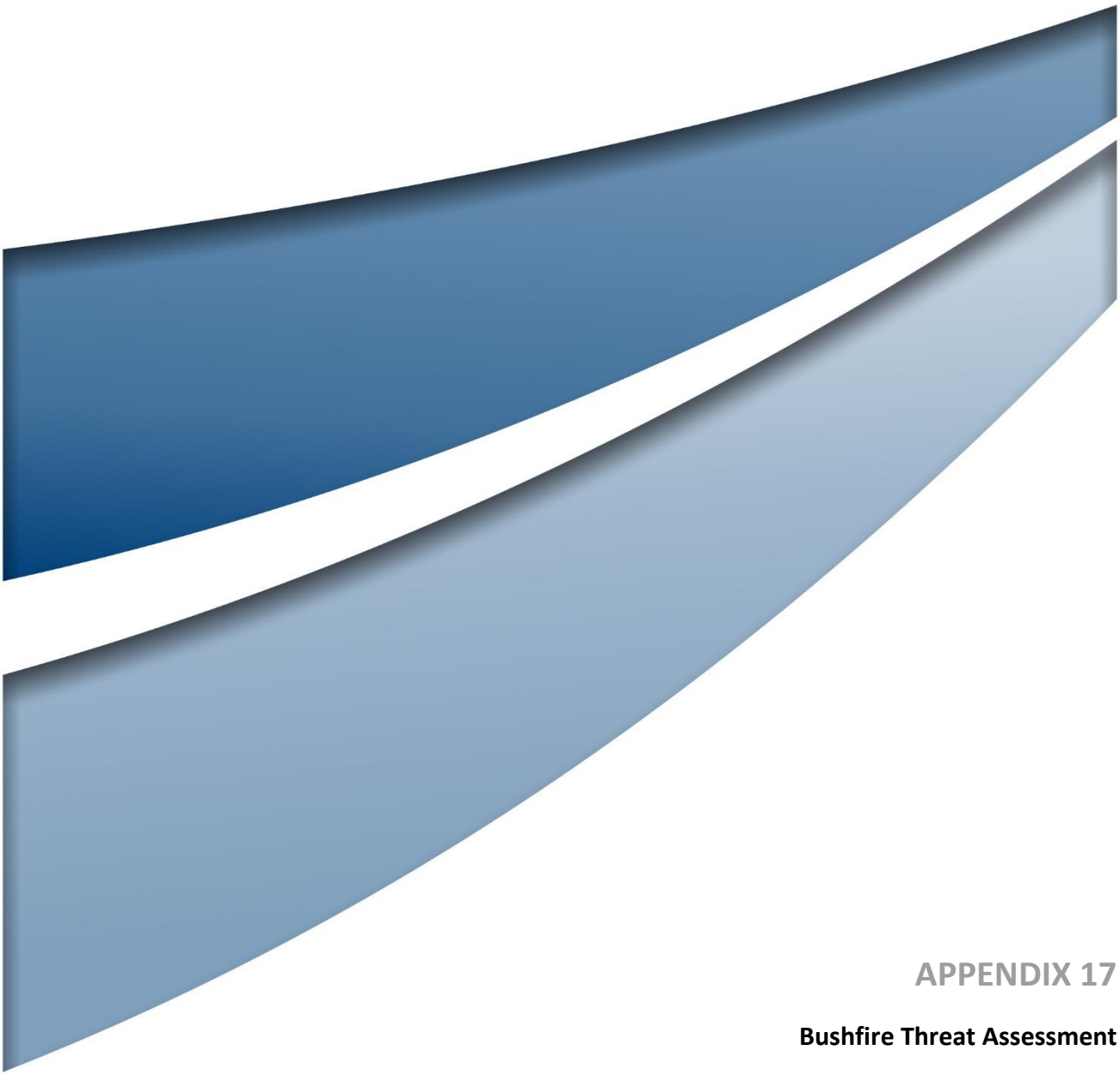

APPENDIX 17

Bushfire Threat Assessment

BUSH FIRE ASSESSMENT REPORT

-Proposed Solar Farm-
961 Windellama Road
Gundary

PREPARED BY:

PEAK LAND MANAGEMENT

JUNE 2024

BPAD Bushfire Planning & Design
Accredited Practitioner
Level 3

PEAK LAND MANAGEMENT

Land management consulting services:

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Cover Photo: View of Project Area.

CONTENTS

FIGURES AND TABLES

Document History

Document Id.	Prep. Date	Version	Submitted to
Draft Bush Fire Report	15.5.23	1	Umwelt
Bush Fire Report	14.6.23	2	Umwelt
Bush Fire Report	20.10.23	3	Umwelt
Bush Fire Report	28.11.23	4	Umwelt
Bush Fire Report	8.3.24	5	Umwelt
Bush Fire Report	4.6.24	6	Umwelt

AUTHOR DETAILS

Ted Smith is the director of PEAK LAND MANAGEMENT. He is a qualified Land Management Consultant with a Bachelor of Science Honours Degree in Physical Geography. He has over 25 years experience commercially consulting with PEAK LAND MANAGEMENT PTY LTD and working within state government.

Ted has completed a Graduate Diploma in Design for Bush Fire Prone Areas from the University of Western Sydney and is a member of the Fire Protection Association of Australia (FPA of Australia), being a BPAD Accredited Bush Fire Practitioner Level 3.

CERTIFICATION

Ted Smith of PEAK LAND MANAGEMENT has carried out a Bush Fire Assessment including a site inspection on the subject property. A detailed Bush Fire Assessment Report is attached which includes the submission requirements set out in *Appendix 2 & 4* of *Planning for Bush Fire Protection 2019* together with recommendations as to how the relevant specifications and requirements are to be achieved.

I hereby certify, in accordance with Section 4.14 of the *Environmental Planning and Assessment Act 1979 No 203*:

1. That I am a person recognised by the *NSW Rural Fire Service* as a qualified consultant in Bush Fire Risk Assessment; and

2. That subject to the recommendations contained in the attached Bush Fire Assessment Report the proposed development conforms to the ***relevant specifications and requirements*** being the document entitled *Planning for Bush Fire Protection* prepared by the NSW Rural Fire Service in co-operation with the Department of Planning and any other document as prescribed by Section 4.14 of the *Environmental Planning and Assessment Act 1979 No 203*.

Signature

4th June, 2024

Date

BPAD Bushfire Planning & Design Accredited Practitioner Level 3

TERMS AND ABBREVIATIONS

Abbreviation	Meaning
AHIMS	Aboriginal Heritage Information Management System
APZ	Asset Protection Zone
AS2419 -2005	Australian Standard – Fire Hydrant Installations
AS3959-2018	Australian Standard – Construction of Buildings in Bush Fire Prone Areas
BCA	Building Code of Australia
BPA	Bush Fire Prone Area (Also Bushfire Prone Land)
BPL	Bush Fire Prone Land
BPL Map	Bush Fire Prone Land Map
BPMs	Bush Fire Protection Measures
BRMP	Bushfire Risk Management Plan
BTA	Bushfire Threat Assessment
EPA Act	*NSW Environmental Planning and Assessment Act 1979*
EMP	Emergency Management Plan
FDI	Fire Danger Index
FMP	Fuel Management Plan
Ha	Hectare
IPA	Inner Protection Area
LEP	Local Environment Plan
LGA	Local Government Area
OPA	Outer Protection Area
PBP 2019	Planning for Bushfire Protection 2019
RF Act	*Rural Fires Act 1997*
RF Regulation	Rural Fires Regulation
SEARs	Department of Planning & Environment - Secretary's Environmental Assessment Requirements

1.1 INTRODUCTION

PEAK LAND MANAGEMENT has been engaged by Umwelt Australia (Pty Ltd) on behalf of the proponent Lightsource Development Services Australia Pty Ltd (Lightsource bp) to prepare a Bush Fire Assessment Report for a proposed Solar Farm over land located as shown in Table 1 /961 Windellama Road, Gundary (referred to hereafter as "Project Area").

