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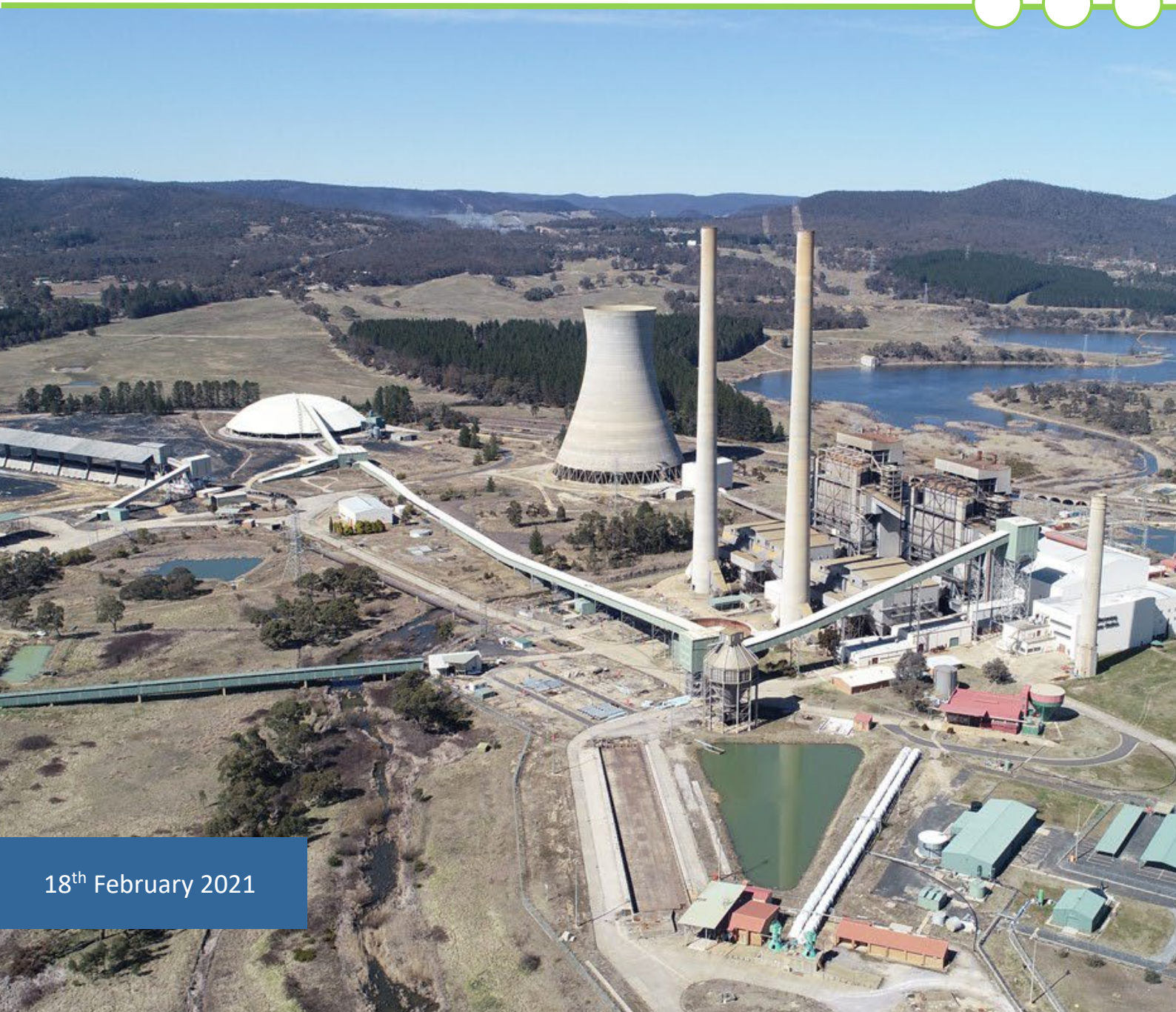
GREENSpot

‘The Wallerawang 9 Battery’

Battery Energy Storage System

State Significant Development Scoping Report



18th February 2021

CONTACT

WESTLEY OWERS
NSW Environment Team
Manager

T + 61 2 8907 9096
M 0451 105 610
E westley.owers@arcadis.com

Arcadis
Level 16, 580 George Street
Sydney, NSW 2000

GREENSPOT
WALLERAWANG BATTERY ENERGY STORAGE SYSTEM

Scoping Report

Author	Claire Vahtra, Kristen Branks	
Checker	Heather Tilley	
Approver	Westley Owers	
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REVISIONS

Revision	Date	Description	Prepared by	Approved by
4	12/02/2021	Final Scoping Report for Lodgement	CV/KB/HT	WO
5	18/02/2021	DPIE Review	CV/KB/HT	WO

ACRONYMS AND DEFINITIONS

Term	Definition
ABS	Australian Bureau of Statistics
AC	Alternative current
AEMO	Australian Energy Market Operator
AHD	Australian Height Datum
AHIMS	Aboriginal Heritage Information Management System
AQIA	Air Quality Impact Assessment
ARTC	Australian Rail Track Corporation
BC Act	*Biodiversity Conservation Act 2016*
BDAR	Biodiversity Development Assessment Report
BAM	Biodiversity Assessment Method
BESS	Battery Energy Storage Station
BoM	Bureau of Meteorology
Council	Lithgow City Council
DA	Development Application
DAWE	The Australian Department of Agriculture, Water and the Environment
DC	Direct current
DDR	Decommissioning, demolition and rehabilitation program
DEC	Former Department of Environment and Conservation
DECC	Former Department of Environment and Climate Change
DECCW	Former Department of Environment, Climate Change and Water
Delta	Former owner of the Wallerawang Power Station
DPIE	Department of Planning, Infrastructure and Environment
DP	Deposited Plan
EES	Environment, Energy and Science Group
EIS	Environmental Impact Statement
Energy Australia	Previous owners of the Wallerawang Power Station
EP&A	*Environmental Planning and Assessment Act 1979*
EP&A Regs	*Environmental Planning and Assessment Regulation 2000*
EPA	Environment Protection Authority
EPBC Act	*Environmental Protection and Biodiversity Conservation Act 1999*
EPI	Environmental Planning Instrument
EPL	Environment Protection License
ERA	Environmental Risk Analysis
FM Act	*Fisheries Management Act 2994*
FRNSW	Fire and Rescue NSW
GHG	Greenhouse gas
GW	Gigawatt
GWh	Gigawatt hours
ha	Hectares

Term	Definition
Heritage Act	*Heritage Act 1977*
ICNG	*Interim Construction Noise Guideline*
ISEPP	*State Environmental Planning Policy (Infrastructure) 2007*
ISP	*2020 Integrated System Plan for the National Electricity Market*
kV	Kilovolt
kW	Kilowatt
L	Litres
LCC	Lithgow City Council
LGA	Local government area
Lithgow LEP	*Lithgow Local Environmental Plan 2014*
LSBS	Large-scale battery storage
m	Metres
MNES	Matters of National Environmental Significance
MSL	Mean sea level
MW	Megawatt
MWh	Megawatt hours
NARCliM	NSW and ACT Regional Climate Modelling Project
NEM	National Electricity Market
NorBE	Neutral or Beneficial Effect
NPfI	*Noise Policy for Industry 2017*
NPW Act	*National Parks & Wildlife Act 1974*
OEH	Former Office of Environment and Heritage
PHA	Preliminary Hazard Assessment
POEO Act	*Protection of the Environment Operations Act 1997*
The Proponent	The entity seeking approval, namely Greenspot Wallerawang Pty Ltd, a joint venture of owners of Bettergrow Pty Ltd and Borg Pty Ltd
The Project	The project for which approval is being sought, namely the construction, operation and maintenance of a Battery Energy Storage Station known as the 'Wallerawang 9 Battery'.
The Project Site	The Wallerawang Power Station located at 1 Main Street, Wallerawang NSW. The area at which the Project would be located incorporate the following lots: Lot 3, DP 1018958 Lot 4, DP 1016725 Lot 3, DP 1181412 Lot 3, DP 1226927 Lot 4, DP 1226927.
PSI	Preliminary Site Investigation
REZ	Renewable Energy Zone
Roads Act	*Roads Act 1993*
SEARs	Secretary's Environmental Assessment Requirements
SDWC SEPP	*State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011*
SEPP 33	*State Environmental Planning Policy No. 33 – Hazardous and Offensive Development*
SEPP 55	*State Environmental Planning Policy No. 55 - Managing Land Contamination Planning Guidelines Remediation of Land*

Term	Definition
SEPPs	State Environmental Planning Policies
SRD	*State Environmental Planning Policy (State and Regional Development) 2011*
SSD	State Significant Development
TECs	Threatened Ecological Communities
TfNSW	Transport for New South Wales
TIS	*NSW Transmission Infrastructure Strategy 2018*
TIA	Transport Impact Assessment
WARR Act	*Waste Avoidance and Resource Recovery Act 2001*
WPS	Wallerawang Power Station

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EXECUTIVE SUMMARY

Background

Greenspot Wallerawang Pty Ltd (Greenspot) (the Proponent) was established in 2020 as a joint venture between the owners of Borg and Bettergrow, two leading Australian businesses headquartered in New South Wales. Greenspot completed the acquisition of the former Wallerawang Power Station and buffer lands, comprising approximately 450 hectares, from EnergyAustralia in September 2020.

Greenspot is commencing a decommissioning, demolition and rehabilitation (DDR) project on the former Wallerawang Power Station site in the first half of 2021 (separate to this project) and plans to repurpose the power station site and buffer lands. It proposes that the rejuvenated site will attract energy and water intensive businesses, serving to generate sustainable economic activity and helping to create long term employment growth in the Lithgow area and the NSW Central-West region more broadly.

In acknowledgement of the community in which the repurposing project is to take shape (Wallerawang, postcode 2845), the working name for project is the 'Greenspot 2845 Activity Hub'.

As an important component of its vision for the Greenspot 2845 Activity Hub, the Proponent is seeking development consent for the construction, operation and maintenance of a Battery Energy Storage System (BESS), of approximately 500 Megawatts (MW) that would provide between 500 to 1,000 Megawatt hours of battery storage capacity, or one to two hours of storage duration.

The Wallerawang Power Station was operational for almost 60 years and the last two units to be decommissioned in 2014 were units 7 and 8. In continuation of this legacy and reflecting the long-term role WPS has played in the NSW energy sector, the working name for Greenspot's proposed BESS is the 'Wallerawang 9 Battery' (the Project).

Project need

The need for the Project can be divided into two key parts:

- To support the NSW Government's strategy for a reliable, affordable and sustainable electricity future that supports a growing economy. BESS facilities, such as the Wallerawang 9 Battery, will provide enabling infrastructure for expanding the renewable energy industry in NSW, particularly in and around the Central-West Orana Renewable Energy Zone (REZ). As such, the Proponent considers that the Project will play a significant role in the transformation of the NSW energy sector.
- To serve as a very significant enabler for the Greenspot 2845 Activity Hub by providing a stable, reliable and cost-effective energy source for the future redevelopment of the site as part of an embedded energy network. As expected, there would be a significant number of jobs generated during the construction phase of the Project. Importantly, however, the Wallerawang 9 Battery would also assist in laying the energy platform for long term generation and maintenance of jobs on site with flow on impacts for the region.

Project location

The Project is located at the former Wallerawang Power Station which was retired in 2014. It is in the Lithgow Local Government Area (Lithgow LGA).

The Project Site is about 70 kilometres west of Penrith in the Central Tablelands and about 115 kilometres west of the Sydney Central Business District (CBD). It is located directly north-east of the main township of Wallerawang and 12 kilometres north-west of Lithgow.

The Project Site is bounded by the Main Western Railway Line to the north, Castlereagh Highway to the east, an unsealed access track to Lake Wallace in the south and the Cox's River to the west.

The closest residential properties to the Project Site are located to the east of the Castlereagh Highway, along Springvale Lane and about 170 metres south-east of the Project Site at its closest boundary. It is anticipated that the BESS will be located as close as possible to the TransGrid Wallerawang 330kV substation, in the north-west of the Project Site, which is approximately 500 metres north-west of these residential properties.

The areas surrounding the Project Site include a mix of, industrial, buffer areas, rural land uses, and some residential, as well as several abandoned open cut mines and operating underground coal mines.

Overview of the Project

The Project would involve construction and operation of a large-scale BESS. The Project would require up to 10 hectares of land within the Project Site, and once complete would include:

- A large-scale BESS including battery enclosures, inverters and transformers
- A transmission line connection (above ground and/or underground) between the BESS and the nearby TransGrid Wallerawang 330kV substation. Two options are currently been considered for the transmission line connection.
- A site access to the BESS from the Castlereagh Highway, with appropriate auxiliary turn treatments in accordance with AustRoad requirements
- Internal site access road and parking
- A permanent office and staff amenities
- Stormwater management infrastructure, lighting, fencing and security.

The Project would also include subdivision of the Project Site, and ancillary upgrades to the existing Wallerawang 330kV substation.

Key construction activities are expected to include:

- Site enabling works to make ready the Project Site and provide protection to the public, and surrounding environment
- Earthworks and levelling, and other civil and ground preparation activities
- Establishment of hardstand areas
- Delivery, installation and electrical fit-out for the Project, including battery enclosures, invertors transformers and associated cabling and infrastructure
- Connections between the BESS and the Wallerawang 330kV substation
- Establishment of fire safety envelope setbacks and firefighting systems
- Permanent environmental management and pollution control measures
- Construction of permanent office and staff amenities
- Landscaping and finishing works
- Testing and commissioning
- Removal of construction equipment and rehabilitation of construction areas.

Construction of the Project would take place mostly within the Project Site, except for the establishment of the new power supply connection from the BESS to the Wallerawang 330kV substation. The new power supply connection would be established on land owned by Greenspot and/or TransGrid and no other third-party easements would be required. Some other utilities connections may also be required to the Project Site, which would be confirmed as part of further design development during the preparation of the Environmental Impact Statement.

It is likely that some elements would be prefabricated offsite and transported to the Project Site via heavy vehicles, where they would then be installed.

The batteries would be containerised on areas of hardstand. Relevant hazardous substance management procedures and controls would be identified through design development and implemented in accordance with the relevant guidelines and legislation.

Planning and assessment process

The Project is considered to meet the definition of State Significant Development under Clause 8 of the *State Environmental Planning Policy (State and Regional Development) 2011*, as the Project would be for electricity generating works on land that is permitted with development consent under Clause 34 of the *State Environmental Planning Policy (Infrastructure) 2007*, and would have a capital investment value greater than $30 million.

Development consent for the Project is therefore being sought in accordance with Part 4, Division 4.7 of the *Environmental Planning and Assessment Act 1979*.

Purpose of this document

This Scoping Report supports an application made by Greenspot (the Proponent) and submitted to the Department of Planning, Industry and Environment to seek the Secretary's Environmental Assessment Requirements for the Project, as required by Section 4.12(8) of the *Environmental Planning and Assessment Act 1979*.

Key environmental issues

A preliminary environmental risk analysis has identified the following key environmental issues that are relevant to the assessment of the Project:

- Traffic, transport and access
- Noise and vibration
- Surface water quality
- Soils
- Biodiversity
- Hazards and risk (including bushfire).

Detailed assessment of these issues and the other environmental issues identified would be carried out as part of the Environmental Impact Statement. While not identified at this stage as key issues, other issues that will be included in the assessment of the BESS:

- Hydrology and flooding
- Contamination
- Visual amenity
- Air quality
- Aboriginal Heritage
- Non-Aboriginal Heritage
- Climate change and greenhouse gas
- Socio-economic
- Land use and property
- Waste management
- Cumulative impacts.

Consultation

Community, agency and key stakeholder consultation has commenced throughout the development of the project to-date.

The proponent will continue to consult with the community and stakeholders during the preparation of the EIS. Feedback and participation from consultation and engagement activities would be used to further inform investigations being carried out for the environmental assessment of the Project.

It is expected that a range of consultation methods will be adopted, including meetings, emails, phone calls, media and advertising, community newsletters, website details and community events to provide information and seek feedback.

Next steps

Following the receipt of the Secretary's Environmental Assessment Requirements for the Project, the Proponent will prepare an Environmental Impact Statement for the Project, that will be publicly exhibited by the NSW Department of Planning, Industry and Environment, in accordance with the requirements of Part 4, Division 4.7 or the *Environmental Planning and Assessment Act 1979*.

During public exhibition of the Environmental Impact Statement, the community and stakeholders will be encouraged to have their say and make a formal submission.

1 INTRODUCTION

This chapter provides an overview of the Project, including the Project's location, local context and key features. The purpose and structure of this report are also provided.

1.1 Overview

Greenspot Wallerawang Pty Ltd (Greenspot) (the Proponent) was established in 2020 as a joint venture between the owners of Borg and Bettergrow, two leading Australian businesses headquartered in New South Wales. Greenspot completed the acquisition of the former Wallerawang Power Station and buffer lands, comprising approximately 450 hectares, from EnergyAustralia in September 2020.

The Proponent is seeking development consent for the construction, operation and maintenance of a Battery Energy Storage System (BESS), of approximately 500 Megawatt (MW) that would provide between 500 to 1,000 Megawatt hours of battery storage capacity or 1 to 2 hours of storage duration.

The Project is considered critical in supporting the NSW Government's electricity strategy for a reliable, affordable and sustainable electricity future that supports a growing economy. BESS facilities, such as the Project, would provide enabling infrastructure for expanding the renewable energy industry in NSW, particularly in the Central-West Orana Renewable Energy Zone (REZ), and is considered a critical element of the transformation of the NSW energy sector. The BESS will also be a significant enabler for the 'Greenspot 2845 Activity Hub', providing a stable, reliable and cost-effective energy source for the future redevelopment.

The Proponent is seeking State Significant Development (SSD) approval for the Project under Part 4, Division 4.7 of the *Environmental Planning and Assessment Act 1979* (EP&A Act) (refer to Chapter 3 for more information about the planning and assessment process of the Project).

1.2 Project location

The Project is located at the site of the Wallerawang Power Station which was retired in 2014, north-east of the township of Wallerawang in the Lithgow Local Government Area (Lithgow LGA). The Project Site is about 70 kilometres west of Penrith in the Central Tablelands and about 115 kilometres west of the Sydney Central Business District (CBD).

The location of the Project Site in the context of the Greenspot 2845 Activity Hub is shown on Figure 1-1.

