Bush Fire Assessment Report

4178 Holbrook Road Mangoplah

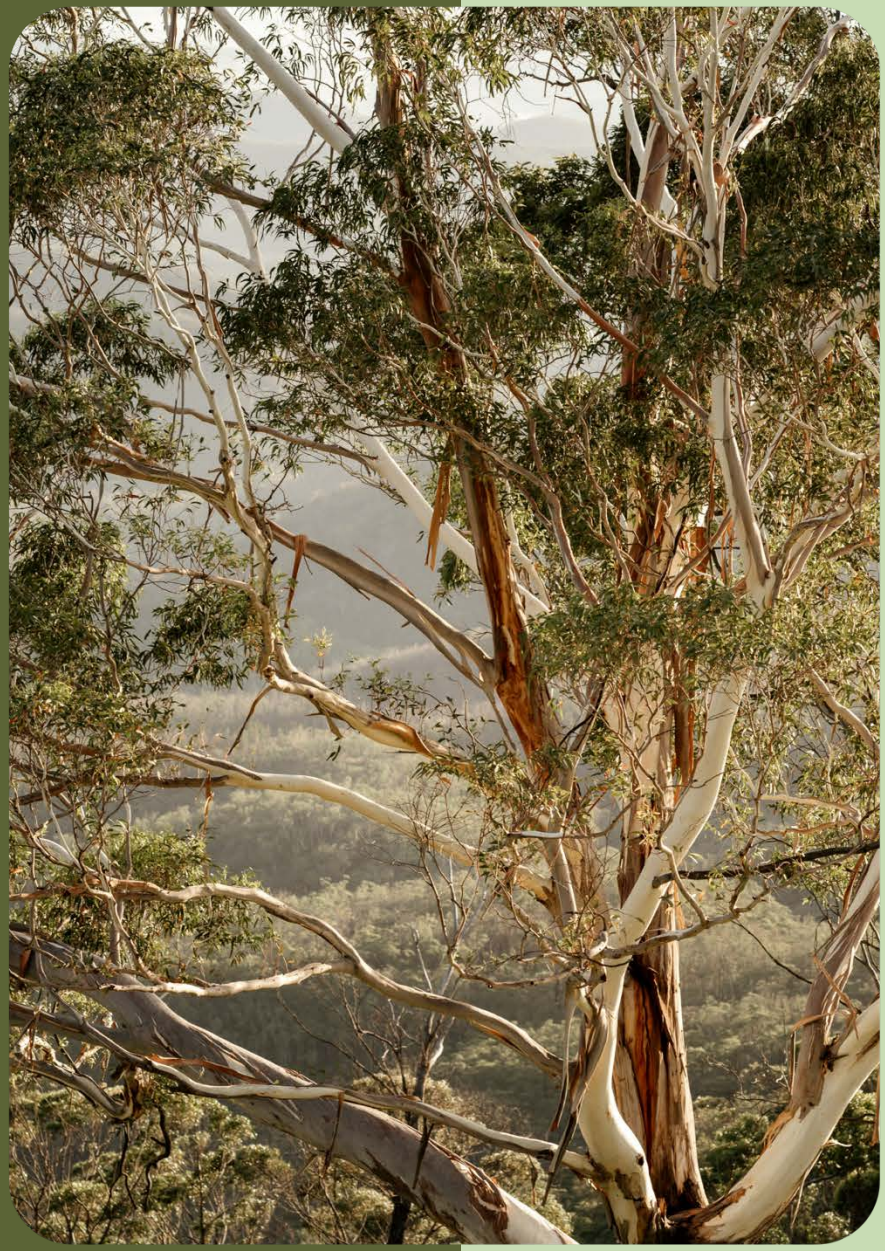
Lots 222, 225 & 228 DP 754557

Assessment of bushfire protection for a Battery Energy Storage System (BESS)

Prepared for:

Samsung C&T Renewable Energy Australia Pty Ltd

Issue 4.0



EMBER

Plan. Design. Construct.
For Bushfire Protection.

Executive Summary

EMBER Bushfire Consulting has been engaged by Samsung C&T Renewable Energy Australia Pty Ltd (SREA) on behalf of Mangoplah BESS Pty Ltd, care of NGH Consulting Pty Ltd, to prepare a bush fire assessment report (BFAR) in support of an Environmental Impact Statement (EIS) for the Mangoplah BESS (*the Project*), which will involve the development, construction, operation and decommissioning of a Battery Energy Storage System (BESS) with a nominal capacity of up to 100 MW / 400 MWh (4 hours).

The Project Site is located approximately 3.1 km east of the small township of Mangoplah, 31 km south of the regional city of Wagga Wagga and 37 km north of Holbrook within the Wagga Wagga City Council Local Government Area (LGA) in the Riverina Murray Region of NSW, on privately owned land currently used for primary production and agricultural activities, predominantly cropping.

The Project has been identified as a State Significant Development (SSD) under the Environmental Planning and Assessment Act 1979 (EP&A Act), with several triggers requiring an assessment from a bushfire protection perspective, not least of which the proposal is on designated bushfire-prone land.

The report establishes the level of bushfire threat to the Project Site. It examines protection measures for the proposal to satisfy the broad aims and objectives of the NSW Rural Fire Service document Planning for Bushfire Protection 2019 (PBP (2019)) as well as specific considerations detailed in Chapter 8 of PBP (2019), such as asset protection zones, landscaping, access, water supplies, construction and emergency management.

The recommendations are designed to inform the EIS and, in turn, inform the SSD approval.

Given that the Project Site is a greenfield site with large open spaces and is traversed by one 132 kV transmission easement that transects north to south through the centre of the site, there is an excellent opportunity to provide a range of bushfire protection measures that address the bushfire threat and requirements of PBP (2019).

The proposed Asset Protection Zone (APZ) dimensions will ensure that the critical components of the Mangoplah BESS are not exposed to excessive radiant heat levels exceeding 29 kW/m^2.

Access to the Project Site will be well provided, with the main entrance point and access road off Holbrook Road southwest of the Project Site being upgraded to provide safe vehicular site access to/from the site, including a perimeter road surrounding the Mangoplah BESS facility. A secondary emergency route, subject to ongoing consultation is available from Paper Forest Road to the south of the Project Site, providing safe access and egress during an emergency, all of which will comply with the acceptable solutions set out in PBP (2019).

Significant firefighting water supplies will be provided to the Mangoplah BESS facility and will exceed the specific requirements of PBP (2019).

Preparation of a Bush Fire Emergency Management and Operations Plan during the construction and operational phase of the Mangoplah BESS is recommended as part of the fire mitigation strategy for the Project.

Based on the bushfire assessment and the recommendations in this report, the development proposal will be capable of complying with the specific and broad objectives of PBP (2019).

CERTIFICATION STATEMENT

Document Title:	Bushfire Assessment Report Mangoplah BESS 4178 Holbrook Road, Mangoplah NSW
EMBER Reference:	Mangoplah PH.94.25
Lot & DP Number	Lots 222, 225 & 228 DP754557
Street Address	4178 Holbrook Road, Mangoplah NSW
Local Government Area	Wagga Wagga City Council
Description of the development	Planning proposal
Type of assessment under Planning for Bushfire Protection (2019)	Section 4 – Bush Fire Strategic Study
Is referral of the proposal to the NSW RFS required?	Yes – Direction 4.7 of the EP&A Act (1979)
Has a pre-DA lodgment or bushfire design brief been provided to the NSW RFS?	No
The highest radiant heat flux determined for indicative development.	<29kW/m^2
Highest level of construction applicable:	Bushfire Attack Level (BAL) -29
Accreditation Scheme / Level of accreditation	Bushfire Planning and Design (BPAD) Accreditation Scheme administered by the Fire Protection Association Australia (FPAA)
Prepared by:	Peter Hague (EMBER Bushfire Consulting)
Verified by:	Jeff Dau – BPAD 33128 - Level 3

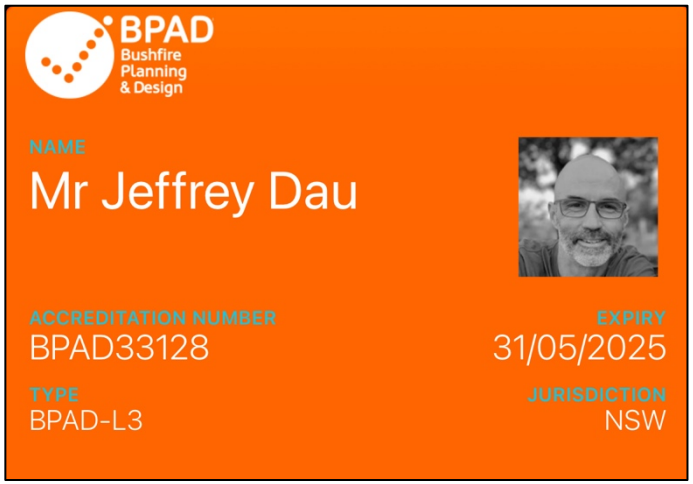
The author (Jeffrey Dau) hereby certifies that:

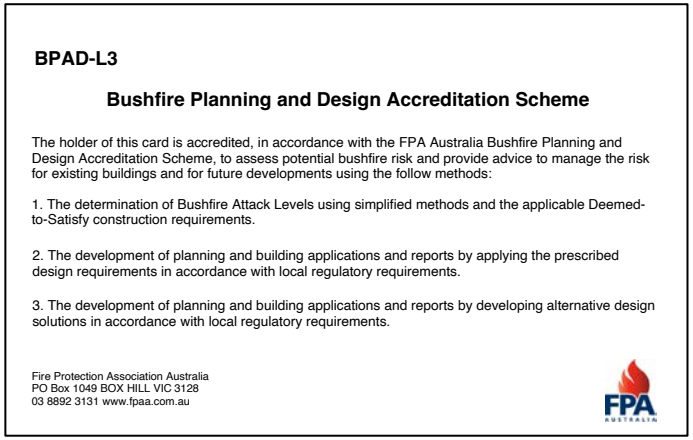
- Peter Hague from EMBER Bushfire Consulting carried out a thorough, in-person survey of the Project Site on the 24th of March 2025;
- A subsequent bushfire threat assessment was undertaken of the site and the proposal per the relevant sections of the NSW Rural Fire Service (NSW RFS) document Planning for Bushfire Protection 2019 (PBP 2019);
- A detailed bush fire assessment report is attached per the submission requirements of Section 4 of PBP (2019), together with recommendations needed for future development to satisfy the specifications and requirements of PBP (2019);
- I am a person recognised by NSW RFS as a qualified consultant in bush fire risk assessment and
- Subject to the recommendations in this report, the proposed development conforms to PBP's relevant specifications and requirements.

Furthermore, I am aware that this report will be submitted to support a development application for this site and will be relied upon by the Council to ensure that the bushfire risk management aspects of the proposal have been addressed per PBP (2019).

13/10/2025

BPAD Bushfire Planning & Design Accredited Practitioner Level 3





BPAD-L3

Bushfire Planning and Design Accreditation Scheme

The holder of this card is accredited, in accordance with the FPA Australia Bushfire Planning and Design Accreditation Scheme, to assess potential bushfire risk and provide advice to manage the risk for existing buildings and for future developments using the follow methods:

1. The determination of Bushfire Attack Levels using simplified methods and the applicable Deemed-to-Satisfy construction requirements.

2. The development of planning and building applications and reports by applying the prescribed design requirements in accordance with local regulatory requirements.

3. The development of planning and building applications and reports by developing alternative design solutions in accordance with local regulatory requirements.

