https://best-practices-assessment-tool.herokuapp.com/calculator?slope=0&vegslope=0&FFDI=60&vegtype=Tussock>

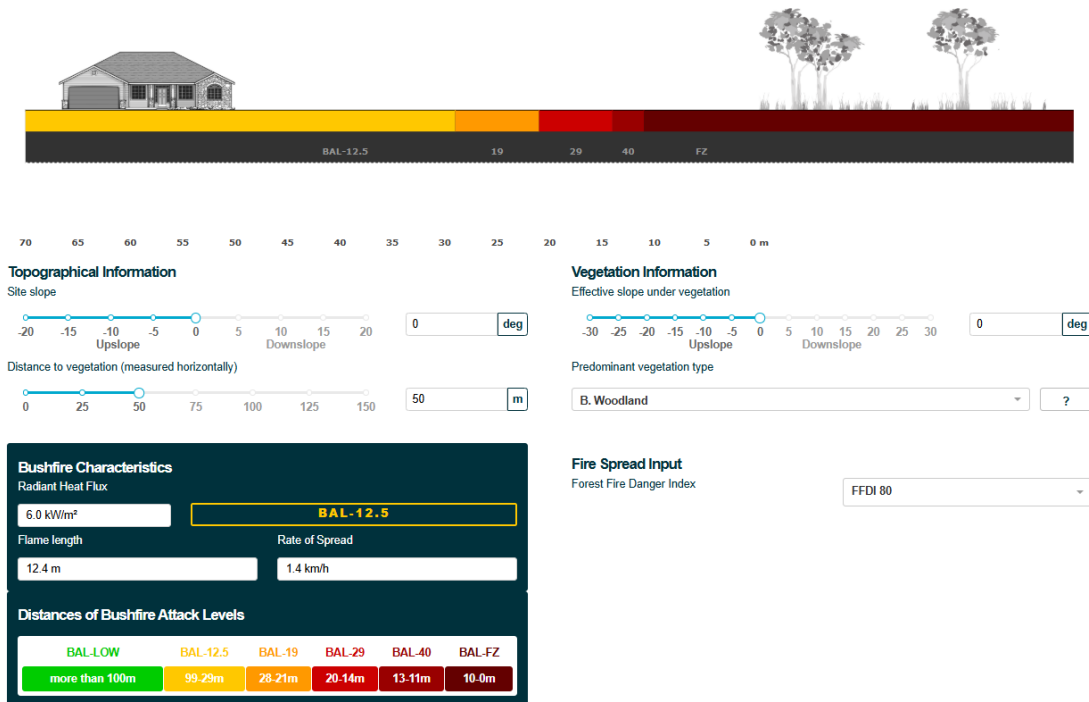
Vegetation categories, and distances and slopes to the nearest vegetation have been based on Table 3.

A sample BAL calculation result is shown in Figure 11.

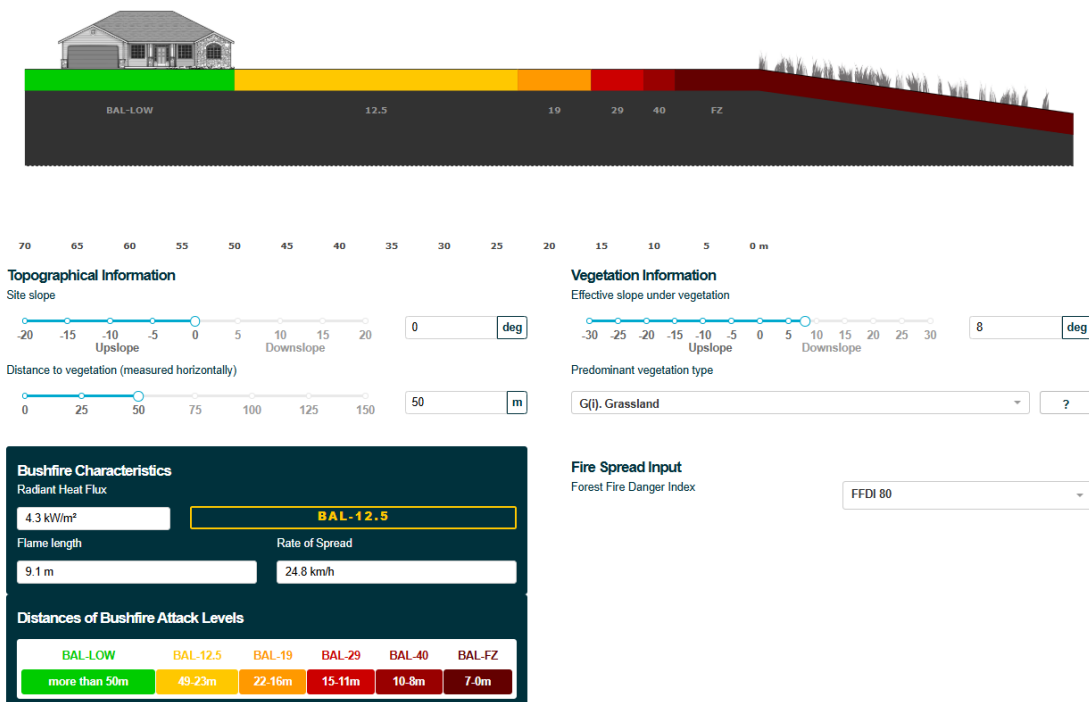


Figure 11 Sample BAL Calculation using the CSIRO BALA Tool

Vegetation = Woodland / Slope = Flat



Vegetation = Grassland / Slope = 8° Downslope



4.4 BAL Summary

BESS Footprint Northwest Perimeter

- The resulting BAL for this perimeter is BAL-12.5, achieved at a distance of 29 m.

BESS Footprint Northeast Perimeter

- The resulting BAL for this perimeter is BAL-12.5, achieved at a distance of 18 m.

BESS Footprint East (clockwise) to West Perimeter

- The resulting BAL for this perimeter is BAL-12.5, achieved at a distance of 23 m.

Transmission Line Easement – towards EAST

- The resulting BAL for this perimeter is BAL-12.5, achieved at a distance of 19 m.

Transmission Line Easement – towards WEST

- The resulting BAL for this perimeter is BAL-12.5, achieved at a distance of 23 m.

Notes

Regarding the transmission line BAL calculations:

- The transmission line will have a total easement of 45 m.
- This will address the above BAL-12.5 requirement.