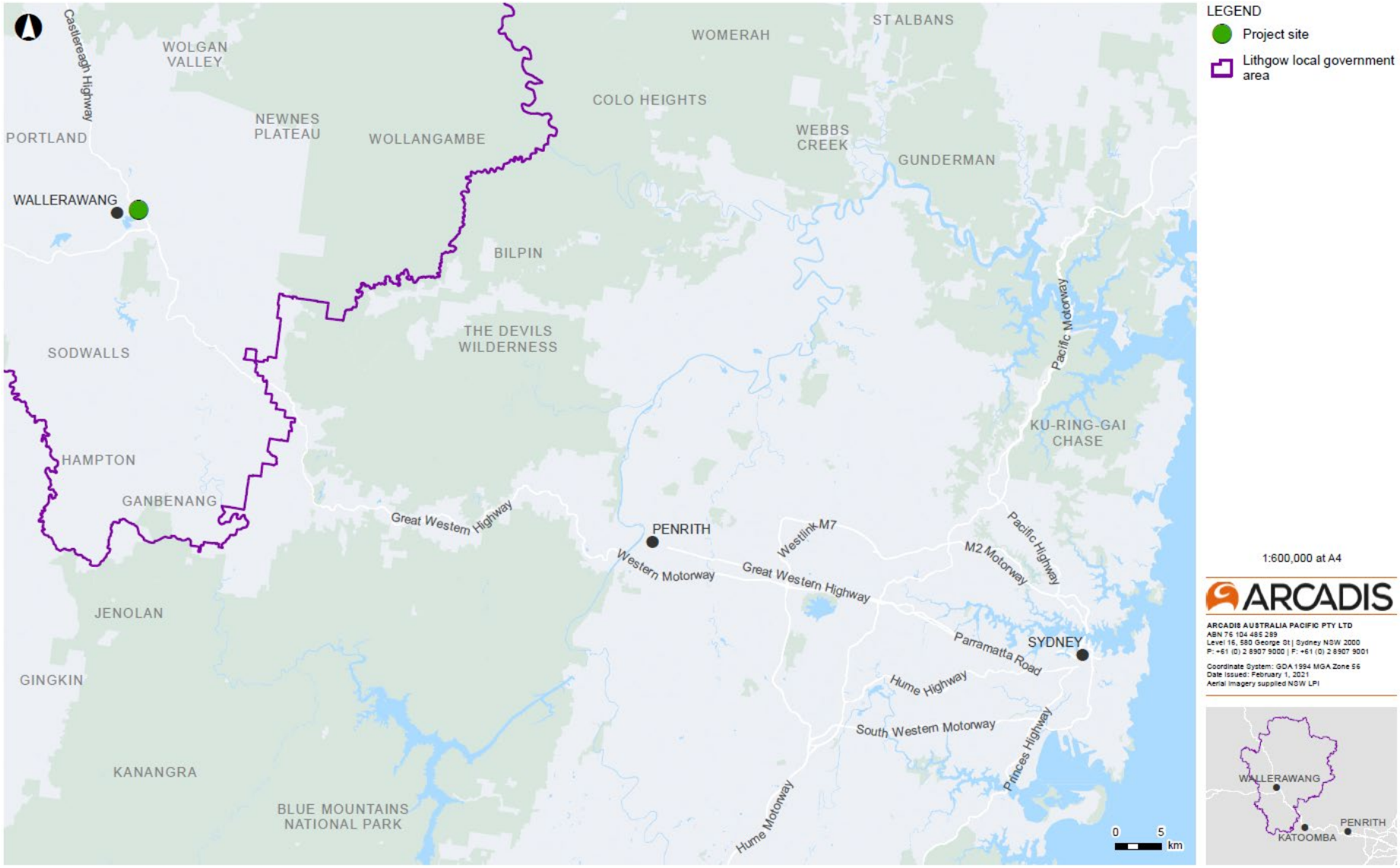

Figure 1-1 Location of the Project

1.3 Local context

The Project Site is located directly north-east of the main township of Wallerawang and 12 kilometres north-west of Lithgow. The footprint of the Project Site is about 40 hectares, of which the BESS will require approximately 10 hectares. The Proposal site is 320 metres to the east of the TransGrid 330kV Substation at its closest point and is in its entirety positioned (in part or fully) across the following properties:

- Lot 3, Deposited Plan (DP) 1018958
- Lot 4, DP 1016725
- Lot 3, DP 1181412
- Lot 3, DP 1226927
- Lot 4, DP 1226927
- Castlereagh Highway road verge (subject to further investigations).

Other properties may also be impacted for connection to relevant utilities, these would be identified within the Environmental Impact Statement (EIS), subject to further investigation.

The proposed Great Western Battery Project is located on private land approximately two kilometres north-west of the Wallerawang Power Station site on the other side of the Main Western Railway Line and of Main Street, Wallerawang.

The Project Site is bounded by the Main Western Railway Line to the north, Castlereagh Highway to the east, an unsealed access track to Lake Wallace in the south and the Cox's River to the west. The unsealed access track falls within the Project Site and may be used as part of the Project.

The areas surrounding the Project Site include a mix of industrial, buffer areas, rural land uses, some residential, as well as several abandoned open cut mines and operating underground coal mines.

Other development and businesses located near the Project Site include:

- The Wallerawang Power Station site, owned by Greenspot, immediately north of the Main Western Railway Line
- TransGrid Wallerawang 330kV Substation, 320 metres west
- Goodearth Landscape and Building Supplies, 600 metres south
- The Centennial Coal Springvale Coal Mine site, 750 metres east
- The Black Gold Motel, 1.1 kilometres north-west
- Wallerawang Power Station Ash Repository and associated lands, owned and operated by Generator Property Management Pty Ltd, 1.2 kilometres north
- Industrial and commercial businesses along Main Street, Wallerawang, 1.2 kilometres north-west
- Approximately six residential receivers located on Springvale Lane 170 metres south-east of the Project boundary at its closest point. As mentioned above, it is anticipated that the BESS will be located as close as possible to the TransGrid Wallerawang 330kV substation, in the north-west of the Project Site, which is approximately 500 metres north-west of these residential properties.

The local context of the Project is shown on Figure 1-2.

Figure 1-2 Local context of the Project

1.4 The Project

The Project would involve construction and operation of a large-scale BESS. The Project would require about 10 hectares of land within the 40 ha Project Site, with the extent of the Project Site to be refined through the EIS and Design process. Once complete, the BESS would include:

- A large-scale BESS including battery enclosures, inverters and transformers.
- A transmission line connection (above ground and/or underground) between the BESS and the nearby TransGrid Wallerawang 330kV substation. Two options are currently being considered for the transmission line connection, both wholly across land owned by the Proponent and/or TransGrid, such that no third-party easements are required:
  - Option 1 is from the north-west corner of the Project Site
  - Option 2 follows the southern and then western boundary of the Project Site and then connecting to Option 1.
- A site access to the BESS from the Castlereagh Highway, with appropriate auxiliary turn treatments in accordance with AustRoad requirements
- Internal site access road and parking
- A permanent office and staff amenities
- Stormwater management infrastructure, lighting, fencing and security.

The Project would also include subdivision of the Project Site, and ancillary upgrades to the existing Wallerawang 330kV substation.

1.5 Relationship to the Greenspot 2845 Activity Hub

The Wallerawang Power Station has been operating since the 1950s (initially consisting of 4 x 30 megawatt (MW) units). It was upgraded in 1961 (additional 2 x 60 MW units) and 1976/1980 (500 MW units installed). It is understood that EnergyAustralia and Delta Electricity (former site owners) also undertook a number of internal approvals under Part 5 of the EP&A Act, in the form of Review of Environmental Factors (REFs). The Wallerawang Power Station was closed by EnergyAustralia in 2014.

The Proponent completed the purchase of the Wallerawang Power Station and buffer lands, a total of approximately 450 hectares, from EnergyAustralia in September 2020.

Greenspot will engage a leading contractor to undertake a decommissioning, demolition and rehabilitation (DDR) project (under DA 015/19 approved on 26 September 2019 by Lithgow City Council) on the Wallerawang Power Station site. The DDR project is anticipated to commence in the first half of 2021 and is expected to take approximately 18 months to complete. Under current plans, key infrastructure including the turbine hall and administration building structures, the small chimney stack from the former A and B station, the cooling tower and the coal dome (dry storage area) will be retained by Greenspot to play a role in the primary objective of site repurposing.

Greenspot proposes that the rejuvenated site will attract energy and water intensive businesses (e.g., in the industrial, manufacturing and agribusiness sectors), serving to generate sustainable economic activity and helping to create long term employment growth in the Lithgow area and the NSW Central-West region more broadly. The generation of such economic activity will inevitably lead to increased demand for housing and amenity and, in this regard, Greenspot proposes that parts of the site will also lend themselves to commercial, recreational, residential and other complimentary uses.

1.6 Purpose and structure of this Report

The purpose of this report is to support Greenspot's application to the Minister for Planning and Public Spaces for planning approval under Part 4, Division 4.7 of the *Environmental Planning and Assessment Act 1979* (EP&A Act), with the first step to obtain Secretary's Environmental Assessment Requirements for the Environmental Impact Statement.

The structure and content of this report is outlined in Table 1-1 below.

Table 1-1 Structure and content of this report

Chapter		Description
Introduction and context		
Chapter 1	Introduction	Outlines the key elements of the Project and the purpose of this report.
Chapter 2	Project need, justification and alternatives	Provides an outline of the need and justification of the Project, as well as a description of the strategic alternatives and locations considered.
Chapter 3	Planning and assessment process	Provides an outline of the statutory approvals framework, including applicable legislation and planning policies.
Chapter 4	Consultation	Outlines the stakeholder and community engagement carried out to date.
Project description and preliminary assessment		
Chapter 5	Project description	Describes the Project, including general construction activities.
Chapter 6	Preliminary environmental assessment	Provides a preliminary consideration of the potential direct and indirect impacts associated with construction and operation of the Project.
Risk analysis and conclusion		
Chapter 7	Preliminary risk analysis	Provides a preliminary environmental risk analysis for the Project, taking into account the current scope and receiving environment.
Chapter 8	Summary of proposed Environmental Impact Statement scope	Summarises the proposed scope of further investigations for the Project during the preparation of the Environmental Impact Statement, based on the initial potential direct and indirect impacts identified in this Scoping Report.
Chapter 9	Conclusion	Provides a conclusion to the report, and identifies the next steps following the receipt of the Secretary's Environmental Assessment Requirements.

1.7 The Proponent

Greenspot Wallerawang Pty Ltd (Greenspot) (the Proponent) was established in 2020 as a joint venture between the owners of Borg and Bettergrow, two leading Australian businesses headquartered in New South Wales.

The details of the Proponent are provided in Table 1-2 below.

Table 1-2 Proponent details

Proponent details	
Name	Greenspot Wallerawang Pty Ltd ATF The Greenspot Wallerawang Unit Trust
Postal address	2 Wella Way, Somersby NSW 2250
ABN	87 161 961 465
Nominated contact	Brett Hawkins Chief Executive Officer Greenspot
Contact details	HawkinsB@greenspot.com.au
Scoping Report	Prepared by Arcadis Australia Pty Ltd

2 PROJECT NEED, JUSTIFICATION AND ALTERNATIVES

This chapter provides an outline of the need and justification of the Project. A description of the strategic alternatives and locations has also been considered.

2.1 Strategic planning and policy context

2.1.1 2020 Integrated System Plan

The *2020 Integrated System Plan for the National Electricity Market* (2020 ISP) (Australian Energy Market Operator (AEMO), 2020) identifies investment choices and recommends essential actions to optimise consumer benefits as Australia experiences what is acknowledged to be the world's fastest energy transition.

The 2020 ISP is an actionable roadmap for eastern Australia's power system to optimise consumer benefits through a transition of the energy market. It identifies the optimal development path for the National Electricity Market (NEM), consisting of ISP projects and development opportunities, as well as necessary regulatory and market reforms.

Modelling was undertaken as part of the 2020 ISP which confirmed that the least-cost and least-regret transition of the NEM is from a system dominated by centralised coal-fired generation to a highly diverse portfolio of behind-the-meter and grid-scale renewable energy resources. These must however be supported by dispatchable firming resources and enhanced grid and service capabilities to ensure the power system remains physically secure.

Development opportunities for an optimal energy system identified in 2020 ISP acknowledge that to firm up the inherently variable nature of distributed and large-scale renewable energy generation, new flexible, dispatchable resources, including large-scale battery energy storage systems (as proposed by the Proponent), will be needed. Depending on the scenario, the NEM will need 6-19 Gigawatts (GW) of new flexible dispatchable resources to firm up inherently variable resources. It is anticipated that most of the initial investment will be in utility-scale pumped hydro (i.e., Snowy Hydro 2.0), providing longer-term storage or battery energy storage systems offering shorter-duration, highly responsive and flexible storage.

As the Project would primarily involve the development of a BESS system that connects to existing power supply transmission networks, it is considered to align with, and support the intent of, the 2020 ISP.

2.1.2 NSW Transmission Infrastructure Strategy

The *NSW Transmission Infrastructure Strategy* (the Transmission Infrastructure Strategy) (DPIE, 2018) acknowledges that NSW is undergoing an energy sector transformation which will change how energy is generated and used throughout the State.

The Transmission Infrastructure Strategy forms part of the NSW Government's broader plan to make energy more affordable, secure investment in new power stations and network infrastructure and ensure new technologies deliver benefits for customers.

One key aim of the Transmission Infrastructure Strategy is to increase NSW's energy capacity by prioritising Regional Energy Zones (REZ's) in the Central West, South West and New England regions of NSW, which will become a driving force to deliver affordable energy into the future. By increasing transmission capacity and low-cost generation, the strategy aims to support an orderly transition of the energy sector over the next two decades. These three zones are considered to be areas of high energy potential where planned transmission infrastructure upgrades are able to connect multiple energy supply projects at lower cost.

Undertaking strategic infrastructure upgrades in these REZ's will support and leverage private sector investment opportunities, boosting regional economies and building the State's resilience by ensuring there are enough new energy projects coming online to replace retiring traditional power stations. By unlocking the REZ's, the state's energy mix can be more easily diversified, and transmission capabilities can be expanded.

The Transmission Infrastructure Strategy will help to facilitate new transmission that could support up to 17,700 MW of new electricity generation in Energy Zones by 2040. These Zones could leverage up to $23 billion in private sector investment, support an average of up to 2,000 construction jobs each year and represents a huge boost for NSW regional communities.

As the Project would primarily involve the development of a large-scale BESS system that connects to existing power supply transmission networks, it is considered to complement the Transmission Infrastructure Strategy, particularly by providing dispatch storage capacity near the Central-West Orana REZ.

2.1.3 NSW Electricity Strategy and Electricity Infrastructure Roadmap

The NSW Government's *Electricity Strategy* (the Electricity Strategy) (DPIE,2019) and *NSW Electricity Infrastructure Roadmap* (Electricity Infrastructure Roadmap) (DPIE, 2020) sets out a plan for the delivery of five REZ's, the first in the State. It builds on the Transmission Infrastructure Strategy and supports the implementation of the 2020 ISP.

NSW Electricity Strategy

The Electricity Strategy is the NSW Government's Plan for a reliable, affordable and sustainable electricity future. The Electricity Strategy acknowledges the challenges that exist in achieving the Government's objectives for the electricity system. This includes reliability risks from the retirement of some traditional coal-fired power stations combined with congestion within the existing transmission system. Both these risks reduce the attractiveness of investment in the new generation required to reduce electricity prices, improve reliability and protect the environment.

The Electricity Strategy sets out actions to address the specific needs of NSW while long term national reforms are developed and implemented. Wind and solar generation are variable in their output and need to be complemented with firm and flexible technologies such as hydro, batteries, bioenergy, concentrated solar power, demand management and gas-fired generators. When variable generators are unable to satisfy demand, other technologies which can provide electricity on demand, i.e. firm generation (such as gas and battery storage) dispatch electricity into the grid. This energy generation and supply system is able to satisfy electrical demand so long as there is sufficient firm generation capacity to meet the system's electricity demand.

As noted in the Electricity Strategy, as at October 2019, there are 17,700 MW of large-scale renewable energy projects that have received planning approval or are progressing through the NSW planning system, representing about $24 billion in investment. These projects are summarised in Table 2-1

Table 2-1 Summary of large-scale renewable energy projects that have recently secured NSW planning approval

Project type	Number of projects	MW capacity	Investment
Solar	81	11,400 MW	$13.4 billion
Wind	15	3,800 MW	$4.7 billion
Biogas	2	325 MW	$1.1 billion
Hydro	Snowy Hydro	2,000 MW	$4.5 billion
	Shoalhaven Scheme expansion	235 MW	$300 million.

In addition to these renewable projects, there are 1,410 MW of large-scale non-renewable energy projects with planning approval, worth around $1.5 billion. This includes 1,250 MW of gas projects, worth $1.25 billion, and 160 MW of coal efficiency upgrades, worth $209 million.

The existing network in NSW is running out of capacity, representing a significant barrier to the State's 48 GW of generation connection enquiries in the pipeline. Market research indicates that grid connection is the highest concern for Australian energy Chief Executive Officers, and it is estimated that currently there is only sufficient capacity to connect 1 in 20 private sector generation proposals in NSW.

Batteries, as a form of electrical storage, also provide multiple grid services such as frequency regulation. The cost of batteries has fallen in recent years and is expected to continue to trend downwards making batteries a more feasible, commercial firming option for wind and solar farms. The principles guiding the development of the Electricity Strategy comprise four propositions. *Principle 1: New generation, delivered by competitive markets should reduce electricity prices and protect the environment*, notes that renewables, firmed by dispatchable technologies such as gas and storage, are the lowest cost form of new reliable electricity generation. Accordingly, a good investment environment will deliver new generation, reduce electricity prices and ensure reliability while protecting the environment.

The Project is considered to be consistent with the goals of the Electricity Strategy, given the Project's location in close proximity to the Central-West Orana REZ, and its ability to provide firm generation infrastructure able to support and complement future development of renewable energy projects.

Electricity Infrastructure Roadmap

There are four planned coal-fired power stations that are scheduled to close within the next 15 years, which currently provide about 75 per cent of the State's energy supply. If they are not replaced by new infrastructure before they close, there will likely be substantial price rises.

The Electricity Infrastructure Roadmap recognises that NSW has some of the best renewable energy resources in the world and as the global economy moves to reduce carbon emissions, NSW can attract investment in new, low carbon industries and can benefit from some of the lowest electricity prices in the Organisation for Economic Co-operation and Development. The Electricity Infrastructure Roadmap also acknowledges that to take advantage of these opportunities, substantial investment into modernising the existing electricity system, including by building transmission, generation and long duration storage and firming infrastructure is required.

The purpose of the NSW Electricity Infrastructure Roadmap is to deliver this infrastructure and secure NSW's future as an energy superpower. The Roadmap is expected to attract $32 billion of timely and coordinated private sector investment in large-scale generation, storage and transmission by 2030 to maintain a reliable, secure and affordable supply.

The Electricity Roadmap also notes that investment in large-scale storage and firming capacity, including battery storage (long and short duration) will be required to balance the supply of variable renewable energy.

As part of the roadmap, the NSW Government has announced its priority REZs, which the Electricity Infrastructure Roadmap has been designed to deliver.

The REZ's are expected to deliver multiple benefits for NSW, including:

- More reliable energy from new energy supply
- Energy bill savings from reduced wholesale electricity costs
- Emissions reduction from a cleaner energy sector
- Community partnership from strategic planning and best practice engagement and benefit sharing.

Although the Project would be positioned outside of the Central-West Orana REZ, its position close to the REZ, power flows typically towards the Regional Reference Node in Western Sydney and its location near existing TransGrid infrastructure means that it would be able to support and complement the targets of the NSW Electricity Strategy and Roadmap, in particular the objectives of the Central-West Orana REZ.

