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BUSH FIRE MANAGEMENT & EMERGENCY RESPONSE PLAN

BATTERY ENERGY STORAGE SYSTEM

LOT 1 DP 777724

BRUXNER HIGHWAY, TENTERFIELD

LGA: Tenterfield Shire

Client: ACEnergy Pty Ltd

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DISCLAIMER

The recommendations provided in the summary of this report are a result of the analysis of the proposal in relation to the requirements of Planning for Bushfire Protection 2019. Utmost care has been taken in the preparation of this report; however, there is no guarantee of human error. The intention of this report is to address the submission requirements for Development Applications on bushfire prone land. There is no implied assurance or guarantee the summary conditions will be accepted in the final consent, and there is no way Harris Environmental Consulting is liable for any financial losses incurred should the recommendations in this report not be accepted in the final conditions of consent. This bushfire assessment provides a risk assessment of the bushfire hazard as outlined in the PBP 2019 and AS3959 2018. It does not provide protection against any damages or losses resulting from a bushfire event.

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1 INTRODUCTION

ACEnergy Pty Ltd engaged Harris Environmental Consulting to prepare a Desktop Bush Fire Management and Emergency Response Plan (the plan) for the proposed Battery Energy Storage System (BESS) development at Lot 1 DP777724 Bruxner Highway, Tenterfield.

The subject site is classified Bush Fire Prone Land (BFPL) under the Tenterfield Shire BFPL Map.

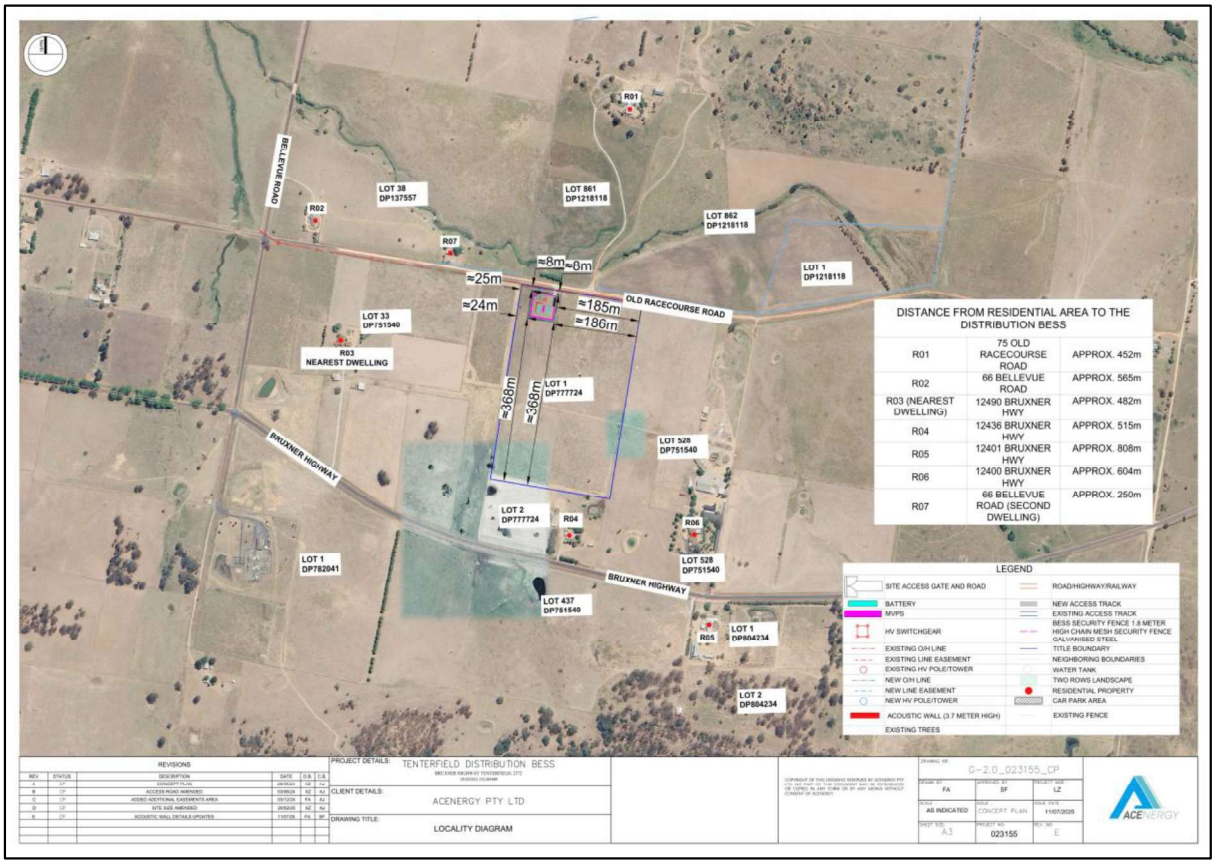
The plan has been prepared per the requirements of *Planning for Bush Fire Protection 2019* (PBP), the NSW Rural Fire Service (RFS) document: *A guide to developing a bush fire emergency management and evacuation plan,* and Australian Standard AS 3745:2010 *Planning for emergencies in facilities.*

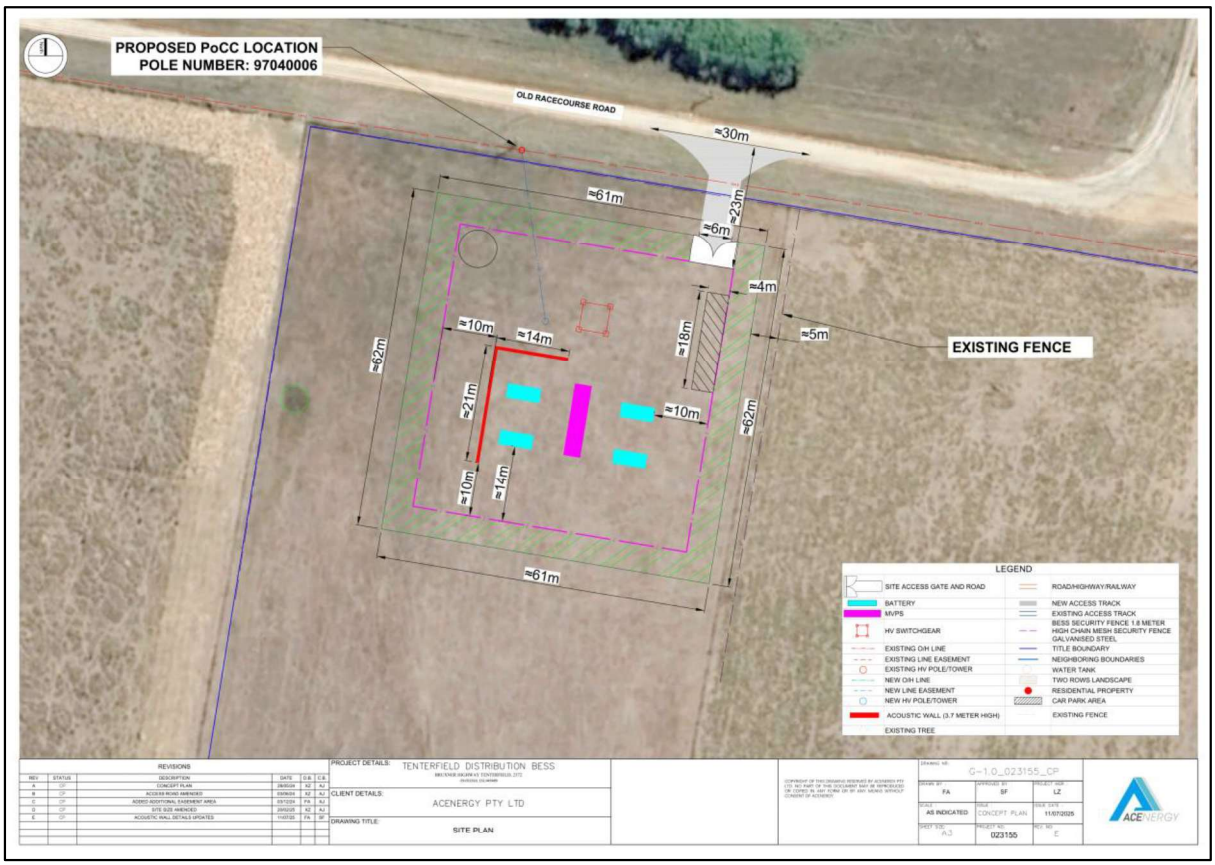
The purpose of the plan is to evaluate the bushfire risk profile of the site and identify a package of bushfire management measures and emergency response actions that can be taken to protect human life and minimise impacts on assets from the threat of a bush fire.

2 FACILITY DETAILS

The proposed development will involve the construction and operation of a Battery Energy Storage System on the northwestern corner of the subject site. The proposed development includes 4 batteries, one MVPS and associated facilities within a 0.24 ha fenced site with proposed internal property access from Bruxner Highway to the North.