Fire Protection Association Australia
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Document Control

Information	Detail
Document Title:	Bushfire Assessment Report Mangoplah Battery 4178 Holbrook Road, Mangoplah NSW
EMBER Reference:	Mangoplah PH.94.25
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Status:	Issued
Valid until:	13.10.26 (12 months)

Key details of the development

Information	Detail
Street Address	4178 Holbrook Road, Mangoplah NSW
Local Government Area	Wagga Wagga City Council
Zoning of Project land	Ru1 – Primary Production
Zoning of adjoining lands	Ru1 – Primary Production
Project Site size	~10.4 ha (Excluding access) (Involved Lands ~314 ha)
Development footprint	~13.8 Ha (The area that would be impacted directly by the Project, including access and temporary construction impacts).
Staging issues	N/A
Planning for Bush Fire Protection 2019 Development Classification	Section 8 – Other Development - 8.3.9 Hazardous Industry
Type of assessment	Bush Fire Assessment Report (BFAR) in support of an Environmental Impact Statement (EIS) per the Planning Secretary's Environmental Assessment Requirements (SEARS)
Fire weather area	Eastern Riverina
Fire Danger Index	80
Predominant vegetation	- Cleared land (Grassland) - Woodland - Forested Wetlands
Slope	Ranging from Upslope/Flat to 0°–5° downslope
Environmental constraints	Subject to EIS
Cultural constraints	Subject to EIS
Method of meeting performance requirements	Adoption of Acceptable Solutions.

How to read this document

Section 1 – Introduction and overview of the Project Site and development.

Section 2 - Identification of critical factors contributing to bushfire threat, including planning considerations and overall risk assessment.

Section 3 – Assessment of the recommended and required bushfire protection measures necessary for life safety and compliance purposes.

Section 4 – Summary of recommendations.

Section 5 – Conclusion

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1 INTRODUCTION AND OVERVIEW

1.1 PROJECT DESCRIPTION

EMBER Bushfire Consulting has been engaged by Samsung C&T Renewable Energy Australia Pty Ltd (SREA) on behalf of Mangoplah BESS Pty Ltd (The Applicant), care of NGH Consulting, to conduct a Bushfire Impact Assessment (BIA) of the Mangoplah BESS (*the Project*). Potential Bushfire Impacts from the construction, operation and decommissioning phases of the Project are addressed in this report per relevant regulatory requirements and guidelines.

This report supports a State Significant Development (SDD) Development Consent approval under Part 4, Division 4.7 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) (SSD-77527735) as part of the Environmental Impact Statement (EIS) for the Project.

The Project Site (Including the access road) is approximately 26 ha, with the indicative investigation area for the BESS and related substation occupying approximately 10.4ha of that area and located on a ~314 ha privately owned property approximately 3.1 km east of the small township of Mangoplah, 31 km south of the regional city of Wagga Wagga and 37 km north of Holbrook within the Wagga Wagga City Council Local Government Area (LGA) in the Riverina Murray Region of NSW, on land predominantly used for primary production and agricultural activities. The Mangoplah BESS development footprint extends over several lots, totalling an area of approximately 13.8 ha, with direct access from Holbrook Road via an upgraded private property access road.

The Project will involve the development, construction, operation and decommissioning of a battery energy storage system (BESS) with a nominal capacity of up to approximately 100 MW / 400 MWh (4 hours storage) and associated infrastructure. The Project would include the following key built-form elements:

- BESS, including battery enclosures, inverters, transformers, switchgear and control room,
- Onsite substation, including transformer switch bays and switchgear housed in portable substation containers,
- Connection from the onsite substation to the existing overhead 132kv transmission line,
- Permanent office, operation and maintenance (O&M) buildings, hardstands and Project signage,
- Site access to the BESS from Holbrook Road, internal site access tracks and parking, and
- Stormwater management infrastructure, lighting, fencing and security.

The Project Site boundary and indicative layout is shown in Figure 3.

1.2 ASSESSMENT APPROACH

The Project is identified as an SSD, with several triggers initiating an assessment of the proposal from a bush fire protection and prevention perspective, including:

- The Planning Secretary's Environmental Assessment Requirements (SEARs) require the EIS to address the hazards and risks of bushfires.
- The Mangoplah BESS Scoping Report to assess the potential for increased risk of bushfires generated by the development.
- The Project is located on land designated bushfire-prone by the Council and the NSW Rural Fire Service (NSW RFS) and, as a result (if approved), would be subject to Section 4.14 of the EP&A Act and the NSW RFS document Planning for Bushfire Protection 2019 (PBP (2019)).

These documents are, therefore, the basis and key reference for this assessment.

The aim of PBP (2019) in this regard is to protect human life and minimise impacts on property from the threat of bushfires while considering the development potential, site characteristics, and protection of the environment.

It is assumed that this assessment will be one of several through the various development phases, such as the planning and detailed design phase.

This assessment has been prepared through a desktop study of the Project Site and an in-person area survey completed on the 24th of March 2025 by Peter Hague from EMBER Bushfire Consulting.

The above confirms that a bush fire assessment report shall be prepared which identifies the extent to which the proposed development conforms with or deviates from the relevant provisions of Planning for Bush Fire Protection 2019 and that NSW RFS will have the opportunity to review the proposal at the more detailed phase of planning.

On this basis, PBP (2019) has been the key reference for this assessment.

1.3 AIM AND OBJECTIVES

The aim of this report is to:

- Evaluate the potential bushfire threat to the Project Site,
- Evaluate the potential threat of fire propagating from the site,
- Recommend a range of protection measures that would be required to address these threats and provide the minimum bushfire protection necessary to offer life safety, improve property protection and facilitate fire service intervention during a bushfire event.

The bushfire protection objectives expected from the proposal are to satisfy the broad aims and objectives of PBP (2019) and specific considerations detailed in Chapter 8, Section 8.3.9 Hazardous Industry (Planning for Bushfire Protection, 2019).

The bush fire protection objectives include:

- afford buildings and their occupants protection from exposure to a bushfire,
- provide for a defendable space to be located around buildings,
- provide appropriate separation between a hazard and buildings, which, in combination with other measures, prevent the likely fire spread to buildings,
- ensure that appropriate operational access and egress for emergency service personnel and occupants is available,
- provide for ongoing management and maintenance of BPMs and
- ensure that utility services are adequate to meet the needs of firefighters.

Accordingly, the following bushfire protection measures are to be assessed:

- Asset Protection Zones (APZs) and setbacks,
- Landscaping,
- Access,
- Water Supplies,
- Utilities, and
- Emergency Management.

1.4 LIMITATIONS AND DISCLAIMER

This report is primarily concerned with assessing the proposal's capacity to withstand the impacts of a bushfire, including ember attack, radiant heat exposure and flame contact.

Protection measures will be recommended where necessary to protect the occupants, firefighters and the structures themselves.

It should be kept in mind that the measures recommended cannot guarantee the development will survive a bushfire event on every occasion. This is primarily due to the dependence on ongoing vegetation management, the unpredictable behaviour of fire, and extreme weather conditions.

EMBER Bushfire Consulting has prepared this report with all reasonable diligence. The information in this report has been gathered from field investigations of the site and plans provided by the project designer, as well as communications with representatives of the property owner.

Table 1 - Stakeholders

Stakeholder	Role	Contact	Detail
Name	Property Owner	Name	Not Given
Samsung C&T Renewable Energy Australia Pty Ltd (SREA)	Project Developer	Not Given	Not Given
NGH Consulting Pty Ltd	Environmental Consultants	Sarah Hillis	0413 343 912
Wagga Wagga City Council	Consent Authority	Not Given	02 6926 9199
Department of Planning, Housing & Infrastructure (DPHI)	Determining Authority	Not Given	Not Given
NSW Rural Fire Service (Riverina Zone)	Referral Authority	Not Given	02 5958 6500

1.5 COPYRIGHT NOTICE

1.6 PROJECT SITE REGIONAL CONTEXT

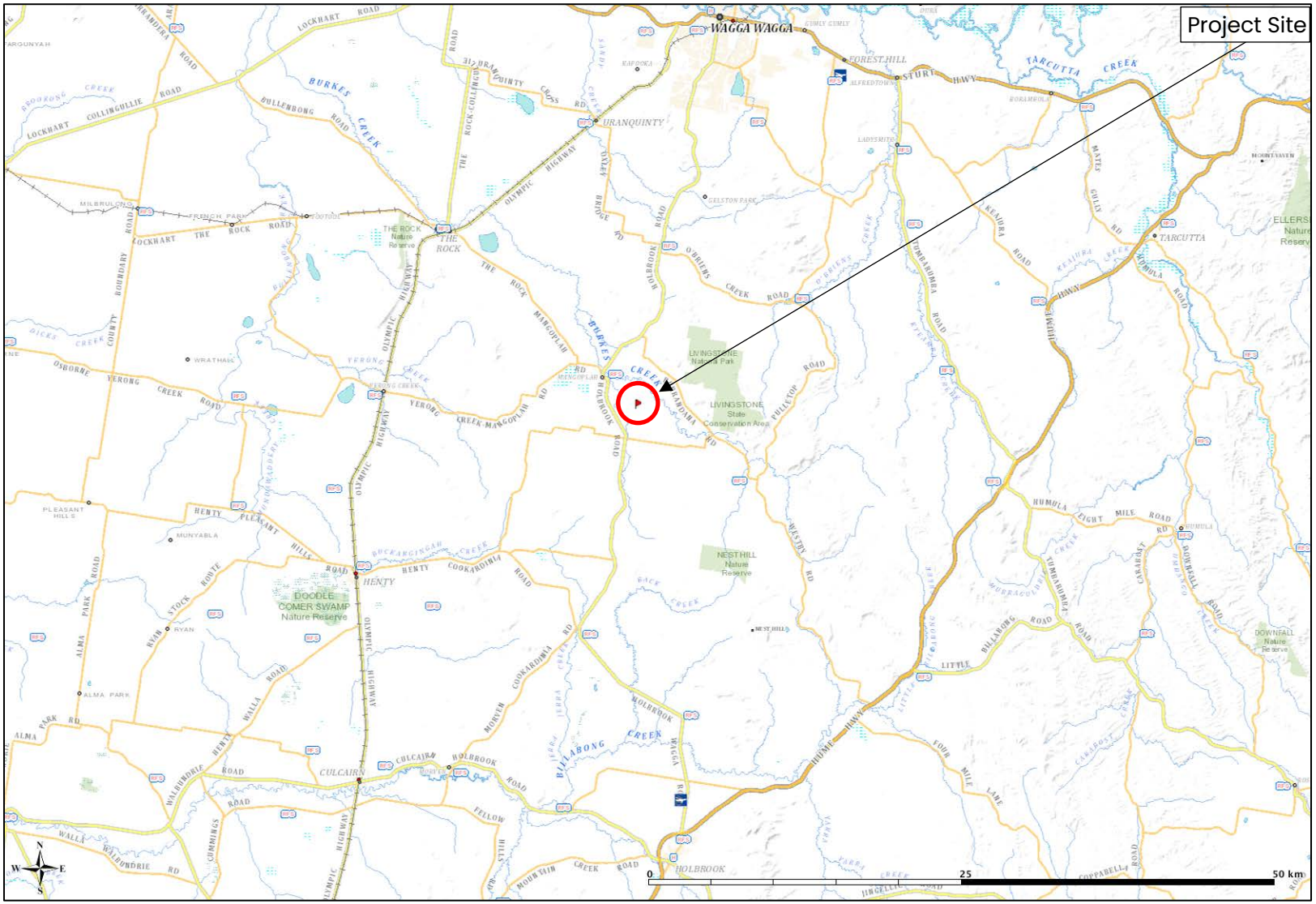

Figure 1 – Regional context of the Project Site (FPAA FireMaps, 2025)