Lightsource bp proposes to develop a large scale solar photovoltaic (PV) generation facility, in the locality of Gundary, New South Wales (NSW), approximately 10 kilometres (km) southeast of Goulburn (see Figure 1.1), in Goulburn Mulwaree Local Government Area (LGA).

The Project is considered a State Significant Development (SSD) under Part 4 of the Environmental Planning and Assessment Act 1979 (EP&A Act) and State Environmental Planning Policy (Planning Systems) 2021.

Figures 1-4 & Table 1 show the Project Area location, topographic map, vegetation assessment, site plan and Appendix 1 shows photos of the Project Area.

Table 1: Lot location of Project Area

Lot	Deposited Plan (DP)	Ownership
Part of Lot 3	DP 1238347	Freehold
12	DP 1016332	Freehold
1	DP 870101	Freehold
2	DP 1187724	Freehold
80	DP 750018	Freehold

The Project Area is approximately 702 ha and comprises (wholly or partly) five cadastral lots listed in Table 1. The Project Area is zoned RU1 Primary Production in its entirety under the Goulburn Mulwaree LEP (refer to Figure 3.1). Lots within the Project Area have been subject to agricultural activities including sheep and cattle grazing.

Under the *Environmental Planning and Assessment Act, 1979* (and its regulations), and the *Rural Fires Act 1997* (and its regulations), councils/NSW Government are required to assess and control new developments in Bush fire prone areas. The Project Area has been assessed as being part of a Bush Fire Prone Land Area (Figure 6) as mapped under the Bush Fire Prone Land Map, 2023.

NSW Rural Fire Service have issued advice for this Project (Your reference: SSD-48225958 Our reference: DA20220915010670-SEARS-1 Date: Wednesday 14 December 2022) which states:

The NSW Rural Fire Service advises that the Environmental Impact Statement for the proposed development should incorporate a bush fire hazard assessment undertaken by a suitably qualified consultant to address the aims and objectives of Planning for Bush Fire Protection 2019 and the specific matters within section 8.3.5 - Wind and Solar Farms.

The proposed development (Project) is predominantly a Solar Farm, with a Class 8 & 10 building under the Building Code of Australia (BCA). As stated in Planning for Bushfire Protection Guidelines (PBP) 2019 it should be noted that "*Buildings of Class 5 to 8 and 10 of the BCA- The BCA does not provide any bush fire specific performance requirements and as such AS 3959 does not apply as a set of deemed to satisfy requirements. The general fire safety construction provisions are taken as acceptable solutions, but the aim and objectives of PBP 2006 apply in relation to other matters such as access, water and services, emergency planning and landscaping/vegetation management*".

Section 8.3.5 PBP 2019 (Wind and Solar Farms) however states in part that:-

Wind and solar farms require special consideration and should be provided with adequate clearances to combustible vegetation as well as firefighting access and water.

The following should be provided for wind and solar farms:

- *a minimum 10m APZ for the structures and associated buildings/infrastructure; and*
- *the APZ must be maintained to the standard of an IPA for the life of the development.*

Infrastructure for the purposes of requiring APZ excludes:

- *road access to the site; and*
- *power or other services to the site and associated fencing.*

Essential equipment should be designed and housed in such a way as to minimise the impact of bush fires on the capabilities of the infrastructure during bush fire emergencies. It should also be designed and maintained so that it will not serve as a bush fire risk to surrounding bush.

A Bush Fire Emergency Management and Operations Plan should identify all relevant risks and mitigation measures associated with the construction and operation of the wind or solar farm.

This Bush Fire Assessment Report has been prepared in accordance with "*Planning for Bush fire Protection* (PBP) 2019" guidelines and the NSW Department of Planning and Environment (DPE) Secretary's Environmental Assessment Requirements (SEARs) issued on 10 November 2022. Clause 46 of the *Rural Fires Regulation 2002* sets out these requirements, which are addressed in this report. This Bush Fire Assessment Report has been prepared to show the current situation and provide recommendations on how the risk may be ameliorated.

Figure 1: Aerial photo showing Project location (from Umwelt). North to top of all images.

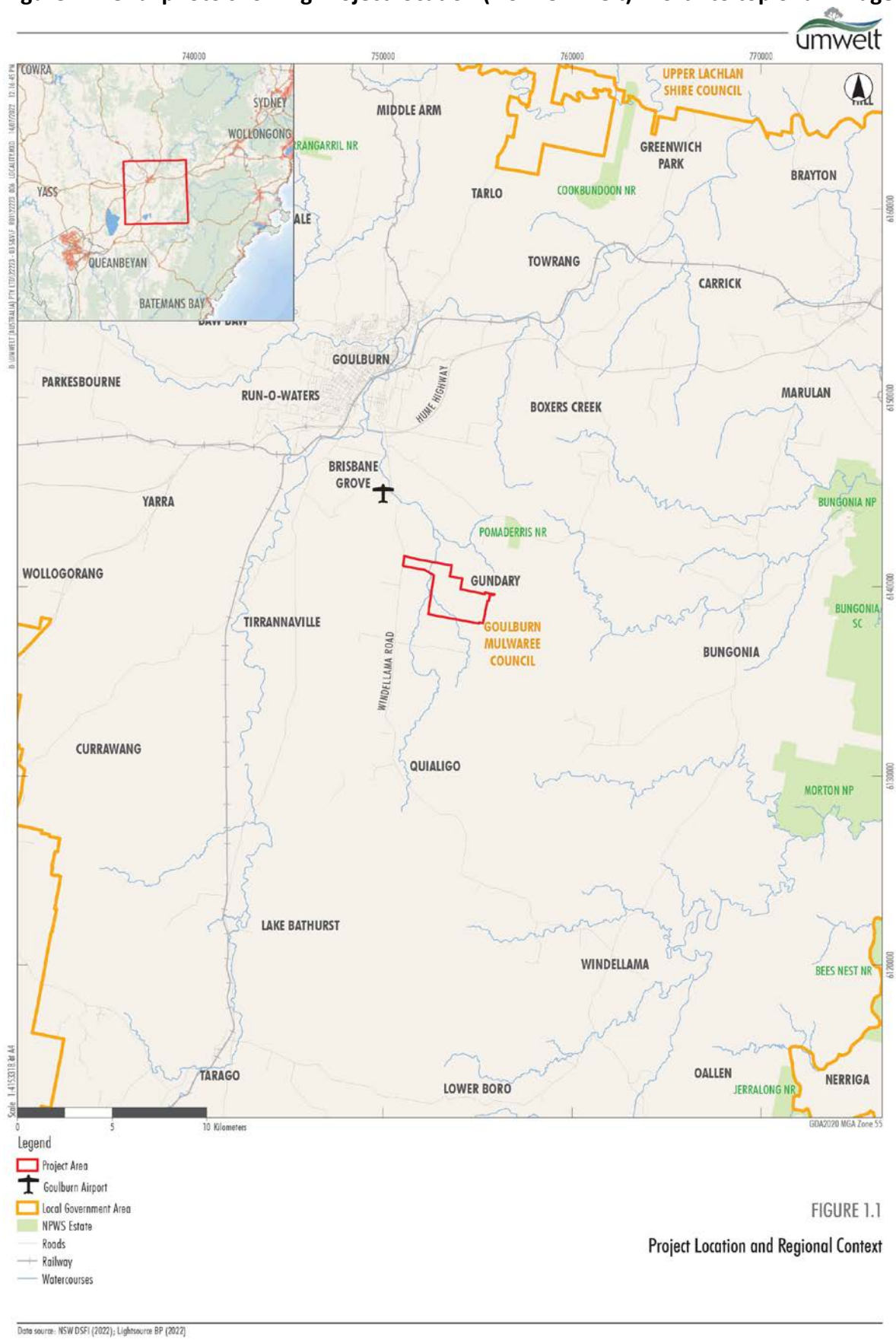


Figure 2: Aerial photo showing Project Area in more detail (imagery from Google Earth)