Figure 1 - Proposed Development





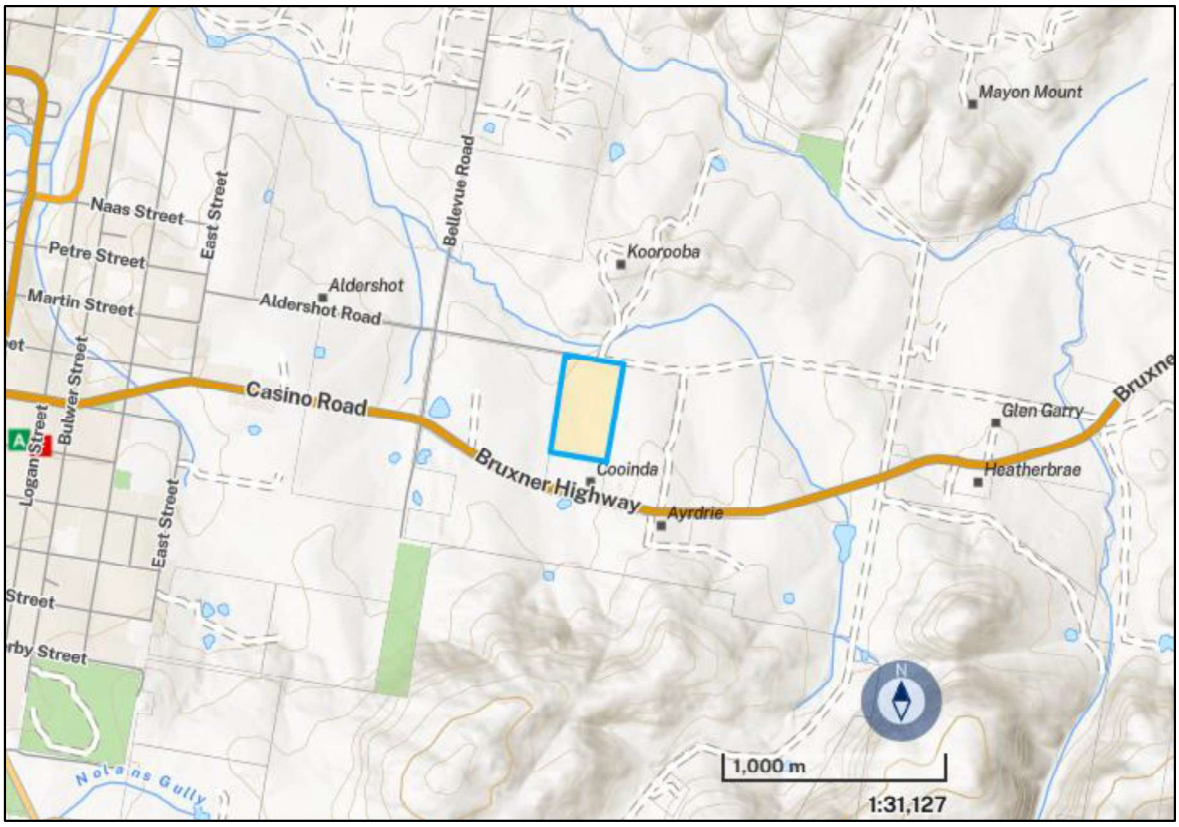
3 SITE DESCRIPTION

The site is located 2 km east of the main township of Tenterfield in northeastern New South Wales, near the Queensland border.

The legal title of the property is Lot 1 in DP 777724, Bruxner Highway, Tenterfield NSW 2372.

The site is located within the Tenterfield Shire Local Government Area (LGA) and is zoned RU1 - Primary Production under the *Tenterfield Local Environmental Plan 2013.*

Figure 2 - Site Location



4 LANDSCAPE BUSHFIRE RISK PROFILE

4.1 Northern Tablelands

The site is located in the Northern Tablelands of NSW. The Northern Tablelands Bush Fire Management Committee (BFMC) coordinates all bushfire risk management.

The Northern Tablelands BFMC area covers roughly 2,142,500 ha of land. The area covers the Glen Innes Severn, Inverell and Tenterfield Local Government Areas (LGA) and features National Parks covering an area of 204,180 ha (9.53% of BFMC area) and State Forests covering an area of 195,610ha (9.13% of BFMC area).

The Northern Tablelands area has approximately 64% bushland and 34% grassland with the balance being the built environment or water bodies. A bush or grass fire can happen at any time of the year, but the risk is higher during the warmer months, when bush, grass or scrub is drier.

The BFMC area generally experiences a temperate climate with warm summer and cool winters. The average annual rainfall across the region is approximately 860mm. Rainfall is most consistent during summer and more variable during winter and spring, with recent decades showing a slight decline in winter and spring rainfall. The region has experienced a gradual warming trend, reflected in an increase in both the number and duration of hot days above 30 °C. The fire season typically begins in August and extends through to March, with north westerly winds, high day time temperatures and low relative humidity experienced in the bushfire season.

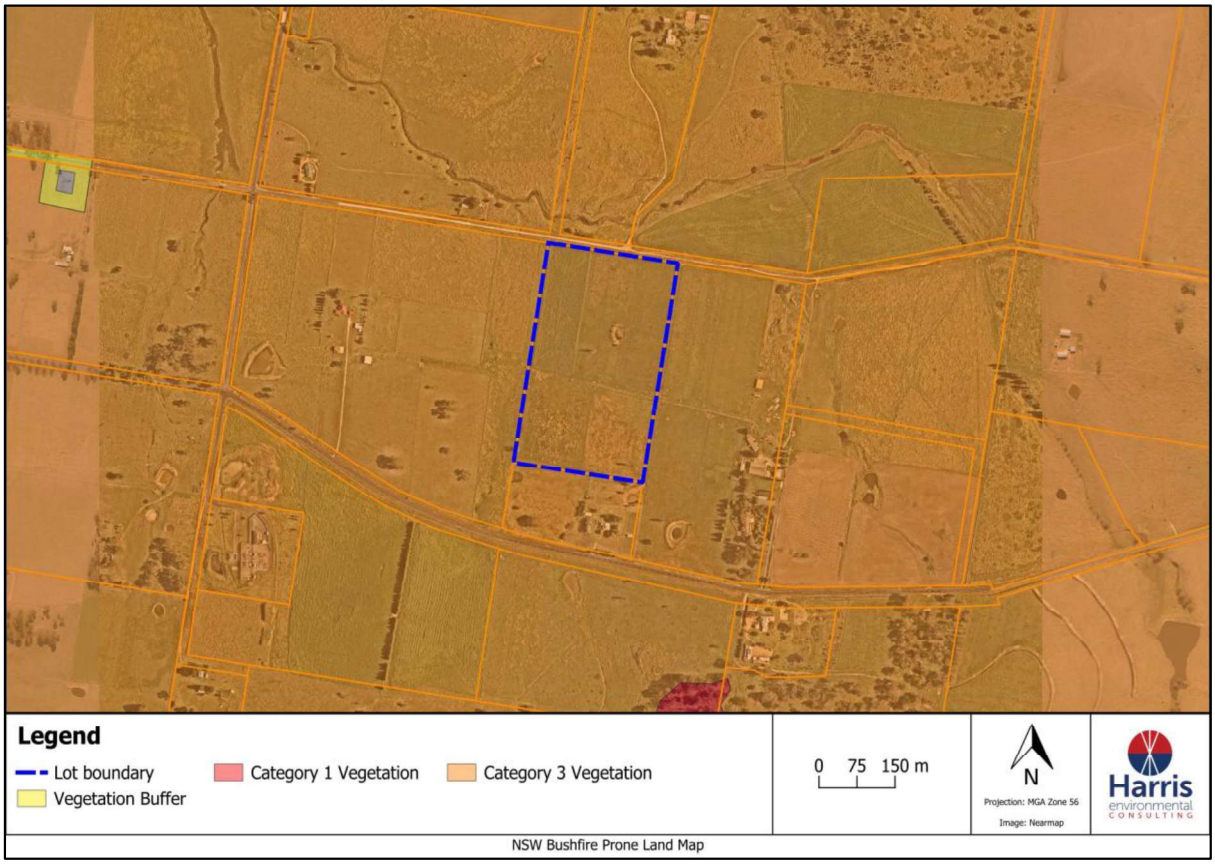
4.2 Bushfire Hazard Assessment

The site contains and is surrounded by rural residential and agricultural land.

Tenterfield Shire Council maps the BFPL within and surrounding the subject site as Category 3 bushfire-prone vegetation. An area of category 1 vegetation exists towards the south of the subject lot.

Vegetation Category 3 is considered to be medium bushfire-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 BFPL map and consists of Grasslands, freshwater wetlands, semi-arid woodlands, alpine complexes, and arid shrublands.

Figure 3 – Bushfire Prone Land Map



4.2.1 Classified Vegetation

The vegetation assessed classifies all vegetation within 140 m of the proposed development as 'Grassland' in accordance with Planning for Bushfire Protection (PBP) 2019.

The proposed Landscaping (Appendix IV) is located wholly outside the 1.8 m high security fence.

4.2.2 Effective Slope

Australian Standard AS3959-2018 *Construction of buildings in bushfire-prone areas* and PBP 2019 identify that the slope of the land under the classified vegetation is much more important than the slope between the proposed development and the edge of the classified vegetation.

The effective slopes influencing bushfire behaviour towards the proposed development were assessed using elevation data from Spatial Services NSW, June 2025.

The development area is located land that upslopes to the east and south. Slopes to the northwest are considered 0-5 degrees downslope, with land in all other directions considered flatland/upslope.