2.1.4 NSW Climate Change Policy Framework

The aim of the NSW Climate Change Policy Framework (NSW Office of Environment and Heritage (OEH), 2016) is to maximise the economic, social and environmental wellbeing of NSW in the context of a changing climate and current and emerging international and national policy settings and actions to address climate change.

The long-term objective of the Climate Change Policy Framework is:

- To achieve net-zero emissions by 2050
- That NSW is more resilient to a changing climate.

As the Project would include the provision of a BESS facility that would assist in the development of a renewable energy power supply network for NSW that would increase capacity and resilience, the Project is considered to be complementary to the Climate Change Policy Framework.

2.1.5 Central West and Orana Regional Plan 2036

The Central West and Orana Regional Plan 2036 acknowledges the region as having one of the most diverse economies in regional NSW and is becoming increasingly connected with cities to the east and building the capacity of its freight and logistics infrastructure.

The Regional Plan identifies the Lithgow LGA as having the potential to grow renewable energy industries. This is supported by Direction 9 of the Regional Plan, which is to increase renewable energy generation. Under this direction, the region is acknowledged as having significant potential for renewable energy industries with potential for wind power generation, large-scale solar energy and bioenergy generation. Action 9.2 of the Regional Plan is to facilitate small-scale renewable projects using bioenergy, solar, wind, small-scale hydro, geothermal or other innovative storage technologies through local environmental plans.

The Project would be consistent with the direction of the Central West and Orana Regional Plan 2036, as it would provide a large-scale battery storage facility that would support the development of renewable energy projects in the region.

2.2 Strategic asset for NSW and enabler of the Greenspot 2845 Activity Hub

The Project has the potential to serve as a very significant enabler for the Greenspot 2845 Activity Hub by providing a stable, reliable and cost-effective energy source for the future redevelopment of the site as part of an embedded energy network. As expected, there would be a significant number of jobs generated during the construction phase of the Project. Importantly, however, the Project would also assist in laying the energy platform for long term generation and maintenance of jobs on site with flow on impacts for the region.

2.3 Summary of Project need

As detailed in Section 2.1 above, NSW is undergoing an energy sector transformation which will change how energy is generated and used throughout the State. The need to increase the generation of renewable energy as some of the State's largest coal-fired power stations begin to close has been identified.

Wind and solar generation are variable in their output and need to be complemented with firm and flexible technologies such as hydro, batteries, bioenergy, concentrated solar power, demand management and gas-fired generators. When variable generators are unable to satisfy demand, other technologies which can provide electricity on demand i.e. firm generation (such as gas and battery storage) dispatch electricity into the grid. This energy generation and supply system is able to satisfy electrical demand so long as there is sufficient firm generation capacity to meet the system's electricity demand.

Without the development and operation of short and long-term dispatch infrastructure to support increasing investment in renewable energy into REZ's, there is the potential for future deficit in capacity and reliability of the NSW power supply system. In a worst case scenario, this can lead to load shedding or blackout events.

The Project would be for the development of a large-scale BESS. BESS facilities, such as that proposed by the Project would provide enabling infrastructure for expanding the renewable energy industry in NSW, particularly in the Central-West Orana REZ and is considered a critical element of the transformation of the NSW energy sector. In addition, the project has the potential to serve as a very significant enabler for the Greenspot 2845 Activity Hub by providing a stable, reliable and cost effective energy source for the future redevelopment of the site as part of an embedded energy network.

2.3.1 How does a BESS work?

Batteries are an energy storage technology that uses chemicals to absorb and release energy on demand. Lithium-ion is the most common battery chemistry used to store electricity and when a large number of batteries are installed together (i.e. grid-scale or large-scale battery storage (LSBS)) they can act as a large-scale power generators when connected into the electricity transmission system. Unlike many other forms of energy storage and generation, batteries are particularly valuable because they provide flexibility. They can respond faster than other energy storage or generation technologies, and help maintain grid stability by turning on and off in fractions of a second.

The battery storage system would comprise modular units on pad mounted foundations, which are containerised. Each unit contains a number of battery pods strung together and connected to an inverter, which will convert the direct current (DC) from the batteries into alternating current (AC) which can be used within the electricity grid.

The battery technology type for the Project would be refined during the detailed design process, and is considered to be a critical foundation for establishing the overarching vision for redevelopment of the Wallerawang Power Station site.

2.4 Project objectives

The key objectives of the Project include the following:

- Improve the security, resilience and sustainability of NSW’s electricity grid
- Deliver a Project that would serve as a significant enabler for the Greenspot 2845 Activity Hub
- Minimise adverse impacts on the environment and community during construction and operation
- Provide an ongoing and consistent power supply (as part of a larger network) for the Lithgow community and Central West and Orana Region
- Providing critical energy storage to an ever-growing industry for NSW.

2.5 Strategic alternatives

2.5.1 Do nothing

The do-nothing approach would not support the the NSW Government's broader plans and strategies to make energy more affordable, secure investment in new power sources and network infrastructure and ensure new technologies deliver benefits for customers.

In addition to the broader community and regional benefits, not building the BESS would also reduce the option for providing a lower cost alternative to electricity supply for the future development of the Wallerawang Repurpose, Redevelopment Hub. The greater redevelopment of the site is critical to enhancing the economy, tourism, housing and recreation in the area supporting job growth and improving the liveability of the region.

For these reasons, the 'do nothing' scenario is not the preferred, or considered a suitable, option.

2.5.2 Build the Project

The Project would leverage its strategic location, 320 metres east of the existing TransGrid Wallerawang 330kV substation and ideally placed at the site of the retired Wallerawang Power Station, to provide for future capacity and resilience of the NSW energy network through the delivery of a large scale dispatchable energy storage system. The project's location for a new BESS is advantageous, given it is positioned in an area appropriately zoned with direct access to the existing power network.

Building a large-scale BESS is expected to contribute to the reduction in the cost of supplying electricity to consumers in New South Wales, and in particular those which are part of the Greenspot 2845 Activity Hub. The Project would also provide some of the energy expected to be required as part of the physical redevelopment of the former Wallerawang Power Station and would form part of a broader sustainable energy supply strategy for the hub.

This Project also further supports the strategy for more investment in renewable energy technology through providing an additional dispatchable energy storage near the Central-West Orana REZ. This supports the goals and objectives of electricity generation, supply and transmission policy in NSW.

2.6 Project Site selection criteria

The Proponent completed a site selection exercise for the Project, both within land owned as part of the Wallerawang Power Station acquisition completed in 2020 and surrounding land.

After identifying that land within the Greenspot site was preferred for the Project over any of the surrounding land, two potential sites within the land owned by Greenspot at the Wallerawang site were considered for the Project, as shown on Figure 2-1. A number of site selection criteria were applied, including:

- Proximity to the existing TransGrid Wallerawang 330kV substation without the need for third-party easements across private property
- Availability of access to the site via a major road
- Provision of an area that would avoid and/or minimise the need to remove high quality native vegetation
- Minimal interaction with other key infrastructure, such as the Main Western Railway
- A flat site that would require minimal excavation and/or levelling
- An area that would not result in or be subject to flooding impacts
- Minimizing impact on surrounding privately or publicly owned land
- Minimal environmental impacts.

Figure 2-1 Project Site locations considered

2.6.1 Preferred option

After assessing the two potential site locations, the Project Site was considered as the preferred location for the BESS facility.

Underpinning factors for this decision included:

- The Project Site's high rating against each of the criteria listed in Section 2.6 above, particularly its proximity to the existing TransGrid Wallerawang 330kV substation in a location where no third-party easements or access across private property (expect for arrangements with TransGrid in respect of the substation) would be required; and
- The compatibility of the project with the preferred site's existing land use zoning and permissibility.

In addition, there is an existing access along the south of the Project Site which connects directly to the Castlereagh Highway, whereas the alternative Project Site would require the construction of a larger access road to connect to roads that travel through the Wallerawang township before joining the NSW arterial road network.

The alternative site is subject to a number of easements (for electricity transmission) and therefore an area of suitable scale is unlikely to be available. Although the alternative site is closer to the TransGrid Wallerawang 330kV substation, the site was not considered as suitable (even if the easement related constraints mentioned above could be overcome) as it would require more extensive levelling, raising and importation of fill to provide a flat area of land to construct and operate the Project. This may also result in additional flooding and water quality impacts to the nearby Cox's River that drains to Lake Wallace.

3 PLANNING AND ASSESSMENT PROCESS

3.1 Commonwealth planning approvals

3.1.1 Environmental Protection and Biodiversity Conservation Act 1999

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) establishes the Commonwealth's role in environmental assessment, biodiversity conservation and the management of protected areas.

Under the EPBC Act, a referral to the Commonwealth Department of Agriculture, Water and Environment is required for proposed 'actions' that have the potential to significantly impact on any matter of national environmental significance or the environment of Commonwealth land (including leased land).

Current matters of national environmental significance are:

- World heritage properties
- National heritage places
- Wetlands of international importance (often called 'Ramsar' wetlands after the international treaty under which such wetlands are listed)
- Nationally listed threatened species and ecological communities
- Listed migratory species
- Commonwealth marine areas
- The Great Barrier Reef Marine Park
- Nuclear actions (including uranium mining)
- A water resource, in relation to coal seam gas development and large coal mining development.

There is currently a draft agreement between the Commonwealth and NSW relating to environmental impact assessment under the EPBC Act. For SSD, the assessment bilateral agreement would provide for a single environmental assessment process conducted by NSW.

A preliminary desktop review on The *Protected Matters Search Tool* managed by the Department of Agriculture, Water and Environment (DAWE, 2020) was undertaken on 19 January 2021 to identify existing ecological communities and threatened species located within one kilometre of the Project Site.

The search identified two threatened ecological communities including:

- *Natural Temperate Grassland of the South Eastern Highlands*
- *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland*.

Thirty-five threatened species and 12 listed migratory species were also recorded. Given the highly disturbed nature of the majority of the Project Site surrounding area, these species are considered unlikely to occur within or in close proximity to the Project Site.

3.1.2 Native Title Act 1993

An objective of the Commonwealth *Native Title Act 1993* is to recognise and protect native title. Section 8 states that the *Native Title Act 1993* is not intended to affect the operation of any law of a State or a Territory that is capable of operating concurrently with the Act. Searches of the registers maintained by the National Native Title Tribunal indicate there are no native title claims or any indigenous land use agreements registered with respect to land within the Project Site.

3.2 NSW environmental planning approvals

The *Environmental Planning and Assessment Act 1979* (EP&A Act) and the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation) are the primary pieces of legislation that regulate land use planning and development assessment in NSW. This legislation is supported by a range of environmental planning instruments, including State environmental planning policies and local environmental plans.

3.2.1 Permissibility

Under the *Lithgow Local Environmental Plan 2014*, (Lithgow LEP 2014) the Project meets the definition of 'electricity generating works', which is defined as

'*a building or place used for the purpose of –*

(a) Making or generating electricity; or

(b) Electricity storage'

Division 4 of the *State Environmental Planning Policy (Infrastructure)* (ISEPP) applies to development for the purposes of electricity generating works or solar energy systems. Clause 34(1) notes that

'development for the purpose of electricity generating works may be carried out by any person with consent on the following land –

(a) in the case of electricity generating works comprising a building or place used for the purpose of making or generating electricity using waves, tides or aquatic thermal as the relevant fuel source—on any land,

(b) in any other case—any land in a prescribed rural, industrial or special use zone.'

The Project is located on land within the Lithgow Local Government Area (LGA) on land zoned under the Lithgow LEP 2014. A summary of the land use zoning is provided in Table 3-1 below.

Table 3-1 Land use zoning of the Project Site

Lot/DP	Land Use Zone
Lot 3 DP 1018958 / Lot 4 DP 1016725 / Lot 3, DP 1226927 / Lot 4, DP 1226927	IN3 Heavy Industrial
Lot 3 DP 1181412 / Castlereagh Highway	SP2 (Infrastructure) – Electricity generating works / road infrastructure

Land zoned as IN3 heavy industrial and SP2 (Infrastructure) are defined as prescribed rural, industrial or special use zones under Division 4 of the ISEPP and electricity generating works are permissible with consent on this land under Clause 34 of the ISEPP.

The Project is therefore considered to be permissible with development consent under the provisions of the ISEPP.

3.2.2 State significant development

Section 4.36 of the EP&A Act provides for the declaration of a project as State Significant Development (SSD). The declaration of a project as SSD under Section 4.36 of the Act can be by meeting the requirements of a State environmental planning policy or by the Minister for Planning and Public Spaces.

Clause 8(1) of the *State Environmental Planning Policy (State and Regional Development) 2011* (SRD SEPP) notes that development is declared to be SSD for the purposes of the EP&A Act if:

(a) The development on the land concerned is, by the operational of an environmental planning instrument, not permissible without development consent under Part 4 of the Act, and

(b) The development is specified in Schedule 1 or 2

As described in Section 3.1, the Project is not permissible without development consent.

Clause 20 of Schedule 1 of the SRD SEPP declares development for the purpose of electricity works or heat or their co-generation (using any energy source, including gas, coal, biofuel, distillate, waste, hydro, wave, solar or wind power) to be SSD for development that either –

(a) Has a capital investment value of more than $30 million, or

(b) Has a capital investment value of more than $10 million and is located in an environmentally sensitive area of State significance.

The Project is expected to have a capital investment value in the range of $350 million to $450 million.

The Project is considered to meet the definition of SSD under Clause 8 of the SRD SEPP, as the Project would be for electricity generating works on land that is permitted with development consent under Clause 34 of the ISEPP, and would have a capital investment value greater than $30 million.

Development consent for the Project is therefore being sought in accordance with Part 4, Division 4.7 of the EP&A Act.

3.2.3 Planning approval process under Division 4.7 of the EP&A Act

The assessment and approval process for an SSD project is established under Part 4, Division 4.7 of the EP&A Act. The Project requires an SSD application is to be accompanied by an Environmental Impact Statement (EIS) prepared by or on behalf of the applicant in the form prescribed by the regulations, in accordance with Section 4.12(8) of the EP&A Act.

The EIS for the Project will be informed by the Secretary's Environmental Assessment Requirements (SEARs). This Scoping Report supports an application made by Greenspot (the Proponent) and submitted to the Department of Planning, Industry and Environment to seek the SEARs project, as required by Section 4.12(8) of the EP&A Act. The EIS will be prepared in accordance with the SEARs and the requirements of Schedule 2 of the EP&A Regulation.

The Department of Planning, Industry and Environment will place the EIS on public exhibition for a minimum of 28 days (as per Schedule 1, Division 2, clause 12 of the EP&A Act). During the exhibition period, the community, stakeholders and government agencies will have an opportunity to review the EIS and provide a written submission to DPIE for consideration in its assessment of the Project.

At the completion of the public exhibition period, DPIE will provide the Proponent with a copy of all submissions received during the exhibition period. After reviewing the submissions, the Proponent will prepare a Submissions Report that responds to the relevant issues raised. If changes are required to the Project as a result of the issues raised or to minimise environmental impacts, the proponent would prepare a report to address these changes and submit this for review to DPIE, after which it would be made available to the public.

The Minister for Planning and Public Spaces is the consent authority for SSD projects. The Minister for Planning and Public Spaces has issued a general delegation of the consent authority function for SSD projects to the Independent Planning Commission in instances where more than 50 public objections are received on the application, the applicant has made a reportable political donations disclosure and/or Lithgow City Council object to the Project.

3.2.4 NSW Environmental Planning Instruments

The EIS will consider the provisions of State environmental planning policies to the extent they are relevant to the Project. The environmental planning instruments that have been considered are summarised in Table 3-2.

Table 3-2 Environmental planning instruments

Environmental Planning Instrument	Discussion
State Environmental Planning Policy (State and Regional Development) 2011	The SRD SEPP identifies development that is SSD. As outlined in section 3.2.2 and 3.2.3, the Project is considered to be SSD under Part 4, Division 4.7 of the SRD SEPP.
State Environmental Planning Policy No.33 – Hazardous and Offensive Development	State Environmental Planning Policy No. 33 – Hazardous and Offensive Development (SEPP 33) applies to any projects that fall under the policy's definition of 'potentially hazardous industry' or 'potentially offensive industry'. Certain activities may involve handling, storing or processing a range of substances which in the absence of locational, technical or operational controls may create a risk or offence to people, property or the environment. Such activities would be defined as potentially hazardous or potentially offensive. The Project is not considered to be a 'potentially hazardous industry' or 'potential offensive industry' under SEPP33. Nonetheless, the EIS for the Project would include an assessment of potential hazards and risks associated with the construction and operation of the Project. Refer to Section 6.13 for more information.
State Environmental Planning Policy No.55 – Remediation of land	*The State Environmental Planning Policy No. 55 – Remediation of Land* provides a State-wide approach to the remediation of contaminated land for the purpose of minimising the risk of harm to the health of humans and the environment. In accordance with Clause 7(1), a consent authority must not consent to the carrying out of development on any land unless: • It has considered whether the land is contaminated. • If the land is contaminated, it is satisfied that the land is suitable in its contaminated state (or would be suitable, after remediation) for the purpose for which the development is proposed to be carried out. • If the land requires remediation to be made suitable for the purpose for which the development is proposed to be carried out, it is satisfied the land would be remediated before the land is used for that purpose. A contamination assessment will be carried out in accordance with the *Managing Land Contamination Planning Guidelines SEPP 55–Remediation of Land* (Department of Urban Affairs and Planning and Environment Protection Authority, 1998) for the Project to inform the design and EIS. Refer to Section 6.4 for more information.
State Environmental Planning Policy (Infrastructure) 2007	ISEPP aims to facilitate the effective delivery of infrastructure across NSW. Division 4 of the ISEPP applies to the Project, as it is considered to be development for the purposes of electricity generating works or solar energy systems.
State Environmental Planning Policy (Koala Habitat Protection) 2020	State Environmental Planning Policy (Koala Habitat Protection) 2020 aims to encourage the proper conservation and management of areas of natural vegetation that provide habitat for koalas to ensure a permanent free-living population over their present range and reverse the current trend of koala population decline. The provisions of this SEPP apply to local government areas listed under Schedule 1, which includes the Lithgow LGA where the Project is located. The EIS for the Project, and assessment of impact to biodiversity will consider potential koala habitat and the requirements of this State Environmental Planning Policy.
State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011	The State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011 (SDWC SEPP) aims to provide for healthy water catchments that will deliver high quality water while permitting development that is compatible with that goal. In addition, the SWDC SEPP aims to provide that a consent authority must not grant

Environmental Planning Instrument	Discussion
	consent to a proposed development unless it is satisfied that the proposed development will have a neutral or beneficial effect on water quality. Clause 10(1) of the SDWC SEPP notes that A consent authority must not grant consent to the carrying out of development under Part 4 of the Act on land in the Sydney drinking water catchment unless it is satisfied that the carrying out of the proposed development would have a neutral or beneficial effect on water quality. The EIS for the Project will include a Neutral or Beneficial Effect (NorBE) assessment in accordance with the requirements of the SDWC SEPP. Refer to Section 6.3 for more information.

3.2.5 Other NSW Approvals

In accordance with Section 4.41 and 4.4.2 of the EP&A Act, some environmental planning legislation does not apply to SSD projects, or must be applied consistently with an approval for SSD.