Figure 3a: Aerial photo showing Project area and vegetation assessment within 140m (imagery from Lands Department)

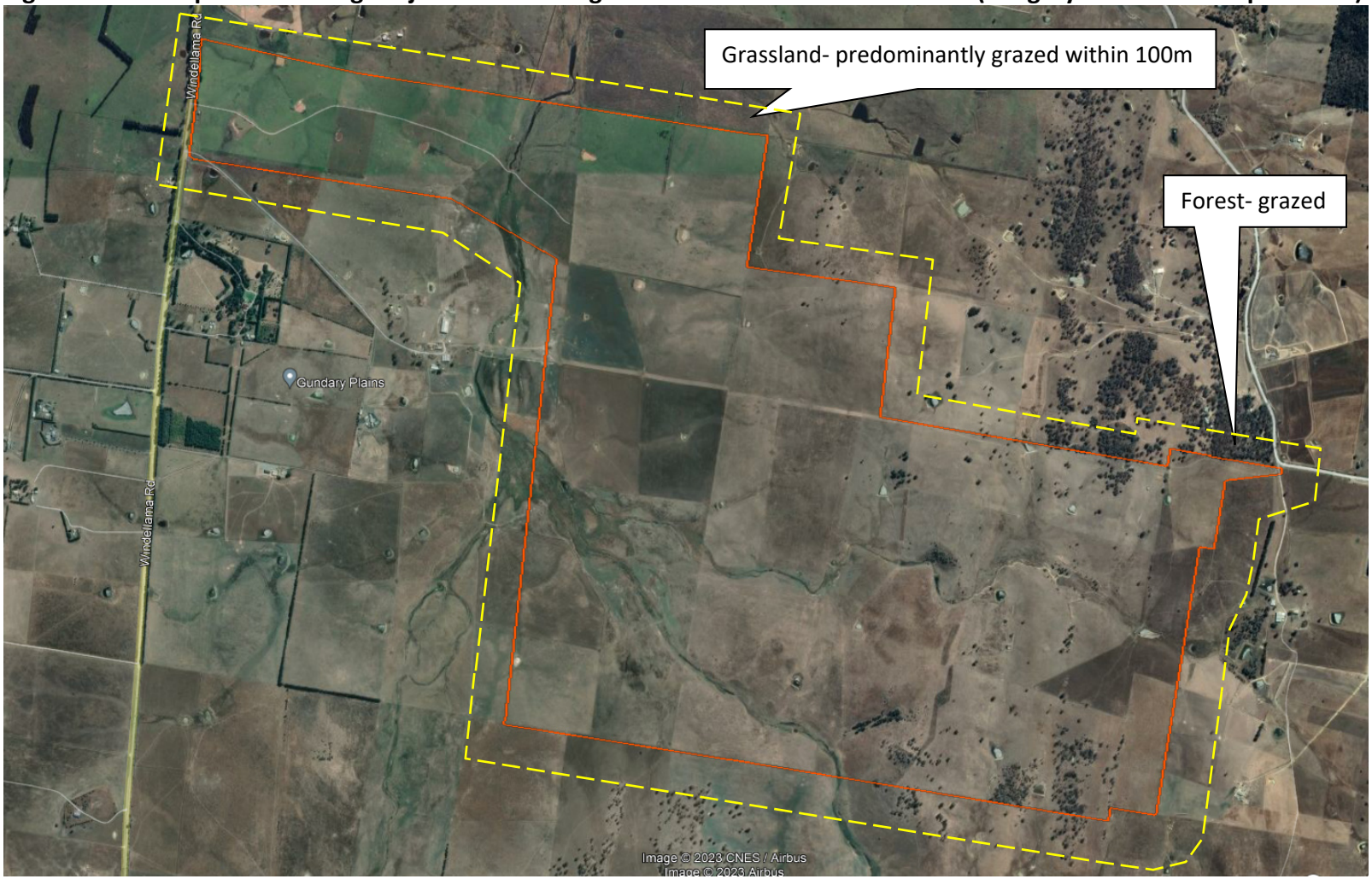


Figure 3b: Aerial photo showing north-east Project Area in more detail and vegetation assessment within 140m (imagery from Google Earth)

Figure 4: Topographic map showing Project area (imagery from Lands Department)

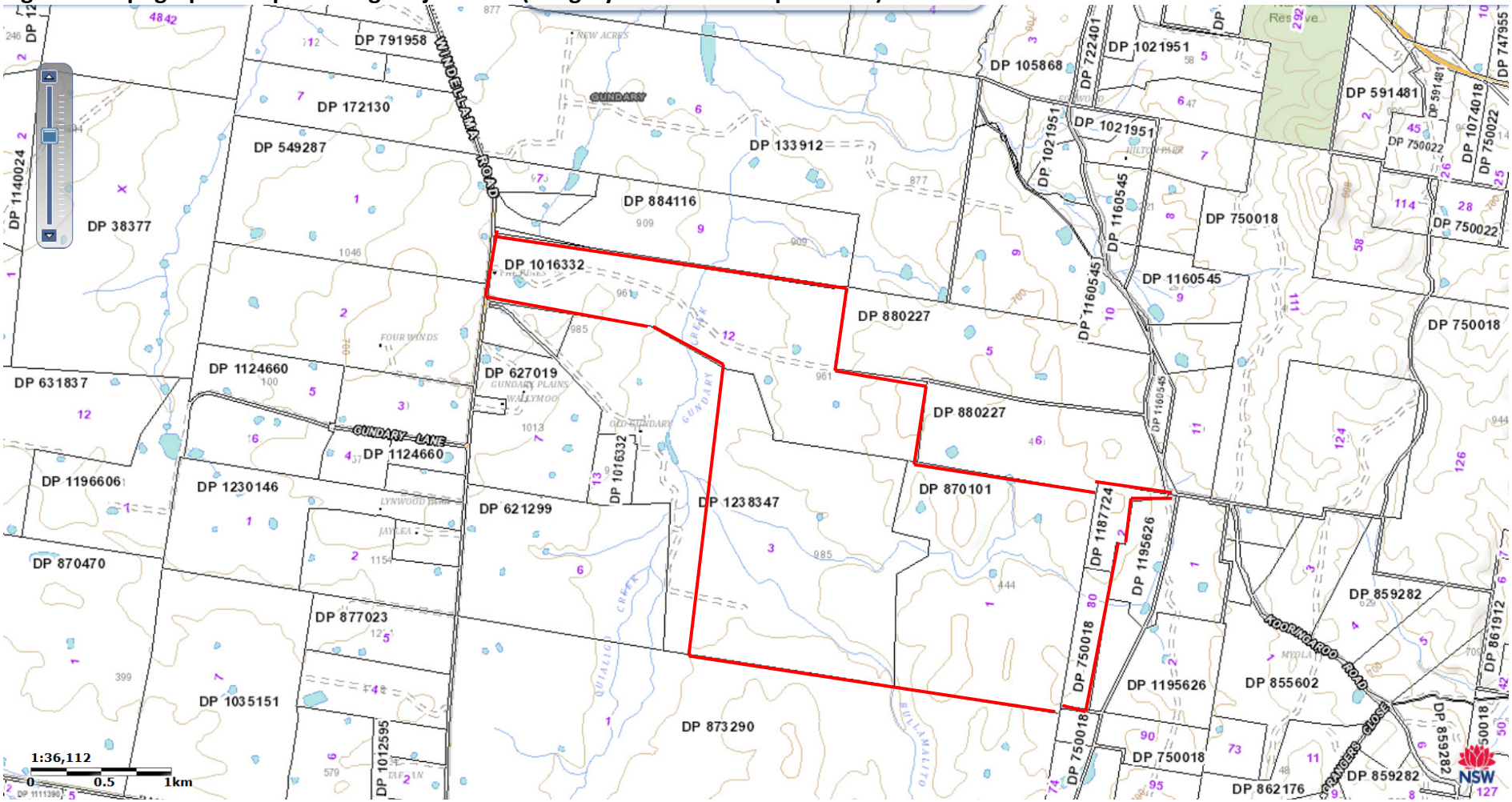


Figure 5: Project layout (from Umwelt, undated)