1.7 INVOLVED LANDS AND PROJECT SITE EXTENT

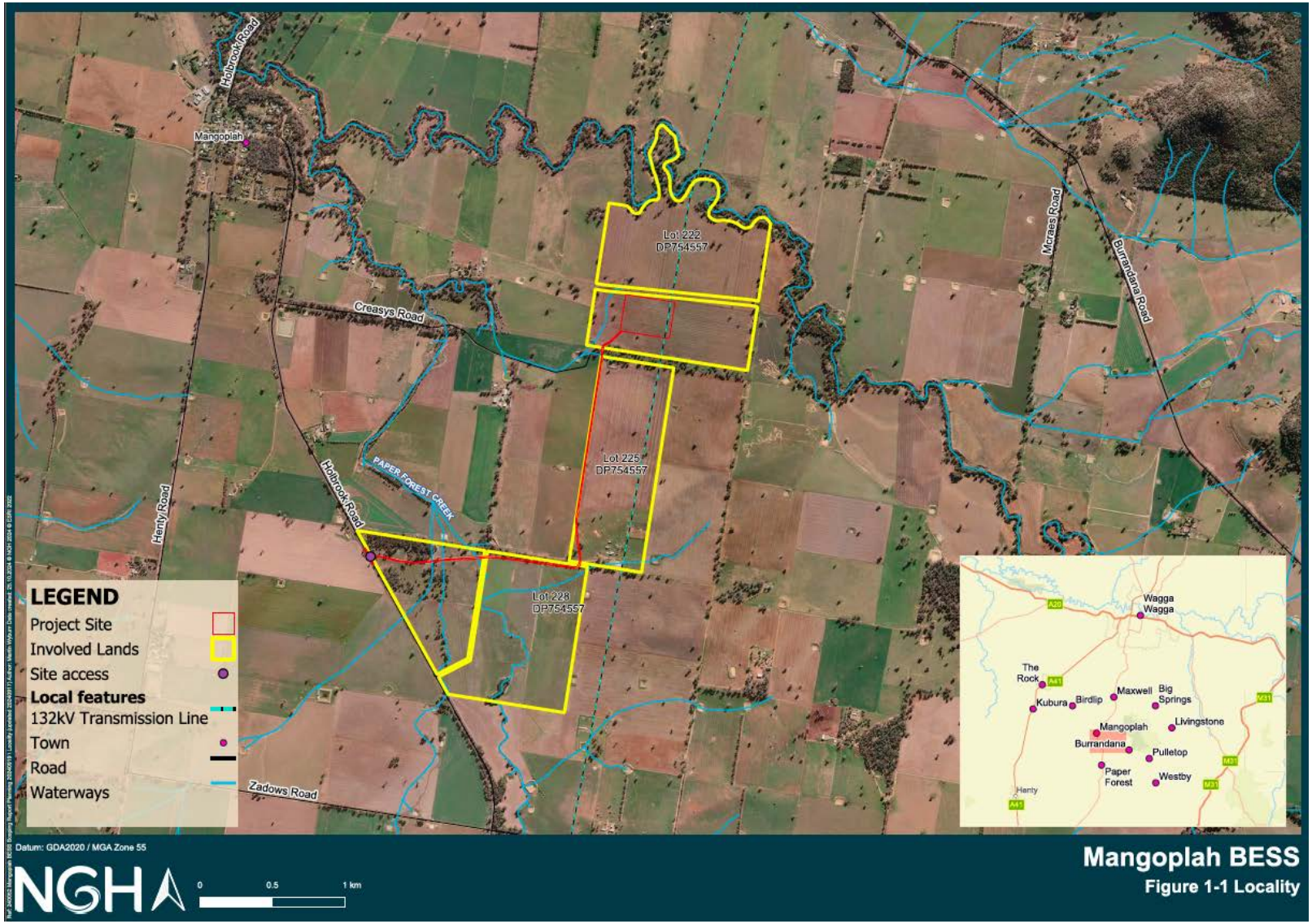

Figure 2 – Involved Lands and indicative extent of the Project Site and points of access. (NGH Consulting Pty Ltd, 2025)

1.8 PROJECT SITE LAYOUT

Figure 3 – Mangoplah BESS indicative Project Site layout (NGH Pty Ltd, 2025)

1.9 PROJECT SITE DESCRIPTION

Administration:

The ~314 ha Involved Lands (Project Site footprint ~10.4 ha) falls under the Wagga Wagga City Council (WWCC) administration. Given that the proposal is an SSD, it is subject to the Department of Planning, Housing and Infrastructure (DPHI) being the determining authority, with Wagga Wagga City Council being a consent authority.

Land use:

Land use in the area is dominated by primary production and agricultural activities, including grazing modified pastures and cropping. Accordingly, the Involved Lands and Project Site are zoned Ru1 – Primary Production, as are the neighbouring lots. It is land primarily intended to promote sustainable primary industry production by maintaining and enhancing the natural resource base.

The southwest lots of the Involved Lands (Lot 228 DP754557) are located within SP2 – Infrastructure land zoning and are associated with Holbrook Road, where site access would be facilitated.

Topography:

The Involved Lands lies to the east of the small town of Mangoplah. It features and is surrounded by topography characterised as open and gently undulating landforms predominantly used for cropping and livestock grazing. Landform within the Involved Lands generally slopes at varying gradients in all directions, predominantly to the west towards Paper Forest Creek.

Across the Project Site (Figure 7), the landform associated with the Mangoplah BESS is predominantly flat. Landform to the west of the Project Site slopes gently in that direction in the order of 0° to 2° degrees downslope towards natural watercourses and dams within the Involved Lands and neighbouring properties that flow into Paper Forest Creek.

The landform to the north of the Project Site continues to be predominantly flat and gently undulating in areas before descending into Burkes Creek, which forms the northern boundary of the subject lot.

Landform to the east and south of the Project Site rises gently in those directions to further areas of gently undulating open topography.

With the predominantly flat and gently undulating open topography, the Project Site and most of the Involved Lands are currently used for cropping and livestock grazing.

Vegetation:

The Involved Lands presents several vegetation types across the site. Past land use has seen widespread native vegetation modification for livestock grazing and cropping, resulting in large areas of cleared land, some with scattered, isolated paddock trees, which is treated as a grassland hazard and predominantly dominates the Involved Lands and Project Site.

Woody vegetation in the form of Blakely's Red Gum - Yellow Box grassy tall woodland of the NSW South Western Slopes Bioregion (PCT ID: 277) and White Box grassy woodland in the upper slopes sub-region of the NSW South Western Slopes Bioregion (PCT ID: 266), classified as Grassy Woodlands are present to the south of the Project Site, at the proposed entrance point off Holbrook Road and along sections of the proposed access road.

The banks of Burkes Creek on the northern border of the Project site comprise areas of River Red Gum shrub/grass riparian tall woodland or open forest wetland mainly in the upper slopes sub-region of the NSW South Western Slopes Bioregion and western South Eastern Highlands Bioregion (PCT ID: 79) of varying density classified as Forest Wetlands.

Vegetation formations have been cross-checked against the NSW State Vegetation Type Map (Figures 6a) and will be verified on-site and detailed in the relevant Biodiversity Development Assessment Report (BDAR) and are discussed further in Section 2.

Access:

Access to/from the Project Site to the public road network (Figure 8) is as follows:

- The Project will have close and direct access to the public road networks as follows:
    - The Mangoplah BESS will be accessed from Holbrook Road via an existing private property access road. This property access road is subject to minor flooding from Paper Forest Creek. It will be upgraded as required from the intersection of Holbrook Road to the Mangoplah BESS facility entrance point.
    - A secondary emergency route, subject to ongoing consultation, available from Paper Forest Road to the south of the Project Site, as a backup option.
- Holbrook Road is a sealed major regional two-lane public road (one lane in each direction) maintained by Transport for NSW. It provides access to the small township of Mangoplah, continuing to the city of Wagga Wagga to the north when heading northwest, exiting the Project site, and Holbrook heading southeast.
- Paper Forest Road is a sealed public through road providing access to Holbrook Road heading west, exiting the secondary emergency route, subject to ongoing consultation, and Burrandana Road heading east.
- A new internal road network will ensure access throughout and around the Mangoplah BESS site, including a perimeter road surrounding the Mangoplah BESS area, substation and associated infrastructure where practicable.

2 BUSHFIRE THREAT ASSESSMENT

2.1 METHODOLOGY

The methodology adopted by this report is as follows:

Table 2 - Report Methodology

Method	Task	Considerations
Desktop analysis	Review available mapping resources, policy documents & development plans	Online Maps Development Control Plans Local Environmental Plan
Site inspection	Evaluate the context of the site, determine bushfire threat, options for asset protection zones, access roads and infrastructure.	Ground truth online mapping data, validate vegetation class, obtain site measurements, and assess existing structures and infrastructure.
Assessment of proposal against the SEARs, Scoping document and PBP 2019 requirements.	Assess the Project against the objectives of PBP (2019).	APZs, Landscaping, Access, Water supplies, Utilities and Emergency Management.
Report	Preparation and publication of bushfire assessment report	Assess bushfire threat and detail the required and recommended protection measures expected of the proposal.

2.2 DESIGN FIRE ATTRIBUTES

The following bushfire attributes are assessed to determine the potential bushfire threat posed to the Project Site (design fire).

Vegetation Formations

Vegetation formation surrounding the Project Site represents a key bushfire behaviour attribute that determines potential fire intensity and directly relates to the overall bushfire threat.

For example, a fire will burn with significantly greater intensity in forest vegetation than grassland vegetation.

Vegetation formations within 140 m of the Project Site were identified and classified per Appendix A1.2 of PBP (2019).

Slope

In addition to vegetation type and weather conditions, the extent of a fire's rate of spread and intensity will also be determined by the angle of the slope of the land. For example, with each 10 degrees of uphill slope, a fire will double in rate of spread and increase in intensity. Therefore, evaluating the site slope is essential in determining the potential bushfire threat.

Slopes within the Project Site have been calculated per A1.4 & A1.5 of PBP (2019) (Figure 7).

Forest Fire Danger Index (FFDI)

The FFDI measures the degree of danger of fire in Australian vegetation. For PBP (2019), the FFDI required for development assessment purposes is based on local government boundaries.

The 1:50-year fire weather scenario for the Eastern Riverina fire weather area is FFDI 80, as defined by NSW RFS NSW Local Government Areas FDI - May 2017.

Table 3 – Design fire attributes

Factor	Value
Fire Weather Area	Eastern Riverina
FFDI	80
Dominant Vegetation Formations	Grassland, Woodland and Forested Wetlands
Slope	Upslope/Flat to 0°–5° downslope

2.3 Project Site Bushfire Prone Land Mapping

Bushfire-prone land mapping relative to the Project Site (Figure 4) shows the Involved Lands and adjacent land comprising Vegetation Category 1 and Category 3 identified as bushfire-prone land by the Council and NSW RFS.

Vegetation Category 1 is considered to be the highest risk for bushfires. This vegetation category has the highest combustibility and likelihood of forming fully developed fires, including heavy ember production. Vegetation Category 1 consists of forests, woodlands, heaths (tall and short), forested wetlands and timber plantations. A 100 m buffer is applied to each area of Bushfire Prone Vegetation (BFPV) Category 1.

Vegetation Category 3 is regarded as a medium bush fire risk vegetation and consists of Grasslands, freshwater wetlands, semi-arid woodlands, alpine complex and arid shrublands.

During the site survey conducted on the 24th of March 2025, these vegetation categories were verified, and the bushfire-prone land map was found to be a reasonably accurate representation of the identified hazard across this site.

It is a SEARs requirement that the location of electricity generating infrastructure, including BESS, should avoid any land subject to identified natural hazards (such as bushfires) and should not contribute to an increased risk of a natural hazard (bushfire).

The bushfire-prone land mapping in and of itself is not a bushfire risk assessment. It does not aim to determine the likelihood or level of hazard posed to the Project Sites. Instead, the bushfire-prone mapping aims to identify if the Project Sites have the potential to be impacted by a bushfire (or not).

In this case, the Involved Lands, within which the Project Site is located, is mapped as bushfire-prone; therefore, a range of protection measures are required to address this threat. This report indicates what

these bushfire protection measures are and the broad specifications needed for an acceptable level of protection.