Approvals or authorisations that are not required or cannot be refused

Section 4.4.1 of the EP&A Act specifies approvals that are not required for SSD projects under Part 4 Division 4.7 of the EP&A Act. Those approvals that would otherwise be required for the Project if not for it being SSD include:

- A permit under section 201, 205 or 219 of the *Fisheries Management Act 1994*,
- An approval under Part 4, or an excavation permit under section 139, of the *Heritage Act 1977*,
- An Aboriginal heritage impact permit under section 90 of the *National Parks and Wildlife Act 1974*,
- A bush fire safety authority under section 100B of the *Rural Fires Act 1997*,
- A water use approval under Section 89, a water management work approval under section 90 or an activity approval (other than an aquifer interference approval) under section 91 of the *Water Management*

In addition, Division 8 of Part 6 of the *Heritage Act 1977* does not apply to prevent or interfere with the carrying out of SSD.

Section 4.4.2 of the EP&A Act identifies approvals or authorisations that cannot be refused if they are necessary for carrying out approved SSD and must be substantially consistent with the Part 4, Division 4.7 approval. The statutory approvals or authorisations of potential relevance to the Project include:

- An Environment Protection Licence under Chapter 3 of the *Protection of the Environment Operations Act 1997*, should construction of the project exceed the thresholds outlined in Schedule 1 of the Act. This would be confirmed as part of the Environmental Impact Statement as the construction methodology is developed.
- A consent under section 138 of the *Roads Act 1993*.

It should be noted that the Project falls within the land subject to an existing EPL (EPL 766) for the Wallerawang Power Station site and surrounding area.

The scheduled activities under the conditions of EPL 766 are for electricity generation (generating capacity up to 250 Gigawatt hours (GWh) per annum) and crushing, grinding or separating (processing capacity of up to 30,000 tonnes per annum). However, the Project would not be classified as a scheduled activity under the *Protection of the Environment Operations Act 1997* (POEO Act) and therefore amendments to the existing EPL, or a new EPL for the operation of the Project would not be required.

NSW legislation and regulations that may still be applicable to the Project

Environmental planning related legislation and regulations that may still be applicable to approved SSD projects, are identified in Table 3-3. The applicability of each of the below mentioned pieces of NSW legislation will be confirmed through the EIS development process.

Table 3-3 NSW legislation and regulations of potential relevance

Legislation	Requirement
Biosecurity Act 2015	This Act aims to protect natural resources from the adverse impact of pests, disease, weeds and contaminants on agricultural land and parks and reserves (such as those near to the Project Site). All plants are regulated with a general biosecurity duty to prevent, eliminate or minimise any biosecurity risk they may pose. During construction of the project, any person who deals with any plant, who knows (or ought to know) of any biosecurity risk, has a duty to ensure the risk is prevented, eliminated or minimised, so far as is reasonably practicable.
Biodiversity Conservation Act 2016	The *Biodiversity Conservation Act 2016* (BC Act) seeks to conserve biological diversity at bioregional and State scales; to maintain the diversity and quality of ecosystems and enhance their capacity to adapt to change and provide for the needs of future generations; to assess the extinction risk of species and ecological communities and identify key threatening processes through an independent and rigorous scientific process; and to establish a framework to avoid, minimise and offset the impacts of proposed development and land use change on biodiversity. An assessment of the potential impacts of the Project on threatened species, populations, ecological communities and critical habitat listed under the BC Act would be undertaken to inform the EIS. Biodiversity impacts related to the Project would be assessed in accordance with section 7.9 of the BC Act, the Biodiversity Assessment Method (BAM) and documented in a Biodiversity Development Assessment Report (BDAR).
Contaminated Land Management Act 1997	This Act outlines the circumstances in which notification to the Environment Protection Authority is required in relation to the contamination of land. This may become relevant during construction of the Project if contamination is encountered. A public register of notifications under this Act is maintained.
Heritage Act 1977 (Section 146)	If a relic is discovered or located, the Heritage Council must be notified 'of the location of the relic, unless he or she believes on reasonable grounds that the Heritage Council is aware of the location of the relic'.
Protection of the Environment Operations Act 1997	The POEO Act is the key piece of environment protection legislation administered by the Environment Protection Authority. Section 120 of the Act prohibits the pollution of waters. Air pollution-related Sections 124 to 126 (Chapter 5, Part 5.4, Division 1) of the Act require activities to be conducted in a proper and efficient manner, while Section 128 (Chapter 5, Part 5.4, Division 1) of the Act requires that all necessary practicable means are used to prevent or minimise air pollution. Pollution of land and waste is covered by Part 5.6 of the Act. It defines offences relating to waste and sets penalties and establishes the ability to set various waste management requirements via the *Protection of the Environment Operations (Waste) Regulation 2014.* The activities listed in Schedule 1 to the Act (broadly, activities with potentially significant environmental impacts) require an Environmental Protection Licence. The Project (including construction) does not constitute any of the scheduled activities and therefore does not require a licence. The construction methodology will continue to be developed through the design process and more information will become available on the scale of earthworks required for the Project. It should be noted that the Project falls within the land subject to an existing EPL (EPL 766) for the Wallerawang Power Station site and surrounding area.

Legislation	Requirement
	The scheduled activities under the conditions of EPL 766 are for electricity generation (generating capacity up to 250 Gigawatt hours (GWh) per annum) and crushing, grinding or separating (processing capacity of up to 30,000 tonnes per annum). However, the Project would not be classified as a scheduled activity under the *Protection of the Environment Operations Act 1997* (POEO Act) and therefore modifications to the existing EPL, or a new EPL for the operation of the Project would not be required.
Rural Fires Act 1997	Sections 63(1) and 63(2) of the *Rural Fires Act 1997* require public authorities and owners/occupiers of land to take all practicable steps to prevent the occurrence of bushfires on, and to minimise the danger of the spread of bushfires on or from, that land. Parts of the Project Site is mapped as within a designated bush fire prone area. An assessment of potential bushfire risk associated with construction and operation of the Project will be prepared as part of the EIS.

3.3 Local environmental planning instruments

3.3.1 Lithgow Local Environmental Plan 2014

The Project is located within the Lithgow LEP and subject to the provisions of the Lithgow LEP 2014. The Project would be located on land zoned as IN3 Heavy Industrial, and SP2 (Infrastructure) Electricity generating works / road infrastructure. As the Project is SSD, the Lithgow LEP 2014 does not apply, however, for completeness this EIS has considered the relevant provisions.

An overview of the land use zone objectives of the Lithgow LEP 2014 is provided in Table 3-4 below. The Project is considered to be consistent with the objectives of the land use zones within which it is located.

Table 3-4 Land use objectives

Land use zone	Land use objectives
IN3 – Heavy Industrial	• To provide suitable areas for those industries that need to be separated from other land uses. • To encourage employment opportunities. • To minimise any adverse effect of heavy industry on other land uses. • To support and protect industrial land for industrial uses. • To maintain or improve the water quality of receiving water catchments.
SP2 (Infrastructure) – Electricity generating works	• To provide for infrastructure and related uses. • To prevent development that is not compatible with or that may detract from the provision of infrastructure. • To maintain or improve the water quality of receiving water catchments.

A number of additional local provisions contained in Part 7 of the Lithgow LEP 2014 will be considered where relevant, as part of the EIS, including earthworks, flood planning, stormwater management, biodiversity and groundwater. It should also be noted that the Lithgow City LGA does not currently have an applicable Development Control Plan, following its repeal in 2017.

Subdivision

The Project would include subdivision of the Project site to segregate the BESS facility from the remainder of the surrounding land owned by Greenspot. The Project Site is not located on land that is subject to any minimum lot size requirements for subdivision under the provisions of the Lithgow LEP 2014; however, the relevant principal development standards of the LEP would be considered as part of the subdivision of the Project Site, where applicable.

4 CONSULTATION

Engagement with the local community, agencies and key stakeholders has commenced as part of the preparation of this Scoping Report. The key focus of engagement activities to-date has been to provide an overview of what is being proposed as part of the Project, and to seek early feedback.

Engagement activities are ongoing and will continue during the preparation and exhibition of the EIS for the Project.

This chapter provides an overview of the consultation activities to-date, and activities proposed as part of future stages of the Project.

An Engagement Register has been prepared, and is provided in Appendix B of this Scoping Report.

4.1 Consultation objectives

Greenspot are committed to undertaking community and stakeholder consultation for the Project. The communication and engagement objectives for the Project are to:

- Inform interested and potential impacted communities and stakeholders about the design, development and potential impacts of the Project.
- Build and develop community and key stakeholder relationships.
- Encourage stakeholder participation.
- Obtain government, community and stakeholder input for consideration in development of the Project.
- Provide information about the planning approval process.
- Understand community and stakeholder priorities and concerns so they can be considered in the ongoing development and delivery of the Project.

4.2 Community and stakeholder engagement

Community and stakeholder engagement activities regarding the Project commenced in late 2020. An overview of the consultation undertaken to date is provided in Table 4-1 below, and provided in more detail in the engagement register at Appendix B.

Table 4-1 Summary of engagement activities undertaken to date

Stakeholder	Method of consultation
Community and community groups	
Nearby residential receivers along Millers Road and Springvale Lane, Springvale, NSW, 2790	Doorknocking to provide high level overview of the Project and its current status.
Wallerawang Lidsdale Progress Association	Telephone call to provide high level overview of the Project and its current status.
Agencies	
• NSW Department of Planning, Industry and Environment • Paul Toole, MP (State Member for Bathurst) • Andrew Gee MP (Federal Member for Calare) • Lithgow City Council • NSW Rural Fire Service • Forestry Corporation of NSW	A range of consultation methods have been adopted, including: • Face to face meetings • Telephone calls • Letters/ emails

Stakeholder	Method of consultation
Aboriginal community	
Mingaan Wiradjuri Aboriginal Corporation	Face to face meetings
Other key stakeholders/ nearby business and industry	
• TransGrid • EnergyAustralia (owner of Mt. Piper Power Station and other land near the Project) • John Holland (as the operator of the Country Regional Rail Network) • GoodEarth • Generator Property Management Pty Ltd (owner of Wallerawang Power Station Ash Dams on northern side of Castlereagh Highway) • Centennial Coal (Owner of Springvale Colliery) • Black Gold Motel • St John the Evangelist Church • Lithgow Rangers Soccer Club	A range of consultation methods have been adopted, including: • Face to face meetings • Telephone calls • Letters / emails

In addition, a press release and articles have been published for the Greenspot 2845 Activity Hub and the Project (https://www.abc.net.au/news/2020-09-21/coal-power-station-turned-industrial-park-generate-hundreds-jobs/12686454 and https://www.energymagazine.com.au/former-wallerawang-power-station-repurposed-as-industrial-park/)

A community and stakeholder engagement strategy will be prepared for the Project, which would identify the community relations approach and objectives for the Project. The strategy would be developed in accordance with DPIEs Community and Stakeholder Draft Environmental Impact Assessment Guidance Series.

It is envisaged that as the design and environmental assessment of the Project progresses, community consultation will continue to be undertaken.

Potential communication channels that will be used to provide current information to the community and relevant stakeholders will include:

- A community information line and/or email address
- Updates relevant to the Project on the proponent's website (www.greenspot.com.au)
- A postal address.

It is expected that most consultation with be via electronic/virtual methods. All consultation throughout the preparation of the environmental approvals for the Project will be undertaken in accordance with the relevant NSW and Commonwealth COVID-19 guidelines and social distancing limits in place at the time of each planned consultation activity.

4.3 Consultation proposed during preparation of the Environmental Impact Statement

The proponent will continue to consult with the community and stakeholders during the preparation of the EIS. Feedback and participation from consultation and engagement activities would be used to further inform investigations being carried out for the environmental assessment of the Project.

Future planned consultation activities with the community and local community groups would include, but not be limited to:

- Distribution of community newsletters at key project milestones. The first community newsletter is planned to coincide with the lodgement of this Scoping Report and request for SEARs
- Continued consultation with nearby residents via letterbox drop and face-to-face consultation
- Community information session(s).

Key elements of this consultation would include community contact and information channels in place throughout the planning approval process.

In addition to the abovementioned community consultation, it is intended that consultation as part of the EIS will include but not be limited to the following agencies and stakeholders:

- Department of Planning, Industry and Environment (DPIE)
- Lithgow City Council
- DPIE Environment, Energy and Science
- Heritage NSW
- Water NSW
- Fire & Rescue NSW / NSW Rural Fire Service
- Utilities (i.e., TransGrid)
- Transport for NSW
- Nearby residential receivers
- Neighbouring businesses and industry, including Centennial Coal, Energy Australia and GoodEarth.

4.4 Public exhibition of the Environmental Impact Statement

Public exhibition of the Environmental Impact Statement will be for a minimum of 28 days as stated in the EP&A Act. Advertisements will be placed in newspapers to advise of the public exhibition and where the Environmental Impact Statement can be viewed, and details of proposed community consultation activities and information sessions.

Consultation activities during public exhibition of the Environmental Impact Statement may include:

- Community information sessions, if possible, in accordance with the COVID-19 Health guidelines in place at the time of public exhibition
- Newsletter letterbox drop and email newsletters
- Information on project webpage
- Newspaper advertising
- Information available at local council offices
- Stakeholder meetings
- Local business engagement
- Government stakeholder engagement.

The extent and form of this consultation would be determined prior to the exhibition of the EIS.

4.5 Consultation during construction/ operation

Should the Project be approved, consultation and operation would continue with the community and key stakeholders during construction. In general, this consultation would involve:

- Pre-commencement “job-fairs” to source local labour, suppliers and subcontractors and maximise local content
- Consultation in accordance with statutory requirements
- Ongoing consultation with key stakeholders, local council and other government agencies
- Provision of regular updates to nearby businesses and the community.

5 PROJECT DESCRIPTION

This section provides an overview of the Project, including its key elements and construction activities that would be undertaken.

5.1 Key features of the Project

The Project would involve construction and operation of a large-scale BESS at Wallerawang, NSW (refer to Chapter 1 (Introduction) of this report for additional information relating to site location and context). The BESS would require a built-area of about 10 hectares of land within the Project Site as shown on Figure 5-1. The location and configuration of the final built form of the Project would be confirmed as part of further design developments, and detailed within the Environmental Impact Statement for the Project. The BESS would have a capacity of approximately 500 MW and between 500 and 1000 megawatt hours (MWh) of storage capacity, or one to two hours of storage duration.

The Project would include the following key built form features:

- Subdivision of the Project Site, as required to delineate the Project Site from the remaining adjacent land
- Operation of a large-scale BESS including battery enclosures, inverters and transformers
- A transmission line connection (above ground and/or underground) between the BESS and the nearby TransGrid Wallerawang 330kV substation. Two options are currently being considered:
  - Option 1 is from the north-west corner of the Project Site
  - Option 2 follows the southern and then western boundary of the Project Site and then connecting to Option 1.
- Ancillary upgrades to the Wallerawang 330kV substation switchyard
- A site access to the BESS from the Castlereagh Highway, with appropriate auxiliary turn treatments in accordance with AustRoad requirements
- Internal site access road and car park
- A permanent office and staff amenities
- Installation of utilities including telecommunications, and water and wastewater infrastructure for amenities buildings only
- Stormwater management infrastructure, lighting, fencing and security.

An indicative overview of the Project is shown in Figure 5-1.

The Project is anticipated to be operational in 2023 with a design life of at least 20 years.

The would be operational 24 hours a day, seven days a week. It is anticipated that the project itself would require five staff members on site per day, on an as-needs basis. The operational workforce would include maintenance workers and site technicians.

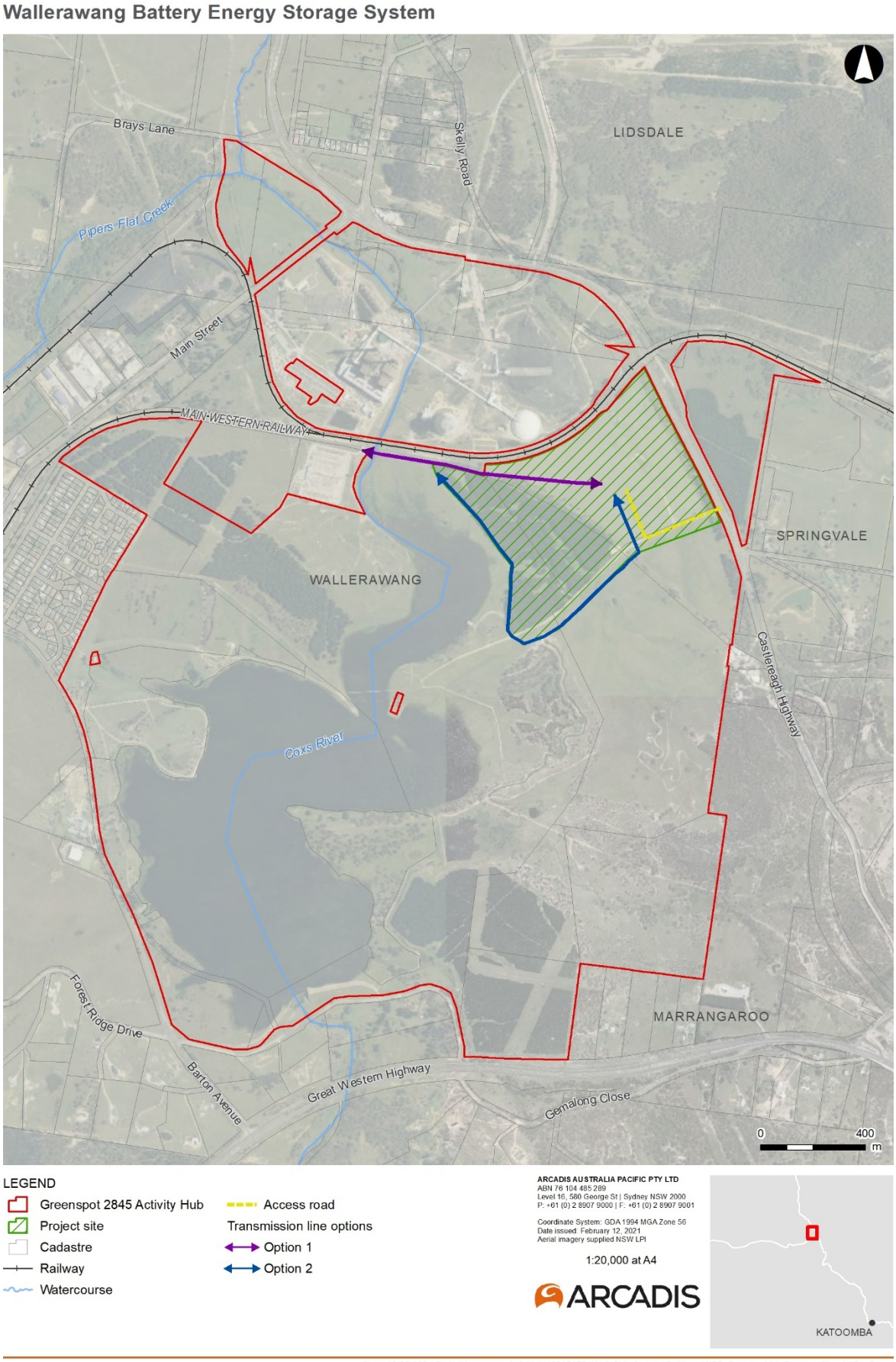

Figure 5-1 Indicative overview of the Project

5.2 Construction

5.2.1 Overview

Key construction activities are expected to include:

- Site enabling works to make ready the Project Site and provide protection to the public, and surrounding environment, including:
  - Construction of the site access, access road to the Project Site and a car park, which would become the permanent operational access road at the completion of construction
  - Establishment of temporary environmental controls (where required)
  - Vegetation clearance
  - Utility supply to enable construction
  - Construction site and laydown area establishment
  - Heritage investigations, protection and recordings (where required)
  - Additional geotechnical and contamination investigations, and remediation, where required.
- Earthworks and levelling, and other civil and ground preparation activities including the removal of spoil from the Project Site, if required
- Establishment of hardstand areas
- Delivery, installation and electrical fit-out for the Project, including battery enclosures, invertors transformers and associated cabling and infrastructure
- Connections between the BESS and the Wallerawang 330kV substation
- Establishment of fire safety envelope setbacks and firefighting systems
- Permanent environmental management and pollution control measures
- Construction of permanent office and staff amenities
- Landscaping and finishing works
- Testing and commissioning
- Removal of construction equipment and rehabilitation of construction areas.