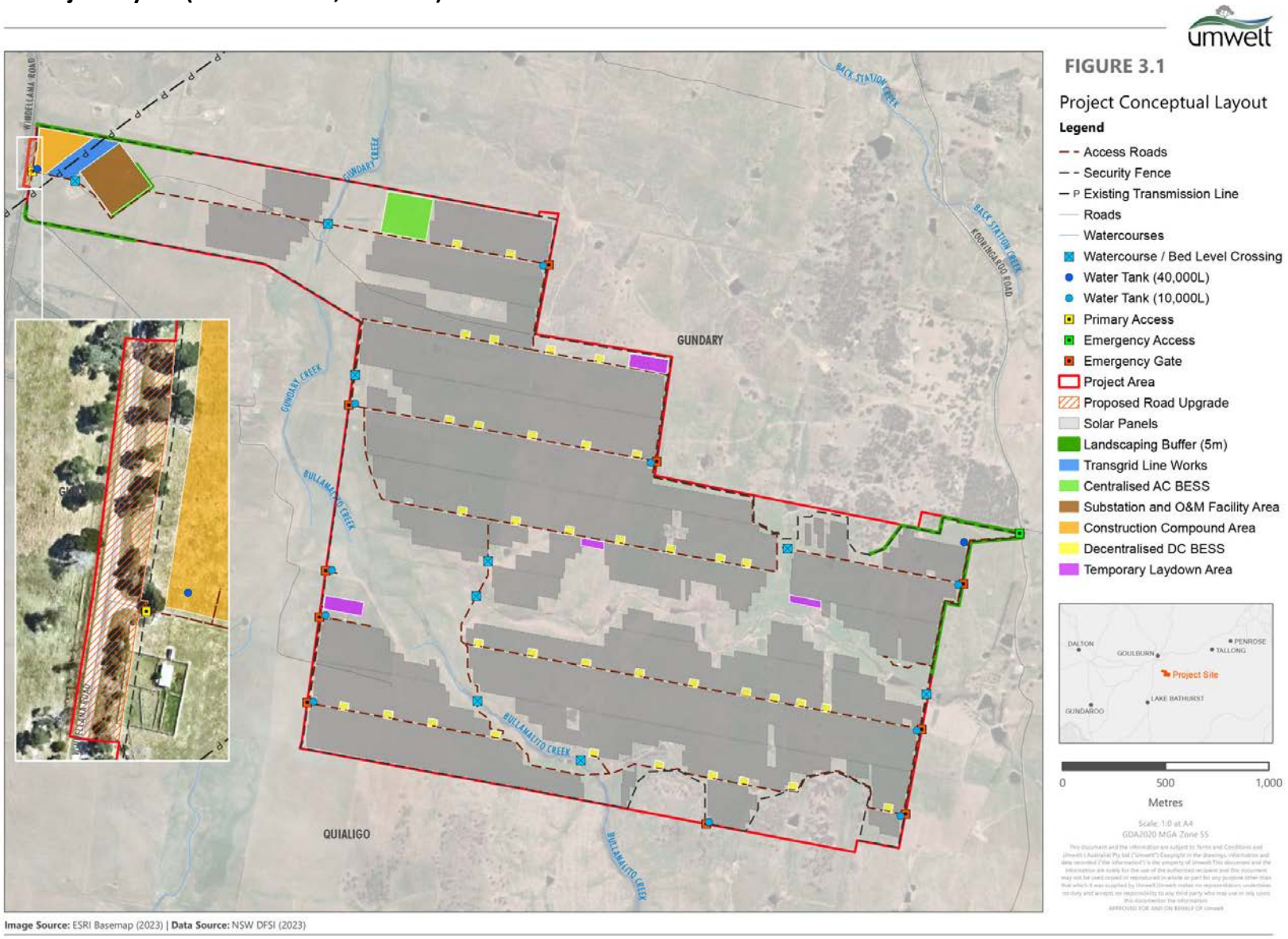


Image Source: ESRI Basemap (2023) | **Data Source:** NSW DFSI (2023)

Figure 6: Remnant native vegetation over Project area (from Umwelt, dated Oct, 2022)