Regarding habitable buildings within the Development Footprint:

- Habitable buildings should be addressed with the above BAL requirements:
 - This would include the Switchroom/Control Room.

Regarding the Storage and Maintenance Shed within the Development Footprint:

- The Storage Shed is an NCC Class 7b Building with Importance Level 1 (fire rating 30/-/-).
- In RFS PBP-2019, Class 7b buildings are treated the same as Class 10a Buildings (ie typical residential sheds, carports, private garages).
- Class 10a Buildings do not require an APZ as long as they are located more than 6 m from any building/equipment that does require an APZ:
 - On this basis, the Storage Shed at the site would not need an APZ given it is located at least 14 m from the nearest BESS units or their Inverters.
- Although it's not the primary purpose of the Storage Shed, on occasions Dangerous Goods may be stored within the shed (eg Top-up Transformer Oil for the main Substation Transformer) to enable maintenance activities on site. SLR recommends an APZ, equivalent to a BAL-40 rating. This would translate into an APZ of 10 m to the southeast of the Storage Shed.



5.0 Bushfire Risk Mitigation and Management

The site requirements needed to address a potential bushfire attack fall into the following categories:

- Asset Protection Zones (APZs) to minimise the impact of radiant heat and flame contact.
- Construction Standards and Design to minimise building vulnerability to bushfire flames, radiation and embers.
- Access and Egress for the public and for firefighters and their equipment.
- Adequate Water Supply for fire suppression.
- Landscape Management.
- Emergency Response and Management – Preparedness and Planning.

5.1 Asset Protection Zone

The recommended APZ was developed in accordance with guidance contained in:

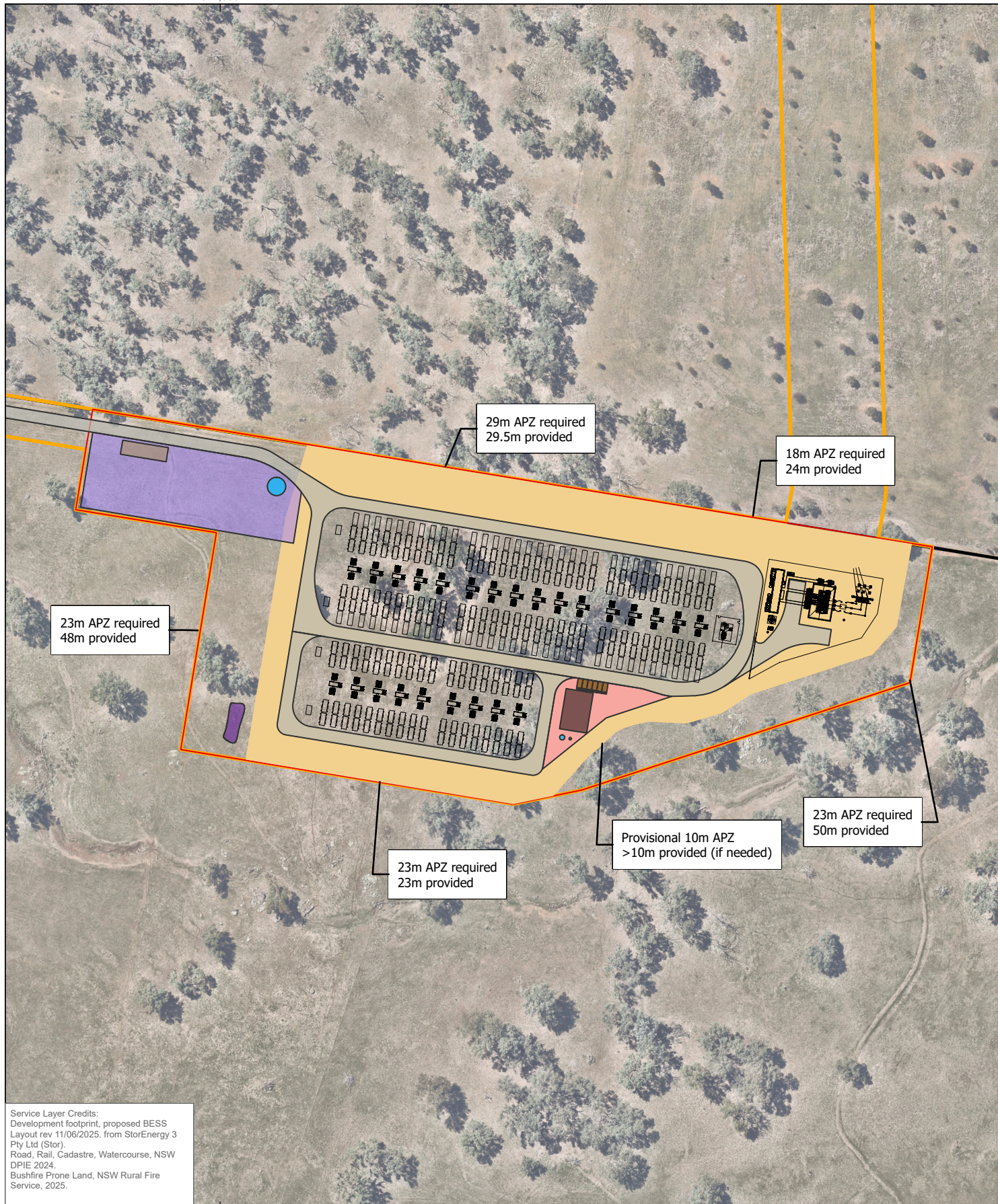
- NSW Govt, NSW Rural Fire Service, *“Planning for Bush Fire Protection: A Guide for Councils, Planners, Fire Authorities and Developers”*, November 2019.
- NSW Govt, NSW Rural Fire Service, *“Planning for Bush Fire Protection Addendum”*, November 2022.
- NSW Govt, NSW Rural Fire Service, *“Standards for Asset Protection Zones”*.

The Asset Protection Zone (APZ) provided by the Project facility is shown in Figure 12.

