



Land Use Conflict Risk Assessment

Panorama Battery Energy Storage System (BESS)

Panorama BESS SubCo Pty Ltd

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Basis of Report

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

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Acronyms and Abbreviations

BESS	Battery Energy Storage System
BVMP	Bathurst Vegetation Management Plan
CEMP	Construction Environmental Management Plan
CTMP	Construction Traffic Management Plan
DPHI	Department of Planning, Housing and Industry
EEC	Endangered Ecological Community
EIS	Environmental Impact Assessment
EMP	Environmental Management Plan
EOL	End of Life
ESCP	Erosion and Sediment Control Plan
kV	Kilovolt
LEP	Local Environmental Plan
LUCRA	Land Use Conflict Risk Assessment
MW	Megawatts
MWH	Megawatt Hours
PCT	Plant Community Types
SEED	Sharing and Enabling Environmental Data in NSW
SEARs	Secretary's Environmental Assessment Requirements
SSD	State Significant Development



1.0 Introduction

1.1 Background

SLR has been commissioned by the proponent to prepare this Land Use Conflict Risk Assessment (LUCRA) to support a State Significant Development Application (SSD-50587460) for a proposed Battery Energy Storage System (BESS) and associated works at 800 Mid-Western Highway, Evans Plains.

1.2 Scope

The aims of the LUCRA are to:

- Accurately identify and address potential land use conflict issues and risk of occurrence before a new land use proceeds or a dispute arises;
- Objectively assess the effect of a proposed land use on neighbouring land uses;
- Increase the understanding of potential land use conflict to inform and complement development control and buffer requirements; and
- Highlight or recommend strategies to help minimise the potential for land use conflicts to occur and contribute to the negotiation, proposal, implementation and evaluation of separation strategies.

This LUCRA has been prepared to address relevant requirements of the Secretary's Environmental Assessment Requirements (SEARs) issued for the project by the (then) NSW Department of Planning, Housing and Infrastructure (DPHI) and to support the project Environmental Impact Statement (EIS).

It should be noted that this report addresses the requirement to prepare a LUCRA but does not include a detailed consideration of site selection and suitability, zoning provisions or assessment of impacts; those matters are addressed in the EIS.

1.3 Methodology

This LUCRA has been prepared in accordance with the Land Use Conflict Risk Assessment Guide (DPIE, 2011) (LUCRA Guide). The LUCRA is a system to identify and assess the potential for land conflict to occur between neighbouring land uses. Land use conflicts occur when one land user is perceived to infringe upon the rights, values or amenity of another. The LUCRA enables a systematic, consistent, and site-specific conflict assessment approach. Through evaluating land use compatibility and potential land use conflicts appropriate risk reduction management strategies can be identified.



2.0 Gather Information

2.1 Nature of the Land Use Change and Development Proposed

2.1.1 Site Details

The site of the proposed BESS (hereafter referred to as the Site) is located on Lot 2 DP 864272 at 800 Mid-Western Highway and Lot 521 DP 603541 at 749 Mid-Western Highway, Evans Plains, NSW, 2795 (**Figure 1**). The development site is located approximately 2.5 kilometres (km) to the west of the suburb of Robin Hill and approximately 5.8km south-west of the City of Bathurst.

The larger lot (Lot 2 DP 864272) is irregular in shape and currently zoned RU1 – Primary Production under the *Bathurst Regional Local Environmental Plan 2014* (LEP). The lot currently contains a small collection of sheds within the central western portion of the lot, which will contain a residential dwelling in the future (identified as ‘Existing Sheds and Dwelling’ in **Figure 2**). The Project development site is located within the eastern extent of Lot 2 DP 864272 and to the immediate south-west of the established TransGrid substation located on adjacent Lot 521 DP 603541 at 749 Mid-Western Highway, within which works are also proposed. The Project development site has generally low grades, will not encroach into the existing easement containing 132 kiloVolt (kV) overhead lines, and is largely cleared of vegetation.

2.1.1.1 Surrounding Land Use

The Project is located within a predominantly rural setting, with surrounding land parcels to the west and south mapped as RU1 – Primary Production and land parcels to the north and east mapped as R5 – Large Lot Residential under the LEP. **Figure 3** shows surrounding land use.

Potential sensitive receivers are located in the nearby suburb of Robin Hill approximately 1km to the east and 1.4km to the north to the nearest residential dwellings (**Figure 4**); and the suburb of Evans Plains approximately 800 metres (m) to the west. The ‘Existing Sheds and Dwelling’ on the site has been classified as a sensitive receiver for the purposes of assessing the impacts of the Project.