Construction of the Project would take place mostly within the Project Site, except for the establishment of the new power supply connection from the BESS to the Wallerawang 330kV substation. The new power supply connection would be established on land owned by Greenspot and/or TransGrid and no other third-party easements would be required. Some other utilities connections to the Project Site may also be required. These connections would be confirmed as part of further design development during the preparation of the Environmental Impact Statement.

It is likely that some elements would be prefabricated offsite and transported to the Project Site via heavy vehicles, where they would then be installed.

The batteries would be containerised on areas of hardstand. Relevant hazardous substance management procedures and controls would be identified through design development and implemented in accordance with the relevant guidelines and legislation.

5.2.2 Construction program

Construction would begin as soon as practicable after all regulatory approvals are obtained, likely in early 2022, and would take about 12 to 18 months to complete.

5.2.3 Workforce

Construction of the Project is anticipated to require a peak construction workforce of approximately 100 full time equivalent personnel.

5.2.4 Construction hours

Construction of the Project would be undertaken during standard construction hours, being:

- 7am to 6pm Monday to Friday
- 8am to 1pm Saturdays
- No works on Sundays or public holidays.

Any extension of construction hours would be considered based on the results of the noise assessment as part of the Environmental Impact Statement for the Project.

Other activities that would be carried out outside of the standard daytime construction hours would include:

- Work determined to comply with the relevant noise management level at the nearest sensitive receiver
- The delivery of materials outside approved hours as required by the NSW Police or other authorities for safety reasons
- Emergency situations where it is required to avoid the loss of lives and properties and/or to prevent environmental harm.

6 PRELIMINARY ENVIRONMENTAL ASSESSMENT

A preliminary assessment has been undertaken to identify the potential environmental issues associated with the establishment of the Project. Table 6-1 provides a list of the environmental aspects that are likely to arise from the Project, and a reference to relevant sections in this background document where further context is provided.

All potential environmental impacts will be considered further as part of the EIS, including a detailed assessment of the 'key' and 'other' issues. Potential environmental impacts associated with the Project will be considered and if required, managed through the implementation of appropriate mitigation and control measures.

Table 6-1 Identification of environmental issues

Environmental Aspect	Potential Impact	Relevant Section
Traffic, Transport and Access	• Traffic, transport and access impacts during both construction and operation	Section 6.1
Noise and Vibration	• Construction noise and vibration impact • Operational noise	Section 6.2
Water Quality, Hydrology and Flooding	• Potential for water erosion and sedimentation during construction • Water use during operation	Section 6.3
Soils and Contamination	• Contamination caused by spills and leaks during construction and operation	Section 6.4
Biodiversity	• Removal of native vegetation during construction • Fauna mortality due to construction traffic	Section 6.5
Visual Amenity	• Minor and temporary changes in visual landscape during construction • Minor visual impact to views of the Project Site from Castlereagh Highway	Section 6.6
Air Quality	• Construction air quality impacts	Section 6.7
Aboriginal Heritage	• No anticipated Aboriginal Heritage on the Project Site.	Section 6.8
Non-Aboriginal Heritage	• No impacts anticipated unless Non-Aboriginal Heritage is found during construction	Section 6.9
Climate change and Greenhouse Gas Emissions	• Construction GHG emissions • Operational climate change risks	Section 6.10
Bushfire	• Bushfire mapping shows that the site is within a designated bushfire area and will require mitigation	Section 6.13
Socio-economic	• Employment benefits • Amenity impacts during construction and operation	Section 6.11
Land use	• No anticipated impacts to surrounding land use	Section 6.12
Hazards and Risk	• No anticipated impacts associated with hazards and risk	Section 6.13
Waste Management	• Waste management associated with construction • Operational staff waste management	Section 6.14
Cumulative Impacts	• The Great Western Battery Project may be constructed concurrently resulting in cumulative impacts.	Section 6.15

6.1 Traffic, Transport and Access

6.1.1 Existing Environment

The Project Site would require a site access road to the BESS from Castlereagh Highway. The highway runs adjacent to the Project Site on the eastern side. The Great Western Highway, located approximately two kilometres south of the Project Site, is a major road which connects Sydney to Lithgow and Western NSW.

An unnamed dirt road is located adjacent south of the Project Site and currently provides access to Lake Wallace and surrounding properties. The dirt road intersects with Castlereagh Highway about 180 metres north of Springvale Lane and would be the likely access point to the Project Site.

The Main Western Railway Line runs directly north of the Project Site. This railway connects the Blue Mountains to Central NSW and is used by for both p passenger and freight trains. Bus Routes 600 and 636 and several school buses travel from Lithgow via Wallerawang to Bathurst along the Castlereagh Highway. No bike routes or footpaths are located near the Project Site.

6.1.2 Summary of Potential Environmental Impacts

A new site entrance and access road to the Project Site will be constructed from the Castlereagh Highway and will likely follow the existing unsealed road which forms the southern boundary of the Project Site. This road and site entrance would provide access for all construction vehicles and will also provide the access for staff and maintenance vehicles during operation. Several internal roads within the Project Site may be required to support construction activities. The final location and design of the site access for the Project will be determined as part of further design development of the Project.

The potential impacts during construction and operation on the surrounding road network may include an increase in traffic loads on the local network and associated impacts to road safety.

Construction

Heavy vehicles will be required for the delivery of equipment and battery components, and for the removal of waste material (including excavated material etc) resulting from construction activities. Overmass / oversized vehicle may be required for the delivery of a transformer during construction. Together, the heavy vehicles and light vehicles used by construction staff would temporarily increase the traffic on the local network, but this will be limited to the construction period only.

Operation

The Project would represent minimal traffic impacts during operation as traffic will be limited to staff and maintenance crews accessing the Project Site.

6.1.3 Proposed investigation and assessment

Consultation with Lithgow City Council and Transport for NSW (TfNSW) will be undertaken to assess potential traffic impacts, where required.

The EIS will include an assessment of the potential traffic impacts associated with the project's construction and operation that would include consideration of the following aspects:

- Access to the Project Site
- The current and future capability of local and regional road infrastructure
- Road safety assessment on Castlereagh Highway
- Details surrounding construction vehicle routes and movements
- Modelling of the potential construction traffic impacts of the project, including the intersection of the unnamed dirt road and Castlereagh Highway and other nearby intersections (as relevant).

- Details of the internal road layout network, access and egress, pedestrian movements, and parking in accordance with Australian Standards.

6.2 Noise and Vibration

6.2.1 Existing Environment

The noise environment at the Project Site is typical of a rural area with some industrial activity. The background noise levels are largely influenced by the surrounding heavy industry such as coal mining, rural and low density residential and transport noise on the surrounding road and rail network.

Approximately six residential receivers to the Project Site are located on Springvale Lane. The closest residential property to the Project Site is located to the east of the Castlereagh Highway, along Springvale Lane and about 170 metres south-east of the boundary of the Project Site. These properties are separated from the Project Site by the Castlereagh Highway and a forestry plantation just north-west of the residential receivers. The location of the BESS within the 40 ha Project Site is yet to be determined and noise impacts on these receivers may reduce, if the BESS is located at the north-western part of the Project Site. As mentioned above, it is anticipated that the BESS will be located as close as possible to the TransGrid Wallerawang 330kV substation, in the north-west of the Project Site, which is approximately 500 metres north-west of these residential receivers.

No other receivers have been identified within a one kilometre radius of the Project Site. The Lithgow City Ranger Soccer Club is located approximately 60 metres north within the Wallerawang Power Station site.

Wallerawang township is located about 1.5 kilometres west of the Project Site, but separated by the Cox's River and a forestry plantation.

6.2.2 Summary of Potential Environmental Impacts

Construction

Noise generated during construction would vary depending on the construction activities being undertaken and would be temporary in nature. Noise impacts are likely to relate to road noise and construction traffic and the operation of plant and equipment, including construction vehicles, cranes, generator sets and hand tools. The extent of impact would vary according to the relationship of the construction works to the receiver location, and the nature of construction work at various stages of the construction process.

Operation

The Project would operate 24 hours per day, seven days per week. Operational noise would be associated with the inverters and transformers installed on the BESS. The operational noise will need to be assessed as part of the EIS to determine any potential impacts to the surrounding sensitive receivers. Some vehicle movements from staff would cause minimal noise impacts.

6.2.3 Proposed investigation and assessment

A comprehensive Noise and Vibration Impact Assessment would be undertaken as part of the EIS to assess the potential noise and vibration impacts during construction and operation. The assessment will:

- Establish existing background noise levels at the potentially closet sensitive receiver locations
- Identify nearby sensitive receivers, land use and terrain
- Identify sound power levels for each piece of equipment or process during construction
- Assess operational and construction noise impacts in accordance with the NPfI and the ICNG respectively
- Assess traffic noise consistent with EPA's *Road Noise Policy*

- Identify feasible and reasonable noise mitigation measures to address noise exceedances at sensitive receivers noting that exceedances are unlikely.

The assessment will be undertaken in accordance with the relevant legislation, and guidelines, including the *Interim Construction Noise Guideline* (ICNG) (Department of Environment and Climate Change (DECC), 2009) and *Noise Policy for Industry* (NPfI) NSW Environmental Protection Authority (EPA) (2017).

6.3 Water Quality, Hydrology and Flooding

6.3.1 Existing Environment

The Project Site is located in the Warragamba Dam catchment that supports Sydney's main water supply and is Australia's largest urban water supply. The Coxs River intersects through the Wallerawang Power Station site and continues south leading into Lake Wallace, directly south west of the Project Site.

The Upper Coxs River is a part of the Hawkesbury-Nepean catchment that provides regulated drinking water for the Nepean catchment. The quality of the river is considered poor due to the extensive mining and agricultural use that is discharged into the river's water supply system.

A review of Lithgow City Council Flooding Study (2017) indicates there is limited flooding information for the Wallerawang area. It is not anticipated that the Project Site will be subject to flooding due to the elevation of Project Site being at an average of 890 metres above mean sea level (MSL), compared to nearest water source (Lake Wallace) which is at 870 metres above MSL.

6.3.2 Summary of Potential Environmental Impacts

Construction

The development of the Project Site will require some vegetation removal and earthworks to level parts of the site. Surface water run-off during rain fall events may occur on the Project Site. If soils are not stabilised during construction this could result in erosion and sediment entering the Cox River and further degrading water quality.

Construction of the Project has the potential to impact surface water quality through the pollution of stormwater runoff with sediment and/or fuels and other hazardous materials from construction of the Project, if not properly managed.

Stormwater controls would be installed within the Project Site during construction, consistent with the relevant guidelines.

Operation

Stormwater infrastructure would be installed for operation, but increase surface water runoff would occur as a result of the increased hard surface which can alter the surface water flows in the Project Site. These flows will need to be assessed to ensure that appropriate controls are in place to minimising impacts, such as erosion and scour, within the Project Site.

6.3.3 Proposed investigation and assessment

The EIS will include an assessment of the potential impacts of the Project on water quality, hydrology and flooding during construction and operation. The following guidelines would be considered, where required as part of the EIS assessment:

- *Acid Sulfate Soils Assessment Guidelines* (Department of Planning, 2008)
- *Managing Urban Stormwater: Soils and Construction Volume 1* (Landcom, 2004) and *Volume 2* (Department of Environment and Climate Change, 2008)
- *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW* (Department of Environment and Conservation, 2004)

- *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZECC/ARMCANZ, 2018)
- *Using the ANZECC Guidelines and Water Quality Objectives in NSW* (Department of Environment and Conservation, 2006b)
- *Neutral or Beneficial Effect on Water Quality Assessment Guidelines* (Sydney Catchment Authority, 2015).

A Neutral or Beneficial Effect assessment will be completed as part of the EIS, given the Project is located within land subject to the provisions of the SDWC SEPP.

An assessment of the construction impacts on water quality, hydrology and flooding will be undertaken in order to determine the most appropriate controls required during construction to minimise impacts within the Project Site as part of the proposed work.

The EIS will discuss the water systems in place with relation to the BESS.

6.4 Soils and Contamination

6.4.1 Existing Environment

The Project Site is charactered by mostly flat area with surrounding with gentle hills. A review of the geology and soils mapping for the region indicates that the Project Site is located within the Sydney Basin underlain by Berry Formation and Illawarra Coal Measures (King, 1993). Soils are characterised by disturbed sandy-clay and alluvial soil in the surrounding area. A review of the Australian Soil Map Classification (2021) indicates the area is of low risk of acid sulfate soil and low salinity occurrence.

The surrounding area is characterised by past industrial and agricultural activities that dominated in the 20th century. The Project Site could contain potentially contaminated soils. Several investigations were undertaken within the Wallerawang Power Station site to assess the impacts of several contaminants (ERM, 2014; Jacobs, 2019). The reports concluded that all contaminants found were within the Wallerawang Power Station EPL-766 limits.

6.4.2 Potential Environmental Impacts

Construction

Construction would result in the exposure of the natural ground surface and subsurface through the removal of vegetation and excavation and land forming works within the Project Site which may increase the potential for soil erosion to occur.

These impacts are unlikely to be significant soil and contamination related impacts given the scale of the Project. Excavation will be minimal and limited to that required for the establishment of area(s) of hardstand to accommodate the BESS facility and supporting infrastructure.

Operation

There is limited potential for impacts to soils during operation of the Project, as there would not be any ongoing ground disturbance. Operation of the Project has the potential for spills and leaks from operating machinery resulting in contamination of soil and groundwater if not contained; however, the potential for this to occur is limited and can be managed with the implementation of standard mitigation measures.

6.4.3 Proposed investigation and assessment

The EIS will include consideration of potential contamination impacts associated with construction and operation of the Project, and will be undertaken as part of the EIS, which will consider the following relevant guidelines, as necessary:

- *Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land* (Department of Urban Affairs and Planning and Environment Protection Authority, 1998)

- *National Environment Protection (Assessment of Site Contamination) Measure* (National Environment Protection Council, 2013)
- *Guidelines on the duty to Report Contamination under the Contaminated Land Management Act 1997* (Environment Protection Authority, 2015).

The preliminary site investigation will include:

- A desktop review of available data and existing reports relating to potential contamination of the Project Site
- Description of the Project Site conditions, as they relate to contamination
- Identification of the potential of the Project to encounter contamination during construction and operation, and the activities associated with the Project that have the potential to generate contamination
- An assessment of potential contamination impacts to sensitive receivers, which could include environmental and human health receptors
- Identification of mitigation measures, including whether any additional site investigations are required.

The assessment of soils as part of the EIS will include a desktop review of existing information relating to the soils and topography of the Project Site and surrounds. This information, combined with the construction methodology and operational requirements of the Project will be used to identify potential impacts of the Project relating to erosion and sedimentation during construction and operation, as well as mitigation measures to avoid, minimise and mitigate the identified impacts.

6.5 Biodiversity

6.5.1 Existing Environment

The Project Site is located in a largely disturbed and modified agricultural and industrial area. A preliminary review of aerial photos identified approximately 16 ha of forestry on the western side and approximately 2 ha of tree lining planted as a visual screen parallel to the Castlereagh Highway on the eastern side.

A preliminary desktop review of the *Protected Matters Search Tool* (PMST) managed by the Department of Agriculture, Water and Environment (DAWE, 2020) was undertaken on 12th February 2021 to identify existing ecological communities and threatened species listed under the *Environment Protection and Biodiversity Act 1999* (EPBC Act) and located within 1 km of the Project Site.

The search identified three Threatened Ecological Communities (TECs) including:

- *Natural Temperate Grassland of the South Eastern Highlands* – listed as Critically Endangered under the EPBC Act
- *Upland Basalt Eucalypt Forests of the Sydney Basin Bioregion* – listed as Endangered under the EPBC Act
- *White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland* – listed as Critically Endangered under the EPBC Act.

In addition, 36 threatened species and 12 listed migratory species were also recorded.

A preliminary search of the Energy, Environment and Science (EES) *BioNet Atlas* database recorded a total of 42 threatened fauna species and 16 threatened flora species listed under the EPBC Act and/or *Biodiversity Conservation Act 2016* (BC Act) within a 10 km radius of the Project Site. Further, the Koala (*Phascolarctos cinereus*), listed as vulnerable under the BC Act and EPBC Act, was recorded within the Project Site during a wildlife survey in 2004 (Lunney, 2009).

No Plant Community Types (PCTs) are mapped on the Project Site using the regional vegetation mapping *State Vegetation Type Map: Central Tablelands* (NSW Office of Environment and Heritage, 2017).

6.5.2 Potential Environmental Impacts

Construction

Minor vegetation removal, which may include a corridor of the NSW Forestry plantation, may be required for the Project to accommodate the BESS and associated construction and operational infrastructure, including the transmission line connection to the TransGrid Wallerawang 330kV substation.

Potential construction impacts to biodiversity may include:

- Clearance of mature vegetation (native and/or exotic)
- Introduction and spread of noxious weeds and other invasive species
- Injury/mortality of fauna species during clearance and grubbing activities, as well as from collisions with construction plant, equipment and vehicles.

A preliminary desktop review of the Project Site indicates that the potential for the Project to impact on State and/or Commonwealth listed threatened flora, fauna and/or vegetation communities is limited. Any potential impacts are not expected to be significant.

Operation

Once the site is operational, there is unlikely to be any further impacts to biodiversity. There is the minor risk of injury or mortality of fauna species from collisions with vehicles visiting the site, however this would be unlikely.

6.5.3 Proposed investigation and assessment

An assessment of the potential impacts to biodiversity matters within and surrounding the Project Site will be completed as part of the EIS in the form of a Biodiversity Development Assessment Report (BDAR) in accordance with the Biodiversity Assessment Method (BAM) (DPIE EES, 2020). This biodiversity assessment of the Project Site will be undertaken by a certified ecologist to detail any potential impacts to biodiversity on the Project Site under the EPBC Act and BC Act.