The APZ satisfies the following:

- The APZ will be located wholly within the Project Lots boundaries.
- The APZ is situated on cleared ground with minimal gradients.
- The APZ would create a total separation from the nearest piece of equipment on the site to the nearest vegetation that complies with the recommended APZs:
 - 29 m from nearest BESS equipment to the grassy woodland to the northwest.
 - 23 m from nearest BESS equipment to the other boundaries of the Development Footprint (grassland).
 - 10 m from the Storage & Maintenance Shed to the southeast
- The APZ will provide adequate total site access for firefighting personnel and equipment – refer Section 5.3:
 - Access will be provided both internally (ie within the BESS Footprint security fence) and externally, via the access from Back Saleyards Road and along the transmission line easement.
- The APZ will be maintained as either completely cleared land or a mown area with a grass height of less than 100 mm.
- Refer also Section 5.5 for a couple of trees with biodiversity value which are in the outer APZ zone around the site.





MOLONG BESS

ASSET PROTECTION ZONE



DISCLAIMER: All information within this document may be based on external sources. SLR Consulting Pty Ltd makes no warranty regarding the data's accuracy or reliability for any purpose.

FIGURE 12

Benefits of the APZ and Potential Radiant Heat Impact

The recommended APZ achieves the following:

- The BESS Footprint will experience a radiant heat flux level LESS THAN 10 kW/m² at all footprint plan equipment boundaries.
- A radiant heat flux of 10 kW/m² is the threshold for piloted ignition of dry timber and failure of plain glass, and more generally is a target maximum exposure at any point of a site building wall or façade.
- A radiant heat flux of 10 kW/m² is also the threshold where firefighters and other emergency services can operate, for both firefighting and evacuating occupants from threatened buildings.
- Limiting radiant heat flux level to 10 kW/m² at the Development Footprint boundary forms a critical element of the risk management for what are termed “vulnerable” uses, which includes community infrastructure for essential services.
- Accordingly, the facility’s proposed APZ achieves a performance-based outcome relevant to NSW Rural Fire Service guidelines.

Project Commitment

- The Proponent commits to establishing a management regime to ensure the ongoing integrity of the proposed APZ, including responsibility for ongoing maintenance, etc.

5.2 Construction Standards and Design

The National Construction Code (NCC) is a performance based code which comprises the Building Code of Australia (BCA) as Volumes 1 and 2 and the Plumbing Code of Australia as Volume 3.

- The NCC contains Performance Requirements and Deemed-to-Satisfy provisions relating to the construction of buildings in bush fire prone areas.

The construction requirements of AS3959:2018 and the National Association of Steel-framed Housing (NASH) Standard contain Deemed-to-Satisfy solutions in the NCC, (can be varied State-to-State), for buildings in designated bush fire prone areas.

The general requirements for the construction of buildings specified in AS3959:2018 are separated according to the relevant BAL at the site of interest.

For the Molong BESS facility, and hence for BAL-12.5, the relevant code sections are Sections 3 and 5.

Relevant Areas of AS3959:2018 Section 3

The guidance in AS3959:2018 pertains mainly to standard building construction, with a focus on external features prone to ember attack, covering items such as attached structures, garages, carports, external mouldings, bushfire shutters, glazing, etc. None of these is relevant to the BESS design.

Relevant Areas of AS3959:2018 Section 5

Again, the guidance in AS3959:2018 Section 5 pertains mainly to standard building construction, with a focus on external features prone to ember attack, covering items such as attached exposed floor supports, floor slabs, walls, external glazing, doors, roofs, verandas, etc.



Of relevance:

- Clause 5.8 states that any above-ground, water supply pipes **shall be metal**.
- Clause 5.8 also covers gas pipes and fittings – not relevant to the BESS design.

5.3 Access

Access requirements are crucial to the enabling of adequate firefighting capability and for emergency planning purposes (eg emergency evacuation). Reference is made to:

- NSW Govt, NSW Rural Fire Service, *“Planning for Bush Fire Protection: A Guide for Councils, Planners, Fire Authorities and Developers”*, November 2019.
- NSW Govt, NSW Rural Fire Service, *“Planning for Bush Fire Protection Addendum”*, November 2022.

The following general principles and RFS-compliant design apply to ensure that firefighting vehicles are provided with safe, all-weather access to the proposed BESS facility:

- BESS firefighting access roads should be two-wheel drive, all-weather roads and appropriately sign-posted.
- Road widths accessing the site and within the site must be sufficient to accommodate firefighting vehicles:
 - Perimeter roads are to be provided with a minimum clear width of 6 m.
 - Non-perimeter roads are to be provided with a minimum clear width of 6 m.
- An unobstructed clearance height of 4 m should be maintained above all access roads including clearance from building construction, archways, gateways, overhanging structures and vegetation overhanging roads.
- In relation to vehicle turning circle requirements, any curved carriageways should be constructed using the minimum swept path dimensions shown in Table A3.2 of the above RFS 2019 Planning Guideline.
- Dead ends that are longer than 200 m must be provided with a turning head area that avoids multipoint turns. “No parking” signs are to be erected within the turning head. Example turning heads and minimum dimensions are provided in Figure A.3 of the above RFS 2019 Planning Guideline.
- For any carriageways less than 6 m in width, passing bays should be provided every 200 m. Where required, passing bays shall be 20 m in length with a minimum trafficable width at the passing point of 6 m.
- Maximum grades for sealed roads should not exceed 15° with an average grade of not more than 10°.

RFS Vehicle Specifications

In recent years, the NSW RFS has taken possession of a large number of new firefighting equipment. For specific details on RFS vehicles, refer:

<https://www.fire.nsw.gov.au/page.php?id=161>



Project Commitment:

Given the current design development stage, the Proponent has committed to the following:

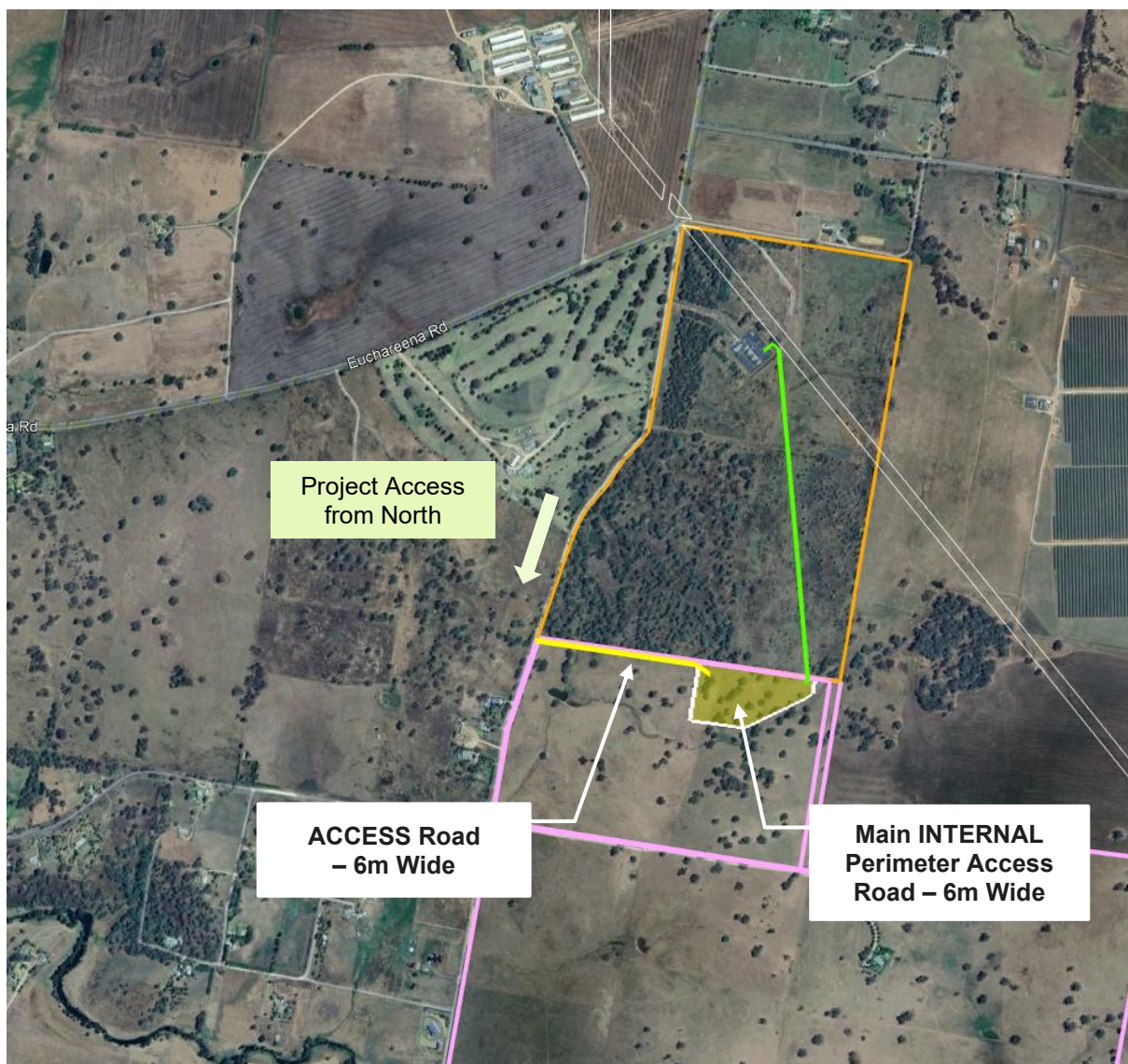
- The road carrying capacity, turning circles, etc, will be designed for fully loaded firefighting vehicles of up to 23 tonnes.

External Project Access

Where practical and feasible, a “back-up” secondary access road to a facility is recommended for consideration. Off-site approach paths and access to the Project are shown in Figure 13:

- Primary access will be enabled from the NORTH along Back Saleyards Road and Euchareena Road (from Molong).

Figure 13 Firefighting Access Characteristics at the Project Site



5.4 Water Supply

Reticulated water is NOT available at the site.

Accordingly, an appropriate static water supply must be provided to support effective emergency services response.

The water tank proposed for the site:

- Will be clearly identified by directional signage at all access points to the facility.
- Will be readily accessible by firefighting appliances.
- Will be located as close as possible to the BESS facility security perimeter at the site entry.
- Will have a volume taking into consideration the recommendations contained in AS2304:2011 / AS2419-1-2021.
- Will be constructed of concrete or metal; all connecting above-ground water service pipes and taps being metal.
- Will be located in an area such that medium rigid vehicles (eg a 15-tonne fire appliance) have clear access within 4 m of the tank and with sufficient parking adjacent for other emergency service vehicles.
- Will be provided with IPA-rated rural fire brigade tank fittings including a 65 mm Storz outlet valve and relevant coupling:
 - Ball valves and pipes should be adequately sized for water flow and shall be constructed of metal. The supply pipes from the tank to the ball valve should have the same bore size to ensure flow volume.
- Will have the stand constructed from non-combustible material or bushfire-resisting timber (see *Appendix F* AS 3959).

Project Commitments:

Given the size of the development footprint, the Proponent has committed to the following:

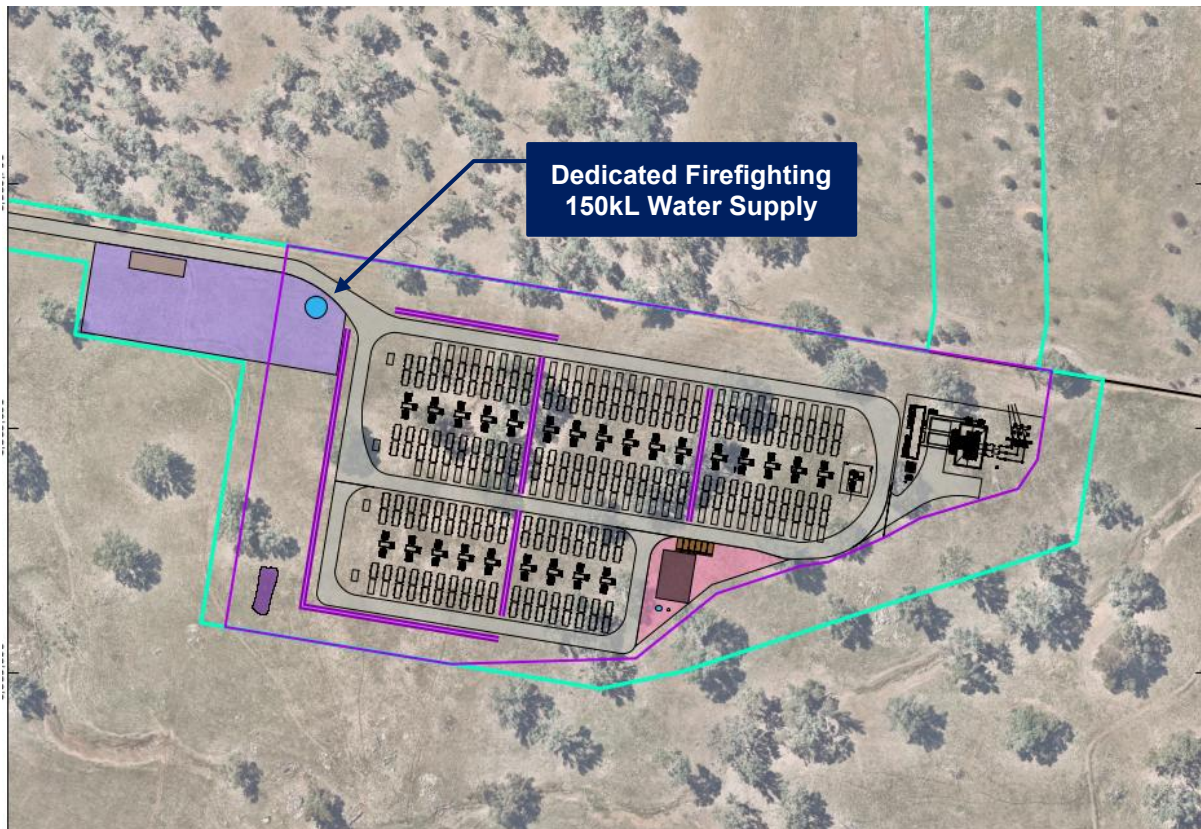
- Ensure that the above water tank requirements are met.
- Provide a 150 kL dedicated water supply for firefighting purposes – refer Figure 14.