LEGEND

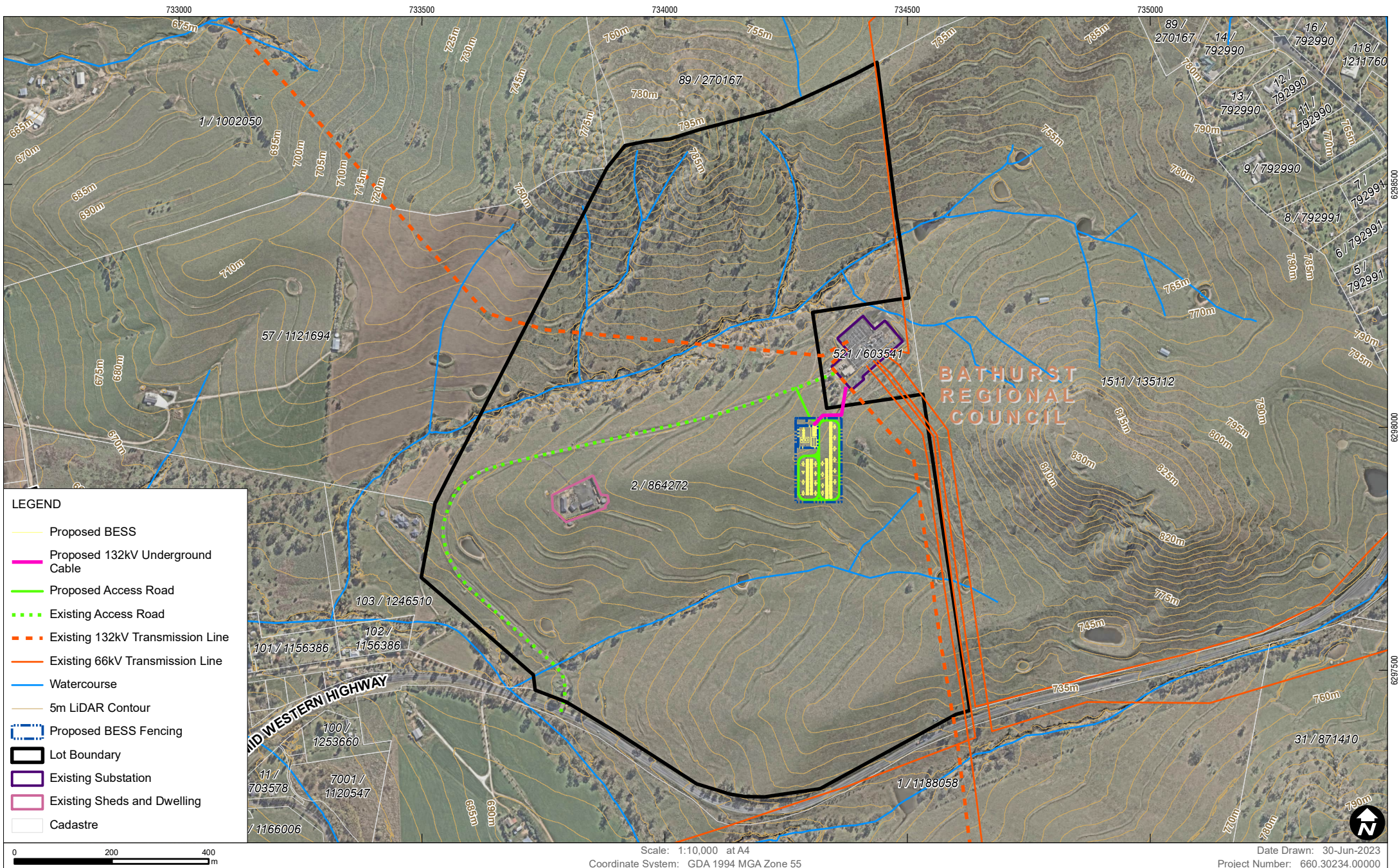
-  Lot Boundary
-  State Border



Data Source: Basedata, NSW SS, 2022, Geoscience Australia
Basemap supplied by ESRI and other sources

**REGIONAL CONTEXT OF
THE SITE**

FIGURE 1

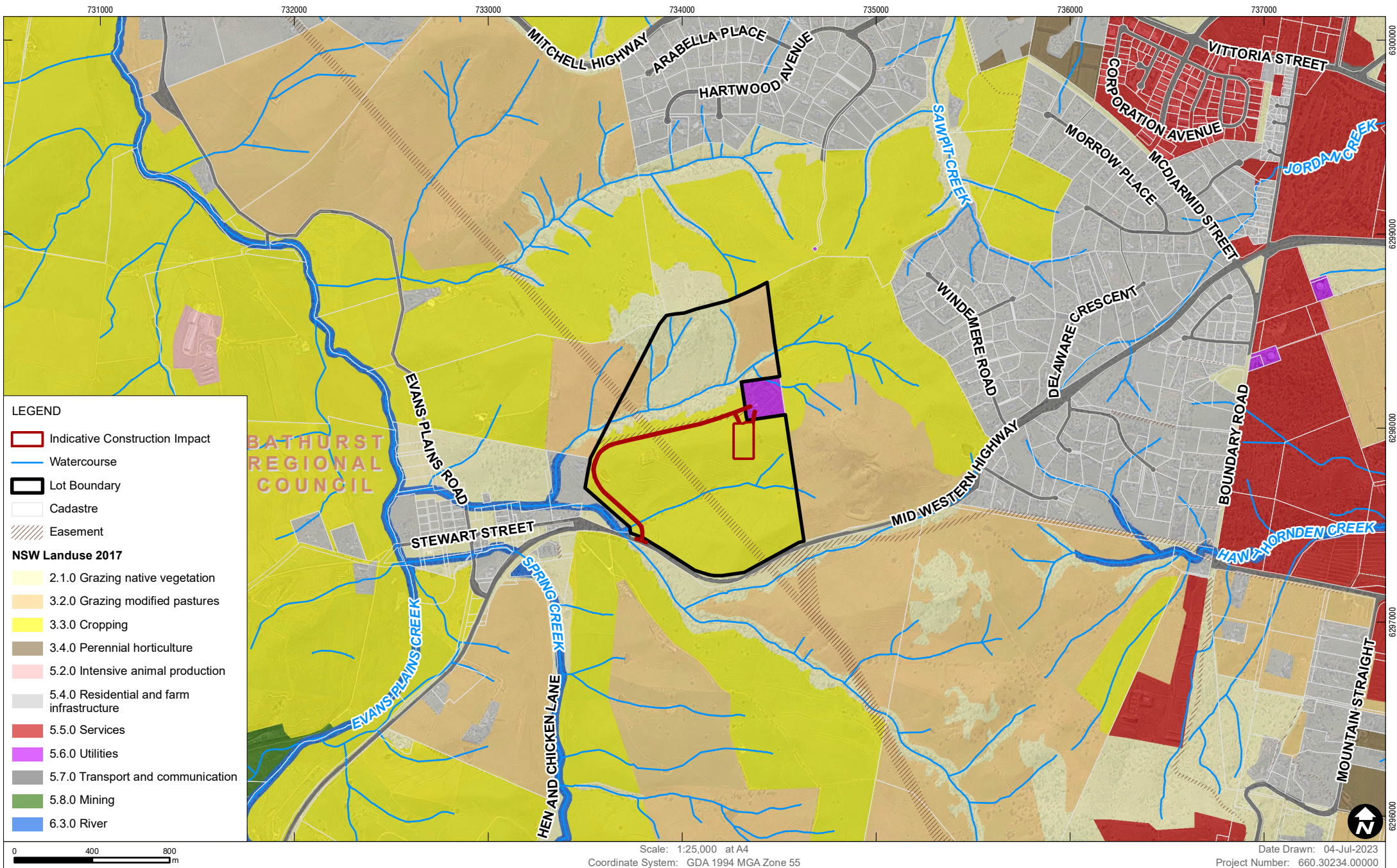


Data Source: Basedata NSW SS, December 2021
Aerial imagery supplied by Nearmap (May, 2023)
Elevation data supplied by DCS Spatial Services (July, 2019)