The following government guidelines will be considered as relevant during the preparation of the BDAR, as relevant:

- Commonwealth EPBC 1.1 Significant Impact Guidelines – Matters of National Environmental Significance (Commonwealth of Australia)
- Commonwealth Department of the Environment and Energy – Nationally Threatened Ecological Communities and Threatened Species Guidelines (various)
- Commonwealth Department of the Environment and Energy – Survey Guidelines for Nationally Threatened Species (various)
- Biodiversity Assessment Method (DPIE EES, 2020)
- NSW Biodiversity Offsets Scheme (Office of Environment and Heritage, 2017b)
- Threatened species survey and assessment guidelines at https://www.environment.nsw.gov.au/topics/animals-and-plants/threatened-species/about-threatened-species/surveys-and-assessments (various)
- Framework for Biodiversity Assessment (NSW Office of Environment and Heritage, 2014a) (although now superseded, relevant aspects may still be considered for the Environmental Impact Statement).

The BDAR will be based on a desktop review of database searches, regional biodiversity mapping and any relevant existing site-specific reports, as well as site inspections and detailed targeted field surveys, as required. The assessment will be carried out for any threatened species, populations and ecological communities considered likely to be present on the Project Site.

The biodiversity assessment will include the following:

- Investigations for design to avoid impacts on TECs and any other threatened species (or their habitat), as far as practicable

- Identification and description of the flora and fauna species, habitat, populations and ecological communities that occur, or are likely to occur
- An assessment of any direct and indirect impacts of the project on flora and fauna species, populations, ecological communities and their habitats, and Groundwater Dependent Ecosystems (GDEs)
- Assessment of the significance of the impacts of the project on species, ecological communities and populations, and GDEs listed under the Commonwealth EPBC Act, the BC Act and the *Fisheries Management Act 1994* (FM Act) that occur or are considered likely to occur
- Identification of mitigation and offset measures, determined in accordance with the BAM and the EPBC Act Environmental Offsets Policy, if necessary.

6.6 Visual Amenity

6.6.1 Existing Environment

The visual nature of surrounding development is typified by a mix of industrial developments, agricultural land, low density residential and other uses including recreational activities surrounding Lake Wallace. The town of Wallerawang is located approximately 1.5 km west of the Project Site. Other residential properties are located approximately 170 m south-east of the Project Site on Springvale Lane while the Lithgow City Rangers Soccer Club is located 60 metres north of the Project Site.

A forestry plantation is located on the western side of the Project Site screening any views from the Wallerawang township and a visual screen of forestry trees is located along the eastern boundary of the Project Site adjacent to Castlereagh Highway.

6.6.2 Potential Environmental Impacts

Construction

The construction of the Project would be likely to result in minor visual impacts associated with construction activities (sites/compounds, machinery, temporary structures etc.) on the visual amenity.

Sensitive receivers such as Lithgow Club Rangers Soccer Club, 60 metres north would be separated from visual impacts during construction by the railway corridor and existing vegetation. The closest residential receivers located along Springvale Lane would also be visually shielded from the Project Site by the tree lining, as such these receivers are unlikely to be impacted.

Operation

The operational Project would be generally consistent with the visual built form and visual character of the broader area and is not anticipated to result in significant visual impacts to the surrounding receivers. Sensitive receivers would also be visually shielded from the site by the surrounding developments and as such these receivers are unlikely to be impacted.

6.6.3 Proposed investigation and assessment

A desktop visual assessment of the Project Site in the whole and parts on the landscape and urban character of the area, views to and from the Project, magnitude of change to existing views and the visual sensitivity of the viewers. The identification of feasible and reasonable measures to mitigate impacts. Identified mitigation measures will be incorporated in the Project design.

6.7 Air Quality

6.7.1 Existing Environment

A review of the *Energy National Pollutant Inventory* (Department of Environment and Energy) was undertaken to identify types and number of emissions within the Wallerawang area for the 2018-2019 reporting year. Air quality in the area is expected to be characteristic of a typical industrial area and affected by the existing operations of several coal mines.

Twenty eight substances were emitted by local heavy industry. The most common substances include:

- Total Volatile Organic Compounds
- Oxides of nitrogen
- Sulfur Dioxide
- Manganese and compounds.

Sources of the industry emissions close to the Project Site include:

- Springvale Colliery
- Mount Piper Power Station
- Lithgow Meter Station
- Lidsdale Coal Loading Facility
- Western Coal Services.

Air quality monitoring data (DPIE, 2021) is located approximately two kilometres east of the Project Site at Springvale and has recorded as a 'good' index for the last 12 months (excluding January 2020 due to bushfire).

6.7.2 Summary of Potential Environmental Impacts

Construction

Excavation and earthworks have the potential to fugitive dust emission that could impact the nearest residential receivers and traffic using the Castlereagh Highway, particularly on very windy days Appropriate dust control measures will need to be implemented to minimise any potential impacts on these nearby sensitive receivers. This may include the use of water carts.

Emissions from construction vehicles and other fixed mobile plant and equipment are likely to be minor during construction and can be appropriately managed through equipment maintenance programs and ensuring that equipment is turned off when not in use.

Operation

There are unlikely to be any impacts to ambient air quality as a result of operation of the BESS. Vehicle traffic during operation will also be minimal.

6.7.3 Proposed investigation and assessment

Potential air quality impacts would be considered as part of the EIS to evaluate the impact of fugitive dust emissions to inform mitigation and management measures for the construction of the Project.

6.8 Aboriginal Heritage

6.8.1 Existing environment

A search of the DPIE Aboriginal Heritage Information Management System (AHIMS) database did not identify any Aboriginal sites within 50 metres of the Project Site. Six previously recorded Aboriginal sites are recorded within one kilometres of the Project Site.

One isolated Aboriginal heritage finding was reported by a field survey undertaken in August 2017 by Biosis as part of the Wallerawang Power Station Demolition Report (Aurecon, 2018). The artefact was considered of low significance. Two other potential Archaeological Deposits (WPSPAD1 and WPSPAD2) located on the western side of the Wallerawang Power Station site will not be impacted by the Project.

6.8.2 Potential impacts

Construction of the Project would require earthworks and disturbance to the ground surface, which would have the potential to impact on previously recorded sites of Aboriginal heritage significance, should they be present.

There is also the potential for previously unrecorded items of Aboriginal heritage significance to be present within the Project Site.

Aboriginal heritage would not be directly impacted during operation of the Project, as ground disturbance/ excavation would be restricted to the construction phase of the Project. The introduction of new infrastructure is not expected to impact the setting or value of local Aboriginal items or sites.

6.8.3 Proposed investigation and assessment

Given the disturbed nature of industry, forestry and agricultural land use within the Project Site, it is unlikely Aboriginal artefacts will be disturbed or impacted during construction and/or operation of the Project.

An assessment of Aboriginal cultural heritage will be prepared for the EIS. This assessment will be undertaken in accordance with the following Aboriginal heritage assessment guidelines, where relevant:

- *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010)
- *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales* (OEH, 2011)
- *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (Department of Environment, Climate Change and Water, 2010).

The Aboriginal heritage assessment of the Project to be included in the EIS will include:

Assessment of the Aboriginal archaeological potential within the Project Site

- Identification of registered Aboriginal sites within, and in the vicinity of the Project Site
- Identification of the potential for the Project to disturb Archaeological heritage, and, where this is the case, determine:
  - In consultation with relevant stakeholders (as required by the guidelines), the significance of the heritage items / areas to the Aboriginal community
  - The extent and significance of impact to these resources.
- Identification of appropriate measures to avoid, minimise and/ or mitigate potential impacts to Aboriginal heritage.

6.9 Non-Aboriginal Heritage

6.9.1 Existing environment

There are no listed items or sites of non-Aboriginal heritage within the Project Site. The Project Site has been extensively disturbed and is also located within an established industrial area. The Wallerawang Power Station site is considered a heritage site with local significance in the Lithgow LEP.

A preliminary desktop review of the State Heritage Register (under the *Heritage Act 1977)* and Lithgow LEP 2014 identified 11 significant listed non-Aboriginal heritage items within one kilometres of the Project Site.

There are no listed Commonwealth non-Aboriginal heritage items were identified within one kilometre of the Project Site.

The former *Delta Electricity Section 170 Heritage and Conservation Register* included listings for heritage items within the former Wallerawang Power Station site including the Wallerawang A and B (B now demolished) power station chimney stacks under. This register no longer exists; however, the items remain listed on the State Heritage Inventory.

Listed non-Aboriginal heritage items within one kilometre of the Project Site are listed in Table 6-2.

Table 6-2 Non-Aboriginal Heritage Items within a 1 km radius of the Project Site

Item	Significance
Church of St John the Evangelist	State Heritage Register Lithgow LEP 2014
Stone Viaduct Cox's River	State Heritage Register RailCorp Section 170 Heritage and Conservation Register
Old Wallerawang School (former National School)	Lithgow LEP 2014
The Cottage	Lithgow LEP 2014
Tunnel Hill tunnels and overbridge Main Western Railway	Lithgow LEP 2014
Former Wallerawang Public School	Lithgow LEP 2014
Cottage	Lithgow LEP 2014
Braemai	Lithgow LEP 2014
Uniting Church	Lithgow LEP 2014
Cottage and Stone Barn	Lithgow LEP 2014
Meadowside	Lithgow LEP 2014

6.9.2 Potential impacts

It is not anticipated that heritage items will be encountered or impacted (directly or indirectly) by the Project. The Unexpected Finds Procedure will be used as a mitigation measure if any Non-Aboriginal heritage items are uncovered during construction.

6.9.3 Proposed investigation and assessment

An assessment of the potential non-Aboriginal heritage impacts of the Project will be completed as part of the EIS. The assessment will include:

- Identification of listed items and areas of heritage significance within and near the Project
- Assessment of potential impacts on the values, setting and integrity of identified heritage items, and determine the significance of those impacts

- Identification of appropriate measures to avoid, minimise and/ or mitigate potential impacts to non-Aboriginal heritage.

6.10 Climate change and greenhouse gas

6.10.1 Existing environment

Greenhouse gas

Greenhouse gas emissions can be categorised as Scope 1, 2 or 3 (Australian Government Clean Energy Regulator, 2018). Scope 1 emissions are the direct result of an activity, for example, the burning of fuel in vehicles used in construction or vegetation clearing. Scope 2 emissions are indirect emissions from the use of electricity that is generated outside of the Project Site and Scope 3 are indirect emissions which are generated upstream/downstream in the wider economy as a result of third-party supply chains, for example, emissions associated with the production and transport of materials used during construction.

The Project would not generate electricity, but allow for electricity generated from renewable sources outside of peak times to be stored and then fed back into the national electricity market during period of peak demand. In doing so, the reliance on other traditional forms of energy for power supply; typically from fossil fuel generation, is reduced. The Project would enable the storage of available electricity that can be fed back into the grid via connection to the TransGrid Wallerawang 330kV substation.

Climate change

In 2014 the NSW Government published the climate change projections from the NSW and ACT Regional Climate Modelling (NARCliM) project. A summary of the climate change predictions identified by the NSW Government relating to the Central West and Orana region, within which the project is located includes:

- Increase in maximum and minimum temperatures.
- Increase in the number of hot days and a decrease in the number of cold nights
- Decrease in rainfall in spring and winter, and an increase in rainfall in summer and autumn
- More frequent and severe fire weather in summer and spring.

6.10.2 Potential impacts

Construction

Construction of the Project has the potential for impacts on greenhouse gases including:

- Direct generation of greenhouse gas emissions due to construction activities such as operation of plant and machinery and transport of materials
- Indirect generation of greenhouse gas emissions that are produced of-site such as the consumption of electricity for lighting and signage, the energy used to produce construction materials and the disposal of waste.

It would not be possible to completely avoid the generation of greenhouse gas emissions during construction. However, where possible, opportunities to reduce the volume of greenhouse gas emissions would be considered. Greenhouse gases generated through construction of the Project have the potential to contribute to altered climatic conditions, but it is anticipated that this would be relatively small.

Due to the relatively short timeframe of the construction phase of the Project, the impacts of climate change are expected to be minimal.

Operation

Operation of the Project is likely to result in direct and indirect beneficial impacts on greenhouse gas emissions.

Climate change projections for the operational phase of the Project show the potential for an increase in operational risks, associated mostly with food and storm related events, which would be considered as part of the design development for the Project.

Direct climate change risks during operation may include:

- Increased frequency and severity of extreme rainfall events, which may exceed the design capacity of the drainage system and lead to flooding of infrastructure
- Increased average temperatures and the frequency of heatwaves, which may impact on the integrity of infrastructure.

Indirect climate change risks during operation include:

- Disruptions to energy supply as a result of higher temperatures leading to excessive demand and increased severity and frequency of bushfires.

6.10.3 Proposed investigation and assessment

Given the benefits of the operation of the Project, a quantitative greenhouse gas assessment is not considered necessary and is not proposed as part of the EIS.

Operational climate change risk will be considered as part of the EIS, which will include:

- A review of climate data (including rainfall, temperature and windspeed) for the Project Site
- Identification of parts of the Project which are most susceptible to climate change impacts
- Identification of possible climate related impacts.

6.11 Socio-economic

6.11.1 Existing environment

The Project is located in the suburb of Wallerawang in the Lithgow LGA which currently has a population of 21,090 people, with a median age of 45 years (ABS, 2016). According to the 2016 census data, the most common occupations in the Lithgow LGA are technicians and trade workers, clerical and administrative workers, community and personal service workers, machinery operators and drivers and professionals. Major industries of employment in the Lithgow LGA include coal mining, aged care residential services, supermarket and grocery stores, accommodation and local government administration.

6.11.2 Potential impacts

Construction

Potential socio-economic impacts during construction of the Project may include:

- Generation of employment and business opportunities for local residents
- Impacts to amenity of nearby residential receivers
- Temporary traffic disruptions to users of the Castlereagh Highway
- Impacts to the operation of the Pine Plantation Deed with NSW Forestry in the west of the Project Site.

Operation

Operation of the Project may result in the following socio-economic impacts:

- The creation of employment opportunities
- Facilitate the introduction of a proven technology that supports renewable energy

6.11.3 Proposed investigation and assessment

An assessment of the potential socio-economic impacts as a result of the Project will be carried out as part of the EIS.

The socio-economic impact assessment will include:

- Description of the existing socio-economic profile for the communities and businesses surrounding the Project, including:
  - Social characteristics, including population and demography; families and housing; travel behaviour; socio-economic indicators
  - Economic characteristics, including labour force, income and employment; and business and industry.
- Assessment of the potential impacts of the Project on the socio-economic values of the study area
- Identification of appropriate management and mitigation measures including measures to enhance the Project's benefits and to avoid, manage or mitigate its potential impacts.

6.12 Property and land use

6.12.1 Existing environment

The Project is located across three lots; Lot 3 DP1018958, Lot 4 DP1016725 and Lot 3, DP 1181412, on land owned by the proponent. The Project Site currently consists of dense vegetated land the subject of a Pine Plantation Deed for forestry to the west and cleared vacant land throughout the remainder of the site. Other features include a row of dense planted vegetation along the Castlereagh Highway and an unsealed road along the southern boundary of the Project Site.

As detailed in Chapter 3 (Planning and assessment process), the Project is located on land zoned as a combination of IN3 Heavy Industrial and SP2 Electricity generating works. As described in Chapter 3 (Planning and assessment process), the Project is considered to be compatible with the land use zoning objectives of the Lithgow LEP 2014.

The land use zoning of the Project Site and surrounds is shown on Figure 6-1.

Other land use surrounding the Project Site includes:

- Mostly cleared, agricultural land to the south,
- Large lot residential, agricultural and forestry land east of the Castlereagh Highway
- The former Wallerawang Power Station site immediately north
- The TransGrid Wallerawang 330kV substation, Cox's River and cleared agricultural land to the west.

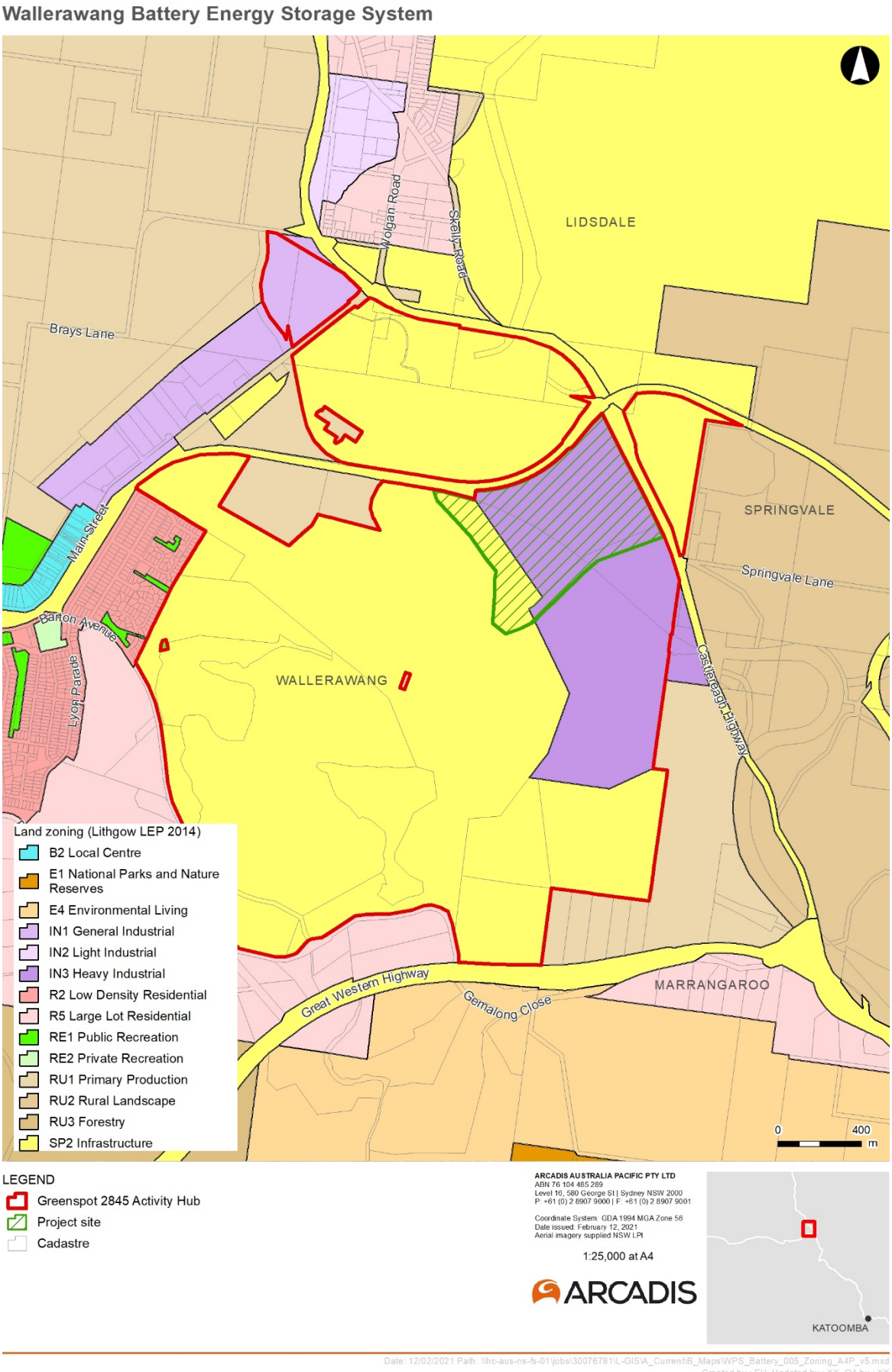

Figure 6-1 Land use zoning of the Project Site

6.12.2 Potential impacts

Potential impacts to property and land use may include:

- The temporary use of land to enable construction
- Indirect impacts on surrounding land use

Once operational, the Project would be in keeping with the aims of the Lithgow LEP 2014.