The above recommendation has been made on the basis of a risk-based approach relevant to current BESS-firefighting protocols, namely:

- Firefighting water would not be used directly on a BESS on fire.
- Firefighting water may be used for cooling purposes for the equipment immediately surrounding the BESS on fire and for control of any associated smoke plume.
- The 150 kL water supply would be sufficient to allow the following firefighting water availability:
 - 1 appliance x 12 hours of firefighting x 5 l/sec waterflow x 70% usage, OR
 - 2 appliances x 2 hours of firefighting x 10 l/sec waterflow.



Figure 14 Location of Proposed Dedicated Firefighting Water Supply



5.5 Landscape Management

APZ Vegetation Management

- The Bushfire Management Plan for the facility (refer Section 5.9) shall contain a provision preventing vegetation from taking hold within the proposed APZ zone around the site, thereby reducing the bushfire hazard risk and maintaining adequate access to firefighting personnel and equipment.

Landscape Screening

If landscape screening is planted in the Development Footprint, the following is recommended, as per NSW RFS *“Planning for Bush Fire Protection: A Guide for Councils, Planners, Fire Authorities and Developers”* (2019):

Trees

- Canopy cover should be less than 50% and canopies should be separated by a minimum 2 m.
- Fire-wise plant species with fire resilience characteristics should be chosen. Low flammability species are characterised by high moisture content and low oil/resin content with smooth bark. They have smooth bark that sheds bark and leaves infrequently.



Shrubs

- Shrub cover should form no more than 50% of ground cover.
- Grass should be kept mown to a height of less than 100mm.

General Ground Debris

- Leaf and other debris capable of becoming potential bushfire initiators should be removed at regular intervals.

Existing Vegetation

There are several trees with biodiversity value located within the Outer Area of the proposed APZ. It is intended to preserve these trees.

It is noted that their positioning and canopies comply with the above recommendations for canopy cover and canopy spacing.

5.6 Proposed Noise Wall

A Noise Barrier up to 5 m in height is being proposed around a portion of the BESS infrastructure – refer Figure 2:

- The Noise Barrier shall be made of non-combustible (ie fire-resistant) materials.
- Timber is not a suitable material for the Noise Barrier in a bushfire prone zone.
- Noise barriers incorporating plastics must contain a fire-retardant and UV inhibitor.
- Lightweight (aerated) concrete can be cost-effective and is suitable in a bushfire prone area.
- The “fire-resistance period” of the Noise Barrier should be based on the nature of the Development Footprint and surrounding bushfire risk. Given the APZ provision for the BESS infrastructure within the Development Footprint, SLR recommends a non-flammable material for barrier.

5.7 Vegetation Clearing

As noted in Section 3.2 the Project Lots are designated as approved 10/50 vegetation clearance zones – refer:

- NSW RFS, “10/50 Vegetation Clearing Code of Practice for New South Wales”, September 2015.

Clearing of vegetation under the 10/50 Code can only be conducted with the consent of the landowner. In a designated 10/50 zone, vegetation clearing can be undertaken involving ...

the removal, destruction (by means other than fire) or pruning of any vegetation (including trees) within 10 m; and

the removal, destruction (by means other than fire) or pruning of any vegetation, (except for trees) within 50 m ...

of an external wall of a building containing habitable rooms that comprises or is part of residential accommodation or a high-risk facility; or of an external wall of a building that comprises or is part of a farm shed.

The areas recommended for vegetation clearing cover:

- The APZ around the BESS Footprint within the Development Footprint.

It is understood that landowner permission has been granted for the proposed clearing.



5.8 Management of Bushfire Risk Initiators

Potential “internal” bushfire risk initiators are summarised in Table 4, according to the stage of the Project.

Table 4 Potential Bushfire Initiators

Project Phase	Impact
Construction	Clearing activities (eg slashing, mowing and diesel-powered tool use), lightning strikes, storage of fuels/chemicals, hot welding activities, cigarette butts thrown from cars travelling within the site, traffic accidents, etc.
Operational	Ground cover/vegetation within site, ignition of electrical equipment, especially during repairs and maintenance activities, traffic accidents.
De-Commissioning	Decommissioning activities would have similar impacts to that for construction.

The Project’s Bushfire Management Plan (BMP) will include mitigation measures designed to address the risks detailed in **Table 4**.

5.9 Bushfire Management Plan (BMP)

During the post-approval design phase of the Project, and prior to construction commencing, a detailed Bushfire Management Plan (BMP) will be prepared for the Project.

Key elements within the BMP will be:

- APZ locations and management details.
- Schedule of BAL-related requirements and building footprints as well as any specific construction details.
- Access provisions such as locations, passing bays and alternate emergency access.
- Water supplies and bush fire suppression systems.
- Landscaping management requirements.
- A Bushfire Emergency Management and Evacuation Sub-Plan within the overall BMP.