SITE PLAN

FIGURE 2

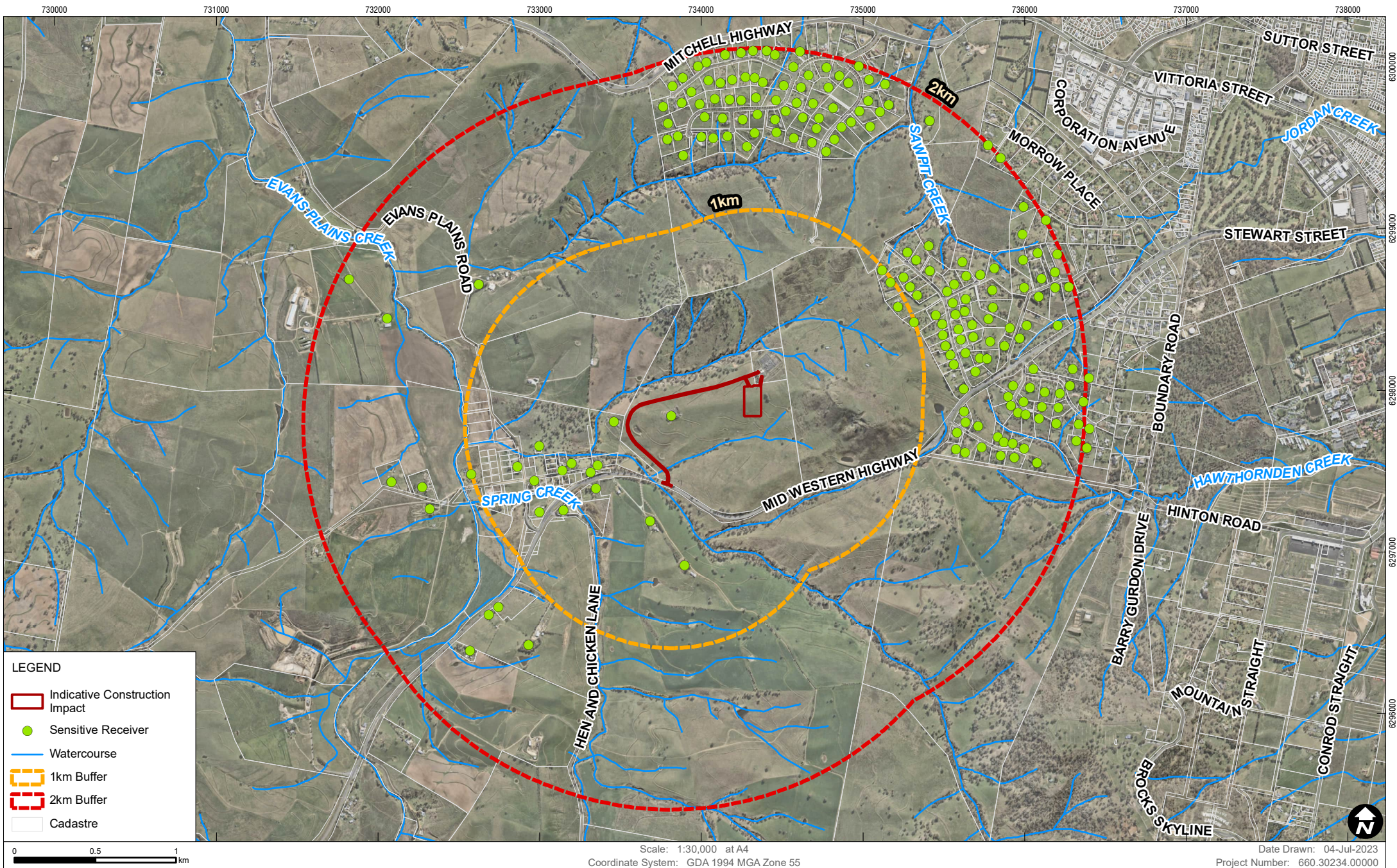


Data Source: Basedata NSW SS, December 2021
 Aerial imagery supplied by Nearmap (May, 2023)
 Elevation data supplied by DCS Spatial Services (July, 2019)
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SURROUNDING LAND USE

FIGURE 3

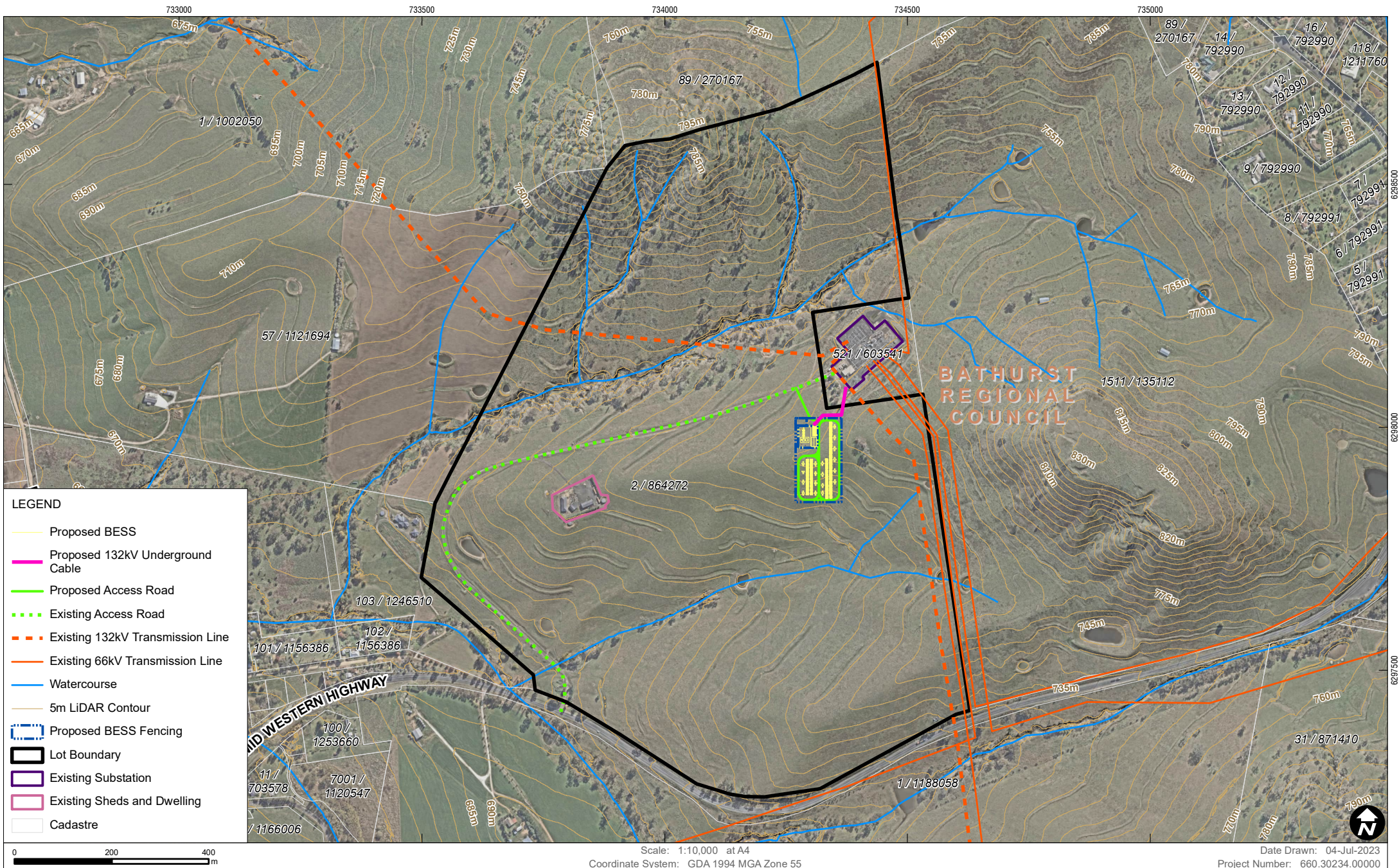


Data Source: Basedata NSW SS, December 2021
Aerial imagery supplied by Nearmap (May, 2023)
Elevation data supplied by DCS Spatial Services (July, 2019)