6.12.3 Proposed investigation and assessment

A property and land use assessment will be completed as part of the EIS. This will include:

- Review of key planning policy, strategy and relevant controls and identification of strategic planning context and future land use priorities
- Assessment of potential property and land use impacts including:
  - Direct impacts as a result of land occupation
  - Indirect impacts on surrounding land uses during construction and operation
- Compliance with relevant land use and planning controls.
- Development of mitigation and management measures.

6.13 Hazards and Risk

6.13.1 Existing environment

The Project is located on land which has been largely cleared in the east of the Project Site, and areas of land subject to a Pine Plantation Deed with NSW Forestry in the west. Other land uses in close proximity to the Project Site include heavy industrial, electricity generating infrastructure, agriculture, forestry and residential.

The NSW Rural Fire Service Mapping tool identified the Project Site as located within a designated bushfire prone area. Vegetation within the Project Site has been mapped as a combination of high risk (Category 1) and medium risk (Category 3) bush fire prone land. Bushfire prone land mapping of the Project Site and surrounds is shown on Figure 6-2.

The Department of Primary Industries has launched a Combined Drought Indicator which utilises data from four main indexes; rainfall index, soil water index, plant growth index and drought direction index, to identify the drought risk of an area. Based on the Combined Drought Indicator the site is considered a ‘non-drought’ area. This is consistent with the developed areas of the Central Tablelands.

Neighbouring properties may also be impacted by hazards and risks of the Project, should the hazard spread from the Project Site. The closest buildings include those to the north of the Project Site within the Wallerawang Power Station site, the TransGrid Wallerawang 330kV substation to the west, and residential properties on the eastern side of the Castlereagh Highway.

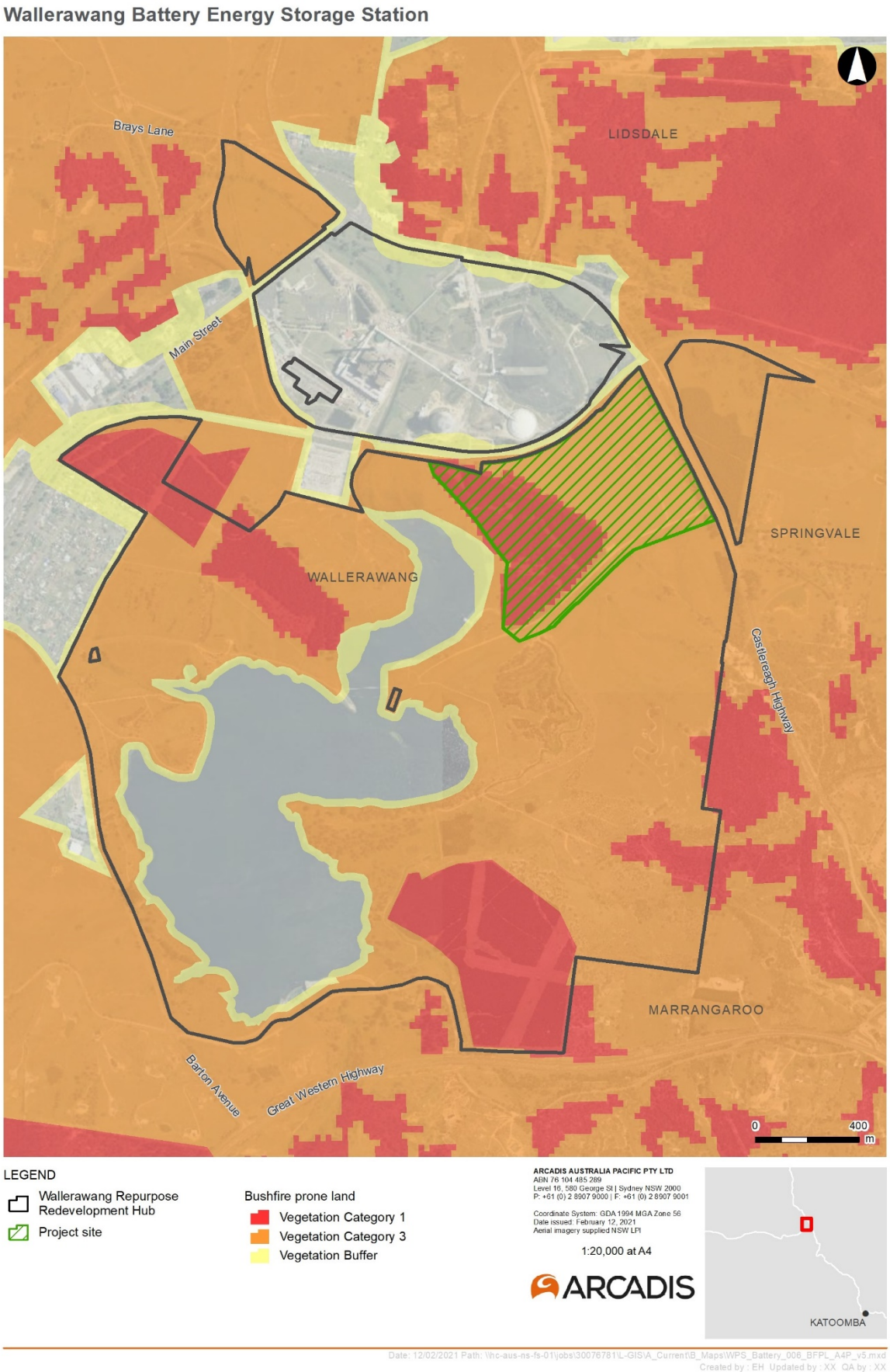

Figure 6-2 Bushfire prone land within and surrounding the Project Site

6.13.2 Potential impacts

Construction

The following hazards and risks have the potential to occur during construction of the Project:

- Accidental release of chemicals, fuels and materials associated with their onsite storage, use and transport, and the resultant impacts on construction workers and the environment. To manage this risk, all hazardous substances that may be required would be stored and managed in accordance with the *Work Health and Safety Act 2011* and the Storage and Handling of Dangerous Goods Code of Practice (WorkCover NSW, 2005)
- Disturbance of contaminated soil and existing structures containing contaminated materials (such as asbestos)
- Occurrence of a bushfire impacting on the construction plant, equipment and infrastructure.

Operation

Potential hazards and risks with the potential to occur during operation of the Project include:

- The occurrence of a bushfire on nearby land has the potential to impact on the site infrastructure during operation.
- A combustion event within the BESS facility.

6.13.3 Proposed investigation and assessment

The Department of Planning (2011) guideline "*Applying SEPP 33*" provides a risk screening procedure to facilitate determination of whether a proposed development is applicable under the SEPP. In accordance with the guideline, if SEPP 33 is triggered under this screening test, Clause 12 of SEPP 33 requires that any Project to carry out a potentially hazardous development must be supported by a Preliminary Hazard Analysis (PHA). Lithium ion batteries (a Class 9 Lithium ion batteries (Class 9) dangerous good) if selected as the preferred battery type for the project would be stored on-site. There is no threshold quantity for the storage of Class 9 Dangerous Goods in the Applying SEPP 33 Guideline and as such, a PHA is not required for the Project under the guidelines.

However, DPIE has been requiring that assessments of large-scale BESS projects are supported by a PHA, consistent with the *Multilevel Risk Assessment Guideline* (DPIE, 2011) and the *Hazardous Industry Planning Advisory Paper No.6 – Hazard Analysis* (DPIE, 2011). The EIS for the Project would therefore include the preparation of a PHA which will qualitatively discuss the potential operational risks of the Project with particular regard to the potential risk to people, property and the biophysical environment that may occur as a result of the accidental release of potential hazardous material and energy.

In addition, a bushfire risk assessment will be prepared as part of the EIS, carried out in accordance with *Planning for Bushfire Protection 2019* (NSW Rural Fire Service, 2019).

6.14 Waste Management

6.14.1 Potential impacts

Construction

The following waste streams could potentially be generated by construction of the Project

- Spoil material from general earthworks and excavation activities
- Sediment laden and/or potentially contaminated wastewater, sewage and greywater from dust suppression, washdown activities and staff amenities

- General construction waste (including concrete, scrap metal, plasterboard, cable and packaging materials) from general construction activities
- Adhesives, lubricants, waste fuel and oil, engine coolant, batteries, hoses and tyres from the maintenance of construction plant, vehicles and equipment
- Putrescibles, paper, carboard, plastics, glass and printer cartridges from activities at construction compounds and site office(s)
- Green waste from vegetation clearance and grubbing.

Quantities of waste to be generated would be investigated as part of the design development of the Project and would be adequately managed with the introduction of standard management measures.

Operation

Wastes generated during operation of the Project are expected to be minimal, and associated with ongoing maintenance of the Project, and the generation from staff present at the Project Site during operation. Waste streams are expected to include residual waste, recyclable waste, used spill kit consumables and sewerage and waste generated by site staff (i.e. food waste, paper and cardboard).

The quantity of waste generated during operation is expected to be minor and would not result in any significant adverse environmental impacts. Resource use during operation would primarily be associated with electricity generation.

6.14.2 Proposed investigation and assessment

A waste management and resource use assessment will be carried out as part of the EIS, that will consider the following government guidelines as relevant:

- *Waste Classification Guidelines Part 1: Classifying Waste* (NSW Environment Protection Authority, 2014)
- *NSW Waste Avoidance and Resource Recovery Strategy 2014-21* (NSW Environment Protection Authority, 2014)
- *NSW Waste Reduction and Purchasing Policy* (Environment Protection Authority, 1997).

The assessment will include:

- Identification of the waste streams likely to be generated during construction and operation of the Project
- Identification of the expected resources required for construction and operation
- Strategies for minimising the export of excavated materials of-site, maximising reuse opportunities and minimising the volume of excavated material disposal to landfill
- Strategies for reducing waste such as the use of recycled materials, bulk delivery of goods to minimise packaging and arrangements with suppliers to return any unused construction materials.

6.15 Cumulative Impacts

6.15.1 Potential impacts

Cumulative impacts result from successive, incremental, or combined effects of an activity or project when added to other past, current, planned, or reasonably anticipated future impacts (NSW Department of Planning and Environment, 2017). The extent to which another development or activity could interact with the construction and/or operation of the Project would be dependent on its scale, location and/or timing of construction.

A search of the DPIE Major Projects Register for the Lithgow LGA identified the Great Western Battery Project (SSD-12346552) that has the potential to generate cumulative impacts with the Project.

Construction

Construction of the Project is expected to take 12 to 18 months to complete, with construction expected to begin in 2022. Cumulative impacts arising from construction are not expected to be significant, given the location and scale of the Project.

Potential cumulative construction impacts, should construction of the Project occur concurrently or consecutively with the Great Western Battery Project could potentially include:

- Increased construction traffic impacts, including traffic congestion
- Increased construction noise, vibration and amenity impacts
- Air quality impacts from dust generation, should construction occur at the same time.

Operation

Operation of the Project is not expected to generate potential cumulative impacts with any of the nearby developments due to the distance and proximity of different industries within the region.

6.15.2 Proposed investigation and assessment

A cumulative impact assessment will be undertaken as part of the EIS for the Project. The assessment will include:

- Identification of surrounding developments and major projects with the potential to interact with the construction of the Project (including the Great Western Battery Project) through a review of relevant local environmental plans, the Department of Planning, Industry and Environment's Major Projects database and local council development application
- Identification of potential cumulative impacts arising from the interaction of these projects with the Project and where this is the case, assessment of these cumulative impacts
- Measures to minimise or mitigate identified construction and operational cumulative impacts would also be developed as part of the assessment, where appropriate.

7 PRELIMINARY ENVIRONMENTAL RISK ANALYSIS

A preliminary risk screening analysis has been carried out to determine key issues associated with the Project with potential to have an impact. The screening analysis has been determined based on the methodology described below as well input from stakeholder engagement, where relevant.

7.1 Environmental risk screening methodology

The environmental risk analysis was undertaken in accordance with the principles of the *Australian and New Zealand standard AS/NZS ISO 31000:2018 Risk Management – Principles and Guidelines*. This involved ranking the risks by identifying the consequence of the impact and the likelihood of each impact occurring.

The following rules guided the risk analysis process:

- Risk ratings were considered at the broader issue level only (for example construction noise and vibration rather than noise from each specific construction activity separate to vibration)
- Industry standard environmental management practice was considered in determining risk ratings, however project-specific mitigation (which would depend on the outcome of future environmental assessments) was not applied.

The first step in the risk analysis involved the identification of the consequence, should an impact occur, followed by identification of the likelihood of the impact occurring. The definitions of the consequences used are provided in Table 7-1 and the definitions of likelihood are provided in Table 7-2. The risk rating was then determined by combining the consequence and likelihood to identify the level of risk as shown in the matrix in Table 7-3.

Table 7-1 Consequence definitions

Consequence level	Definition
Catastrophic	• Long-term (greater than 12 months) and irreversible large-scale environmental, social or economic impacts. • Extended substantial disruptions and impacts to stakeholder(s).
Severe	• Long-term (6 to 12 months) and potentially irreversible impacts • Extensive remediation required • Severe disruptions or long-term impacts to stakeholder(s).
Major	• Medium-term (between 3 and 6 months) and potentially irreversible impacts • Considerable remediation required • Major impacts or disruptions to stakeholder(s
Moderate	• Medium-term (between 1 and 3 months), reversible and/or well-contained impacts • Minor remedial actions required • Moderate impacts or disruptions to stakeholder(s)
Minor	• Short-term (less than 1 month), reversible or minor impacts that are within environmental regulatory limits and within site boundaries • Minor or short-term impacts on stakeholder(s)
Insignificant	• No appreciable or noticeable changes to the environment • Negligible impact on environment or stakeholder(s).

Table 7-2 Likelihood definitions

Likelihood	Definition	Probability
Almost certain	Expected to occur frequently during time of activity or project (10 or more times per year)	>90%
Likely	Expected to occur occasionally during time of activity or project 75% to 90% (1 to 10 times per year)	75% to 90%
Possible	More likely to occur than not occur during time of activity or project 50% to 75% (once per year)	50% to 75%
Unlikely	More likely to not occur than occur during time of activity or project 25% to 50% (once every 1 to 10 years)	25% to 50%
Rare	Not expected to occur during the time of the activity or project 10% to 25% (once every 10 to 100 years)	10% to 25%
Almost unprecedented	Not expected to ever occur during time of activity or project (less than once every 100 years)	<10%

Table 7-3 Risk analysis categories and criteria for risk rating

Likelihood	Consequence					
	Insignificant	Minor	Moderate	Major	Severe	Catastrophic
Almost certain	Moderate	High	High	Very high	Very high	Very high
Likely	Moderate	Moderate	High	High	Very high	Very high
Possible	Low	Moderate	Moderate	High	High	Very high
Unlikely	Low	Low	Moderate	Moderate	High	High
Rare	Very low	Low	Low	Moderate	Moderate	High
Almost unprecedented	Very low	Very low	Low	Low	Moderate	Moderate

7.2 Risk Analysis

Using the framework described, a preliminary environmental risk analysis was carried out and is presented in Table 7-4. The risk analysis identifies an initial risk rating for each of the environmental issues and provides a description of how the risk ratings were derived. Further details regarding the existing environment and potential impacts associated with each environmental issue are provided in Chapter 6. This risk analysis will be re-examined during the environmental assessment of the project.

7.3 Preliminary Risk Screening

The outcomes of the preliminary environmental screening process for the Project are presented in Table 7-4.

Table 7-4 Outcomes of environmental risk

Issue	Unmitigated Environmental Risk Screening			Key issue or other issue
	Likelihood	Consequence	Risk	
Traffic, Transport and Access				
Construction traffic and transport impacts on the local road network	Likely	Minor	Moderate	Key issue
Operational traffic and transport impact on surrounding network	Rare	Insignificant	Very Low	
Noise and Vibration				
Construction noise and vibration impacts on sensitive receivers	Possible	Moderate	Moderate	Key issue
Operational noise and vibration impacts on sensitive receivers	Unlikely	Minor	Low	
Water Quality, Hydrology and Flooding				
Potential to encounter groundwater during construction	Unlikely	Minor	Low	Key issue (water quality) Other issues (hydrology, flooding)
Impacts to groundwater quality from turbid, saline or contaminated water	Unlikely	Minor	Low	
Impacts to groundwater dependent ecosystems	Unlikely	Moderate	Moderate	
Impacts to groundwater users	Rare	Moderate	Low	
Soil erosion during construction, resulting in offsite sedimentation of waterways and impacts to water quality	Possible	Moderate	Moderate	
Impacts to downstream waterways from increased surface water runoff from additional areas of hardstand	Likely	Minor	Moderate	
Soils and Contamination				
Potential to encounter contaminated soils during construction	Possible	Moderate	Moderate	Key issue (soils) Other (contamination)
Contamination of soils caused by spills and leaks during construction	Unlikely	Moderate	Moderate	
Contamination of soils caused by spills and leaks during operation	Rare	Moderate	Low	
Biodiversity				
Construction or operational impact to flora and fauna	Possible	Minor	Moderate	Key issue
Impacts to threatened flora species	Unlikely	Moderate	Moderate	
Impacts to threatened fauna species	Unlikely	Moderate	Moderate	
Impacts on native vegetation	Unlikely	Minor	Low	
Indirect impacts on biodiversity (such as sedimentation and the spread of weeds)	Possible	Moderate	Moderate	

Issue	Unmitigated Environmental Risk Screening			Key issue or other issue
Visual Amenity				
Construction (temporary) impact on visual landscape on sensitive receivers	Possible	Minor	Moderate	Other issue
Long-term impact on visual landscape on sensitive receivers	Unlikely	Minor	Low	
Air quality				
Impacts on local air quality from construction activities, including dust generation from exposed surfaces and use of construction plant	Possible	Minor	Moderate	Other issue
Impacts on local air quality from operation of the Project	Rare	Insignificant	Very Low	
Aboriginal Heritage				
Impacts to previously unrecorded Aboriginal heritage sites during construction	Rare	Moderate	Low	Other issue
Non-Aboriginal Heritage				
Impacts to previously unrecorded non-Aboriginal heritage sites during construction	Rare	Moderate	Low	Other issue
Climate change and greenhouse gas				
Emission of greenhouse gases from construction activities	Almost certain	insignificant	Moderate	Other issue
Impact of climate change on operational infrastructure	Rare	Moderate	Low	
Socio-economic				
Amenity impacts during construction	Possible	Minor	Moderate	Other issue
Impacts to the operation of the Pine Plantation Deed in the west of the Project Site	Likely	Minor	Moderate	
Land use and property				
Changes in land use	Unlikely	Minor	Low	Other issue
Hazards and Risk				
Bushfire impacting on construction or operational infrastructure within the Project Site	Possible	Severe	High	Key issue
Accidental release of chemicals, fuels and materials during construction	Possible	Moderate	Moderate	
Combustion of lithium ion batteries during operation	Unlikely	Major	High	
Waste Management				
Inappropriate management of waste during construction	Possible	Minor	Moderate	Other issue
Inappropriate management of waste during operation	Unlikely	Minor	Low	
Cumulative impacts				
Cumulative construction impacts at sensitive receivers	Possible	Moderate	Moderate	Other issue

Consideration of the Scoping an Environmental Impact Statement - Draft Environmental Impact Assessment Guidelines

The *Scoping an Environmental Impact Statement - Draft Environmental Impact Assessment Guidelines* (DPIE, 2017), provide guidance on key considerations for determining areas likely to have an impact, including:

- Extent (geographic) of the impact
- Duration of the impact
- Severity of the impact
- Sensitivity of the receiving environment
- Potential for cumulative impact.