5.9.1 Detailed Requirements of the BMP

The following is a more detailed listing of the BMP:

- The BMP will identify specific responsibilities for actions required within the BMP for the Proponent and Ultimate Operator.
- The BMP will contain a detailed site layout plan identifying the locations of all site infrastructure, APZs, access routes and water supply details.
- The BMP will identify key bushfire risks associated with the BESS facility and the strategies developed to mitigate them, including minimum APZ calculations, access requirements, firefighting water supply quantity and other design details aimed at facilitating an effective response to bushfire.
- The BMP will include site-specific factors relevant to the site’s protection from bushfire: the likely direction of bushfire attack if historic evidence indicates a bias in



prevailing wind conditions during the fire season, location of evacuation routes and safety zones and identification of secondary risks, eg from nearby sites (if relevant).

- The BMP will include: a description of the activities to be conducted on the site and in particular personnel movements covering both regular staff, maintenance staff and irregular visitors.
- The BMP will list the storage or handling of any hazardous chemicals in quantities that would be equivalent to or exceed the threshold quantities set out in the relevant standards.
- The BMP will show all transportation routes into and out of the site covering personnel, delivery of materials, access routes for emergency services or disaster response, etc. Details will be provided covering road layout, accessways, passing bays, evacuation routes, easements on site, designated routes for fire-fighting appliances, etc. These will be detailed in an Emergency and Evacuation Sub-Plan.
- The BMP will clearly indicate the total extent of clearing, revegetation and landscaping proposed for the site, which is to be indicated on a site plan, including the APZ for the site. The means by which the APZ will be maintained, including who responsible, will be clearly enunciated.
- The BMP will include information covering fire maintenance trails, if relevant.
- The BMP will provide warning and evacuation procedures, plans and routes including capacity of public roads especially perimeter roads and traffic management treatments, and responsibility for their maintenance.
- The BMP will detail all fire-fighting requirements including infrastructure and water supply, design standards for tanks, fittings and connection details, etc.

5.9.2 RFS Engagement

- The BMP should be developed in consultation with the NSW RFS with final approved copies stored locally within an appropriate “emergency cabinet” securely located within the Project site.

5.9.3 Community Engagement

- The BMP will include recommendations to be passed on the ultimate BESS Operator (if not the Proponent) covering surrounding resident education and awareness.

5.9.4 Local Firefighting Resources

- The BMP will provide a listing of the nearest local firefighting resources, phone/email contacts, etc. Refer:

<https://www.rfs.nsw.gov.au/data/assets/pdf/0003/170481/RFSBrigadesList.pdf>

Note:
Molong Fire Station
100-104 Edward Street, Molong NSW 2866



5.9.5 Bushfire Initiator Risk Management – refer Table 4

Project Stage - Construction

- Bushfire risks during construction will be managed through the implementation of a comprehensive Construction Bushfire Management Sub-Plan (CBMP), to be prepared by the successful Project Contractor and signed off by all appropriate authorities.
- The CBMP will ensure adequate site access for RFS along with water supply resources needed to suppress any fire within the Project site.

Project Stage – Operational

- Bushfire risks once the facility is fully operational will be managed through the implementation of the BMP as described above, to be prepared by the successful Project Operator and signed off by all appropriate authorities.

Project Stage – De-Commissioning

- The BMP will detail De-Commissioning phase management strategies similar to those deployed for the Construction phase to address the similar risks expected during this last phase of the Project.

5.9.6 Other Management and Mitigation Aspects

In addition to the above measures, the BMP will:

- Recommend a system for the continuous monitoring of the RFS website for bushfire alerts (especially during the bushfire season).
- Ensure that smoking is prohibited throughout the site and that all employees receive training and instruction on the relevant fire procedures as part of their induction training.

5.9.7 Alignment of the Overall BMP with Other “Plans”

Finally, it is important that the Project’s BMP is aligned with other related (post-approval) plans, including:

- Fire Safety Study (FSS) for the Project which aligns the relevant firefighting elements (eg access routes, water supply etc) for both an (external) bushfire response and (internal) fire response.
- Emergency Management Plan (EMP) – so there is no conflict between activities such as the risk control measures adopted for minimising electrical hazards for firefighters attending emergency situations on-site.

6.0 Conclusions

Section 2.0 of this report described essential elements of the Project.

Section 3.0 of this report described key characteristics of the Project Lots and surrounds, in relation to bushfire risk.

Section 4.0 of this report assessed the bushfire risk, in terms of the Bushfire Attack Level of the Project Lots.

Section 5.0 of this report described risk mitigation and management measures associated with the bushfire hazard.



On the basis of the above, SLR has concluded that:

- Bushfire risk issues can be adequately mitigated.
- Accordingly, the Project will be adequately protected from the threat of a bushfire event.

Using the Risk Matrix approach adopted in the Hazard and Risk Study for the Project, SLR considers the residual risk associated with Bushfire fire hazard to be **LOW**, and hence adequately mitigated and managed.

7.0 Feedback

At SLR, we are committed to delivering professional quality service to our clients. We are constantly looking for ways to improve the quality of our deliverables and our service to our clients. Client feedback is a valuable tool in helping us prioritise services and resources according to our client needs.

To achieve this, your feedback on the team's performance, deliverables and service are valuable and SLR welcome all feedback via ...

<https://www.slrconsulting.com/en/feedback>.

We recognise the value of your time and we will make a \$10 donation to our Charity Partner - Lifeline, for every completed form.