Figure 4 Site Slope

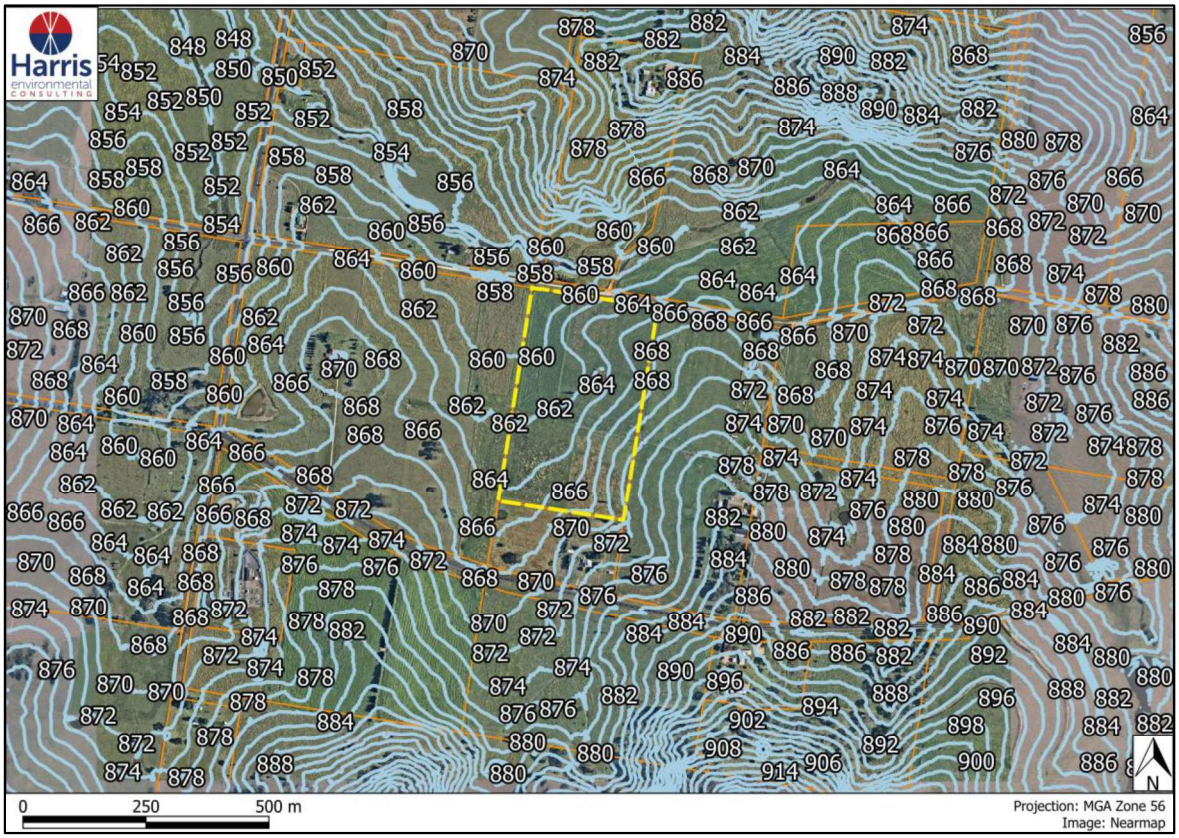
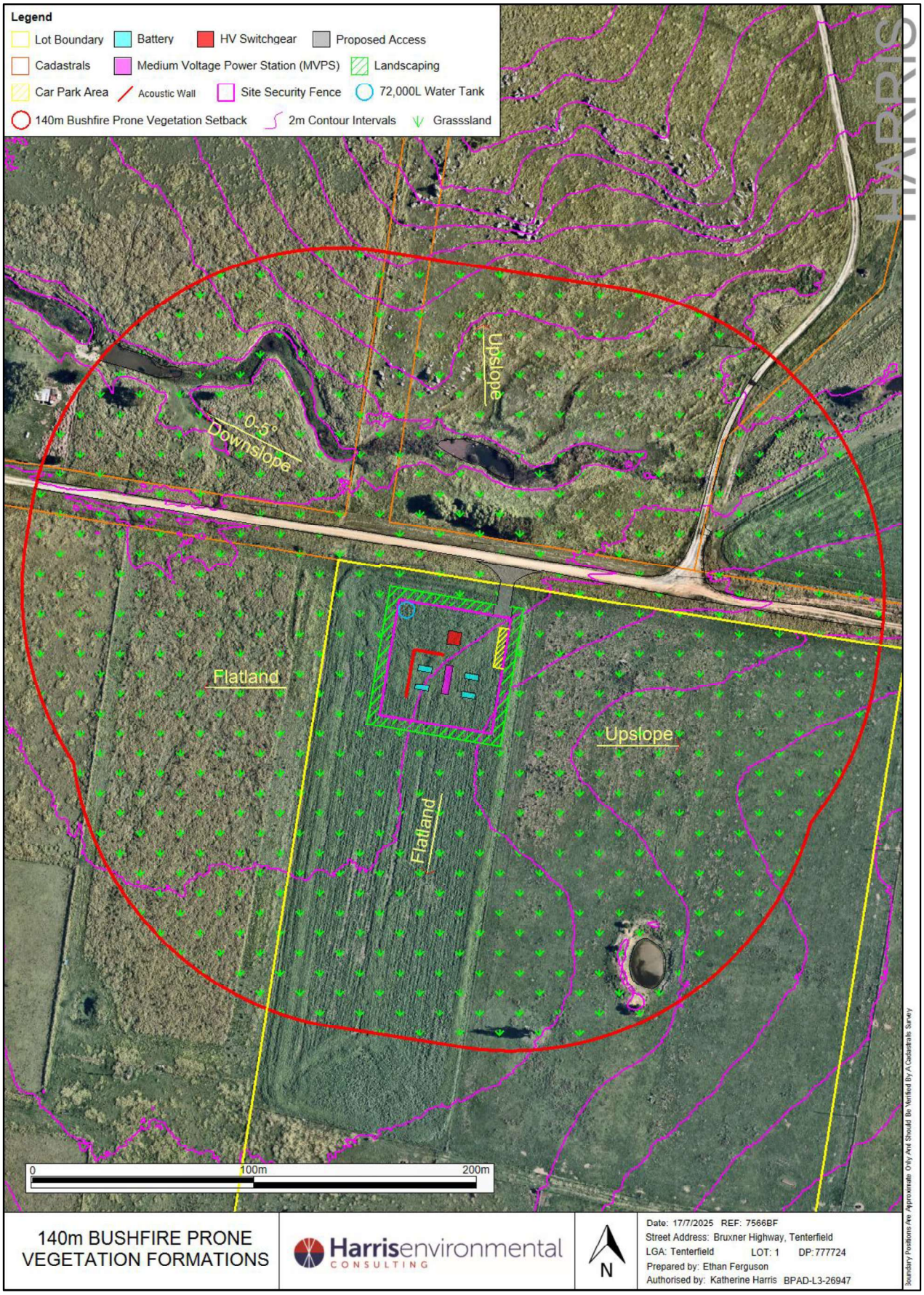


Figure 5 – Classified vegetation and effective slopes influencing bushfire behaviour



4.2.3 Potential Bush Fire Behaviour

Based on the desktop assessment of land use, classified vegetation and effective slopes within 140 metres of the subject site, the predominate risk to the proposed development is likely to be from grassland fires impacting the site or spreading from the site.

The bushfire risk posed by a grassland hazard differs from fires in other vegetation communities. Fires burning through a grassland hazard generally spread rapidly at higher intensities and have shorter residence time. Ember production is limited, smaller and fewer in number than those produced from forest fires but can still propagate spot fires ahead of the main fire front.

5 BUSHFIRE RISK ANALYSIS

The bushfire risk to people, property, and the environment has been assessed in relation to the likelihood and consequence per the Australian Standard AS ISO 310000 *Risk Management Guidelines*.

The plan identifies assets within the site, protection measures and management zones.

5.1 Asset Identification

Assets are defined as anything valued by the community, which includes agricultural land, forests, livestock, heritage buildings and places, infrastructure, the environment, commercial and industrial buildings and equipment that may be at risk from bushfires.

Assets within the site have been divided into four asset types.

5.1.1 Human Settlements:

- Residential areas, including urban bushland interface areas and rural properties, and
- Other human settlement areas, including commercial and industrial areas.

5.1.2 Economic:

- Built assets within the subject site, e.g. the battery energy storage systems, MVPS, compound, access roads, landscaping and all associated facilities
- Commercial operation of the facility.

5.1.3 Environmental:

- Threatened species, populations and ecological communities within the site; and
- Locally important species and ecological communities that are susceptible to fire.

5.2 Risk Register and Risk Management Matrix

Refer to Appendix I.

6 BUSHFIRE MANAGEMENT AND PROTECTION MEASURES

The Bushfire Management Plan has been prepared in accordance with the NSW Rural Fire Service *Model Bushfire Risk Management Plan*. The plan identifies a package of bushfire management and protection measures that can be taken to protect life and minimise impacts on assets from bushfires.

6.1 Asset Protection Zones

The intent of an Asset Protection Zone (APZ) is to minimise the risk of bushfire attacks and maintain reduced fuel loads to ensure radiant heat levels at buildings and assets are below critical limits. The APZ provides a safe operational environment for emergency service personnel undertaking operations.

Assets are defined as anything valued by the community, which includes agricultural land, forests, livestock, heritage buildings and places, infrastructure, the environment, commercial and industrial buildings and equipment that may be at risk from bushfires.

The APZ is located wholly in grassland, with no trees within the development footprint. This grass that should be kept mown (<100mm in height). A 10-metre-wide APZ around the electrical facilities provides a defendable space and safe operational access to all assets and infrastructure. This APZ is located within surrounding security fence.

The proposed Landscaping (Appendix IV) is located wholly outside the proposed APZ area.

6.2 Bushfire Management Zones

Bushfire Management Zones have been assessed in consideration of the Northern Tablelands BFRMP. Management zones are based on the overall and long-term management of the site in consideration of bushfire impacting the site as well as protection of the surrounding landscape from a fire escaping the site.

The Precinct map for the eastern region of the Northern Tablelands is shown in Appendix II and shows no Strategic Fire Advantage Zone or Land Management Zones within the surrounding area of Tenterfield. An APZ has been identified within the site based on the bushfire risk profile and risk analysis detailed in section 4.3. The APZ is illustrated in Figure 6 and detailed in Table 1.

Based on the layout of the facility this assessment also recommends a fuel free zone directly surrounding the MVPS, batteries and HV switchgear for the purposes of minimising the likelihood of fires within the site and reducing their potential severity or extent.