SENSITIVE RECEIVERS

FIGURE 4



Data Source: Basedata NSW SS, December 2021
Aerial imagery supplied by Nearmap (May, 2023)
Elevation data supplied by DCS Spatial Services (July, 2019)



PROJECT SITE PLAN

FIGURE 5

2.1.2 Development Details

The Project (**Figure 5**) will involve the development, construction, operation, and eventual decommissioning of a BESS with a capacity of 100 MW, 200 MWH adjacent to the existing 132 kV substation operated by TransGrid. The BESS will consist of SolBank BESS containers (or enclosures) in 'back-to-back' formation in two north-south aligned rows. Each SolBank container has dimensions of 6058 mm by 2438 mm by 2896 mm, with an approximate weight of 30,000 kg. The BESS will be supported by inverters which will convert the electricity from the BESS and connect to the existing TransGrid substation via approximately 100 m of 132kV underground cable.

The key elements of the Project include the following:

- Installation and operation of a SolBank BESS including battery enclosures, inverters, and transformers;
- Associated ancillary infrastructure including:
 - o A 132kV underground cable connecting a 33/132kV switchbuilding to the existing substation;
 - o Formalisation of existing access from Mid-Western Highway and existing access road within Lot 2 DP 864272 to accommodate heavy vehicles;
 - o Proposed access road from the BESS to connect to the existing access road within Lot 2 DP 864272;
 - o Operations and maintenance building;
 - o Stormwater management infrastructure, lighting, and security fencing; and
 - o Construction laydown areas.
- Decommissioning of the SolBank BESS at the EOL include disassembly and removal of associated infrastructure from the site, to be returned as close as possible to its existing condition.

Construction of the Project is anticipated to take approximately 14 to 15 months. It is expected that the operational life of the Project would be approximately 20 years, after which the BESS would be decommissioned and the infrastructure removed, returning the site to its original use.

2.1.3 Nature of Land Use Change

The construction and operation of the BESS would change the existing land use of the site from agriculture (grazing native vegetation) to electricity generating works. Areas outside the site within the locality are expected to continue to support their existing land use where practicable.

The existing land use is likely to return following decommissioning of the BESS.

2.2 Nature of the Precinct Where the Land Use Change and Development is Proposed

2.2.1 Land Use Zones

The site occurs within the Bathurst Local Government Area (LGA) and therefore is subject to the Bathurst Regional Local Environmental Plan 2014 (LEP 2014).

The site is located on land zoned 'RU1 – Primary Production' under the LEP 2014. The Project is considered to meet the definition of 'electricity generating works' which is permitted



with consent under the LEP 2014 by virtue of being “any other development not specified in item 2 or 4”.

Figure 6 shows the land use zones within 2 km of the development site which include:

- RU1 Primary Production;
- SP2 Infrastructure (Classified Road);
- R5 Large Lot Residential.

2.2.2 Land Ownership

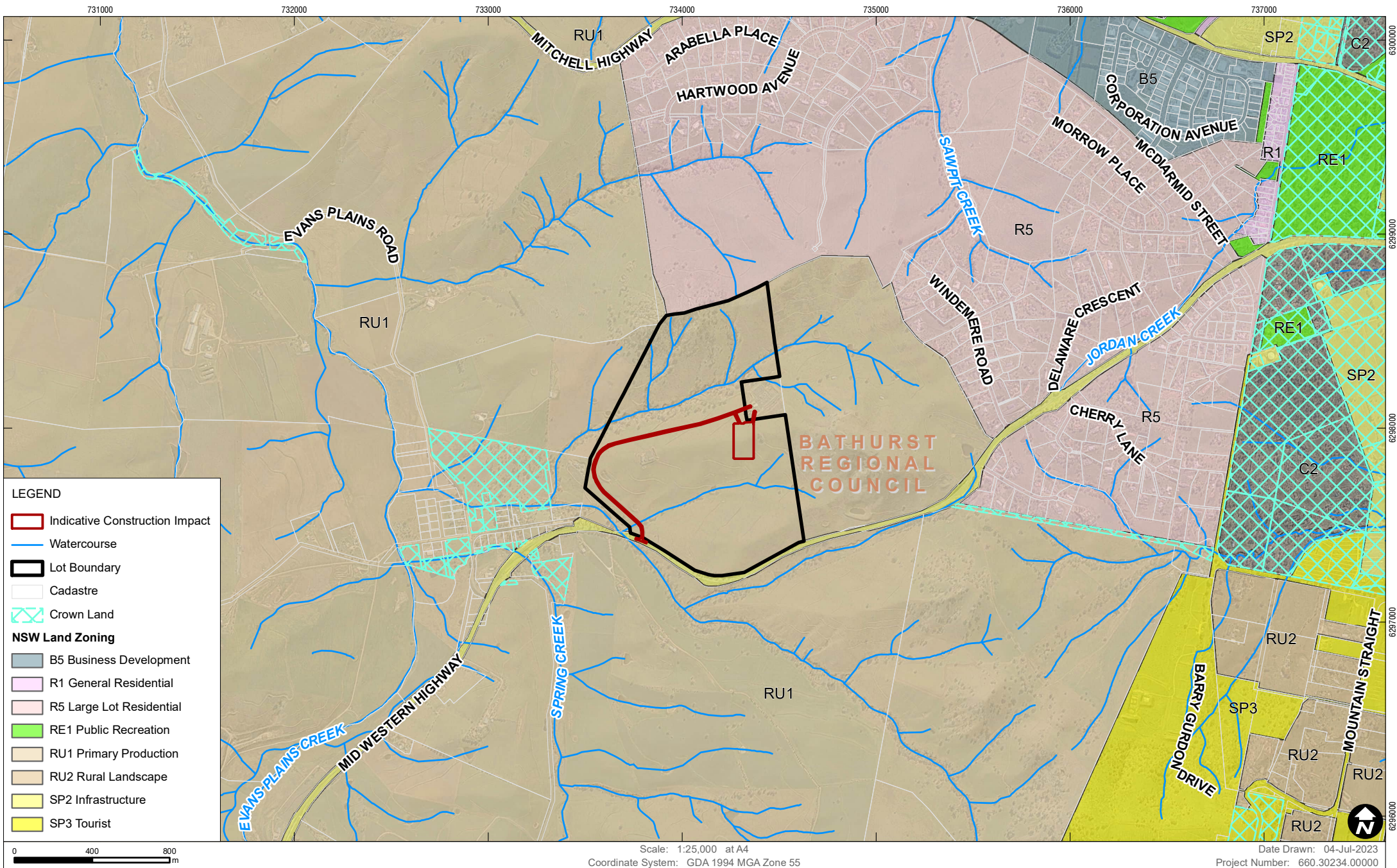
Land within the locality is predominantly held in private ownership with exception of a cluster of lots to the west of the site which are Crown Land and subject to Crown Licences. Refer to **Figure 6**.