Appendix A:

Vegetation Descriptions
taken from AS3959:2018

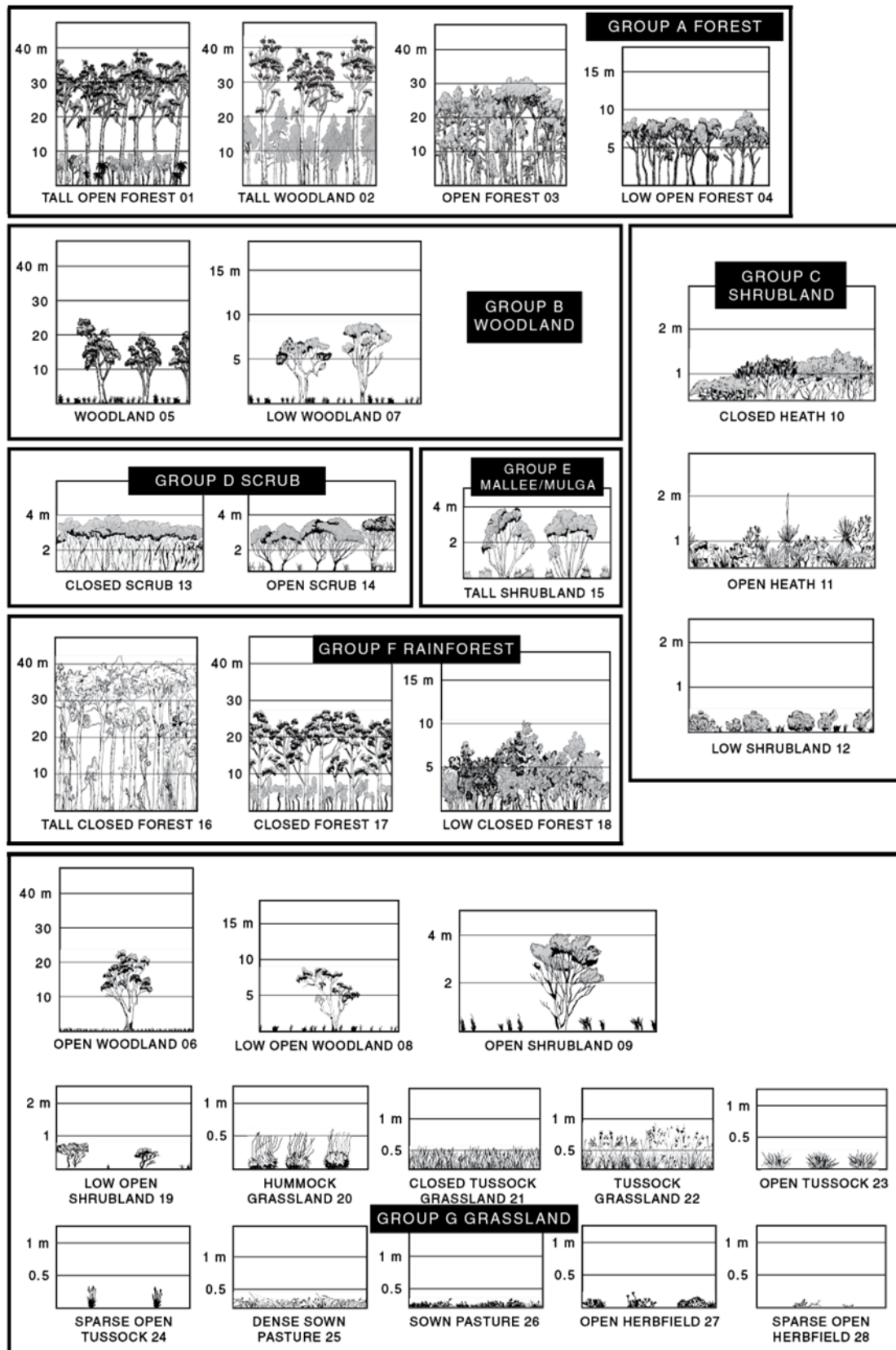


AS3959:2018 - Table 2.3 CLASSIFICATION OF VEGETATION

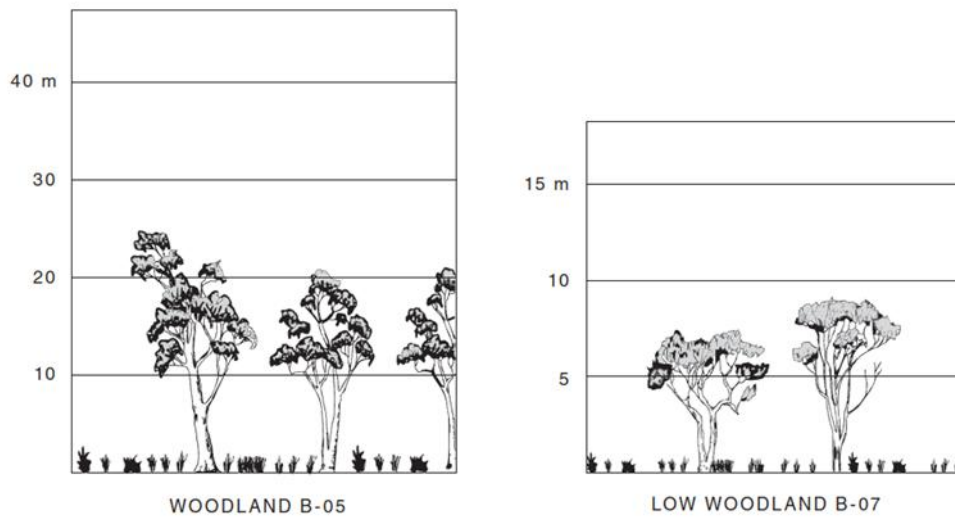
Vegetation classification	Vegetation type	Figure No. in Figures 2.4(A) to 2.4(H)	Typical characteristics
A Forest	Tall open forest Tall woodland	01 02	Trees over 30 m high; 30%–70% foliage cover (may include understorey ranging from rainforest species and tree ferns to low trees and tall shrubs). Found in areas of high reliable rainfall. Typically dominated by eucalypts with a sub-dominant tree layer.
	Open forest Low open forest	03 04	Trees up to 30 m high; 30%–70% foliage cover (may include understorey of sclerophyllous low trees or shrubs). Typically dominated by eucalypts, melaleuca or callistemon (may include riverine and wetland environments) and callitris. Includes eucalypt plantations.
	Pine plantation	Not shown	Trees 30 m in height at maturity, generally comprising Pinus species or other softwood species, planted as a single species for the production of timber.
B Woodland	Woodland Low woodland	05 07	Trees up to 30 m high; 10%–30% foliage cover dominated by eucalypts and/or callitris with a prominent grassy understorey. May contain isolated shrubs.
C Shrubland	Closed (low) heath Open heath	10 11	Found in wet areas and/or areas affected by poor soil fertility or shallow soils. Shrubs 1 m–2 m high. Wet heaths occur in sands adjoining dunes of the littoral (shore) zone. Montane heaths occur on shallow or water-logged soils.
	Low shrubland	12	Shrubs <2 m high; greater than 30% foliage cover. Understoreys may contain grasses. Acacia and Casuarina often dominant in the arid and semi-arid zones.
D Scrub	Closed scrub (Tall heaths)	13	Found in wet areas and/or areas affected by poor soil fertility or shallow soils; >30% foliage cover. Dry heaths occur in rocky or sandy areas. Shrubs >2 m high. Typical of coastal areas and tall heaths up to 6 metres in height. May be dominated by Banksia, Melaleuca or Leptospermum with heights of up to 6 metres.
	Open scrub	14	Shrubs greater than 2 m high; 10%–30% foliage cover with a mixed species composition.
E Mallee/Mulga	Tall shrubland	15	Vegetation dominated by low trees or tall shrubs (especially eucalypts and acacias) some with a multi-stemmed habit (mallee); usually greater than 2 m in height; <30% foliage cover. Understorey of widespread dense low shrubs or sparse grasses and generally found in the arid and semi-arid zones, but not within the rangelands.
F Rainforest	Tall closed forest Closed forest Low closed forest	16 17 18	Trees >90% foliage cover; understorey may contain a large number of species with a variety of heights. Not dominated by eucalypt species.
G Grassland	Open woodland	06	All forms (except tussock moorlands), including situations with shrubs and trees, if the overstorey foliage cover is less than 10%. Includes pasture and cropland. NOTE: Grassland managed in a minimal fuel condition and non-curing cropland is regarded as low threat vegetation for the purposes of Clause 2.2.3.2.
	Low open woodland	08	
	Open shrubland	09	
	Low open shrubland	19	
	Hummock grassland	20	
	Closed tussock grassland	21	
	Tussock grassland	22	
	Open tussock	23	
	Sparse open tussock	24	
	Dense sown pasture	25	
H Tussock Moorland	Sown pasture	26	All forms of vegetation where the overstorey is dominated by the species Buttongrass (<i>Gymnoschoenus sphaerocephalus</i>). Only occurs as a significant vegetation type in Tasmania.
	Open herbfield	27	
	Sparse open herbfield	28	