Figure 6 – Land Management Zones

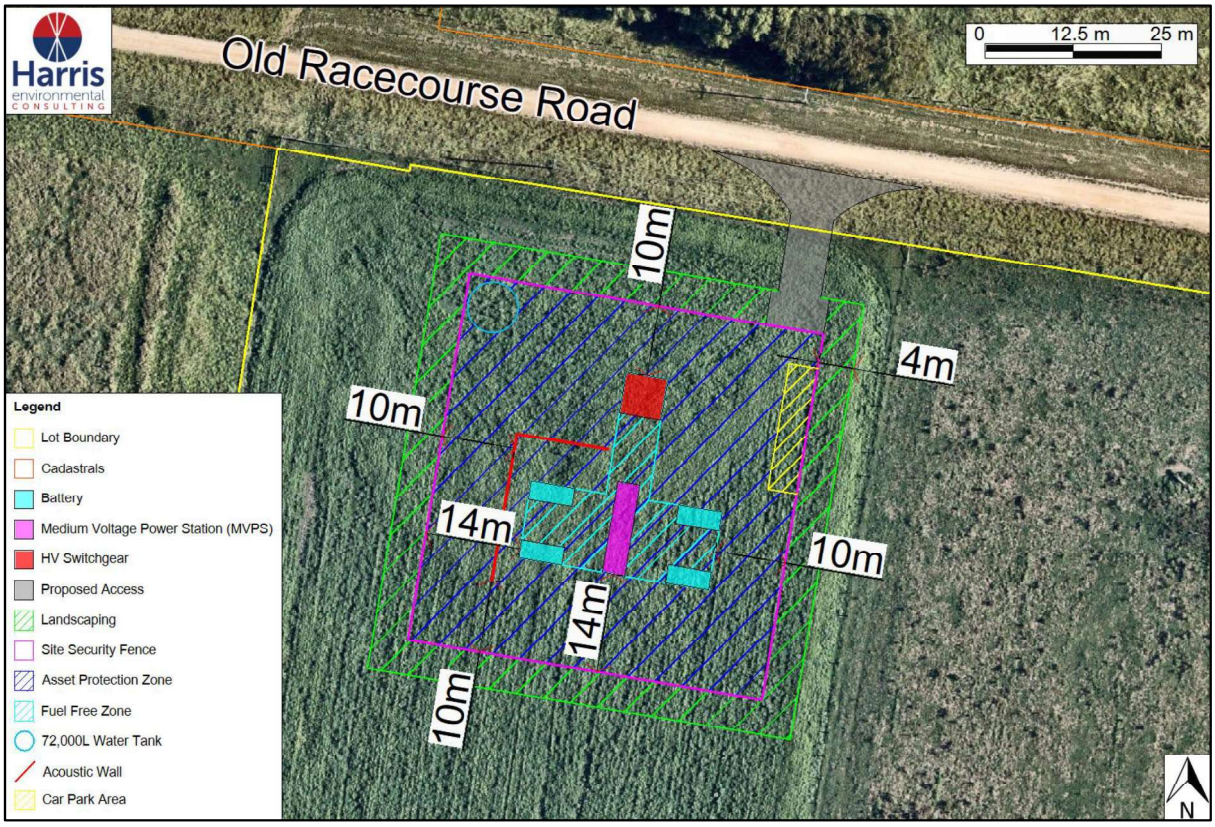


Table 1: Bushfire management zones.

Fuel Free Zone	
Description	A fuel-free area under and surrounding critical assets.
Purpose	The primary purpose of a fuel-free area is to prevent the spread of fire and inhibit fire propagation from spot fires.
Location	Immediately adjacent critical assets at risk of bushfire. 1-5m
Tactics	• Gravel or concrete. • Herbicide application.
Management Intensity	Managed at a high intensity to minimise available fuel loads.
Asset Protection Zones(APZ):	
Description	A fuel-reduced area surrounding an asset that creates a buffer from the bushfire-prone vegetation and provides a defendable space for firefighting operations.
Physical Description	**Trees:** • tree canopy cover should be less than 15% at maturity; • trees at maturity should not touch or overhang the building; • lower limbs should be removed up to a height of 2m above the ground; tree canopies should be separated by 2 to 5m; and • preference should be given to smooth barked and evergreen trees. **Shrubs:** • shrubs create large discontinuities or gaps in the vegetation to slow down or break the progress of fire towards buildings should be provided; • shrubs should not be located under trees; • shrubs should not form more than 10% ground cover; and • clumps of shrubs should be separated from exposed windows and doors by a distance of at least twice the height of the vegetation. **Grass:** • grass should be kept mown (as a guide grass should be kept to no more than 100mm in height); and • leaves and vegetation debris should be removed.
Purpose	The primary purpose of an APZ is to protect human life (including residents, community members and firefighters), property and highly valued public assets (such as human settlement, economic, environmental and cultural items) from the direct impacts of bushfires.
Location	APZs are generally implemented within the development site and immediately adjacent assets at risk of bushfire to provide separation from bushfire-prone vegetation.
Tactics	• Slashing and mowing. • Herbicide application. • Grazing. • Implement frequent prescribed burning. • Carry out selective hand clearing. • Grassland within the APZ should be kept mown (as a guide, grass should be kept to no more than 100mm in height).

	The APZ should be established before the commencement of works and maintained for the life of the development.
Management Intensity	Vegetation within the APZ is managed at a high intensity to minimise available fuel loads. As a minimum, APZs are to be treated as required to maintain the specifications of the APZ. APZs should be audited bi-annually

6.3 Construction Standards

To ensure the proposed development is afforded a suitable package of bushfire protection measures, all critical assets should be constructed from non-combustible materials designed to mitigate the risk of flame damage, ember attack and radiant heat. The APZ within the fenced site can achieve a BAL 40 setback for the HV Switch gear and BAL 29 for the Batteries and MVPS. It is recommended that based on the remoteness of the development, the external services should be shielded or designed to withstand 40kWm2 of radiant heat (BAL 40). Where applicable, all critical assets should include ember protection.

Ember protection can be achieved by enclosing all openings or covering openings with a non-corrosive metal screen mesh with a maximum aperture of 2mm. This includes subfloor areas, open windows, vents, weep holes and eaves. External doors should be fitted with draft excluders.

6.4 Safe Operational Access

The subject site has direct access to Old Racecourse Road to the North. The site access driveway and gate are located on Old Racecourse Road. The access is directly to the 8 m wide access gate.

Based on the length of the internal access road within the property it is recommended the access comply with the PBP- Property Access Table 7.4a, so as to provide adequate access for a fire fighting vehicle to enter the site. This includes:

- A minimum carriageway width of four metres;
- provide enough turning room for a fire tanker that requires an inner minimum turning radius of 6 m and outer minimum radius of 12 m;
- Curves a minimum inner radius of six metres;
- The minimum distance between inner and outer curves is six metres;
- The cross fall is not more than 10 degrees;
- Maximum grades for sealed roads do not exceed 15 degrees (28 per cent) and not more than 10 degrees (18 percent) for unsealed roads; and
- There is suitable access for a Category 1 fire appliance to within 4m of the static water supply.

6.5 Provision of Services

The proposed development will not be connected to reticulated water. A minimum of 20,000L of static water should be located within the development site to ensure adequate water is provided to protect assets during and after the passage of a bushfire.

Above-ground tanks must be manufactured of concrete or metal and raised tanks have protected stands. A suitable connection for firefighting purposes, such as a 65mm Storz outlet and a gate or ball valve, should be provided where required.

All above-ground electrical transmission lines should be managed under specifications issued by the managing authority.

6.6 Site Management

All land management must be undertaken according to license conditions and legislation, whether inside or outside the site.

Under the *Rural Fires Act 1997*, the RFS can direct landholders to undertake hazard reduction activities on their property.

6.7 Total Fire Bans

During the construction and operation phase of the facility, the safe work procedures and restrictions associated with a total fire ban, as outlined by the NSW RFS, should be followed. A total fire ban means no fires out in the open. A total fire ban helps limit the potential for fires to develop.

During a total fire ban, you cannot light, maintain or use a fire in the open or carry out any activity in the open that causes or is likely to cause a fire.

Call the local NSW RFS Fire Control Centre or local Council for further advice.

6.8 Fire Safety

Based on the nature of the development, there is potential for fires to initiate from the components within the site.

The proposed development includes hardware for the purposes of fire safety. Each battery container is built with fire suppression system and have multiple built-in fire protection devices that work collaboratively, including flammable gas, smoke and thermal sensors, pressure relief system and aerosol fire extinguishing system. Therefore, a container will automatically suppress an internal fire in the first instance.

The battery type is a lithium-Ion phosphate (LFB) which are considered to be one of the safest battery chemistries within the industry. LFP does not contain heavy metals. Battery cell and BESS containers provide double layers. LFP does not include any oil colling but has anti-leaking connectors within the self-contained design. The development includes a surrounding fence, gate and landscaped area for security purposes limiting trespassing.

7. EMERGENCY RESPONSE

7.1 Emergency Planning Committee

This section outlines standard requirements and protocols developed based on similar projects. Detailed protocol and measures are subject to reasonable changes and confirmed by the appointed EPC contractor.

The persons responsible for managing the site should form an Emergency Planning Committee (EPC). The EPC shall consist of at least two people.

The EPC is responsible for implementing and maintaining the emergency plan, emergency response procedures, and related training. The duties of the EPC include the following:

- Ensuring that resources are provided to enable the development and implementation of the emergency plan.
- Ensuring that the emergency plan is readily identifiable and available to the appropriate persons.
- Ensuring those with control of emergencies operate per the emergency plan, that this person/persons are current and readily available, and continue to operate at all times.
- Authorise and implement the emergency plan. The following shall apply to the implementation:
    - awareness of the emergency response procedures,
    - training,
    - testing emergency procedures, and
    - reviewing emergency procedures.
- Ensuring the emergency procedures remain viable and effective by testing and reviewing policies as required.
- Establishing strategies to ensure all onsite personnel are made aware of emergency response procedures.
- Ensuring a permanent record of events for emergencies is compiled and retained.
- Identifying opportunities for improvement in the emergency plan.
- Obtain professional advice on the level of indemnity provided to EPC members and be aware of the level of the indemnity supplied; and
- Shall meet before the inception of the Plan and as required to ensure the Plan is relevant and up to date.

7.2 Emergency Control Organisation

The Emergency Control Organisation (ECO) is responsible for organising and supervising the safe movement of onsite personnel in an emergency. During emergencies, instructions given by the ECO personnel shall take precedence over the normal management structure.

This Plan documents the pre-emergency, emergency and post-emergency duties and responsibilities during a bushfire emergency.

The following roles are recommended to the appropriate staff: Chief Warden, Deputy Chief Warden, Communications Officer, Building Wardens, Safety Officers, and First Aid Officers. A Chief Warden is required as a minimum.

Selection criteria for ECO personnel:

- Be capable of performing their duties;
- Have leadership qualities and the ability to command authority;
- Display practical decision-making skills;
- Demonstrate the capability to remain calm under pressure;
- Be available onsite to undertake their appointed duties
- Possess practical communication skills; and
- Be able to undertake relevant training.

7.3 Roles and Responsibilities

Construction Stage

Chief Warden	
Position:	
Contact Details:	
The Chief Fire Warden shall be identifiable by wearing white (white helmet, cap, hat or vest) with the words "Chief Fire Warden" prominently displayed.	

Deputy Warden	
Position:	
Contact Details:	
The Deputy Warden shall be identifiable by wearing white (white helmet, cap, hat or vest) with the words "Deputy Warden" prominently displayed.	

Operational & Maintenance Stage

For the Operational Stage, emergency personnel's roles and responsibilities and fire emergency protocol are to be in accordance with Appendix I.

Chief Warden/ HSE Manager	
Position:	
Contact Details:	
The Chief Fire Warden shall be identifiable and if applicable, by wearing white (white helmet, cap, hat or vest) with the words "Chief Fire Warden" prominently displayed.	