2.2.3 Existing Land Uses

A review of the NSW Landuse 2017 v1.2 mapping from the DPIE SEED Portal identified a range of land uses in the locality. Land uses within the site and locality (1 km radius of the site) are as follows:

- Grazing native vegetation;
- Grazing modified pastures;
- Cropping;
- Residential and farm infrastructure;
- Utilities;
- River.





Data Source: Basedata NSW SS, December 2021
 Aerial imagery supplied by Nearmap (May, 2023)
 © State Government of NSW and Department of Planning and Environment (November, 2022)



LAND ZONING AND CROWN LAND

FIGURE 6

The site predominantly consists of cropping land uses and grazing of natural and modified pastures. The adjacent Transgrid substation to the north-east identified as utilities, whilst the Robin Hill community to the east and land immediately to the west is categorised as residential and farm infrastructure. A watercourse categorised as 'river' adjoins the site's western boundary.

2.3 Topography, Climate and Natural Features

The baseline description outlines the existing visual and landscape conditions of the Subject Site (and its surrounds) as it would likely function in the absence of change resulting from the introduction of the proposal.

2.4 Regional Landscape

2.4.1 Landform

The regional centre of Bathurst is located approximately 40km west of the Great Dividing Range adjacent to the Winburndale Nature Reserve and the Sunny Corner State Forest. The Bathurst region consists of two (2) physical components that include the Bathurst Basin and the surrounding tablelands. The basin is a floodplain that is surrounded by gently undulating hills and elevated areas. The surrounding tablelands known as the Central Tablelands is a larger region that includes towns such as Bathurst, Blayney, Cowra, Lithgow, Molong, Mudgee, Oberon and Orange.

2.4.2 Major waterways

The major waterways in Bathurst include the Turon, Macquarie, Fish, Cambell's and Abercrombie Rivers. The rivers generally run in an east-west direction with the exception of Macquarie River which is in a north-south direction adjacent to Bathurst regional centre. There are numerous creek tributaries that drain to these rivers with the majority of these tributaries draining into the Macquarie River.

2.4.3 Vegetation

The central low-lying floodplains are surrounded by timbered ridges and agricultural land. Native vegetation has been cleared within the region and has been replaced exotic pastoral grasses for agricultural purposes. Remnant vegetation is located within riparian zones, road and highway verges. The vegetation communities include:

- PCT3348 Southern Tableland Granites Ribbon Gum Grassy Forest;
- PCT4039 Hunter Range Creekflat Apple-Red Gum Forest;
- PCT3366 Central Tableland Clay Apple Box Grassy Forest;
- PCT3376 Southern Tableland Grassy Box Woodland;
- PCT3387 Central West Creekflat Grassy Woodland;
- PCT3534 Central West Stony Hills Stringybark Box Forest;
- PCT3734 Central Tableland Dry Slopes Stringybark – Box Forest;
- PCT4063 Central and Southern Tableland River Oak Forest.



BVMP 2019 identifies the significance of this planting community is due to widespread clearing and is listed as Box-Gum Woodland of the White Box Yellow Box Blakely's Red Gum Woodland as a Critically Endangered Ecological Community (EEC). This has led to fragmentation of vegetation communities, in some instances, the native trees have been felled and Derived Native Grasslands ground layer remains.

2.4.4 Access

The main highways that connect Bathurst with its surrounding region include:

- Great Western Highway (A32);
- Mid-Western Highway (A41);
- Mitchell Highway (A32).

These three (3) highways traverse through Bathurst in an east to west alignment with numerous collectors' roads connecting the many agricultural properties and surrounding towns within the greater region.

2.5 Local Landscape

2.5.1 Landform

The subject site is located within low rolling hills with numerous undulations and small creek valleys that are on either side. With a westerly orientation the site is located between two (2) distinct larger hills. These two (2) larger hills reduce visibility to the northeast.

2.5.2 Waterways

The subject site is located on the western side of an elevated ridge line adjacent to the Robin Hill. Surrounding creek lines are located to the periphery of the site and include Evans Plains, Spring, Sawpit and Jordan Creek.

2.5.3 Vegetation

Vegetation on the site is limited with an occasional lone standing eucalyptus tree. Adjacent to the Development Site is a stand of several trees (Central Tableland Clay Apple Box Grassy Forest PCT3366) that can be seen from numerous vantage points within the western precinct of Bathurst; in particular, in the suburb of Evans Plains on Evans Plains Road and Mid-Western Highway. Denser vegetation is located around the lower portion of the site periphery surrounding the entrance. Remnant vegetation is present to the northern perimeter.

2.5.4 Access

Access is via a private driveway that rises on an even grade around the western perimeter of site. To the northeast it straightens to rise quickly towards the development site and existing substation. This access is solely via the Mid-Western Highway which is one of the main gateways into the Bathurst Regional Centre and connects Bathurst with surrounding towns such as Blayney.

2.6 Site History

The Project site largely consists of grassland composed of exotic pasture species with isolated stands of native eucalypt trees, the Project site has been historically cleared for grazing and cropping.



2.7 Consultation

Engagement and consultation associated with the Project has been conducted with both community and agency stakeholders.

Community stakeholders were notified of the proposed development and invited to engage via formal letter, delivered via post to surrounding residential properties as shown in **Figure 4**. A total of 393 addresses are included within the consultation catchment.

An initial letter requesting engagement on the Project was issued on 10 October 2022, with a subsequent letter containing a Project update and FAQ section was issued on 21 March 2023.

In response to the invitation to engage, four emails were received and four phone interviews were held to discuss the Project and address any issues or queries around the development. A summary of matters addressed is included in **Table 1** below.

Table 1: Summary of Community Consultation

Method of Communication	Community Stakeholder (and Nature of Interaction)	Summary of Consultation
	Mail out	
Email 19 October 2022	Owner/occupier Unknown address	Primary concerns raised around fire risk. Request for clarification on decommissioning phase.
Phone 20 October 2022	Owner/occupier McLennan Close	Primary concerns raised around noise and saleability of residence in the future.
Phone 21 October 2022 Email 29 March 2023	Owner/occupier Stewart Street, Evans Plains	Primary concerns raised around fire risk, visual amenity, light pollution, and erosion and sediment control during earthworks. Resident noted involvement in local community climate change group and noted approval for Project objective.
Email 23 October 2022	Owner/occupier Mid-Western Highway, Evans Plains	Request for Project updates during SSDA process.
Phone 24 October 2022	Owner/occupier McClennan Close, Robin Hill	Primary concerns raised around noise and saleability of residence in the future.
Onsite discussion 27 October 2022	Owner / occupier Mid-Western Highway, Evans Plains	Discussed the site, its history and site alterations that had occurred in recent years. Potential of any surrounding residents having any objections about any proposals on the subject site.
Onsite meeting 27 October 2022	Owner / occupier Stewart Street, Evans Plains	Site visited and noted that the elevation of it was similar to that of the development site.
Phone 31 October 2022	Owner/occupier Robin Hill	Request for clarification on whether associated solar farm would also be proposed in the future.
Email 2 November 2022 Follow up on 9 November 2022	Owner/occupier Robin Hill	Primary concerns raised around noise and visual amenity. Request for clarification on decommissioning phase, and source of energy production to be stored by BESS.