A more thorough analysis of the site and the Project during the detailed design and post-EIS approval process would be needed to refine the specifications of these protection measures and ensure an acceptable level of bushfire protection has been met.

2.4 Project Site Fire History

While the bushfire-prone mapping identifies that any development on the Involved Lands triggers the requirement for a bushfire assessment and compliance with PBP (2019), fire history provides a clear picture of the actual vulnerability of the site.

Figure 5, the NPWS Fire History mapping, which displays recorded wildfires and prescribed burns since 1902 across NSW (Source SEED 2025), shows the Involved Lands fire history and approximate extent of bushfires impacting the area surrounding the Involved Lands. This indicates that the Involved Lands and Project Site have not been subject to wildfires in the past 25 years. The most recent and notable bushfire event to impact the area was the Wandoo wildfire during the 2005-2006 bushfire season. This bushfire did not impact the Involved Lands but burnt an area of approximately 9,425 ha, causing extensive damage to the landscape and wildlife. There have been several other smaller bushfires in the proximity of the Project Site, including an unnamed wildfire to the east of the Involved Lands on the southwest edge of the Livingstone State Conservation Area during the 1990-91 bushfire season and another to the northeast on the northwest edge of the Livingstone National Park. These bushfires did not impact the Involved Lands.

Although the Project Site contains and is surrounded predominantly by fields of crops (grassland) and with small areas of grassy woodland vegetation, the greatest threat from bushfire comes from the heavily vegetated regions of the Livingstone National Park and State Conservation Area approximately 2.5 km east of the Involved Lands and Rest Hill Nature Reserve approximately 12 km to the southeast.

2.5 Project Site Vegetation Formations and photo points

Project Site vegetation formations (Figure 6a) as defined by SEED (NSW Government, 2025) NSW State Vegetation Map.

Vegetation mapping indicates that the Project Site is influenced by –

- Grassland (Including Cleared Land)
- Grassy Woodlands

Examples of these formations are provided below in Photos I to iv (Page 25).

Grassland with individual isolated paddock trees is not viewed as presenting any more significant hazard than grassland and, therefore, is given the same hazard rating.

A comprehensive photographic overview of the Project Site is provided in the following Appendices:

- Appendix A – Photographic overview of the vegetation and topography within and surrounding the Project Site.
- Appendix B – Photographic overview of the access arrangements.
- Appendix C – Aerial imagery of the Project Site and surrounding landscape.

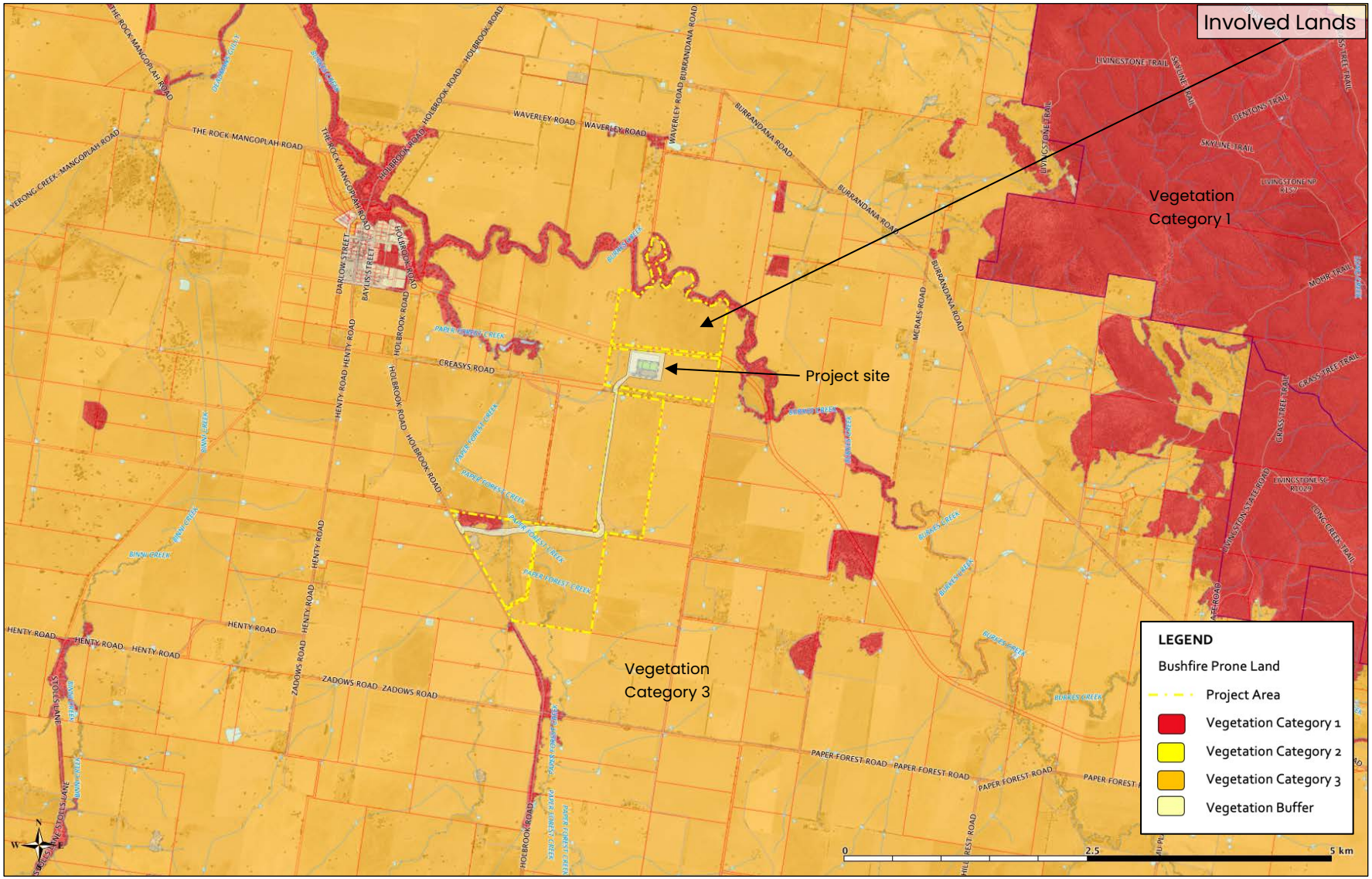

Figure 4 – Involved Lands bushfire prone land map. (FPAA FireMaps, 2025)

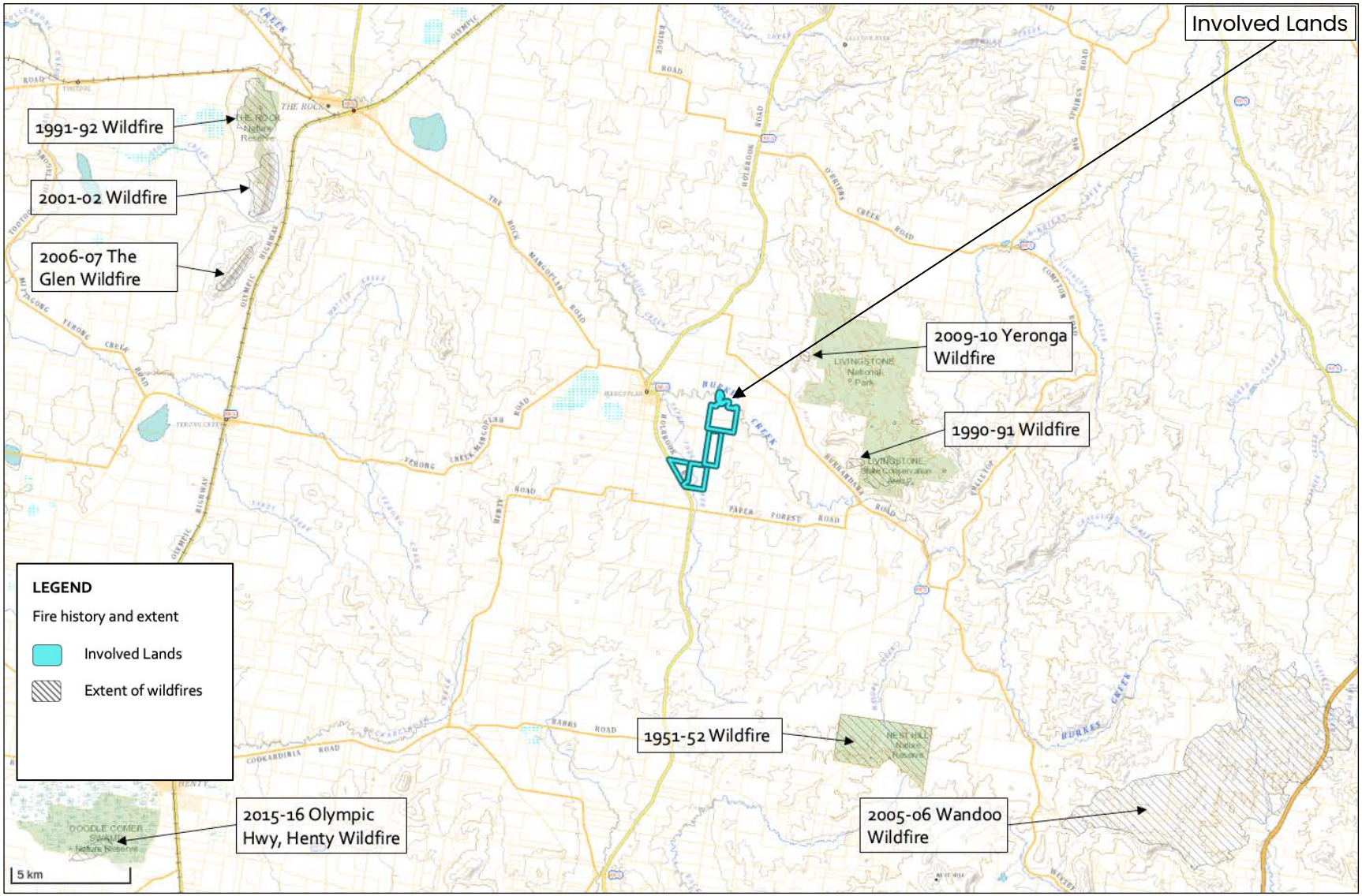

Figure 5 – Map showing fire history extent in proximity to the Involved Lands and Project Site. (SEED, 2025)

Figure 6 – Study Area and main access photo point locations and direction of view. (Hague, 2025)