Deputy Warden/ O&M Manager	
Position:	
Contact Details:	
The Deputy Warden shall be identifiable and if applicable, by wearing white (white helmet, cap, hat or vest) with the words "Deputy Warden" prominently displayed.	

7.3.1 Pre-emergency Task

Chief Warden

- Maintain a current register of ECO members;
- Replace ECO members when a position becomes vacant;
- Conduct regular exercises;
- Ensure the emergency response procedures are kept up to date;
- Attend meetings of the EPC as appropriate;
- Attend training and emergency exercises as required by EPC; and
- Ensure personal ECO identification is available.

Deputy Warden

- Ensure personal proficiency in the operation of communication equipment;
- Maintained records and logbooks and make them available for emergency response;
- Ensure that ECO members are proficient in the use of the communication equipment;
- Ensure that emergency communication contact details are up to date;
- Attend training and emergency exercises as required by EPC;
- Confirm sufficient wardens for the area of responsibility;
- Coordinate the completion of Personal Emergency Evacuation Plans (PEEP) documentation;
- Report on the deficiencies of the emergency equipment;
- Ensure that wardens have communicated the emergency response procedures to all occupants within their nominated areas;
- Ensure that occupants are aware of the identity of their wardens;
- Coordinate safety practices by wardens throughout their area of responsibility;
- Ensure that all occupants are aware of the emergency response procedures; and
- Carry our safety practices (e.g. Clear access to emergency equipment).

7.3.2 Emergency Task

Refer to the Bushfire Emergency Response Plan for actions.

7.3.3 Post-Emergency Task

Chief Warden:

- When the emergency incident is rendered safe, or the Emergency Service returns control, notify the ECO members to have occupants return to the site, as appropriate;
- Organise a debrief with ECO members and, where applicable, with any attending Emergency Service; and
- Compile a report for the EPC and management.

Deputy Warden:

- Records events and actions during the emergency for debriefing;
- Clean and service used specialised equipment; and
- Replace specialised equipment when necessary.

7.4 Evacuation Considerations

During a bushfire event, emergency services may issue evacuation orders and the DIRECTION of evacuation. For example, a NSW RFS Emergency Warning may say:

'Leave now if the path is clear in a westerly direction towards Tenterfield'

Evacuation is the process of moving people from where they are staying to another location some distance away from the effects of a bush fire to a safer place. Evacuation requires an off-site refuge, which is a building or location some distance away from the property and from the effects of a bush fire that can accommodate all the occupants being evacuated.

The direction of the evacuation and designated evacuation point will depend highly on the existing fire conditions.

In the event of an evacuation, all traffic from the site will be via Old Racecourse Road.

It should be noted from previous bushfire events traffic gridlock can occur on surrounding roads. It is common and expected that travel times will double, if not be at a standstill. Therefore, evacuation at the earliest possible time is recommended based on the event.

To the north, east, south, and west, Neighbourhood Safer Places have been identified if the site is occupied during a bushfire event and local emergency services have issued evacuation orders.

- **West (2.78km) – Open Space – Federation Park, Petre Street, Tenterfield**
- North (136km) – Building – Urbenville Public School, Welch Street, Urbenville
- East (48.8km) – Open Space – Woodward Park, Corner of Allison Street and Bruxner Highway, Drake Village
- South (68.8km) – Building – Torrington Memorial Hall, Bates Road, Torrington

As illustrated in Figure 7-9, the entire road network associated with access and egress from the site traverse various zones of agricultural, urban, hills, and rural land.

During an emergency, the anticipated times have been calculated for evacuation to the designated safer places north and south, as shown below in Table 2.

Table 2: Travel times rounded up to the nearest minute.

Average Speed Km/h	Travel time to Federation Park – 2.78 km West	Travel time to Urbenville Public School – 136 km North	Travel time to Woodward Park – 48.8 km East	Travel time to Torrington Memorial Park – 68.8 km Southwest
60 km/h	3 minutes	2 hours 16 minutes	49 minutes	1 hour 9 minutes
50 km/h	3 minutes	2 hours 43 minutes	59 minutes	1 hour 23 minutes
40 km/h	4 minutes	3 hours 24 minutes	1 hour 13 minutes	1 hour 43 minutes
30 km/h	6 minutes	4 hours 32 minutes	1 hour 38 minutes	2 hours 18 minutes
25 km/h	7 minutes	5 hours 26 minutes	1 hour 57 minutes	2 hours 45 minutes
10 km/h	17 minutes	13 hours 36 minutes	4 hours 53 minutes	6 hours 53 minutes

7.4.1 Evacuation Centres

In a major bushfire event, evacuation centres will likely be established to meet the needs of those affected by the bushfires. Evacuation centres are generally existing facilities that can often open with little notice to provide immediate assistance. It is advised that the Site Manager monitors evacuation centres established in the area and follows the advice of the emergency service when directed to evacuate. The location of evacuation centres is likely to impact on-road use and expected travel times in the event of an evacuation.