Method of Communication	Community Stakeholder (and Nature of Interaction)	Summary of Consultation
21 March 2023	Mail out	A letter was sent to residents providing a project update and FAQ section on the Project.
Letter 15 November 2023	Mail out	Letters were sent to residents within 3km of the project and along the transport route, inviting members of the public to attend the information sessions.
Community consultation drop-in sessions 4 and 5 December 2023	4 local residents attended workshops	One neighbour was particularly supportive of the project (and renewable power in general). Informal engagement with members of the public who were in the bowling club during the sessions was also undertaken, some of whom lived locally to the project. There was a general sentiment that the project was not a cause of concern among the community.
Letter 29 January 2024	Owner/occupier Stewart Street	Project update, including consultation about construction noise exceedances and proposed mitigation.
Phone call 2 February 2024	Owner/occupier Stewart Street	Primary concerns related to dust (existing dust and potential for dust during construction).
Email 23 February 2024	Owner/occupier Stewart Street	An email detailing the proposed dust mitigation measures proposed during construction, and the potential for some vegetation screening on the property boundary was proposed.

Engagement to date with agency stakeholders has been undertaken by SLR Consulting, as part of preparation of the overarching EIS for the Project, prior to submission of the Request for SEARs and lodgement of the EIS to DPHI. Agencies consulted, as well as responses received are outlined in **Table 2** below.

Table 2: Summary of Agency Consultation

Agency of Authority	Summary of Consultation
Bathurst Regional Council	Request for preliminary engagement issued via email on 15 November 2022. Following this initial consultation with Council, a request consideration of construction access and the need to consider alternate routes was made. On 2 November 2023 RE contacted Council to provide a project update and to schedule a meeting. A meeting was held with Council on 4 December 2023 to explain the project in detail and discuss the project approval timeframe. Council indicated general support of the project. Council did note that the community have previously raised concerns in relation to solar projects. The use of Evans Plains Road, including the unsealed section, was discussed with Council, including the low traffic volumes and speed, safe sight distances and the details of the TIA. TfNSW's comments were also discussed, as were other assessment issues including visual impact, noise, battery fire risk and heritage.
Transport for NSW	Following initial consultation, TfNSW requested preparation of a TIA, which considered aspects including traffic volumes, characteristics and capacities, heavy vehicles routes, cumulative impacts, road safety and any required road network upgrades.



Agency of Authority	Summary of Consultation
	A project and transport update was provided to TfNSW (Development West) on 22 November 2023 via email, including providing a copy of the TIA. Specifically, comments were requested from TfNSW on the proposed site access location and BAL treatment, as well as the light vehicle right-turn site entry, prior to finalisation of the EIS: - The Project site access location (left in turn from eastbound direction on Mid Western Highway) at the existing access driveway crossover is proposed to be designed with a BAL treatment as per Austroads Guidelines prior to the commencement of construction and movement of heavy and light vehicles associated with the Project; and - All light vehicles are proposed to travel on the Mid-Western Highway in the westbound direction and turn right into the site via the existing access driveway crossover, which will require light vehicles to cross the carriageway in close proximity to the beginning of an overtaking lane. The arrangement has been assessed as appropriate and safe given negligible delays due to low vehicular volumes (21 inbound light vehicles per day); safe intersection sight distances (SISD) are satisfactory; and turn warrant assessments indicate that no dedicated turn lanes are necessary. An initial response was received from TfNSW on 6 December 2023 seeking additional information, including turn warrants assessment and SISD check. SLR responded to note that these had been included in the TIA, providing section references for Transport's convenience. TfNSW responded on 20 December 2023 to advise that: - The SISD and methodology used are both acceptable. - The swept path is based on the largest vehicle identified in the TIA and this will be a condition of any consent . - Turn warrants appear to be applied incorrectly. A detailed response was provided to TfNSW on 21 December 2023 to resolve the concern regarding turn warrants, explaining that they are consistent and that the short construction duration of 14 months explains why the diagrams look different. Recurrent Energy and SLR offered to meet with TfNSW to discuss or provide more information if needed. A follow up email was sent to TfNSW on 18 January 2024 and 13 February 2024 to follow up any further comments. No further response has been received from TfNSW at this time.
NSW Rural Fire Service	Requested the preparation of a Fire Safety Study in accordance with the DPIE Hazardous Industry Planning and Assessment Papers (HIPAPs).
NSW Fire and Rescue	Requested further consideration of fire safety and emergency response management.
DPE - Biodiversity, Conservation and Science Directorate (now part of Department of Climate Change, Energy, the Environment and Water)	Requested consideration of Biodiversity, Water and Soils, and Flooding.
Department of Primary Industries (DPI) – Agriculture	Requested consideration of post use rehabilitation, biosecurity (pests, weeds and diseases).
Transgrid	Noted procedural requirements for connection to Transgrid's network. Subsequently a connection enquiry under the National Electricity Rules was submitted on 23 August 2022. On 4 th October 2022 Transgrid confirmed that it was the correct Network Service Provider for the connection to the network. Panorama BESS is now



Agency of Authority	Summary of Consultation
	commencing design of connection services to complete the connect application.
DPE – Heritage NSW (now part of Department of Climate Change, Energy, the Environment and Water)	Noted the need to prepare an ACHAR as part of the future application.
DPE – Industrial Assessments (now part of DPHI)	Requested a Preliminary Hazard Analysis (PHA) prepared in accordance with the Hazardous Industry Planning Advisory Paper No. 6, 'Hazard Analysis' and Multi-level Risk Assessment.
DPE – Water (now part of Department of Climate Change, Energy, the Environment and Water)	Requested consideration of impacts to groundwater, surface water, water sharing plans, ground water dependent ecosystems and waterfront land.
DPE – Crown Lands (now part of DPHI)	No additional comments made.
DPI - Fisheries	No additional comments made.
Department of Regional NSW – Mining, Exploration & Geoscience (MEG) - Geological Survey of NSW (GSNSW)	No additional comments made.



3.0 Land Use Conflict Risk Assessment

3.1 Risk Identification and Risk Ranking

The LUCRA process evaluates the probability and consequence of potential land use conflicts and uses a matrix to estimate risk, provided in **Table 3**. Associated tables for determining probability and consequence are provided in **Table 4** and **Table 5**, respectively.