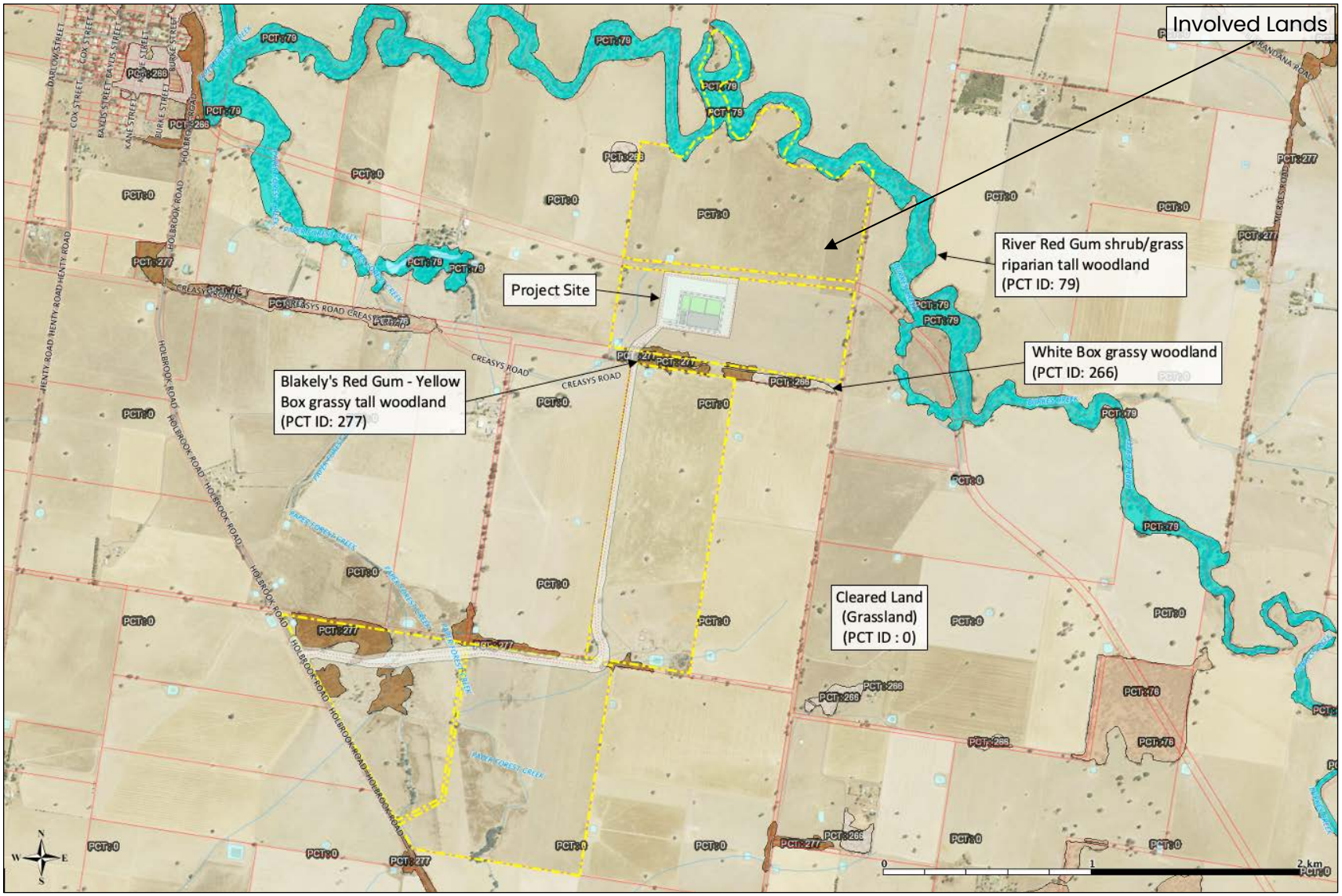

Figure 6a – Vegetation classification within and surrounding the Involved Lands. (SEED, 2025)

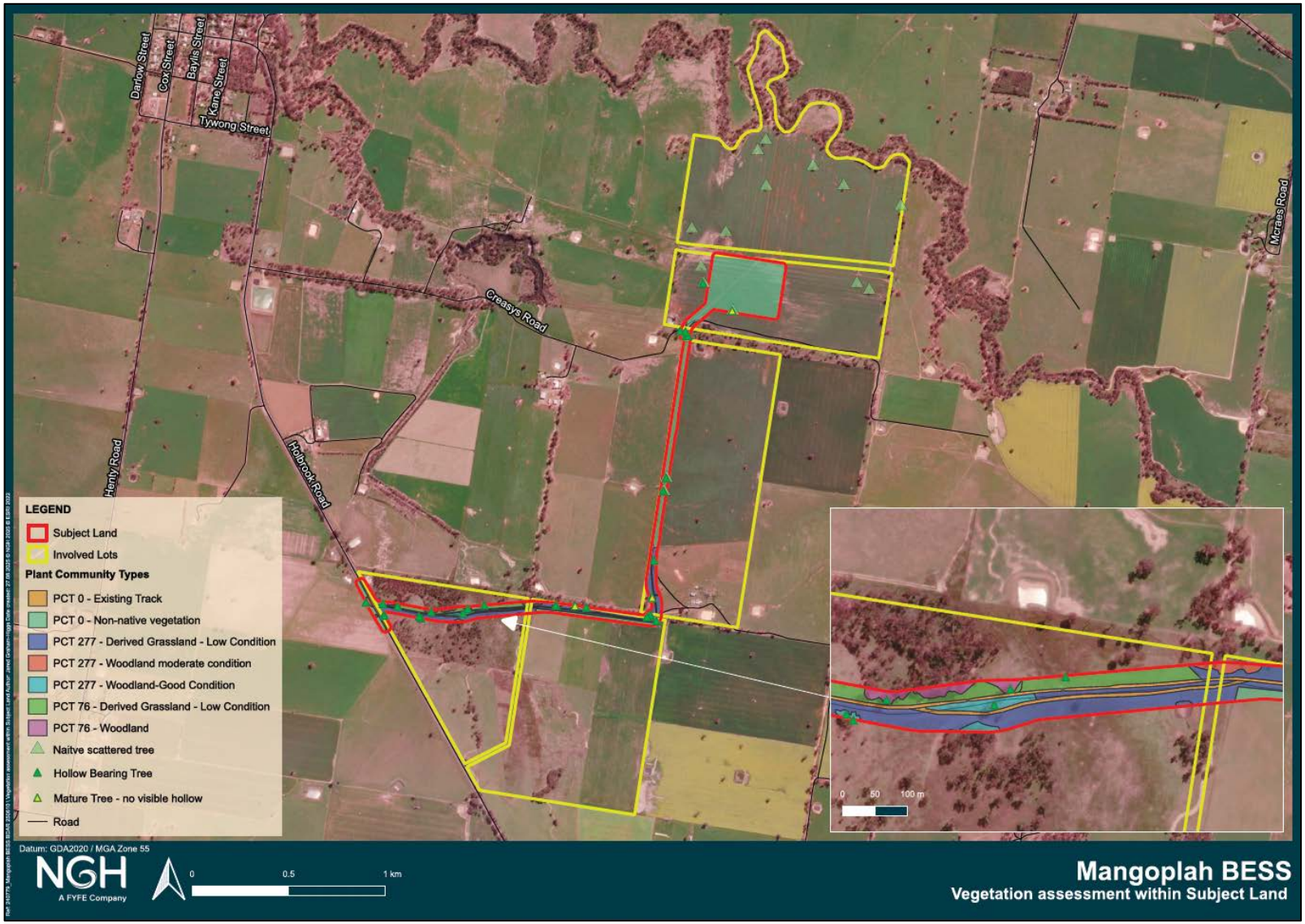

Figure 6b – Preliminary vegetation assessment within the Involved Lands. (NGH Consulting, 2025)

2.6 EXAMPLES OF HAZARD TYPES

Photo i – Example of grassland vegetation hazard. (Hague, 2025)

Photo iii – Example of woodland vegetation hazard. (Hague, 2025)

Photo ii – Example of grassland vegetation hazard with scattered paddock trees. (Hague, 2025)

Photo iv – Example of woodland vegetation hazard. (Hague, 2025)

2.7 SLOPE ASSESSMENT

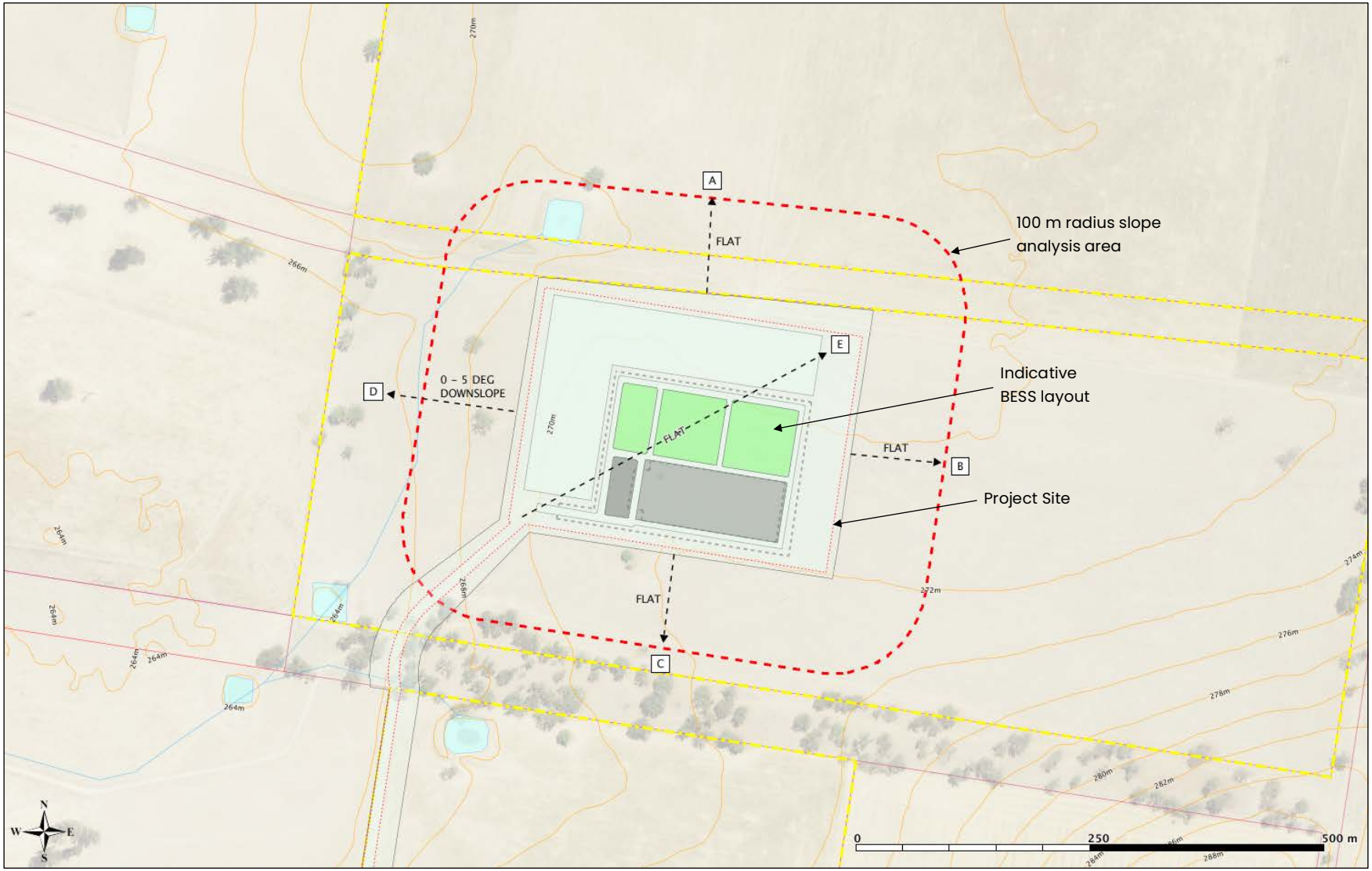

Figure 7 – Broadscale slope assessment highlighting gradients within and surrounding the Mangoplah Indicative Project Site. (FPAA FireMaps, 2025)