Figure 7 Evacuation routes to safer places: West

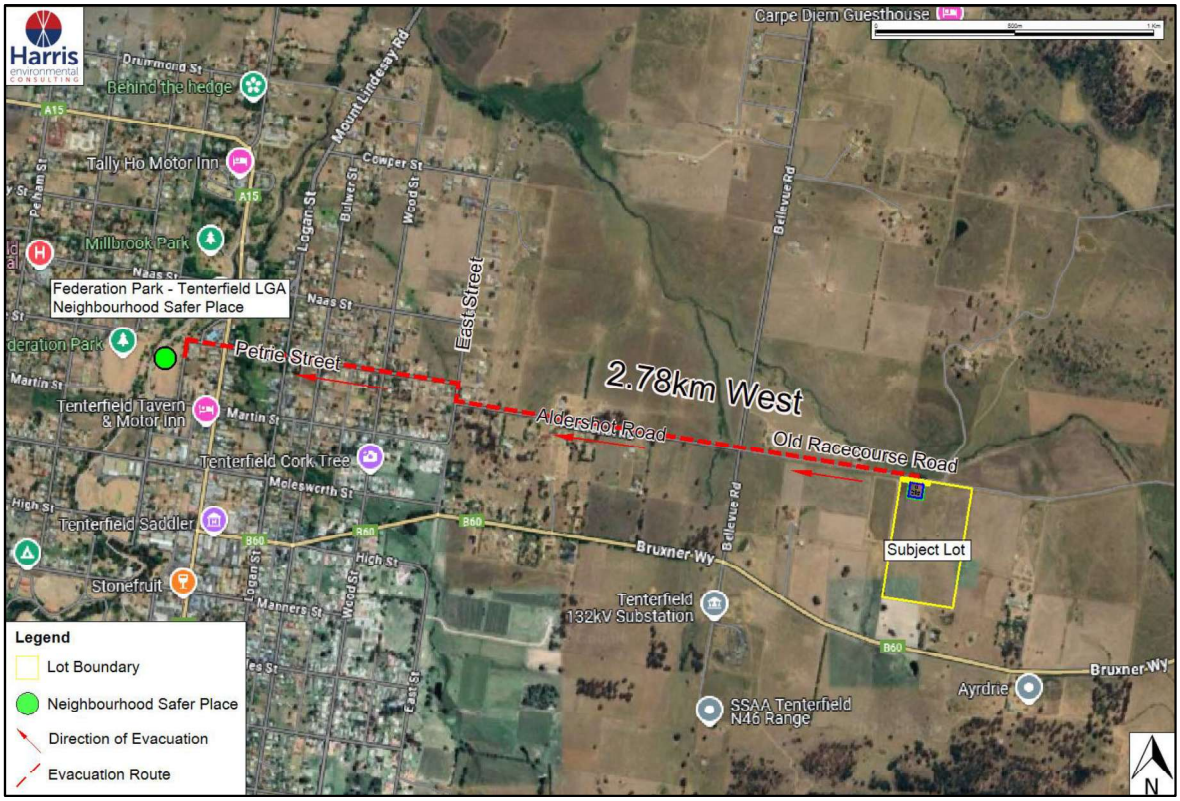


Figure 8 Evacuation routes to safer places: East

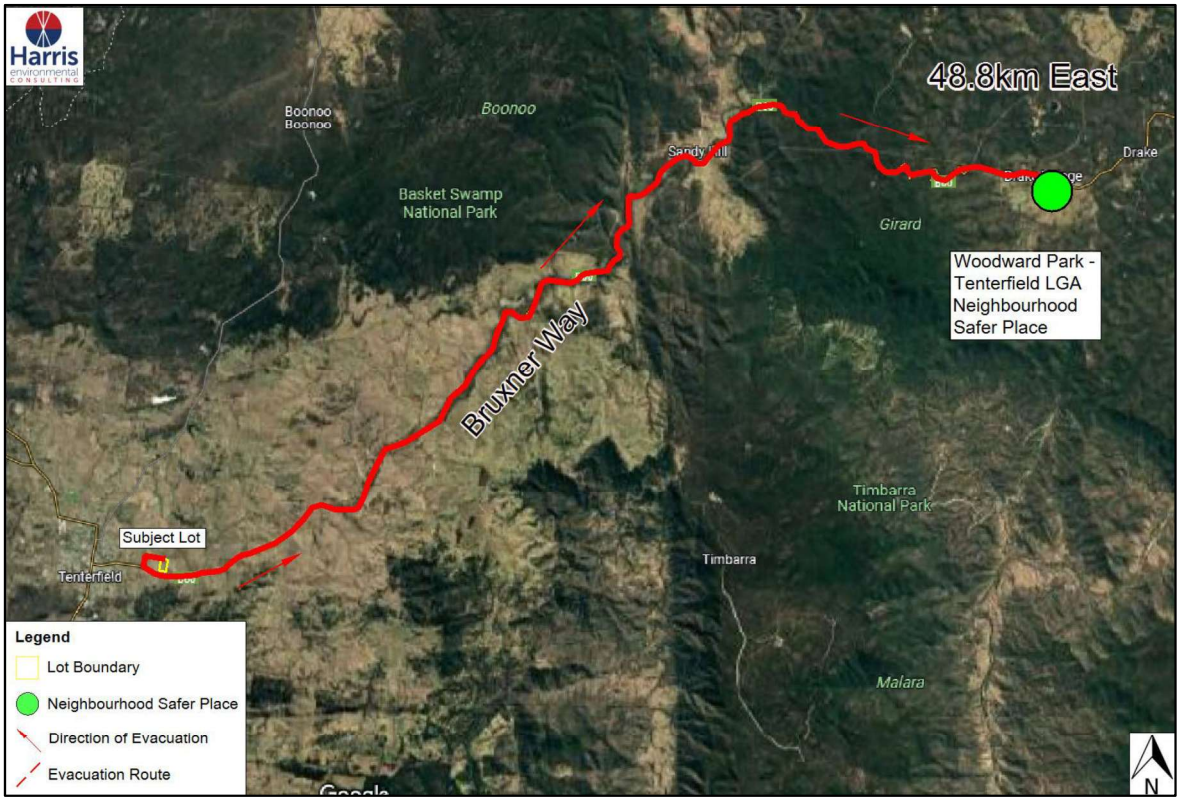


Figure 9 Evacuation routes to safer places: South

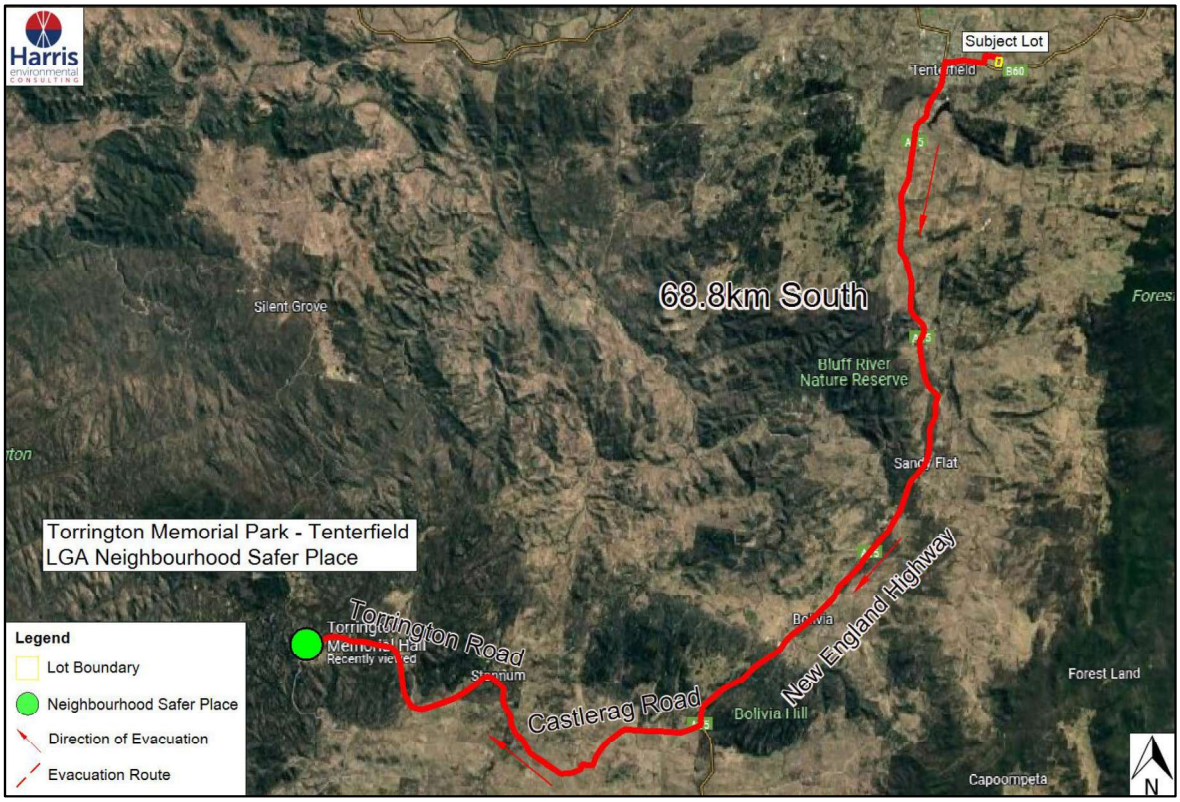
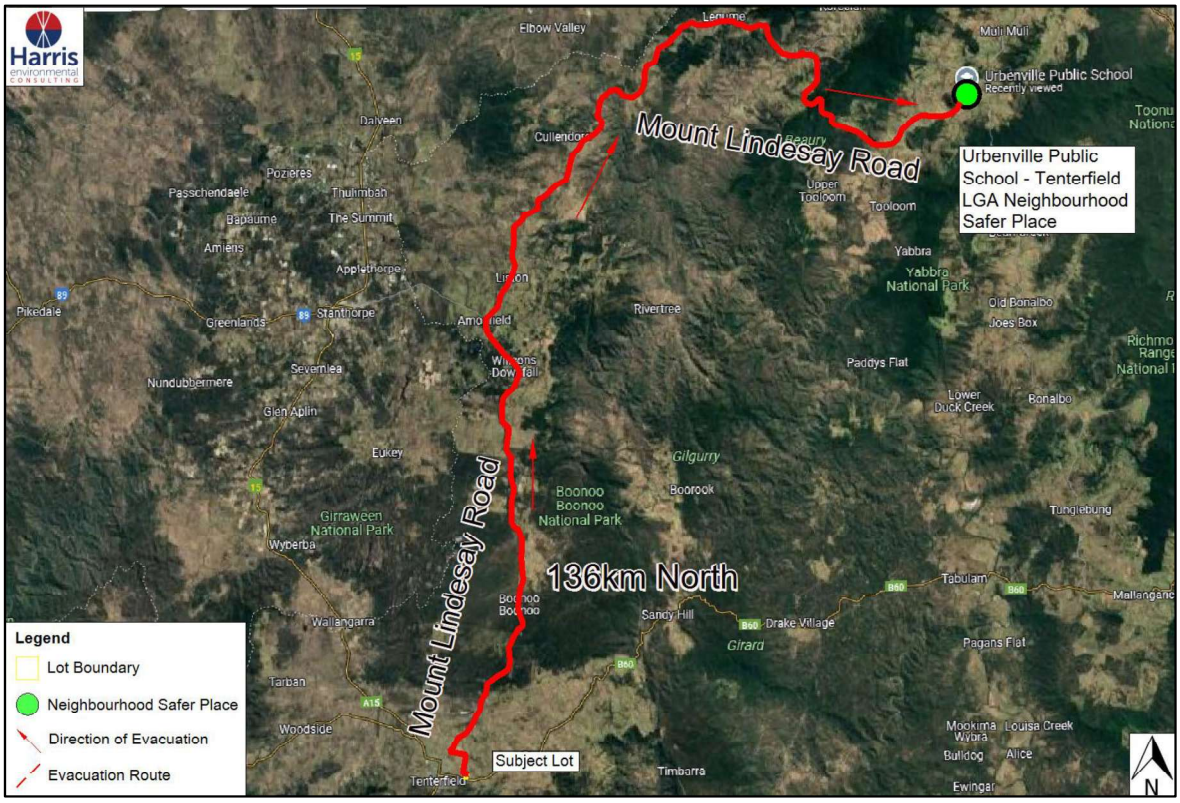


Figure 10 Evacuation routes to safer places: North



7.5 Preparation

The Chief Warden is to prepare ahead of the start of the fire season and potential bushfire events by undertaking the following steps.

Site:

- Ensure the Plan is up to date.
- Ensure the system regularly checked and maintained by an authorised technician.
- Ensure any firefighting equipment is serviceable and available. e.g. Ladders, spades, shovels, mops, buckets, and hoses.
- Keep the important contact details such as the contractor installer, system manufacturer somewhere safe and easily accessible in case of an emergency. Labelling and signage to inform emergency responders in accordance with the Australian Standard AS/NZS 5139 Electrical installations - Safety of battery systems for use with power conversion equipment may also be required.
- Ensure areas around the assets are prepared and maintained.
- Keep the area where the system is installed clear of all materials (especially those that are combustible) and other equipment.
- Ensure all landscaping within the site is maintained to an APZ standard.
- Ensure onsite powerlines are maintained, liaise with relevant providers.
- Check and update external emergency contact numbers; and
- Monitoring risks from adjoining private and public land, maintaining communication with adjoining landowners and land managers for any changes in management or increased risks to the site.

Onsite personnel:

- Have all onsite personnel details easily identifiable to account for all persons on site;
- Have informative signage in key locations in the site (front gate) outlining the emergency management procedures and bushfire protection measures;
- Have a site layout plan that shows the designated assembly areas and evacuation details available for all onsite personnel; and
- Have emergency kits available: e.g. Whistle, portable battery radio, waterproof torch, spare batteries, first aid kit and manual, waterproof bag for valuables, emergency contact details, duct and masking tape, non-perishable food and water, and pocket knife.

Planning:

- Evacuation safety is dependent on several factors, such as fire danger rating, temperature, wind strength and direction. The time to evacuate may take more than expected during weekends or school holidays when traffic is heavy;
- When advised to evacuate, the early departure of all onsite personnel before emergency services arrive is recommended.
- Similarly, when advised to evacuate, early evacuation is recommended as it is not appropriate to move people through areas with heaving smoke or where a bushfire may be burning or is predicted to burn through;
- The Chief Warden is to check with emergency services and the Live Traffic NSW website: https://www.livetraffic.com/;

Maintenance and Training:

- Ensure up to date training for all onsite personnel. Safe work practices, including observance of standards, codes and regulations, provision of material data including safety data sheets and company policies and procedures, all have important bearing on fire safety and should be explicitly addressed.
- Ensure site is maintained including removal of trade wastes; regular maintenance of installed facilities and equipment; as well as clearance and checking of drains and collection pits.

7.6 Monitoring Bush Fire Threats

7.6.1 Information

For information on bushfires, call the **Bush Fire Information Line:**

- 1800 NSW RFS (**1800 679 737**).

The two systems used by the Rural Fire Service which provide triggers for evacuation are:

- **The Fire Danger Ratings**- used **before** a fire has started; and
- **The Bush Fire Alerts**- are used **once** a fire has started.

Both of these warning systems are described below.

7.6.2 Fire Danger Rating

Before a fire starts, monitor the **Fire Danger Ratings** daily at www.rfs.nsw.gov.au/fdr. The higher the fire danger rating, the more dangerous a fire is likely to be.