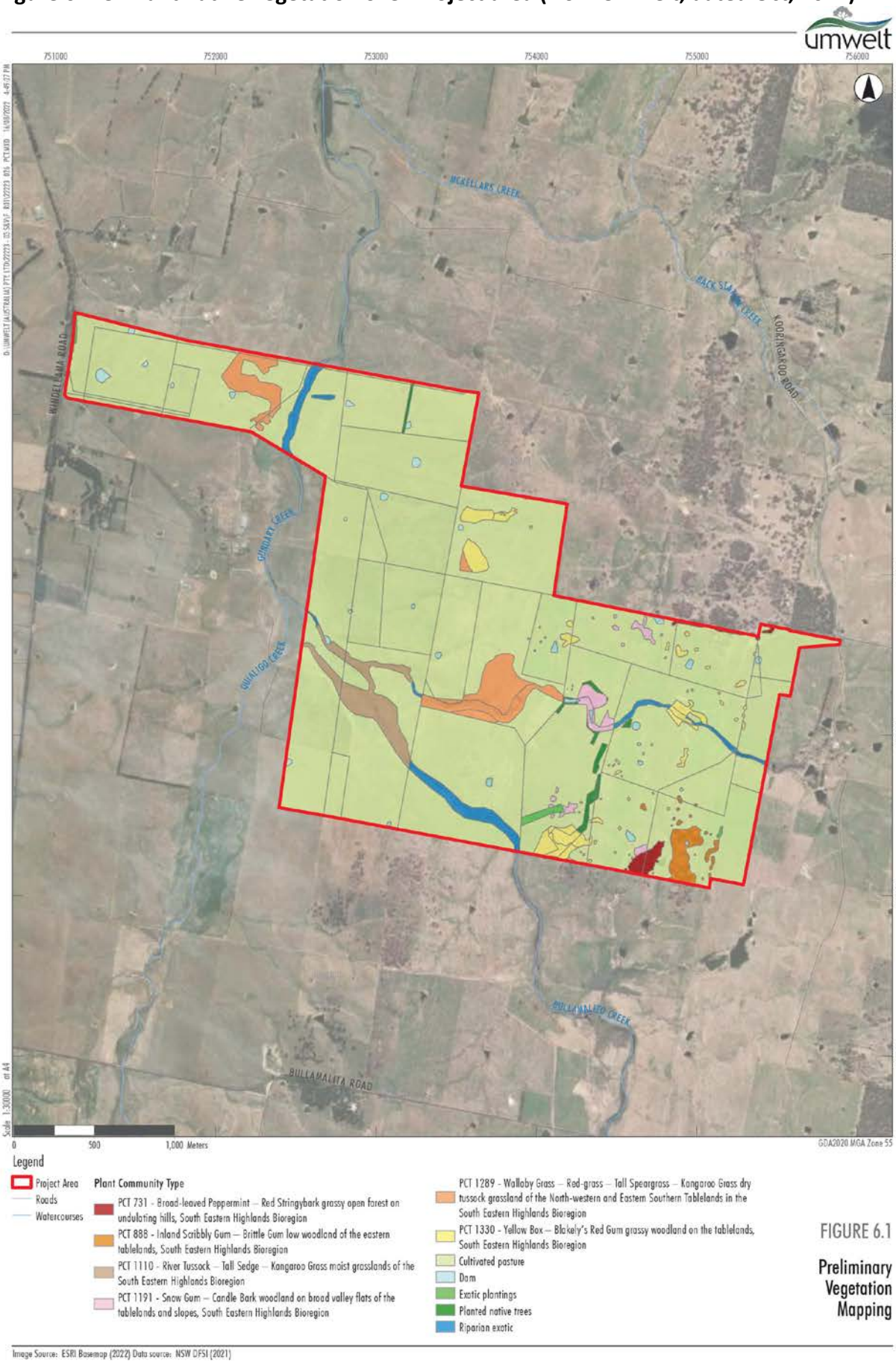
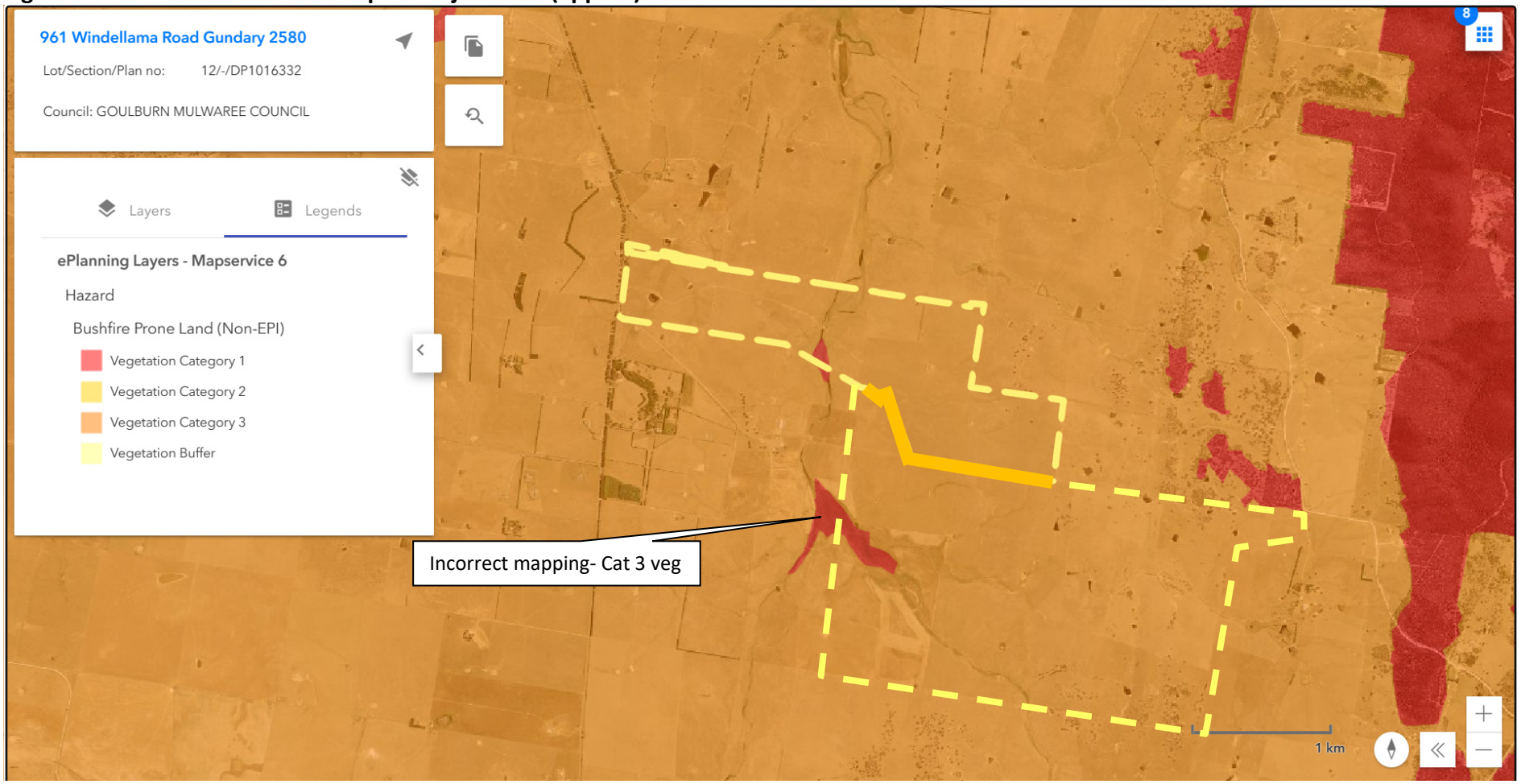


Figure 7: Bush Fire Prone Land Map of Project area (approx) & surrounds



2.0 SPECIFICATIONS, UTILITIES, ACCESS AND SURROUNDING LANDUSE

2.1 SCOPE OF WORKS

Photos of the Project area and surrounds are shown in Appendix 1. A site plan is shown in Figure 5.

The Project comprises (from Umwelt, 2024):

- Approximately 660,000 bifacial flat plate solar PV modules in single-axis tracking arrangement with a maximum height of 3 metres (m) above ground level, occasionally reaching up to 4 m depending on the topography.
- A lithium-ion BESS to store energy generated by the Project, comprising one of the following options:
  - 325 MWp/650 MWh centralised alternating current (AC) BESS
  - 230 MWp/920 MWh decentralised direct current (DC) BESS
  - combined centralised AC and decentralised DC BESS with a total capacity of 555 MWp/1,570 MWh.
- Onsite 33/330 kV substation and switchyard, with underground electrical conduits and cabling leading from the solar panels into the substation yard, and overhead lines reaching above to the existing 330 kV transmission line.
- Internal gravel access tracks, including a number of watercourse crossings (via culverts and bed level crossings) within the Project Area, where required, to manage existing surface water flows and access points.
- Temporary ancillary facilities, including a construction compound (including office amenities, parking and storage) and laydown areas.
- Permanent site office, operations and maintenance building with parking for the operations team.
- Primary access point from the existing driveway off Windellama Road, with proposed intersection works on Windellama Road to upgrade the Project access to accommodate heavy vehicles.
- Emergency access point via the existing entrance off Kooringaroo Road proposed on the east (for emergencies only).
- Perimeter security fencing with emergency access points (via gates), a 10 m Asset Protection Zone (APZ) and dedicated non-combustible water tanks with a combined capacity of 180,000 L distributed throughout the Project Area.

The Project is expected to operate for up to 40 years. After its operational life, the Project would either be decommissioned (by removing all infrastructure and returning the site to its existing land capability) or repurposed with new PV equipment subject to technical feasibility and planning consents.

The Operations and Maintenance Building will be fitted out with appropriate fire fighting equipment, and emergency evacuation signage/lighting. There will be no overnight accommodation, being an Operations and Maintenance Building only. The site Operations and Maintenance Building will be located at the proposed substation in the attached layout (Figure 5).

2.2 SURROUNDING LAND USE

The Project Area and surrounding vegetation and landuse/topography are shown in Figures 1-5.

The site is located in a rural area, which is grazed by cattle/sheep permanently both over the site, and surrounds.

2.3 ACCESS

The site is accessed from the Windellama Road, a sealed two way public through road.

A network of internal unsealed access roads is proposed as shown in Figure 5. A perimeter access maintenance track will not be provided around the development due to constraints, however the proposed 10m wide Asset Protection Zone will be present around the whole of the project boundary. Furthermore, an emergency access point via Kooringaroo Road is proposed on the east, with additional emergency access points (via gates) along the perimeter fencing to allow for emergency access

There is adequate room for fire fighting vehicles to access and turn around on site.

2.4 UTILITIES/WATER SUPPLIES

The project area is not serviced by reticulated town water supplies. There are many small dams over the site (around 9, capacity approximately 5 megalitres – see Fig 4).