2.8 PROJECT SITE ACCESS ARRANGEMENTS

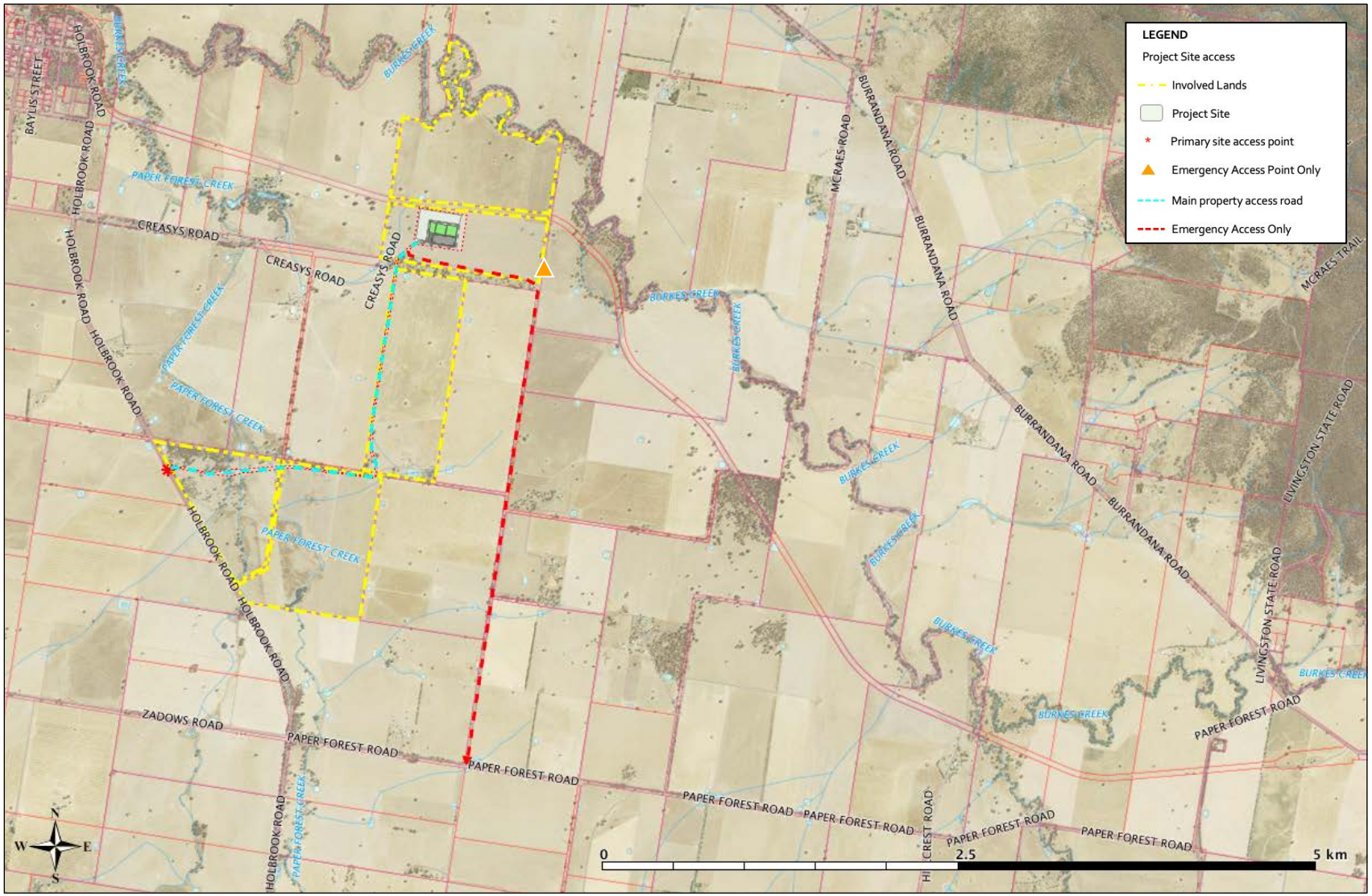

Figure 8 – Overview of access arrangements to/from the Mangoplah Indicative Project Site. (FPAA FireMaps, 2025)

2.9 EMERGENCY SERVICES

NSW Rural Fire Service (NSW RFS) and Fire and Rescue NSW (FRNSW) service the Project Site. The NSW RFS would respond to all local fires (structural and non-structural) and incidents at and surrounding the involved land, with FRNSW being the lead combat agency to attend any hazardous material (Hazmat) fires involving the BESS and as additional resources as confirmed by Station Officer R. Jay (Fire Safety Liaise FRNSW). NSW RFS would remain the lead control agency at all incidents.

The Mangoplah area is serviced by NSW RFS Wagga Wagga District fire brigades (Riverina Zone (RZ)) under the control of the Riverina Fire Control Centre, as confirmed by N. Duly (District Administration Officer | Riverina Zone). Mangoplah borders with the next District, Southern Border. As such, in the event of an incident, Brigades within the Southern Border District may be deemed closer than some of the RFS Brigades in the Riverina District, so they would also be dispatched. The attending fire brigade depends on the type and level of incident requiring response.

There are a total of twenty-nine (29) Rural Fire Brigades (RFBs) in the Wagga Wagga LGA, and one (1) control centre located at 208 Fernleigh Road, Wagga Wagga.

The Riverina Zone RFS brigades most likely to attend a fire at the Involved Lands and resources are as follows:

- Mangoplah RFB – 2 x Cat 1 tanker & 1 x Cat 9 tanker
- Maxwell RFB – 1 x Cat 1 tanker & 1 x Cat 9 tanker
- Yerong Creek RFB – 1 x Cat 3 tanker
- The Rock RFB – 2 x Cat 1 tanker & 1 x Cat 7 tanker
- Pulletop RFB – 2 x Cat 1 tanker, 1 x Cat 7 tanker & 1 x Cat 9 tanker
- Lake Albert RFB – 3 x Cat 1 tanker, 1 x Cat 2 tanker

FIRE & RESCUE NSW

The following FRNSW stations are in close proximity to the involved lands and would attend a Hamat fire incident as the lead combat agency or as additional resources to a structural or non-structural fire incident if requested by NSW RFS.

- Culcairn (5 Black Street) – Structural Fire and Hazmat Capability (~45 km), response time 35 min.
- Henty (14 Allan Street) – Structural Fire and Hazmat Capability (~43 km), response time 33 min.
- Holbrook (62 Swift Street) – Structural Fire and Hazmat Capability (~44 km), response time 33 min.
- Turvey Park (75 Fernleigh Road) – Structural Fire and Hazmat Capability (~38 km), response time 33 min.
- Wagga Wagga (36/38 The Esplanade) – Structural Fire and Hazmat Capability (~41 km), response time 37 min.

3 BUSHFIRE PROTECTION AND PREVENTION MEASURES

In response to the bushfire threat analysis, a suite of Bushfire Protection and Prevention Measures (BPMs) are proposed to satisfy the broad aims and objectives of PBP (2019) and specific considerations detailed in Chapter 8, Section 8.3.9 Hazardous Industry PBP (2019).

These BPMs intend to protect human life and minimise impacts on the facility from the threat of bushfires while considering development potential, site characteristics, and environmental protection.

Bush fire protection measures generally serve a dual purpose: protecting the site from external fire threats, containing fire within the site should it occur, and stopping it from escaping onto adjoining lands. Where specific prevention measures are required, these will be detailed separately.

Given the potentially more hazardous and vulnerable nature of the Mangoplah BESS substation and associated infrastructure, the protection and prevention measures may be increased according to the proposal.

3.1 ASSET PROTECTION ZONES (APZS) & SETBACKS

Discussion - APZs:

APZs and setbacks provide a buffer zone between identified hazards and structures. Setbacks will ensure appropriate separation from hazardous vegetation. At the same time, APZs are bands of managed vegetation that minimise fuel loads and reduce potential radiant heat levels, flame, localised smoke, and ember attacks. The required APZ and setback size varies with slope, vegetation and FFDI.

Appropriate setbacks from adjacent unmanaged hazardous vegetation are to be provided for the Mangoplah BESS substation and associated infrastructure. An APZ surrounding the facility, the Mangoplah BESS, substation, and related infrastructure is required.

The final APZ dimensions may only be determined at the detailed design phase, in consultation with the NSW RFS and are to be incorporated into the Bushfire Emergency Management and Operations Plan.

PBP (2019) does not provide a maximum radiant heat threshold for Solar Farms or BESS facilities, with the only direction being a minimum 10 m APZ for structures and associated buildings. This dimension, however, does not consider the nature of the surrounding hazard including vegetation classification and the slope under that vegetation, which influences fire behaviour.

Given the heat-sensitive nature of the Mangoplah BESS substation and associated infrastructure, larger APZ and setback dimensions are recommended than those prescribed for photovoltaic (PV) modules.

The current indicative siting, layout and design of the Mangoplah BESS provide sufficient space to achieve large APZ and setback dimensions from unmanaged hazardous vegetation, ensuring the development site is not exposed to radiant heat flux levels exceeding 29 kW/m^2, offering a higher level of protection for the site. As such, larger APZs would be considered further in detailed design in consultation with key stakeholders, noting that the Project Site (such as temporary construction area) is oversized, allowing for such design flexibility.

Adequate separation and access to the Mangoplah BESS from surrounding infrastructure is also provided to minimise the spread of fire within the site should the Mangoplah BESS become involved in fire.

Where site constraints make achieving the required APZ or setback dimensions challenging, alternative methods may be employed, such as radiant heat barriers/firewalls or the like, to ensure the critical radiant heat thresholds can be achieved. Such alternative methods are called performance-based design and are subject to endorsement by the consent authority during the detailed design phase of the Project.

Table 4 details the minimum APZ dimensions and setbacks for the Mangoplah BESS, substation and associated infrastructure, ensuring they are not exposed to radiant heat levels exceeding 29 kW/m^2.

The proposed APZ and setback dimensions will meet or exceed the minimum requirements specified by PBP (2019) and can satisfy the acceptable solutions for APZs.

Recommendations:

- Appropriate APZ setbacks will be established from adjacent unmanaged hazardous vegetation (including setbacks from lot boundaries) surrounding the facility, the Mangoplah BESS, substation and associated infrastructure according to the vegetation type and slope under that classified vegetation. The APZ setback dimensions are provided in Table 4. The area outside the APZ will continue to be utilised for agricultural purposes (cropping).
- APZ and setback locations and widths will be confirmed subject to detailed design in consultation with NSW RFS.
- A minimum 11 m wide facility perimeter APZ is to be provided and incorporate an all-weather, gravel road with a minimum width of 4 m where practicable.
- At the commencement of building works and for the life of the Project, all land identified as APZ within the development footprint (the entire Project Site) of the Mangoplah BESS is to be managed as an Inner Protection Area (IPA) APZ per the requirements of Asset Protection Zone Standards - Appendix 4 of PBP (2019).
- If required, where site constraints limit the APZ and setback widths, a Performance-based Design approach may provide

alternative methods to achieve critical radiant heat thresholds on heat-sensitive equipment.

3.2 LANDSCAPING

Recommendations:

- All vegetation within the areas identified as APZ surrounding the Mangoplah BESS, substation and associated infrastructure (the entire Project Site) is to be managed for the life of the Project per the requirements of Asset Protection Zone Standards - Appendix 4 of PBP (2019).
- Where practicable, the landscape design for areas identified as APZ surrounding the Mangoplah BESS, substation and associated infrastructure is to incorporate non-combustible mulch (stone or aggregate) managed for the life of the Project to eliminate the growth of vegetation or storage of combustibles near this infrastructure.

3.3 ACCESS

Discussion – Access:

Access to/from the Project Site to the public road network (Figure 8) is as follows:

- The Project will have close and direct access to the public road networks as follows:
    - The Mangoplah BESS will be accessed from Holbrook Road via an existing private property access road. This property access road is subject to minor flooding from Paper Forest Creek over the access road. The access road will be upgraded as required from the intersection of Holbrook Road to the Mangoplah BESS facility entrance point. It should be noted that the combination of flood depths, high hazard levels and high velocities indicates that the access road may be unsuitable for designation as a formal evacuation route for the Project during a flood event, however, would be suitable during a bushfire event.
    - A secondary emergency route, subject to ongoing consultation is available from Paper Forest Road to the south of the Project Site, as a backup option, providing safe access and egress in a flood or bushfire event.
- Holbrook Road is a sealed major regional two-lane public road (one lane in each direction) maintained by Transport for NSW. It provides access to the small township of Mangoplah, continuing to the city of Wagga Wagga to the north when heading northwest, exiting the Project site, and Holbrook heading southeast.
- Paper Forest Road is a sealed public through road providing access to Holbrook Road heading west, exiting the unnamed road and Burrandana Road heading east.

- A new internal road network will ensure access throughout and around the Mangoplah BESS site, including a perimeter road surrounding the Mangoplah BESS area, substation and associated infrastructure where practicable.

In general terms, access is well provided for the site, with direct and close access to Holbrook Road, the small townships of Mangoplah and the city of Wagga Wagga to the north and Holbrook to the south, with an alternative access/egress road provided from Paper Forest Road located south of the Involved Lands. The proposed access provisions will ensure the Project can comply with PBP (2019) access requirements.