These ratings are based on predicted conditions such as the temperature, humidity, wind and dryness of the landscape. It indicates how a bushfire may act, what impacts could occur and the consequences of a bushfire in the identified conditions. The table below and the graph are taken from the RFS Bushfire Survival Plan and show how the fire danger gets higher, so does the potential loss of life and property.

FIRE DANGER RATING	WHAT YOU SHOULD DO
CATASTROPHIC	**For your survival, leave bush fire risk areas.** › These are the most dangerous conditions for a fire. › Your life may depend on the decisions you make, even before there is a fire. › Stay safe by going to a safer location early in the morning or the night before. › Homes cannot withstand fires in these conditions. › You may not be able to leave and help may not be available.
EXTREME	**Take action now to protect your life and property.** › These are dangerous fire conditions. › Check your bush fire plan and ensure that your property is fire ready. › If a fire starts, take immediate action. › If you and your property are not prepared to the highest level, go to a safer location well before the fire impacts. › Reconsider travel through bush fire risk areas.
HIGH	**Be ready to act.** › There's a heightened risk. Be alert for fires in your area. › Decide what you will do if a fire starts. › If a fire starts, your life and property may be at risk. The safest option is to avoid bush fire risk areas.
MODERATE	**Plan and prepare.** › Stay up to date and be ready to act if there is a fire.
NO RATING	› Fire danger ratings are used on days when you need to take action. On days of minimal risk, 'No Rating' will be issued.

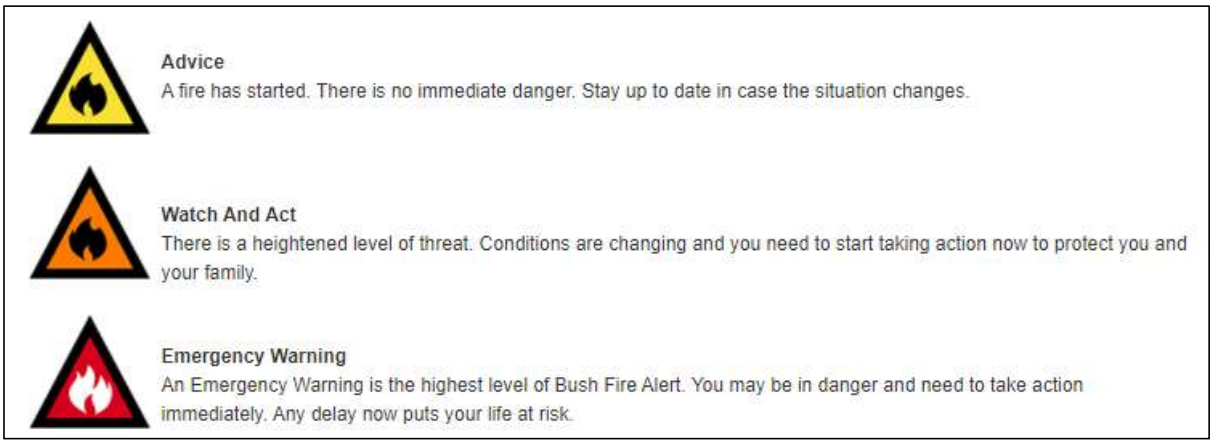
7.6.3 Fires Near Me

After a fire has started, the 'Fires Near Me' website and mobile application provide information and warnings about bushfires and other incidents attended by the NSW RFS.

Website: https://www.rfs.nsw.gov.au/fire-information/fires-near-me

Use the FIRES NEAR ME mobile application to help you stay up to date on bushfires in your area

The following alert levels are provided to give you an indication of the level of threat from a fire:



7.6.4 Radio Updates

In an emergency, ABC Radio can provide up-to-date information. The local stations for Tenterfield Shire LGA include:

- Radio National – **92.9 FM**
- ABC New England Northwest – **99.1 FM**
- Hit Network – **93.9 FM**
- Triple J – **100.3 FM**
- 2NZ – **1188 FM**
- River FM – **92.7 FM**
- TRAX FM – **105.1 FM**
- 2WEB Outback Radio – **585 AM**

7.6.5 Road Closures

The unpredictable nature of bushfires may result in roads being closed without warning. Where emergency services have issued evacuation orders, leaving early is always the safest option. Information on road closures can be obtained from emergency services and found on the Live Traffic NSW website: https://www.livetraffic.com/

7.6.6 Early Evacuation

In a bushfire emergency, emergency services may issue evacuation orders. If off-site evacuation is required, Evacuation Centres will often be set up to accommodate those evacuating. The evacuation direction will depend highly on the existing fire conditions, and advice should be sought from emergency services concerning suitable evacuation routes to the designated Evacuation Centres.

7.7 Emergency

Refer to the Bushfire Emergency Response Plan for actions.

7.8 Post-Emergency Task

- The Chief Warden should seek advice from emergency services before returning to the site;
- A record of the emergency response and evacuation should be taken, and the Emergency Plan updated were applicable.

Bruxner Highway, Tenterfield

BUSHFIRE EMERGENCY AND EVACUATION PLAN

This plan has been designed to assist management in protecting life.
This plan outlines evacuation and site closure procedures to protect occupants from a bushfire threat.

The primary actions to follow are:

Evacuate and close on forecasted Catastrophic Fire Danger Rating days

Facility	Battery Energy Storage System
Facility type	Commercial - Utilities
Location	Lot 1 in DP 777724, Bruxner Highway, Tenterfield NSW 2372
Estimated occupancy	During Construction: During Operation:
Travel arrangements from the site	Private vehicles.
Chief Warden	
Deputy Warden	

EMERGENCY CONTACTS
In an emergency, call **000**

Organisation	Location	Contact
Tenterfield Fire Control Centre	3 Francis Street, Tenterfield NSW 2372	02 6739 6900
Barney Down NSW RFS	205 Timbarra Road, Tenterfield NSW 2372	000
Fire and Rescue NSW	125 Logan Street, Tenterfield NSW 2372	02 6728 2257
NSW Police	94 Molesworth Street, Tenterfield NSW 2372	02 6739 8549 000
NSW Ambulance	144 Manners Street, Tenterfield NSW 2372	000
Tenterfield Shire Council	Corner of Petrie & Rouse Street, Tenterfield NSW 2372	02 6736 6000

SITE CLOSURES AND EARLY EVACUATION PROCEDURES – This plan recommends non-occupation on Catastrophic fire weather days and leaving early in all circumstances.

Early evacuation procedure: Non-operational on days of forecasted catastrophic fire weather

If the site is operational in a bushfire event, relocate all site occupants to the emergency assembly areas and follow the advice of local emergency services.

If evacuation orders are issued, evacuate to the local safer places, evacuation centres or emergency care facilities as directed.

Emergency Assembly Area: Property Access Gate – North onto Old Racecourse Road

Trigger to evacuate	Actions
An Catastrophic fire danger rating is forecast for the next day. OR Fire 'Advice' Warning is likely to impact the site.	• The Chief Warden should consult the NSW RFS, check the NSW RFS website, call 1800 NSW RFS, or use smartphone applications and local firefighting resources for fire situations and updates; • The Chief Warden is to take control of the bushfire situation: Remain calm and explain to onsite personnel what is happening and the fire situation;

OR Fire' Watch and Act' Warning is likely to impact the site. OR When directed to do so by NSW Police or the NSW Rural Fire Service (RFS)	• The Chief Warden is to advise the local emergency service that the site is being evacuated as directed by the emergency services (including how many people and where they are going). • Ensure the Wardens and Site Manager have mobiles and are contactable. • Make arrangements for private transportation for evacuation. Off-site Evacuation • Arrange for onsite personnel to make their way to the designated Emergency Assembly Area. • Confirm all onsite personnel have been notified. • Make sure all onsite personnel have transportation for evacuation. • Arrange for suitable transportation to meet at the emergency assembly point for persons without transport, persons with compromised mobility and persons that require medical assistance. • Advise all onsite personnel with access to private transportation and do not require medical assistance to make their way to the **designated Safer Place** or **Evacuation Centre** as directed by the local emergency services. • Monitor the progress of the evacuation. • The Chief Warden is to advise the relevant emergency service that provided the evacuation orders when all persons have been evacuated; • Should the fire services arrive, the Chief Warden will hand control over to the officer in charge and provide an operational brief listing injured or vulnerable persons needing assistance.

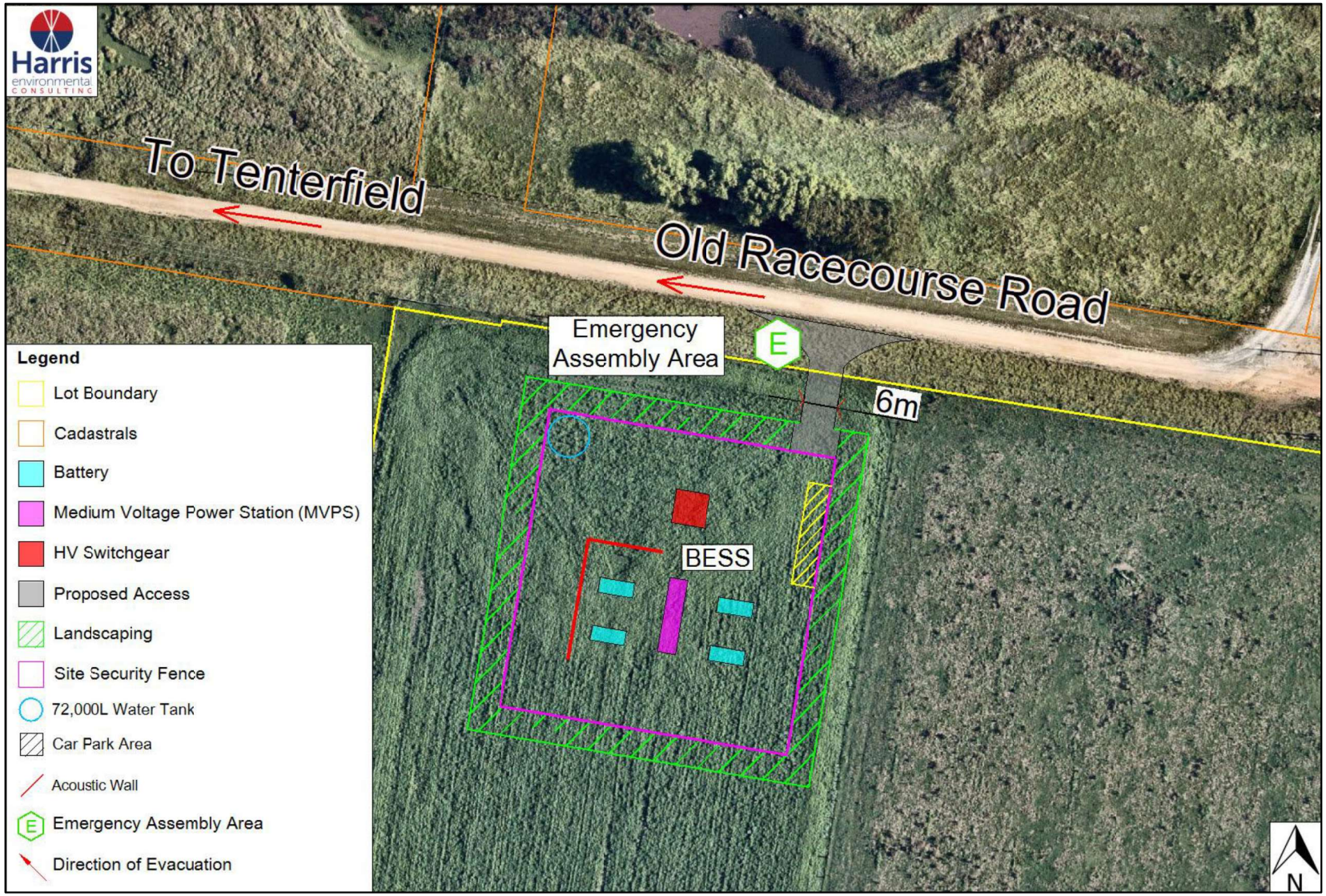
	• Maintain situational awareness through radio, the NSW RFS website, 1800 NSW RFS, smartphone applications and local firefighting resources.