The proposed development will have dedicated non combustible 180 000 litre water tank(s) with Storz fittings, and other firefighting equipment in compliance with Australian Standards. The tank(s) will be located at both the Windellama Road and Kooringaroo Road access points.

Section 8.3.5 PBP 2019 makes no reference to required water supply for this Solar Farm development. This water supply is considered adequate. Note most dams are to be decommissioned as they lie within the project footprint.

The Project Area is serviced by above ground power to the site. There are no permanent proposed gas tanks/bottling.

2.5 CONSTRUCTION STANDARDS

No construction standards are applicable for this development as it is a commercial development, with no habitable buildings proposed.

PBP, 2019 states "*Buildings of Class 5 to 8 and 10 of the BCA- The BCA does not provide any bush fire specific performance requirements and as such AS 3959 does not apply as a set of deemed to satisfy requirements. The general fire safety construction provisions are taken as acceptable solutions, but the aim and objectives of PBP 2006 apply in relation to other matters*

such as access, water and services, emergency planning and landscaping/vegetation management."

Essential equipment should be designed and housed in such a way as to minimise the impact of bush fires on the capabilities of the infrastructure during bush fire emergencies. It should also be designed and maintained so that it will not serve as a bush fire risk to surrounding bush.

A hazard assessment has been undertaken to investigate hazardous events and risks such as the explosion / spontaneous ignition risk associated with the operation of batteries/solar panels. A Preliminary Hazard Analysis (PHA) has been completed for the Project by Umwelt, 2024. A review of the PHA indicated that:

"The PHA prepared for the Project identified a number of hazard events involving LIBs (Lithium Ion Batteries) and electrical transformers with the potential for harmful off-site impacts. Other than LIBs and transformer oil, there will be no hazardous materials stored at, or transported to, the Project in significant quantities. However, given the adjacent land is typically unoccupied (farmland) and the large separation distances from the centralised BESS (battery energy storage system), decentralised BESS units/containers and substation to dwellings (or potential future dwellings), off-site individual injury, individual fatality or property damage impacts associated with LIB or electrical transformer hazardous events are not considered credible.

An evaluation of the identified Project risks with respect to HIPAP 4 (Hazardous Industry Planning Advisory Paper) qualitative risk criteria was undertaken and found the Project to be compliant with this criteria. Note that compliance with HIPAP 4 criteria is conditional on the technical and non-technical risk mitigation and management measures presented in the PHA being implemented.

A FHA (final hazard analysis) and FSS (fire safety studies) will be undertaken as the Project design progresses toward completion to ensure the final Project design adheres to the risk management measures outlined in the PHA and that the separation distances are appropriate for the specific battery cell type (i.e., chemistry and capacity) to be used at the Project.

2.6 OTHER FIRE PROTECTION MEASURES/EMERGENCY EVACUATION

The Environmental Impact Statement (EIS) will document the requirement to prepare and implement an Emergency Response Plan – which will be developed in consultation with DPE Hazards / FRNSW / RFS. There will also be a commitment to prepare and implement a Bushfire Emergency Management Plan in consultation with FRNSW/Rural Fire Service. PBP, 2019 states "*The Bush Fire Emergency Management and Operations Plan shall identify all relevant risks and mitigation measures associated with the construction and operation of the wind or solar farm*". These risks are identified in the Hazard Assessment, prepared by Umwelt, 2023.

Two to four operational staff will be present at the site full-time, providing local oversight and management of the property.

The Project Area has adequate managed grounds and the proposed Asset Protection Zone will be managed to an IPA standard.

A Bushfire Emergency Management Plan is required, nominating an emergency meeting point, and preferred evacuation route, and methodology for ensuring all occupants are safe and accounted for. In regards to bushfire, the threat at this site is considered low, being limited to potential Grassland fires, and possible ember and smoke attack assuming the Asset Protection Zone is maintained over the site and surrounds. Therefore the safest place would be to stay within the Operations and Maintenance Building (O&M Building) as it will protect occupants from embers in the air and smoke if all windows and doors are shut, or to evacuate off site early.

Other non compulsory measures which are recommended to improve bushfire safety include:

- Local Fire & Rescue Brigade informed of proposal once approved regarding its operation, water supplies, and layout;
- Operations and Maintenance Building gutters cleaned annually (if relevant);
- The interior of Operations and Maintenance Building will have all necessary fire safety provisions (sprinklers, fire extinguishers, etc) as required by the relevant Australian Standards and legislation.
- The Operations and Maintenance Building windows and doors should be shut in a fire event, and ember proofing is recommended for opening windows.
- It is anticipated relevant fire fighting equipment will be provided including hoses, fire fighting pump, protective clothing/PPE clothing/equipment, etc.

3.0 VEGETATION

The predominant vegetation type within 140m is Grassland, Woodland and Forest assessed as per PBP 2019 (Figures 1-3, Appendix 1 - photos).

The majority of the site and surrounds is managed grazed Grassland. It is assessed as Grassland as grass generally over 100mm in height in accordance with PBP, 2019 and NSW Rural Fire Service policy.

Forest and Woodland occur to the north-east of the site. Trees are up to 20m high with a shrub, and grazed grass understorey. The Forest and Woodland patches are limited in extent, but greater than 1 Ha in extent.

It is noted the Bush Fire Prone Land Map is incorrect in relation to the mapping of Category 1 vegetation over the site as shown in Fig 7. This should be shown as Category 3 vegetation, as no Forest exists in that location.

4.0 SLOPE

Slope assessment has been carried out under flammable vegetation within 100 metres of the dwelling as specified under the Guidelines Assessment Procedure. The angles have been measured in the field by an inclinometer, and measure the slope under the vegetation. See Table 1.

PBP, 2019 states: - "*The effective slope is considered to be the slope under the vegetation which will most significantly influence the bush fire behaviour for each aspect. This is usually the steepest slope. In situations where this is not the case, the proposed approach must be fully justified. Vegetation located closest to an asset may not necessarily be located on the effective slope*".

Slopes are shown in Figure 4. They vary from flat to around 10 degrees up and downslopes, with the surrounding land being primarily undulating and cleared.

5.0 ENVIRONMENTAL FEATURES

The Project Area where the proposal is located has few environmental features being historically cleared, grazed and with limited ecological value.

Umwelt 2024 is currently completing a Biodiversity Development Assessment Report (BDAR) for the site.

Umwelt state:

Four Plant Community Types (PCTs) are listed as potentially conforming to Critically Endangered Ecological Communities (CEECs) with varying conditions under the NSW Biodiversity Conservation Act 2016 (BC Act) and/or the Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act). Further analysis of the PCTs and potential TECs occurring within the Project Area will be completed as part of the BDAR and documented in the EIS.

Following the completion of the detailed vegetation and flora & fauna species surveys, a BDAR will be prepared to report the findings of the assessment, including the outcomes of a BAM calculator assessment identifying any biodiversity credits that will require offsetting for the Project.

6.0 ABORIGINAL FEATURES

Umwelt, 2024 state "*The Project Area falls within the Pejar Local Aboriginal Land Council (LALC) area. Based on a review of the spatial database maintained by the National Native Title Tribunal on 28 April 2022, there are no registered or determined Native Title claims relating to the Project Area.*

A search of the Aboriginal Heritage Information Management System (AHIMS) database was conducted for an area of approximately 30 km by 16 km centred on the Project Area (comprising the area MGA55 E740000-770000, N6129000-6145000). A total of 65 sites were recorded within the search area, including one site (51-6-0912) for which information is restricted. Subsequent consultation with Heritage NSW identified that this site is not within the Project area. The majority of sites are isolated artefacts or artefact scatters (n=61), with one scarred tree, one set of grinding grooves and one stone quarry with associated artefacts also present within the search area. The distribution of the sites is shown in Figure 6.3. No sites have been

previously recorded within the Project Area however this may be reflective of the lack of prior assessment in this area.