A risk ranking of 25 is the highest magnitude of risk; a highly likely, very serious event. A rank of 1 represents the lowest magnitude or risk an almost impossible, very low consequence event.

Risk Rankings have been categorised in terms of their probability and consequence as:

- Low Risk, risk ranking between 1 and 10;
- Moderate Risk, risk ranking between 11 and 19;
- High Risk, risk ranking between 20 and 25.

Table 3: Risk Ranking Matrix

Consequence	Probability				
	A	B	C	D	E
	Almost Certain	Likely	Possible	Unlikely	Rare
1 - Severe	25	24	22	19	15
2 - Major	23	21	18	14	10
3 - Moderate	20	17	13	9	6
4 - Minor	16	12	8	5	3
5 - Negligible	11	7	4	2	1

Table 4: Probability Table

Level	Descriptor	Description
A	Almost Certain	Common or repeating occurrence
B	Likely	Known to occur, or 'it has happened'
C	Possible	Could occur, or 'I've heard of it happening'
D	Unlikely	Could occur in some circumstances, but not likely to occur
E	Rare	Practically impossible

Table 5: Measure of Consequence

Level	Descriptor	Description
1	Severe	• Severe and/or permanent damage to the environment • Irreversible • Severe impact on the community • Neighbours are in prolonged dispute and legal action involved
2	Major	• Serious and/or long-term impact to the environment • Long-term management implications • Serious impact on the community • Neighbours are in serious dispute



Level	Descriptor	Description
3	Moderate	- Moderate and/or medium-term impact to the environment and community - Some ongoing management implications - Neighbour disputes occur
4	Minor	- Minor and/or short-term impact to the environment and community - Can be effectively managed as part of normal operations - Infrequent disputes between neighbours
5	Negligible	- Very minor impact to the environment and community - Can be effectively managed as part of normal operations - Neighbour disputes unlikely

3.2 Risk Assessment

The risk assessment identifies and evaluates potential land use conflicts associated with the proposed BESS.

A risk ranking is determined based on probability and consequence, and a revised risk ranking is determined based on implementation of identified management strategies. The full suite of mitigation measures are outlined within the relevant specialist consultant reports which support the EIS.



Table 6: Management Strategy

Activity	Identified potential conflict	Probability (P)	Consequence (C)	Risk ranking	Management Strategy	Revised Risk Ranking (P;C)	Performance target
Visual Amenity	Visibility of construction activities from neighbouring properties and the road network	D	4	5	Landscape plantings to screen the proposed development, including vegetation screens around the perimeter of the BESS. Species selection and planting concept to be informed by the BVMP 2019.	8 (C;4)	Effectiveness will be measured as part of the CEMP.
	Visibility of project infrastructure from residences and the road network	D	4	5		8 (C;4)	Effectiveness will be measured as part of the CEMP
Agricultural land and productivity	Removal of agricultural land	A	5	11	The project is considered to be a temporary and reversible change in land use. Upon decommissioning the project infrastructure will be decommissioned and the study area returned to its pre-existing land use, namely suitable for the grazing of sheep and cattle, or another land use as agreed by the project owner and the landholder at that time. The project will occupy a small portion of land for the purpose of a battery (approximately 2 ha). This is not a significant land requirement and the remainder of the landholding will be retained for use for rural purposes.	2 (D;5)	Rehabilitation objectives and strategies (including performance measures) will be established in the arrangements with landowner
	Reduced agricultural productivity of land project infrastructure during operations	B	5	7		2 (D;5)	
Water quality	Impacts of construction activities on water quality	C	4	8	A site wide Erosion and Sediment Control Plan (ESCP) will be prepared as part of the Construction Environmental Management Plan (CEMP) for the Project. The ESCP will be prepared in accordance with Managing Urban Stormwater: Soils and Construction (Landcom 2004), known as 'the Blue Book', and Volume 2A Installation of Services (DECC 2008a)	5 (D;4)	Effectiveness will be measured as part of the CEMP.



Activity	Identified potential conflict	Probability (P)	Consequence (C)	Risk ranking	Management Strategy	Revised Risk Ranking (P;C)	Performance target
	Impacts of ongoing operation on water quality	C	5	4	Placement of an erosion resistant surface below the edges of battery structures, such as reinforced concrete or a layer of crushed rock. Stormwater management infrastructure to be constructed to ensure water is conveyed to appropriate locations for disposal.	2 (D;5)	On-going monitoring will be undertaken to ensure that stormwater infrastructure is operating effectively.
Air quality	Dust generation during construction activities	B	4	12	Preparation and implementation of a CEMP. Measures adopted may include; - Monitoring climatic conditions to ensure activities likely to generate dust are not carried out during adverse conditions. - Applying a site speed limit. - Wet down unsealed access roads or utilise binding agents. - Revegetating disturbed areas as soon as practicable.	8 (C;4)	Effectiveness will be measured as part of the CEMP.
	Dust generation during ongoing operation	B	4	12	A site speed limit of 40 km/hr to reduce dust generation on any unsealed sections of access road. When necessary the application of binders to unsealed sections of the site access road to reduce dust.	8 (C;4)	Ongoing monitoring will be undertaken including review of any complaints received.
Noise	Impacts of construction noise and vibration on residents	A	3	20	Implement noise mitigation measures identified within the Noise Impact Assessment.	8 (C;4)	Effectiveness will be measured as part of the CEMP.
	Impacts of operational noise on residents	D	5	2	The Noise Impact Assessment has not identified any exceedance of project noise goals associated with the operation of the proposal. Plant equipment	1 (E;5)	Ongoing monitoring will be undertaken including review of



Activity	Identified potential conflict	Probability (P)	Consequence (C)	Risk ranking	Management Strategy	Revised Risk Ranking (P;C)	Performance target
					shall be maintained to ensure that it is functioning efficiently.		any complaints received.
Safety	Exposure of residents to hazardous events or substances	C	1	22	Implementation of the Prevention / Protection Safeguards identified within the Hazard and Risk Assessment.	6 (E;3)	Protection and prevention safeguards will be reviewed after any incident occurring and updated as necessary
	BESS explosion and/or thermal runaway reaction	C	1	22	Each SolBank enclosure to be fitted with a thermal management system, fire protection system, and explosion protection system	10 (E;2)	
Security	Change in land use resulting in increased activity on site during the projects construction period and potential theft or vandalism at neighbouring properties	C	3	13	A zero-tolerance policy on theft will be implemented on-site throughout the project's construction and operation period. Surrounding landholders, project landholders, and law enforcement will be provided with the primary contractor's contact information. The CEMP will include a Code of Conduct for the project's workers (particularly to avoid anti-social behaviour at peak construction times).	9 (D;3)	Compliance will be measured in the CEMP and EMP.
	Change in land use resulting in vandalism and theft of project infrastructure and construction materials	C	4	8	A zero-tolerance policy on theft will be implemented on-site throughout the project's construction and operation period. Surveillance cameras and signs will be implemented to deter vandalism and theft. Chain mesh security fencing will be installed to control access.	9 (D;3)	
Traffic	Impacts of construction traffic (including heavy vehicles) on the function and efficiency of the road network	A	2	23	Preparation and implementation of a Construction Traffic management Plan (CTMP)	8 (C;4)	Effectiveness will be measured as part of the CEMP.