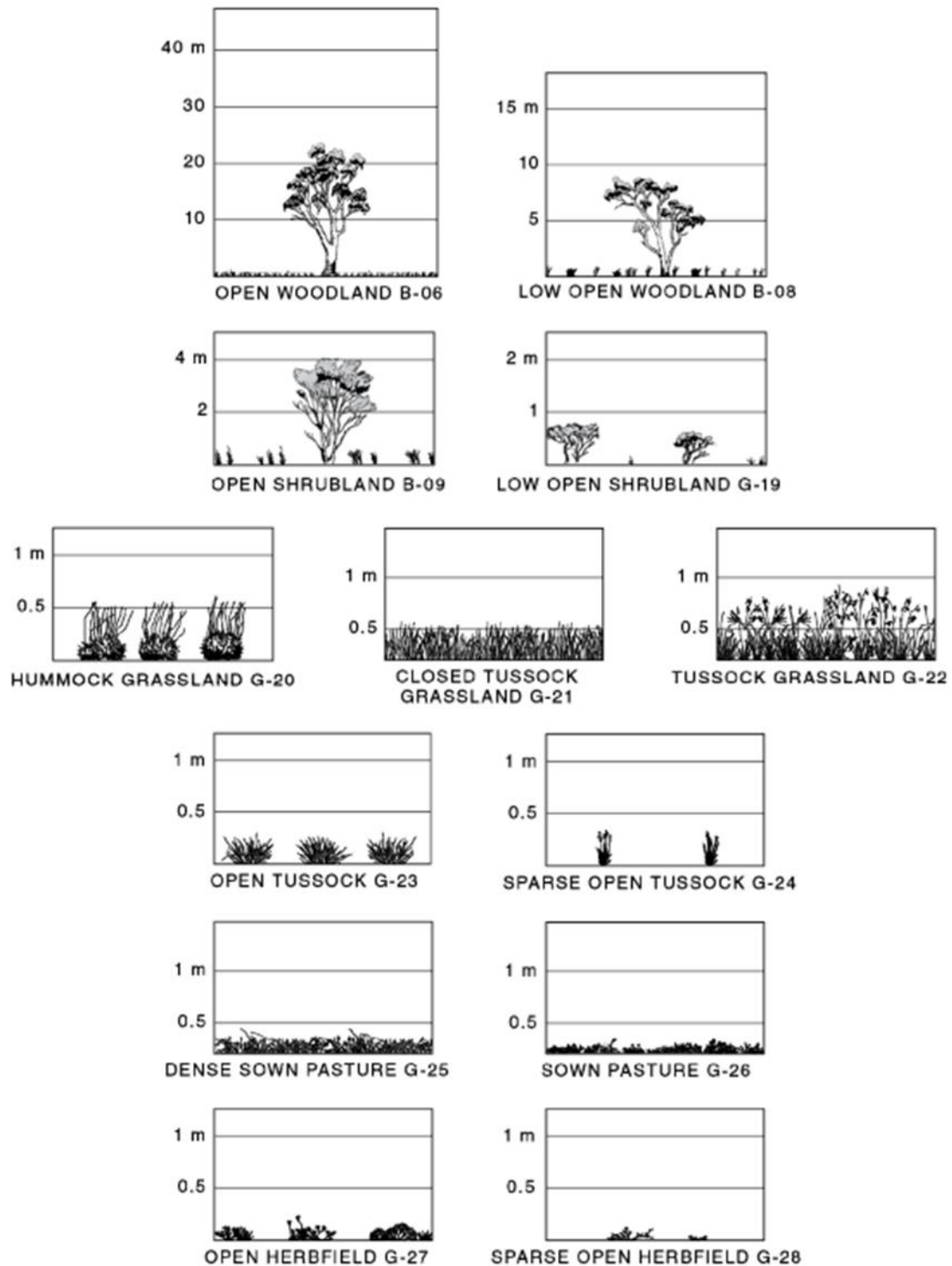
AS3959:2018 – Figure 2.4(A) Classification of Vegetation - SUMMARY



AS3959:2018 – Figure 2.4(C) Classification of Vegetation – WOODLAND (Group B)



AS3959:2018 – Figure 2.4(H) Classification of Vegetation – GRASSLANDS (Unmanaged)





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