The SEARs for the Project states that an Aboriginal Cultural Heritage Assessment (ACHA) be prepared".

7.0 BUSH FIRE ASSESSMENT

The legislation as it relates to this site calls for APZ's to be established around the proposed development, provision of adequate access, design staging and citing of the development and provision of appropriate water supply for bush fire fighting purposes.

In regards to bush fire, the threat at this site is considered low, being confined to potential Grassland and a small area of grazed Woodland/Forest to the north-east. All land over the site and surrounds is grazed, reducing grassland fuel loads and fire potential. The APZ will provide adequate bush fire safety for the proposal, in combination with other bush fire measures recommended in Section 8.

7.1 Setbacks including asset protection zones

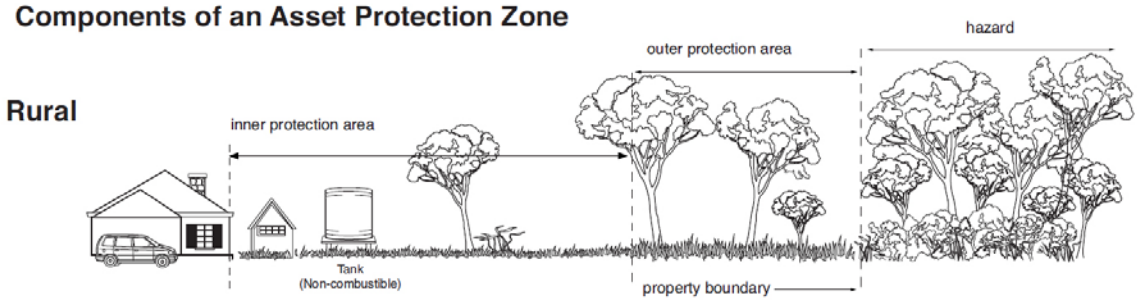
Table 1 shows the bush fire assessment for the Project Area.

Table 1: Bush Fire Site Assessment –FDI 100

DIRECTION TO BUSH FIRE HAZARD	EFFECTIVE SLOPE	PREDOMINANT VEGETATION TYPE WITHIN 140m as per PBP 2019	Distance to edge of hazard	PBP 2019 required min Asset Protection Zone	Bush Fire Attack Level (BAL) (from PBP, 2019)
North-east	0-10^0 up & downslopes	Forest/Woodland/Grassland (primarily grazed)	10m	10m	N/A
Elsewhere	0-10^0 up & downslopes	Grassland (primarily grazed)	10m	10m	N/A

Note: BAL refers to the maximum Bush fire attack level expressed in kW/m^2 radiant heat flux exposure for the given slope, distance to hazard, and type of hazard (ie vegetation type and fuel load).

Figure 8: Asset Protection Zone standard (from PBP, 2006)



8.0 BUSH FIRE RECOMMENDATIONS

The development complies with PBP, 2019:

- Construction- No BAL applicable - complies with PBP, 2019
- Serviced by static water supplies- complies with PBP, 2019.
- Serviced by above & underground power—complies with PBP, 2019.
- Serviced by public road & interior property access roads – complies with PBP, 2019.
- 10m Asset Protection Zone present- provides a defendable space available around the proposed development, and safe access/egress - complies with PBP, 2019.
- Landscaping- complies with PBP, 2019.
- Emergency Management- complies with PBP, 2019.

It meets the criteria outlined in Section 8.3.5 PBP 2019 (Wind and Solar Farms).

The following recommendations are made:

- **Design and Construction:** - The intent of measures is that buildings are designed and constructed to withstand the potential impacts of bush fire attack. To achieve this, the following conditions are recommended:
  - No BAL construction applicable in this case.
  - Essential equipment should be designed and housed in such a way as to minimise the impact of bush fires on the capabilities of the infrastructure during bush fire emergencies. It should also be designed and maintained so that it will not serve as a bush fire risk to surrounding bush.
  - Fire protection equipment within buildings including fire extinguishers, fire hose reels, evacuation signage, first aid kits, etc be available at all times and serviced /maintained regularly;
  - The Operations and Maintenance Building has a policy to shut all windows & doors in a bush fire emergency, as part of their Emergency Evacuation Plan procedures;

- **Asset Protection Zone:** - The intent of measures is to provide sufficient space and maintain reduced fuel loads to ensure radiant heat levels at the buildings are below critical limits and prevent direct flame contact. To achieve this, the following conditions should apply:
  - At the commencement of building works and in perpetuity, the entire solar development site (ie solar panel area, and around buildings only) shall have a minimum 10m Asset Protection Zone provided, managed as an Inner Protection Area Asset Protection Zone as outlined within Appendix 4 of *Planning for Bushfire Protection, 2019*.

    In summary PBP states "*Asset Protection Zone should consist of mown grass, concrete, pavers, pebbles, small clumps of vegetation, isolated trees, etc. Lawns and garden should be maintained so that they do not become overgrown, vegetation does not grow over or touch the dwelling, and canopy of trees do not touch or become continuous with the surrounding bushland (at least 2-5 metres between tree canopies).*

Please note in this historically cleared landscape that isolated paddock trees, woodlots, conservation areas can be retained as they are relatively small in size and of a low risk, so long as vegetation does not touch the proposed solar array panels, 10m Asset Protection Zone maintained, and access is maintained around the perimeter.

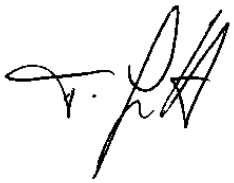
- **Water and Utilities: -** The intent of measures is to provide adequate services of water for the protection of buildings during and after the passage of a bush fire, and to locate gas and electricity so as not to contribute to the risk of fire to a building. To achieve this, the following conditions should apply:
  - Water, electricity and gas shall comply with Table 7.4a (where relevant) of '*Planning for Bush Fire Protection 2019*' (already compliant).
  - The proposed development is to have non combustible 180 000 litre dedicated water tank(s) with Storz fittings, at each property road entrance point, and other fire fighting equipment in compliance with Australian Standards.

- **Access: -** The intent of measures for access roads is to provide safe operational access for emergency services personnel in suppressing a bush fire, while residents/fire fighters are accessing or egressing an area. To achieve this, the following conditions shall apply:
  - The internal property access road network, and perimeter access road (where present) including emergency access roads, shall conform to PBP 2019. Property Access roads should have a minimum 4m vertical clearance to any overhanging obstructions, and be 4m wide with 1m traversable grassed shoulders, unsealed all weather traversable road. Road grade should be less than 10^0, short steep sections are acceptable if sealed and $<15^0$. This shall enable safe access & egress for emergency services, and allow crews to work with equipment about the vehicle and access all parts of the Asset Protection Zone.

- **Emergency management planning**- The intent of measures is to provide suitable emergency and evacuation arrangements for occupants of the development, and to reduce bush fire risk from the proposed development. To achieve this
  - A Bush Fire Emergency Management and Operations Plan should identify all relevant risks and mitigation measures associated with the construction and operation of the wind or solar farm. 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, proposed to be carried out during a bush-fire 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 that are notified by the Commissioner of the NSW RFS under the RF Act s.99.

The bush fire risk is considered to be adequately managed through the recommendations made above, and in conjunction with consent conditions from NSW Rural Fire Service & Council.