THIS PLAN DOES NOT SUPPORT SHELTERING ONSITE
Site closure on days of forecasted Catastrophic fire weather and leaving early in all circumstances.

DAILY ACTIONS					
ACTIONS	**Bush Fire Danger Ratings**				
	NO RATINGS	**MODERATE**	**HIGH**	**EXTREME**	**CATASTROPHIC**
Chief Warden should Monitor the ACT ESA website and check the 'Fires Near Me' site or app.		By 1 pm	Minimum 1 pm and 3 pm	Minimum 1 pm and 3 pm	Monitor conditions every hour. The site should be closed and non-operational on forecasted catastrophic fire weather days. The site is closed.
Fire is predicted to impact the site.	Monitor conditions every hour. Relocate all site occupants to the **Emergency Assembly Area.** Prepare for off-site evacuation. The site is closed.	Monitor conditions every hour. Relocate all site occupants to the **Emergency Assembly Area.** Prepare for off-site evacuation. The site is closed.	Monitor conditions every hour. Relocate all site occupants to the **Emergency Assembly Area.** Prepare for off-site evacuation. The site is closed.	Monitor conditions every hour. Relocate all site occupants to the **Emergency Assembly Area.** Prepare for off-site evacuation. The site is closed	Monitor conditions every hour. The site should be closed and non-operational on forecasted catastrophic fire weather days. The site is closed.

The time to fire impact is less than the time required to evacuate.	Relocate all site occupants to the **Emergency Assembly Area.** Prepare for off-site evacuation. The site is closed.	Relocate all site occupants to the **Emergency Assembly Area.** Prepare for off-site evacuation. The site is closed.	Relocate all site occupants to the **Emergency Assembly Area.** Prepare for off-site evacuation. The site is closed.	Relocate all site occupants to the **Emergency Assembly Area.** Prepare for off-site evacuation. The site is closed.	The site should be closed and non-operational on forecasted catastrophic fire weather days.
After the bush fire event: The Chief Warden is to confirm with emergency services that the site is safe (utilities and buildings) and coordinate all clean-up, repair and maintenance as required to allow the site to return to normality. Where applicable, occupants affected by the event should be identified and provided with appropriate counselling and support.					

Figure 11 – Bush Management and Emergency Response Plan



Appendix I: Hazard Matrix and Risk Register

The bushfire risk to people, property (assets), and the environment has been assessed in relation to the likelihood and consequence per the Australian Standard AS ISO 310000 *Risk Management Guidelines*. Table 3 describes the likelihood and the consequence on a scale of 1 to 5, increasing with severity.

Table 3: Likelihood & Consequence Description

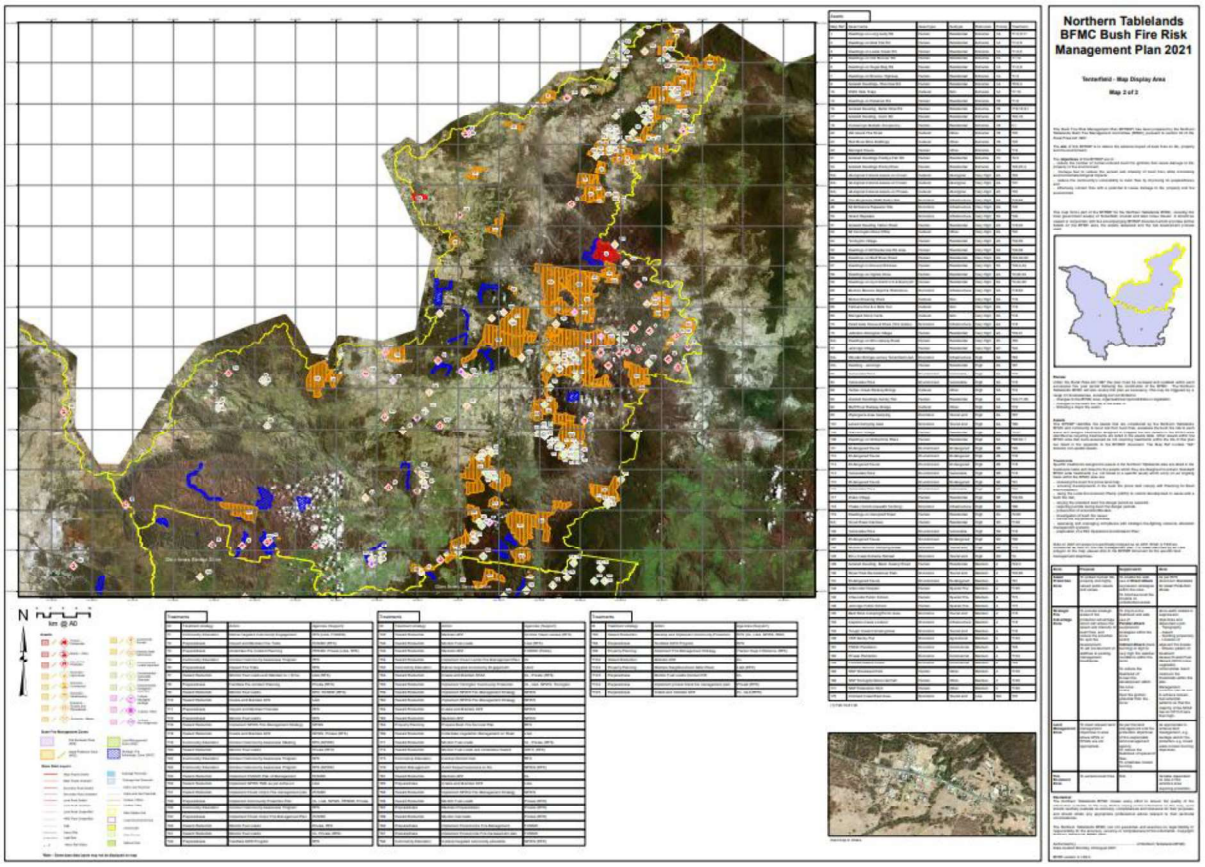
Likelihood		Consequence	
Almost Certain (5)	Expected to occur in most circumstances	Catastrophic (5)	Death or permanent injury, considerable economic and irreversible environmental damage
Likely (4)	Will probably occur in most circumstances.	Major (4)	Serious injury, hospital treatment, major economic and irreversible local environmental damage
Possible (3)	May occur occasionally	High (3)	Injury requiring medical treatment, long-term economic and environmental damage
Unlikely (2)	Could happen sometime	Medium (2)	Minor injury, first aid required, minor short-term economic and environmental damage
Rare (1)	May happen only in exceptional circumstances	Low (1)	No injuries, low financial loss, minor environmental impact

Likelihood	Consequence				
	Insignificant	**Minor**	**Moderate**	**Major**	**Catastrophic**
Almost Certain	High	High	Extreme	Extreme	Extreme
Likely	Medium	High	High	Extreme	Extreme
Possible	Low	Medium	High	Extreme	Extreme
Unlikely	Low	Low	Medium	High	Extreme
Rare	Low	Low	Medium	High	High

Risk Level	Risk Response
Extreme	**High priority - unacceptable risk – Immediate action required** Urgent site-specific mitigation and comprehensive management measures are required to reduce risk levels.
High	**High priority - unacceptable risk – Immediate action required** site-specific mitigation and comprehensive management measures are required to reduce risk levels.
Medium	**Medium priority - Potentially unacceptable risk** Site-specific mitigation and comprehensive management measures are required to reduce risk levels.
Low	**Low priority - Acceptable risk** Ongoing mitigation and management measures will ensure risk level remains low and risk is eliminated over time.

Risk Register – Construction and operation of the Murrumbateman Battery Energy Storage System					
Risk No#	**Description**	**Risk Rating**	**Treatment**	**Residual Risk Rating**	**Responsible**
1	Physical impact on persons or loss of life.	High	• Implementation of the bushfire management and protection measures detailed in section 6 & 7. • Daily actions outlined in the Bushfire Emergency And Evacuation Plan	Low	Site management EPC Fire Wardens Site Occupants
2	Fire impacting the subject site and assets.	High	• Implementation of the bushfire management and protection measures detailed in section 6 & 7.	Low	Site management EPC Fire Wardens
2	Fire propagation within the site and spreading from the site.	High	• Implementation of the bushfire management and protection measures detailed in section 6 & 7. • Follow advice from emergency services.	Low	Site management EPC Fire Wardens

Appendix II: Northern Tablelands BFRMP Precinct Map



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