Recommendations:

- Property access to the Mangoplah BESS facility and the internal road network is to generally comply with the specifications and requirements set out in PBP (2019).
- Provide a perimeter road within the Mangoplah BESS minimum 11 m wide facility perimeter APZ where practicable that is an all-weather, gravel road with a minimum width of 4 m.

3.4 WATER SUPPLIES

Discussion – Water supplies:

The Mangoplah BESS will require an adequate water supply and to be located so that it is readily accessible by emergency crews for either protection from an external bushfire threat or to protect surrounding exposures should the Mangoplah BESS facility become involved in fire.

The Mangoplah BESS design and layout are being finalised and will include a significant volume of water in non-combustible water tank/s designated for firefighting purposes.

Recommendations:

- Inclusion of 1 x 100,000 L static water supply (non-combustible tank/s) within the APZ OR at the entrance point of the Mangoplah BESS facility, substation, and associated infrastructure.
- All fittings and specifications for water supplies are to be per Table 7.4a of PBP (2019).

3.5 ELECTRICITY SERVICES

Recommendations:

- Electrical services are to be provided per Table 7.4a of PBP (2019).

3.6 CONSTRUCTION

Recommendations:

- The Mangoplah BESS, substation and associated buildings are recommended to be constructed to the appropriate Bushfire Attack Level (BAL) as per AS3959:2018 - Construction of buildings in bushfire-prone areas.

3.7 EMERGENCY MANAGEMENT PLANNING

Discussion:

Emergency management and operational procedures of the facility during construction and while operational throughout the bushfire season play an important part in fire prevention and site protection. As such, various guidelines, procedures and emergency plans are required.

A Bushfire Emergency Management and Operations Plan (BFEMOP) should identify all relevant risks and mitigation measures associated with the construction and operation of the Mangoplah BESS facility.

This should include:

- detailed measures to prevent or mitigate fires igniting,
- work that should not be carried out during total fire bans,
- availability of fire-suppression equipment, access and water,
- storage and maintenance of fuels and other flammable materials,
- notification of the local NSW RFS Fire Control Centre for any works that have the potential to ignite surrounding vegetation, to be carried out during a bushfire fire danger period to ensure weather conditions are appropriate and
- appropriate bush fire emergency management planning.

It is important to be aware of operations that may be carried out on days of Total Fire Ban and any prohibited activities or exemptions notified by the Commissioner of the NSW RFS under the RF Act s.99.

This is considered an operational phase document (outlining a management plan for the operation of the proposal) and is prepared after approval is granted.

Recommendation:

- Preparation of a Bush Fire Emergency Management and Operations Plan during the construction and operational phase of the Mangoplah BESS.

4 BUSHFIRE MANAGEMENT PLAN – SUMMARY OF RECOMMENDATIONS TO INFORM THE EIS.

4.1 ASSET PROTECTION ZONES AND SETBACKS

Appropriate setbacks from adjacent unmanaged hazardous vegetation (including setbacks from lot boundaries) are to be provided for the Mangoplah BESS, substation, and associated infrastructure. An APZ surrounding the facility, the Mangoplah BESS, substation, and related infrastructure is required.

The final APZ and setback dimensions may only be determined at the detailed design phase, in consultation with the NSW RFS and are to be incorporated into the Bushfire Emergency Management and Operations Plan.

Table 4 - Indicative APZ dimensions for BESS, Substation and associated infrastructure from unmanaged vegetation.

Transect	Aspect	Vegetation Formation	Slope (Assumed worse case)	Min. APZ required	Max. Radiant Heat (kW/m^2)
A	N	Grassland	Flat	10 m	29
B	E	Grassland	Flat	10 m	29
C	S	Woodland	Flat	11 m	29
D	W	Grassland	0° - 5° Downslope	11 m	29
E	SW to SE	Internal	Flat	N/A	N/A

- Appropriate APZ setbacks will be established from adjacent unmanaged hazardous vegetation (including setbacks from lot boundaries) surrounding the facility, the Mangoplah BESS, substation and associated infrastructure according to the vegetation type and slope under that classified vegetation. The APZ setback dimensions are provided in Table 4. The area outside the APZ will continue to be utilised for agricultural purposes (cropping).
- APZ and setback locations and widths will be confirmed subject to detailed design in consultation with NSW RFS.

- A minimum 11 m wide facility perimeter APZ is to be provided and incorporate an all-weather, gravel road with a minimum width of 4 m where practicable.
- At the commencement of building works and for the life of the Project, all land identified as APZ within the development footprint (the entire Project Site) is to be managed as an Inner Protection Area (IPA) APZ per the requirements of Asset Protection Zone Standards - Appendix 4 of PBP (2019).
- If required, where site constraints limit the APZ and setback widths, a Performance-based Design approach may provide alternative methods to achieve critical radiant heat thresholds on heat-sensitive equipment.

4.2 LANDSCAPING

Recommendations:

- All vegetation within the areas identified as APZ surrounding the Mangoplah BESS, substation and associated infrastructure (entire Project Site) is to be managed for the life of the Project per the requirements of Asset Protection Zone Standards - Appendix 4 of PBP (2019).
- Where practicable, the landscape design for areas identified as APZ surrounding the Mangoplah BESS, substation and associated infrastructure is to incorporate non-combustible mulch (stone or aggregate) managed for the life of the Project to eliminate the growth of vegetation or storage of combustibles close to this infrastructure.

4.3 ACCESS

- Property access to the Mangoplah BESS facility and internal road network is to generally comply with the specifications and requirements set out in PBP (2019).
- Provide a perimeter road within the Mangoplah BESS minimum 11 m wide facility perimeter APZ where practicable that is an all-weather, gravel road with a minimum width of 4 m.

4.4 WATER SUPPLIES

- Inclusion of 1 x 100,000 L static water supply (non-combustible tank/s) within the APZ OR at the entrance point of the Mangoplah BESS facility, substation, and associated infrastructure.
- All fittings and specifications for water supplies are to be per Table 7.4a of PBP (2019).

4.5 ELECTRICITY SERVICES

- Electrical services are to be provided per Table 7.4a of PBP (2019).

4.6 CONSTRUCTION

- The Mangoplah BESS, substation and associated buildings are recommended to be constructed to the appropriate Bushfire Attack Level (BAL) as per AS3959:2018 - Construction of buildings in bushfire-prone areas.

4.7 EMERGENCY MANAGEMENT PLANNING

- Preparation of a Bush Fire Emergency Management and Operations Plan during the construction and operational phase of the Mangoplah BESS project.

5 Conclusion

This report documents the findings from a bush fire protection assessment to support an Environmental Impact Statement (EIS) for the proposed Mangoplah Battery Energy Storage System (Mangoplah BESS) located approximately 3.1 kilometres east of the small township of Mangoplah.

The report establishes the level of bushfire threat to the Project Site. It examines protection measures for the proposal to satisfy the broad aims and objectives of PBP (2019), and specific considerations detailed in Chapter 8 of PBP (2019), such as asset protection zones, landscaping, access, water supplies, construction and emergency management.

The recommendations are designed to inform the upcoming EIS and, in turn, inform the SSD approval.

Given that the Project Site is a greenfield site with large open spaces, there is an excellent opportunity to provide a range of bushfire protection measures that address the bushfire threat and requirements of PBP (2019).

The proposed APZ dimensions will ensure that the critical components of the Mangoplah BESS, substation, and associated infrastructure are not exposed to radiant heat levels exceeding 29 kW/m^2.

Access to the Project Site will be well provided, with the main entrance point and access road off Holbrook Road southwest of the Project Site being upgraded to provide safe vehicular site access to/from the site, including a perimeter road surrounding the Mangoplah BESS facility where practicable. A secondary emergency access route can be provided from Paper Forest Road to the south of the Project Site, which can provide safe access and egress during an emergency if directed by appropriate emergency services, all of which will comply with the acceptable solutions set out in PBP (2019).

A significant volume of firefighting water supplies will be provided to the Mangoplah BESS, exceeding the requirements of PBP (2019).

Preparation of a Bush Fire Emergency Management and Operations Plan during the construction and operational phase of the Mangoplah BESS is recommended as part of the site's fire mitigation strategy.

Based on the bushfire assessment and the recommendations contained in this report, the development proposal will be capable of:

- affording structures protection from exposure to a bushfire,
- provide for a defendable space,
- provide appropriate separation between a hazard and structures to prevent the likely spread of fire,
- ensure that appropriate operational access and egress for emergency service personnel is available,
- provide for ongoing management and maintenance of BPMs and
- ensure that utility services are adequate to meet the needs of firefighters.

Therefore, the Project is deemed capable of complying with the specific and broad objectives of PBP (2019).

6 Reference

- ePlanning Spatial Viewer, Department of Planning Industry and Environment, accessed 2 October 2024, https://www.planningportal.nsw.gov.au/spatialviewer/#/find-a-property/address
- FireMaps (FPA Australia, 2021), accessed 13 May 2025, https://maps.fpaafiremaps.com.au
- Keith D. (2004) "Ocean Shores to Desert Dunes", Department of Environment and Conservation, Sydney.
- NSW Rural Fire Service. (2019) "Planning for Bushfire Protection". Sydney (PBP 2019)
- SEED (NSW Government, 2021) NSW State Vegetation Types Map, accessed 13 May 2025, https://geo.seed.nsw.gov.au/vertigisstudio/web/?app=cabd04d595ec43c1aaf4298e80e83ec2&workflow=36ea26c1-e8e2-4355-8600-5d1558259ad3&workflowParams={%22portalItems%22:%20[{%22itemId%22:%20%22a2642dbeb0d34a13a0dc9e9585799b71%22,%20%22layerIds%22:%20%220,1,2,3%22}]}
- Six Maps, NSW Department of Finance and Services, accessed 2 October 2024, https://maps.six.nsw.gov.au/#
- Standards Australia, (2018) "AS/NZS 3959-2018 Construction of buildings in bushfire-prone areas."

7 Appendix A – Photographic

Overview of the study area

Photo Point 1. Looking south accross the proposed Mangoplah BESS Project site. (Hague, 2025)

Photo point 3. Looking at hazard vegetation north of the proposed Mangoplah BESS Project site. (Hague, 2025)

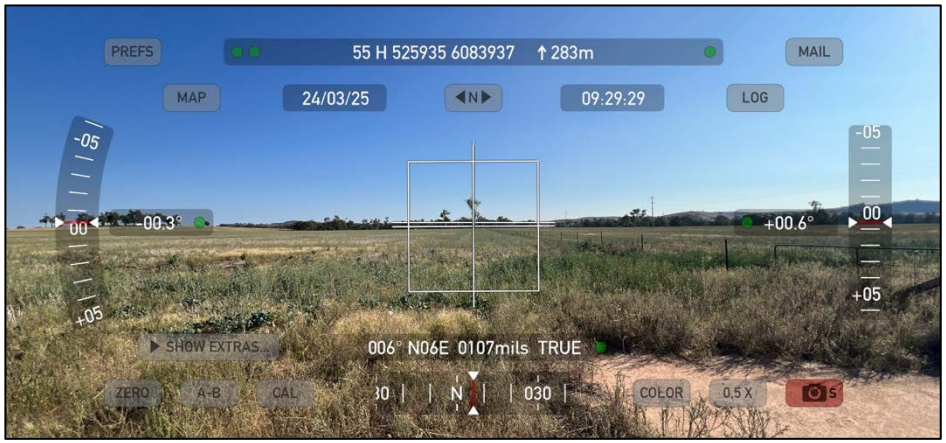

Photo point 2. Looking at hazard vegetation north of the proposed Mangoplah BESS Project site. (Hague, 2025)

Photo point 4. Looking at hazard vegetation northeast of the proposed Mangoplah BESS Project site. (Hague, 2025)