Report prepared by:



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PEAK LAND MANAGEMENT PTY LTD

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www.rfs.nsw.gov.au
Lands Department- SIX Maps
ePlanning

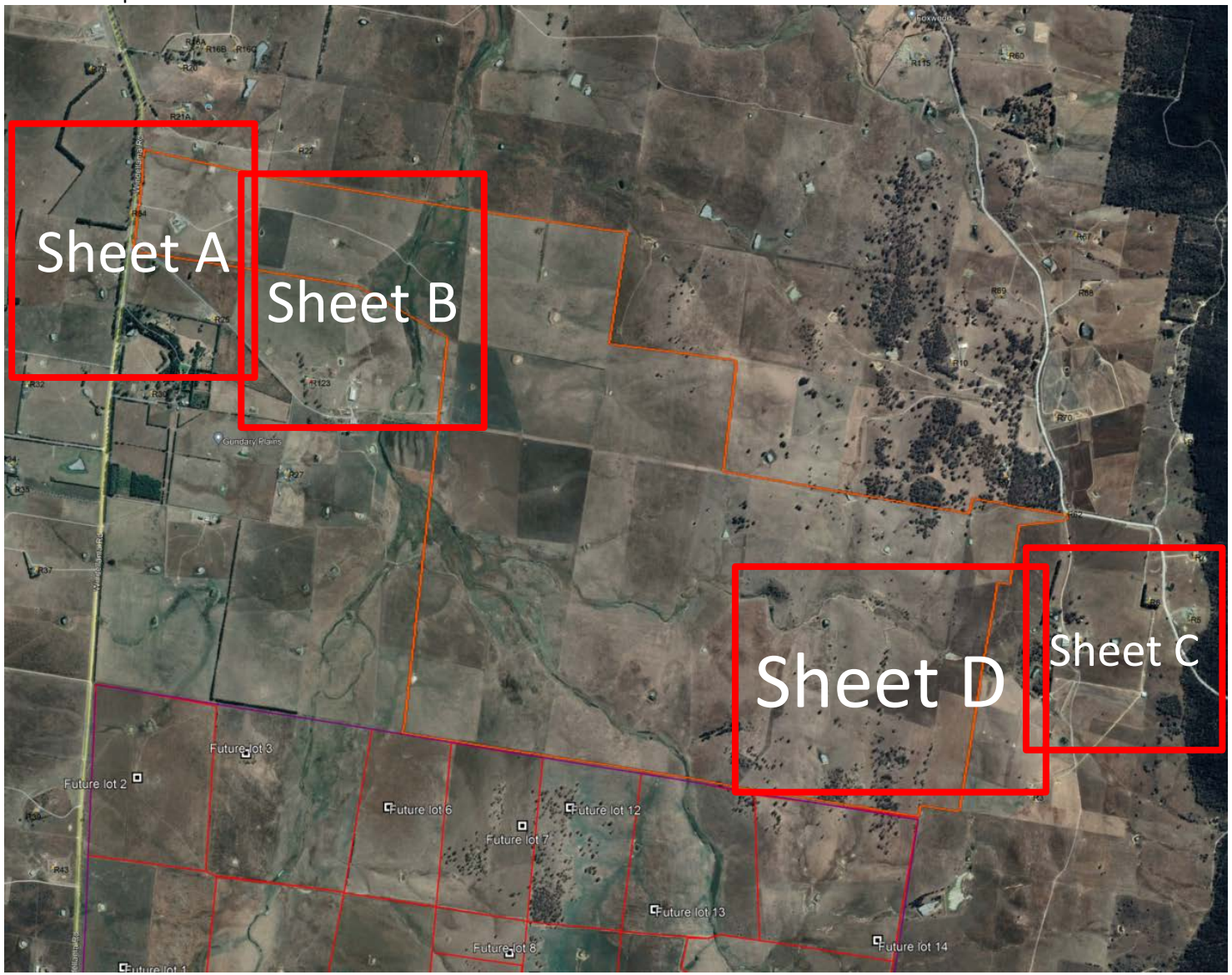
APPENDIX 1: PHOTOS OF SITE AND SURROUNDS

Subject site –Windellama Rd (Photo 1)

Subject site (Photo 2)

Subject site entrance (Photo 3)

Photos and locations. Not all photos shown here.

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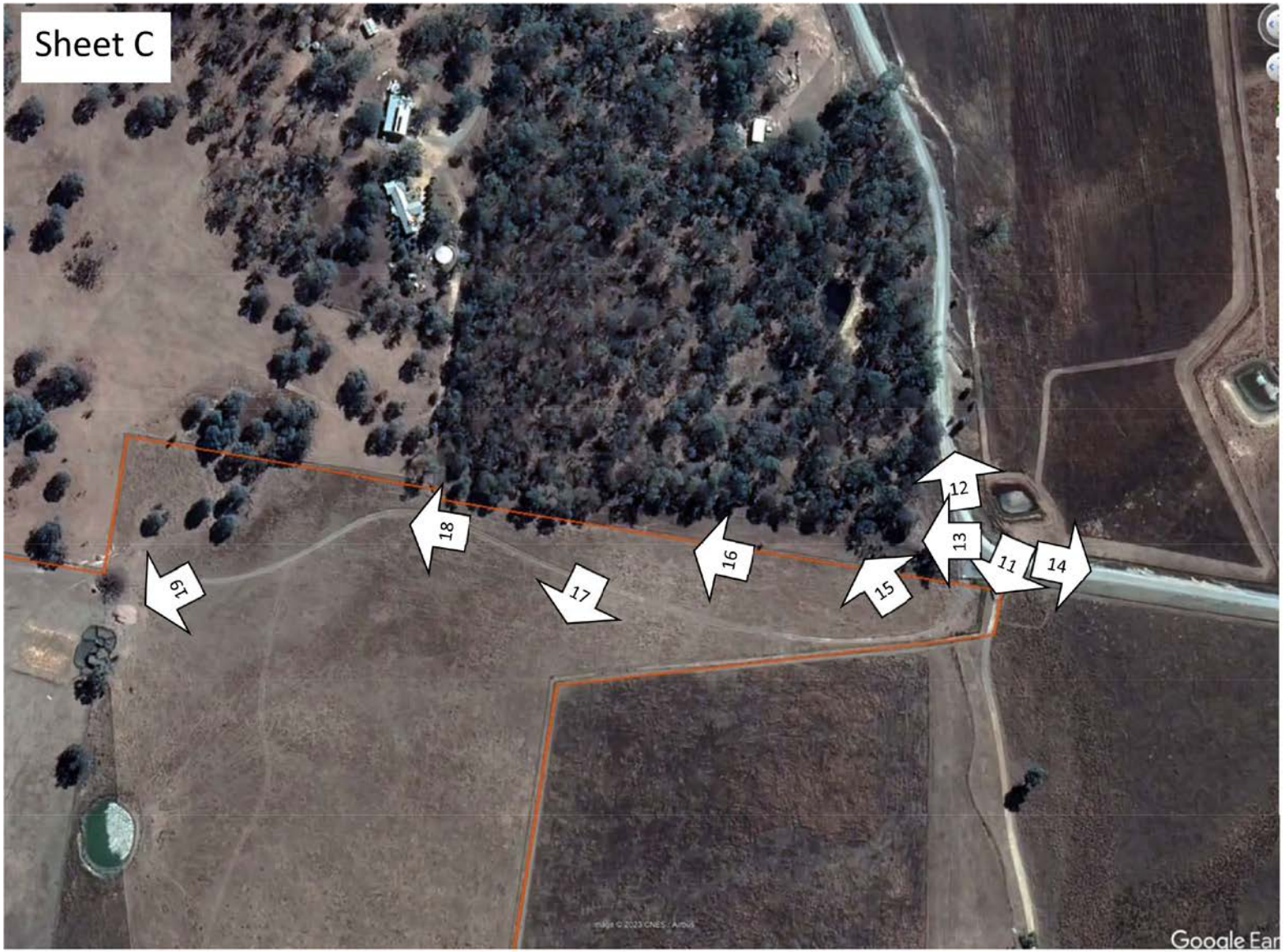
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Photo 5

Photo 8

Photo 11

Photo 14

Photo 15

Near photo 15

Photo 22

Photo 20

Photo 26