Activity	Identified potential conflict	Probability (P)	Consequence (C)	Risk ranking	Management Strategy	Revised Risk Ranking (P;C)	Performance target
	Impact of operational traffic on the function and efficiency of the road network	E	5	1	Traffic associated with the operation of the facility will be minimal and will not affect the function of the road network.	1 (E;5)	No actions required
Weeds and pest management	Introduction and increased distribution of weeds during construction as a result of increased vehicle and pedestrian movements	B	4	12	To manage the transfer of weeds and pathogens to and from work areas, a washdown bay will be included at the site access to clean vehicles and equipment prior to arrival and when leaving the work areas. The focus will be to minimise the transfer of soil and seed material. This will occur during vegetation clearing and construction and operation. The project's construction environmental management plan (CEMP) and environmental management plan (EMP) will include weed management protocols, such as measures for the identification, management, and ongoing monitoring of weeds on-site.	5 (D;4)	Effectiveness will be measured as part of the CEMP and EMP.
Livestock management	Livestock entering BESS area or construction roads	C	5	4	Management of livestock during construction to minimise conflict will be addressed within the CEMP. Following construction, the BESS area will be fenced to prevent livestock access and interference. Access roads will be speed limited to reduce conflicts with livestock.	2 (D;5)	Effectiveness will be measured as part of the CEMP.
Waste	Increased waste production during construction	A	4	16	The CEMP will detail procurement, material ordering and waste management and disposal procedures to be followed during construction. Minimal waste will be created during operation of the facility.	7 (B;5)	Effectiveness will be measured as part of the CEMP.



3.3 Limitations and Assumptions

This LUCRA has relied on the following information to evaluate potential land use conflicts:

- Consultation with surrounding landowners and stakeholders;
- Desktop research and mapping of the site and locality;
- Information provided by the proponent.

The following limitations apply to this LUCRA:

- Mitigation measures from the EIS and supporting impact assessments, where implemented effectively, are likely to reduce the risk of potential land use conflicts. However, the implementation of mitigation measures may not reduce the risk of all potential land use conflicts;
- The identification of land uses and conflicts within this LUCRA may be limited by the detail and number of responses received during consultation. There is potential for other land uses and conflicts, not previously identified, to occur within the locality.



4.0 Conclusion

This LUCRA has identified potential land use conflicts and evaluated their risk. The initial risk ranking identified 7 low risk, 3 moderate risk and 3 high use conflicts. The initial high risk land use conflict relates to the potential for noise and traffic impacts associated with the construction phase as well as the potential safety implications. Following implementation of the mitigation measures, all identified conflicts return a low risk rating.



5.0 References

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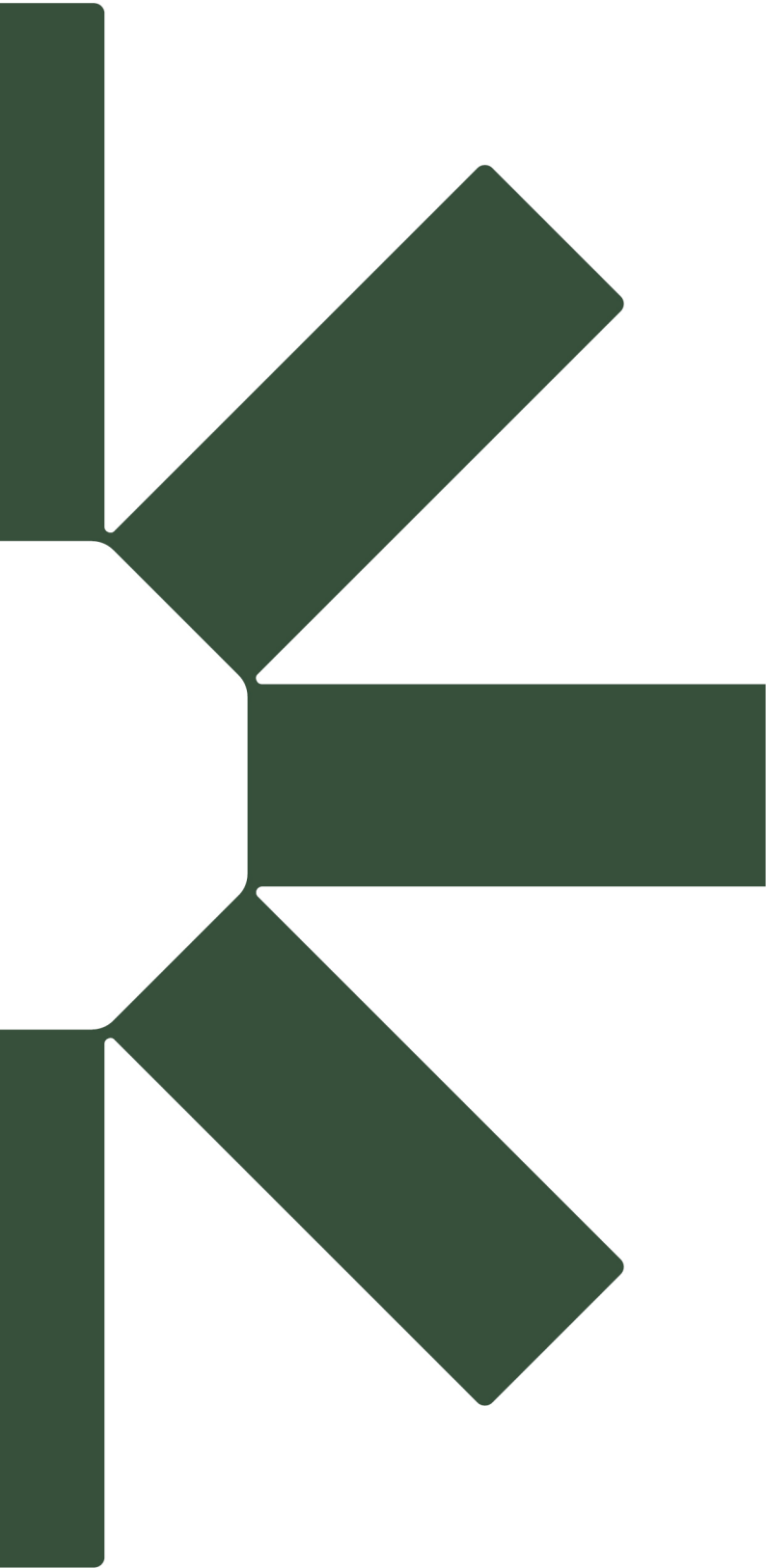
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