PHOTOGRAPHIC OVERVIEW OF THE STUDY AREA

Photo Point 5. Looking west accross the proposed Mangoplah BESS Project site. (Hague, 2025)

Photo Point 7. Looking at hazard vegetation east of the proposed Mangoplah BESS Project site. (Hague, 2025)

Photo point 6. Looking at hazard vegetation east of the proposed Mangoplah BESS Project site. (Hague, 2025)

Photo point 8. Looking at hazard vegetation east of the proposed Mangoplah BESS Project site. (Hague, 2025)

PHOTOGRAPHIC OVERVIEW OF THE STUDY AREA

Photo Point 9. Looking at hazard vegetation south of the proposed Mangoplah BESS Project site. (Hague, 2025)

Photo Point 11. Looking at hazard vegetation south of the proposed Mangoplah BESS Project site. (Hague, 2025)

Photo point 10. Looking north accross the proposed Mangoplah BESS Project site. (Hague, 2025)

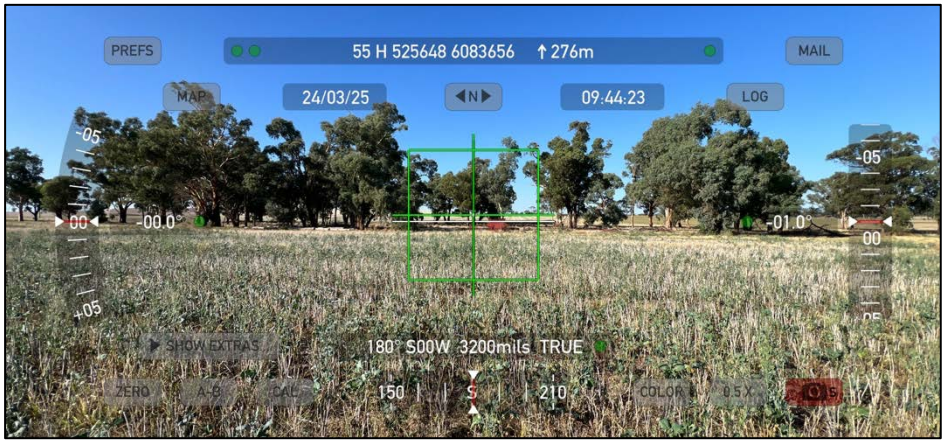

Photo point 12. Looking at hazard vegetation south of the proposed Mangoplah BESS Project site. (Hague, 2025)

PHOTOGRAPHIC OVERVIEW OF THE STUDY AREA

Photo Point 13. Looking at hazard vegetation west of the proposed Mangoplah BESS Project site. (Hague, 2025)

Photo Point 15. Looking southeast accross the proposed Mangoplah BESS Project site. (Hague, 2025)

Photo point 14. Looking at hazard vegetation west of the proposed Mangoplah BESS Project site. (Hague, 2025)

Photo point 16. Looking at hazard vegetation west of the proposed Mangoplah BESS Project site. (Hague, 2025)

PHOTOGRAPHIC OVERVIEW OF THE STUDY AREA

Photo Point 17. Looking at hazard vegetation and the ~3.5 ML dam approximately 60 m northwest of the proposed Mangoplah BESS Project site. (Hague, 2025)

8 Appendix B – Photographic

Overview of access arrangements

Photo point A. Showing the general condition of the main access point (to be upgraded) to the proposed Mangoplah BESS development site from Holbrook

Photo Point B. Showing the general condition Holbrook Road heading northwest towards Mangoplah exiting the Mangoplah BESS development site.

Photo point C. Showing the general condition Holbrook Road heading southeast exiting the Mangoplah BESS development site. (Hague, 2025)

Photo Point D. Showing the general condition of the existing internal property/proposed access road route heading towards the Mangoplah BESS Project Site. (Hague, 2025)

Photo point E. Showing the general condition of the existing/proposed internal property access road route heading towards Holbrook Road from the Mangoplah BESS Project Site. (Hague, 2025)

Photo point G. Showing hazard vegetation abutting the existing/proposed internal property access road. (Hague, 2025)

Photo Point F. Showing the general condition of the existing/proposed internal property access road route heading towards the Mangoplah BESS Project Site.

Photo Point H. Showing the general condition of the existing/proposed internal property access road route heading towards Holbrook Road from the Mangoplah BESS Project Site. (Hague, 2025)

Photo point I. Showing hazard vegetation abutting the existing/proposed internal property access road. (Hague, 2025)

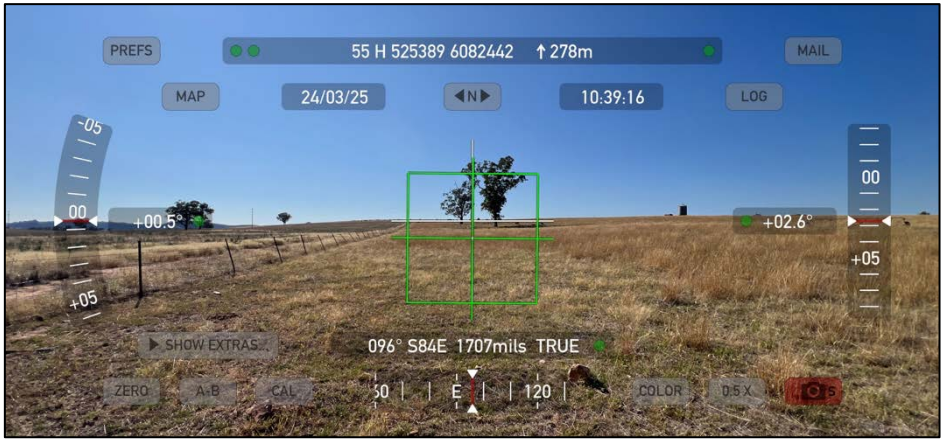

Photo point K. Showing hazard vegetation abutting the existing/proposed internal property access road. (Hague, 2025)

Photo Point J. Showing the general condition of the existing/proposed internal property access road route heading towards Holbrook Road from the Mangoplah BESS Project Site. (Hague, 2025)

Photo Point L. Showing hazard vegetation abutting the existing/proposed internal property access road. (Hague, 2025)

Photo point M. Showing the general condition of the existing/proposed internal property access road route heading towards Holbrook Road from the Mangoplah BESS Project Site. (Hague, 2025)

Photo point O. Showing hazard vegetation abutting the existing internal property access road. (Hague, 2025)

Photo Point N. Showing the general condition of the existing/proposed internal property access road route heading towards the Mangoplah BESS Project Site. (Hague, 2025)

Photo Point P. Showing hazard vegetation abutting the existing internal property access road. (Hague, 2025)

Photo point Q. Showing the general condition of the existing/proposed internal property access road route heading towards Holbrook Road from the Mangoplah BESS Project Site. (Hague, 2025)

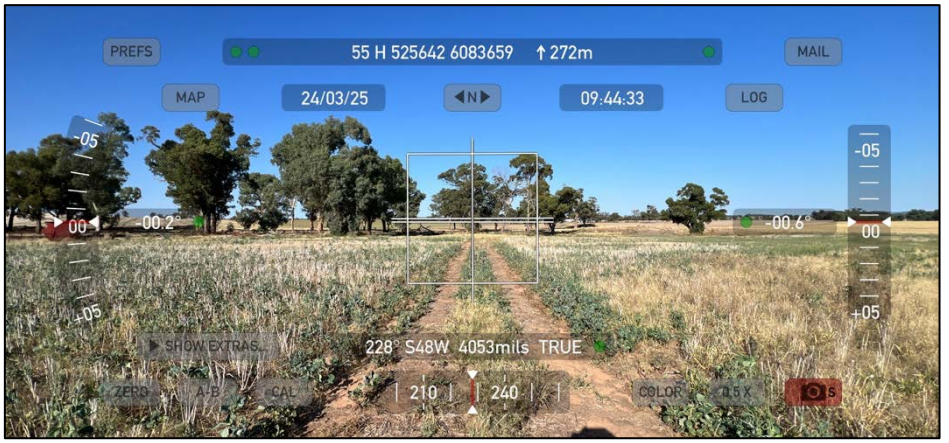

Photo point S. Showing the general condition of the existing/proposed internal property access road exiting the Mangoplah BESS Project Site. (Hague, 2025)

Photo Point R. Showing the general condition of the existing/proposed internal property access road route heading towards the Mangoplah BESS Project Site. (Hague, 2025)

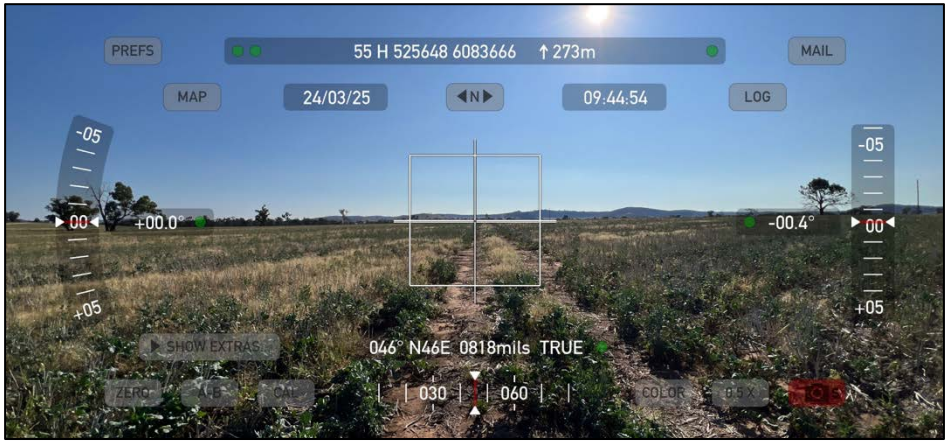

Photo Point T. Showing the general condition of the existing/proposed internal property access road entering the Mangoplah BESS Project Site. (Hague, 2025)

9 APPENDIX C – OVERVIEW OF THE STUDY AREA

Photo Point A1. Looking north at the indicative Mangoplah BESS Project Site showing the extent of surrounding hazard vegetation. (Hague, 2025)

Photo Point A3. Looking southeast at the indicative Mangoplah BESS Project Site showing the extent of surrounding hazard vegetation and alternative access/egress road. (Hague, 2025)

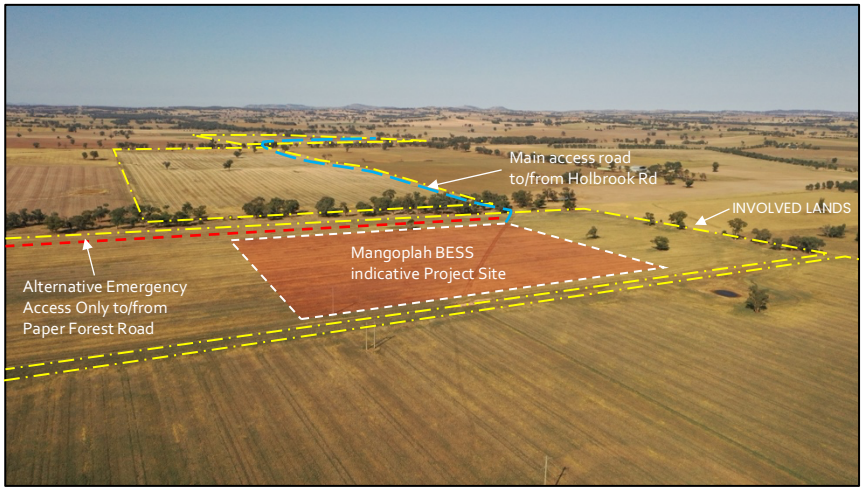

Photo point A2. Looking south at the indicative Mangoplah BESS Project Site showing the extent of surrounding hazard vegetation and main access road. (Hague, 2025)

Photo Point A3. Looking northeast at the indicative Mangoplah BESS Project Site showing the extent of surrounding hazard vegetation. (Hague, 2025)