For completeness, and in accordance with the Draft Environmental Impact Assessment Guidelines, the DPIE Scoping Worksheet, has been completed for the Project and is included in Appendix A of this Scoping Report. It should be noted that the DPIE Scoping Worksheet identified Aboriginal Cultural Heritage as a key issue, whereas the preliminary risk screening presented in Table 7-4 above identifies this environmental issue as an 'other' issue. Conversely, the preliminary risk screening presented in Table 7-4 above identifies traffic, water quality and soils as key issues, where the Scoping Worksheet indicates that these environmental issues are considered to be 'other' issues. The scope of the environmental assessment of these issues would not change, regardless of this inconsistency.

8 SUMMARY OF PROPOSED ENVIRONMENTAL IMPACT STATEMENT SCOPE

This chapter provides a summary of the proposed EIS assessment scope for the Project, and is based on the outcomes of the preliminary environmental assessment provided in Chapter 6 of this Report, as well as the preliminary risk analysis that is included in Chapter 7.

The proposed EIS scope for the Project generally focuses on undertaking additional and more detailed assessments of the 'key' environmental issues identified in this Scoping Report. Some additional assessment of the 'other' environmental issues will also be completed as part of the EIS.

8.1 Proposed Environmental Impact Statement scope for key issues

Table 8-1 below provides a summary of the proposed EIS assessment scope for the environmental issues identified as part of the preliminary environmental assessment as being 'key' issues. It is intended that these assessment scopes will be refined following the receipt of SEARs for the Project.

Table 8-1 Proposed EIS assessment scope – key issues

Issue	Proposed EIS assessment scope
Traffic and transport	Consultation with Lithgow City Council and Transport for NSW (TfNSW) will be undertaken to assess potential traffic impacts, where required. The EIS will include an assessment of the potential traffic impacts associated with the project's construction and operation that would include consideration of the following aspects: • Access to the Project Site • The current and future capability of local and regional road infrastructure • Road safety assessment on Castlereagh Highway • Details surrounding construction vehicle routes and movements • Modelling of the potential construction traffic impacts of the project, including the intersection of the unnamed dirt road and Castlereagh Highway and other nearby intersections (as relevant). • Details of the internal road layout network, access and egress, pedestrian movements, and parking in accordance with Australian Standards.
Noise and vibration	A cNoise and Vibration Impact Assessment would be undertaken as part of the EIS to assess the potential noise and vibration impacts from construction and operation of the Project. The assessment will: • Establish existing background noise levels at the potentially closest sensitive receiver locations • Identify nearby sensitive receivers, land use and terrain • Identify sound power levels for each piece of equipment or process during construction • Assess operational and construction noise impacts in accordance with the NPfI and the ICNG respectively • Assess construction road traffic noise consistent with EPA's *Road Noise Policy* • Identify feasible and reasonable noise mitigation measures to address noise exceedances at sensitive receivers noting that exceedances are unlikely. The assessment will be undertaken in accordance with the relevant legislation, and guidelines, including the *Interim Construction Noise Guideline* (ICNG) (Department of Environment and Climate Change (DECC), 2009) and *Noise Policy for Industry* (NPfI) NSW Environmental Protection Authority (EPA) (2017).

Issue	Proposed EIS assessment scope
Water quality, hydrology and flooding	The EIS will include an assessment of the potential impacts of the Project on water quality, hydrology and flooding during construction and operation. The following guidelines would be considered, where required as part of the EIS assessment: • *Acid Sulfate Soils Assessment Guidelines* (Department of Planning, 2008) • *Managing Urban Stormwater: Soils and Construction Volume 1* (Landcom, 2004) and *Volume 2* (Department of Environment and Climate Change, 2008) • *Approved Methods for the Sampling and Analysis of Water Pollutants in NSW* (Department of Environment and Conservation, 2004) • *Australian and New Zealand Guidelines for Fresh and Marine Water Quality* (ANZECC/ARMCANZ, 2018) • *Using the ANZECC Guidelines and Water Quality Objectives in NSW* (Department of Environment and Conservation, 2006b) • *Neutral or Beneficial Effect on Water Quality Assessment Guidelines* (Sydney Catchment Authority, 2015). A Neutral or Beneficial Effect assessment will be completed as part of the EIS, given the Project is located within land subject to the provisions of the SDWC SEPP.
Soils	The assessment of soils as part of the EIS will include a desktop review of existing information relating to the soils and topography of the Project Site and surrounds. This information, combined with the construction methodology and operational requirements of the Project will be used to identify potential impacts of the Project relating to erosion and sedimentation during construction and operation, as well as mitigation measures to avoid, minimise and mitigate the identified impacts.
Biodiversity	An assessment of the potential impacts to biodiversity matters within and surrounding the Project Site will be completed as part of the EIS in the form of a Biodiversity Development Assessment Report (BDAR) in accordance with the Biodiversity Assessment Method (BAM) (DPIE EES, 2020). This biodiversity assessment of the Project Site will be undertaken by a certified ecologist to detail any potential impacts to biodiversity on the Project Site under the EPBC Act and BC Act. The following government guidelines will be considered as relevant during the preparation of the BDAR, as relevant: • Commonwealth EPBC 1.1 Significant Impact Guidelines – Matters of National Environmental Significance (Commonwealth of Australia) • Commonwealth Department of the Environment and Energy – Nationally Threatened Ecological Communities and Threatened Species Guidelines (various) • Commonwealth Department of the Environment and Energy – Survey Guidelines for Nationally Threatened Species (various) • Biodiversity Assessment Method (DPIE EES, 2020) • NSW Biodiversity Offsets Scheme (Office of Environment and Heritage, 2017b) • Threatened species survey and assessment guidelines at https://www.environment.nsw.gov.au/topics/ animals-and-plants/threatened-species/about-threatened-species/surveys-and-assessments (various) • Framework for Biodiversity Assessment (NSW Office of Environment and Heritage, 2014a) (although now superseded, relevant aspects may still be considered for the Environmental Impact Statement). The BDAR will be based on a desktop review of database searches, regional biodiversity mapping and any relevant existing site-specific reports, as well as site inspections and detailed targeted field surveys, as required. The assessment will be carried out for any threatened species, populations and ecological communities considered likely to be present on the Project Site.

Issue	Proposed EIS assessment scope
	The biodiversity assessment will include the following: • Investigations for design to avoid impacts on TECs and any other threatened species (or their habitat), as far as practicable • Identification and description of the flora and fauna species, habitat, populations and ecological communities that occur, or are likely to occur • An assessment of any direct and indirect impacts of the project on flora and fauna species, populations, ecological communities and their habitats, and Groundwater Dependent Ecosystems (GDEs) • Assessment of the significance of the impacts of the project on species, ecological communities and populations, and GDEs listed under the Commonwealth EPBC Act, the BC Act and the *Fisheries Management Act 1994* (FM Act) that occur or are considered likely to occur • Identification of mitigation and offset measures, determined in accordance with the BAM and the EPBC Act Environmental Offsets Policy, if necessary.
Hazards and risk (including bushfire)	The Department of Planning (2011) guideline "*Applying SEPP 33*" provides a risk screening procedure to facilitate determination of whether a proposed development is applicable under the SEPP. In accordance with the guideline, if SEPP 33 is triggered under this screening test, Clause 12 of SEPP 33 requires that any Project to carry out a potentially hazardous development must be supported by a Preliminary Hazard Analysis (PHA). Lithium ion batteries (a Class 9 Lithium ion batteries (Class 9) dangerous good) if selected as the preferred battery type for the project would be stored on-site. There is no threshold quantity for the storage of Class 9 Dangerous Goods in the Applying SEPP 33 Guideline and as such, a PHA is not required for the Project under the guidelines. However, DPIE has been requiring that assessments of large-scale BESS projects are supported by a PHA, consistent with the *Multilevel Risk Assessment Guideline* (DPIE, 2011) and the *Hazardous Industry Planning Advisory Paper No.6 – Hazard Analysis* (DPIE, 2011). The EIS for the Project would therefore include the preparation of a PHA which will qualitatively discuss the potential operational risks of the Project with particular regard to the potential risk to people, property and the biophysical environment that may occur as a result of the accidental release of potential hazardous material and energy. In addition, a bushfire risk assessment will be prepared as part of the EIS, carried out in accordance with *Planning for Bushfire Protection 2019* (NSW Rural Fire Service, 2019).

8.2 Proposed Environmental Impact Statement Scope for other environmental issues

Table 8-2 provides a summary of the proposed EIS assessment scope for 'other' environmental issues. As with the 'key' environmental issues, it is intended that these assessment scopes will be refined following the receipt of SEARs for the Project.

Table 8-2 Proposed EIS assessment scope – other environmental issues

Issue	Proposed EIS Assessment scope
Contamination	The EIS will include consideration of potential contamination impacts associated with construction and operation of the Project, and will be undertaken as part of the EIS, which will consider the following relevant guidelines, as necessary:: • *Managing Land Contamination: Planning Guidelines SEPP 55 – Remediation of Land* (Department of Urban Affairs and Planning and Environment Protection Authority, 1998) • *National Environment Protection (Assessment of Site Contamination) Measure* (National Environment Protection Council, 2013) • *Guidelines on the duty to Report Contamination under the Contaminated Land Management Act 1997* (Environment Protection Authority, 2015).

Issue	Proposed EIS Assessment scope
	The preliminary site investigation will include: • A desktop review of available data and existing reports relating to potential contamination of the Project Site • Description of the Project Site conditions, as they relate to contamination • Identification of the potential of the Project to encounter contamination during construction and operation, and the activities associated with the Project that have the potential to generate contamination • An assessment of potential contamination impacts to sensitive receivers, which could include environmental and human health receptors • Identification of mitigation measures, including whether any additional site investigations are required.
Visual amenity	A desktop visual assessment of the Project Site in the whole and parts on the landscape and urban character of the area, views to and from the Project, magnitude of change to existing views and the visual sensitivity of the viewers. The identification of feasible and reasonable measures to mitigate impacts. Identified mitigation measures will be incorporated in the Project design.
Air quality	Potential air quality impacts would be considered as part of the EIS to evaluate the impact of fugitive dust emissions to inform mitigation and management measures for the construction of the Project.
Aboriginal heritage	An assessment of Aboriginal cultural heritage will be prepared for the EIS. This assessment will be undertaken in accordance with the following Aboriginal heritage assessment guidelines, where relevant: • *Code of Practice for Archaeological Investigation of Aboriginal Objects in New South Wales* (DECCW, 2010) • *Guide to Investigating, Assessing and Reporting on Aboriginal Cultural Heritage in New South Wales* (OEH, 2011) • *Aboriginal Cultural Heritage Consultation Requirements for Proponents* (Department of Environment, Climate Change and Water, 2010). The Aboriginal heritage assessment of the Project to be included in the EIS will include: • Assessment of the Aboriginal archaeological potential within the Project Site • Identification of registered Aboriginal sites within, and in the vicinity of the Project Site • Identification of the potential for the Project to disturb Archaeological heritage, and, where this is the case, determine: – In consultation with relevant stakeholders (as required by the guidelines), the significance of the heritage items / areas to the Aboriginal community – The extent and significance of impact to these resources. • Identification of appropriate measures to avoid, minimise and/ or mitigate potential impacts to Aboriginal heritage.
Non-Aboriginal heritage	An assessment of the potential non-Aboriginal heritage impacts of the Project will be completed as part of the EIS. The assessment will include: • Identification of listed items and areas of heritage significance within and near the Project • Assessment of potential impacts on the values, setting and integrity of identified heritage items, and determine the significance of those impacts • Identification of appropriate measures to avoid, minimise and/ or mitigate potential impacts to non-Aboriginal heritage.

Issue	Proposed EIS Assessment scope
Climate change and greenhouse gas	Given the benefits of the operation of the Project, a quantitative greenhouse gas assessment is not considered necessary and is not proposed as part of the EIS. Operational climate change risk will be considered as part of the EIS, which will include: • A review of climate data (including rainfall, temperature and windspeed) for the Project Site • Identification of parts of the Project which are most susceptible to climate change impacts • Identification of possible climate related impacts.
Socio-economic	An assessment of the potential socio-economic impacts as a result of the Project will be carried out as part of the EIS. The socio-economic impact assessment will include: • Description of the existing socio-economic profile for the communities and businesses surrounding the Project, including: – Social characteristics, including population and demography; families and housing; travel behaviour; socio-economic indicators – Economic characteristics, including labour force, income and employment; and business and industry. • Assessment of the potential impacts of the Project on the socio-economic values of the study area • Identification of appropriate management and mitigation measures including measures to enhance the Project's benefits and to avoid, manage or mitigate its potential impacts.
Land use and property	A property and land use assessment will be completed as part of the EIS. This will include: • Review of key planning policy, strategy and relevant controls and identification of strategic planning context and future land use priorities • Assessment of potential property and land use impacts including: – Direct impacts as a result of land occupation – Indirect impacts on surrounding land uses during construction and operation • Compliance with relevant land use and planning controls. • Development of mitigation and management measures.
Waste management	A waste management and resource use assessment will be carried out as part of the EIS, that will consider the following government guidelines as relevant: • *Waste Classification Guidelines Part 1: Classifying Waste* (NSW Environment Protection Authority, 2014) • *NSW Waste Avoidance and Resource Recovery Strategy 2014-21* (NSW Environment Protection Authority, 2014) • *NSW Waste Reduction and Purchasing Policy* (Environment Protection Authority, 1997). The assessment will include: • Identification of the waste streams likely to be generated during construction and operation of the Project • Identification of the expected resources required for construction and operation • Strategies for minimising the export of excavated materials of-site, maximising reuse opportunities and minimising the volume of excavated material disposal to landfill

Issue	Proposed EIS Assessment scope
	Strategies for reducing waste such as the use of recycled materials, bulk delivery of goods to minimise packaging and arrangements with suppliers to return any unused construction materials.
Cumulative impacts	A cumulative impact assessment will be undertaken as part of the EIS for the Project. The assessment will include: • Identification of surrounding developments and major projects with the potential to interact with the construction of the Project (including the Great Western Battery Project) through a review of relevant local environmental plans, the Department of Planning, Industry and Environment's Major Projects database and local council development application • Identification of potential cumulative impacts arising from the interaction of these projects with the Project and where this is the case, assessment of these cumulative impacts • Measures to minimise or mitigate identified construction and operational cumulative impacts would also be developed as part of the assessment, where appropriate.

9 CONCLUSION

Greenspot Wallerawang is seeking to establish a market leading Wallerawang Battery Energy Storage Station (BESS) located at the Wallerawang Power Station at Wallerawang, NSW. Greenspot is seeking development consent for the construction, operation and maintenance of a Battery Energy Storage System, of approximately 500 Megawatt (MW) and between 500 and 1,000 Megawatt Hours (MWh) storage capacity, or one to two hours of storage duration. The Project is considered critical in supporting the NSW Government's electricity strategy for a reliable, affordable and sustainable electricity future that supports a growing economy.

The key objectives of the Project include the following:

- Improve the security, resilience and sustainability of NSW's electricity grid
- Deliver a Project that would initiate and complement the redevelopment of the Wallerawang Repurpose, Redevelopment Hub
- Minimise adverse impacts on the environment and community during construction and operation providing critical energy storage to an ever-growing industry for NSW.

The potential environmental impacts have been identified and their magnitude ascertained as part of this SSD Scoping Report. The assessment concluded that minimal environmental impacts have been identified as a result of the Project. The key environmental issues identified for the Project include:

- Traffic, transport and access
- Noise and vibration
- Water quality and hydrology
- Soils and contamination
- Biodiversity.

The EIS will include the following in accordance with Schedule 1 of the EP&A Regulations:

- A detailed description of the Project including its components, construction activities and potential staging
- A comprehensive assessment of the potential impacts on the key issues including a description of the existing environment, assessment of potential direct and indirect and construction, operation and staging impacts
- Description of measures to be implemented to avoid, minimise, manage, mitigate, offset and/or monitor the potential impacts
- Identify and address issues raised by stakeholders.

The Proponent is seeking State Significant Development (SSD) approval for the Project under Part 4, Division 4.7 of the *Environmental Planning and Assessment Act 1979* (EP&A Act). The Secretary's Environment Assessment Requirements (SEARs) are required to enable this assessment.

10 REFERENCES

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APPENDIX A SCOPING WORKSHEET

Scoping Worksheet for Proposal:			Stage of Proposal:					Date:			
What matters might be impacted?		What activities might cause an impact?	What are the characteristics of the impact?					How will the impact be managed?	What are the community & other stakeholders views?	What type of assessment and engagement is required in the EIS stage?	
Environmental and social matters these are natural or human assets or values aggregated at the level most appropriate for informing management and assessment requirements *for more information about the matters click the link above*			Without any mitigation, will the proposal impact on the matter?	If there is a "likely" impact: 1. list the activities likely to cause the impact; and 2. if applicable, list the receptor being impacted and its status. *E.g. clearing 100ha EEC, or construction noise nearby school* If "unlikely", why? has the impact been actively avoided through project design or site location?	Is the impact, without mitigation, likely to cause a material effect with regard to its …				Does the impact need assessment in the EIS? *(auto fills)*	Is the impact, without mitigation, likely to have a material cumulative effect with other impacts from emerging projects?	What safeguards and management measures are likely to be required to address the impact?	Are there community & other stakeholder concerns regarding the impact or activity? *(requires consultation)*	Likely level of assessment and/or engagement required *(auto fills)*	Relevant Section in Scoping Report
					Extent	Duration	Severity	Sensitivity						
What does the proposal mean for people?	AMENITY	acoustic	Likely	Construction of the project may result in noise impacts at residential receivers to the east of the Castlereagh Highway Potential for operational noise to result from fans/ventilation noise of facility, especially on hot days	?	?	?	?	Unknown	No	Project Specific	Unknown	Key Issue	Noise and Vibration
		visual	Likely	Permanent new infrastructure, including transmission line which may be visible from other receivers. However, the project is positioned in an industrial setting, immediately south of the former Wallerawang Power Station site and Western Railway Line	N	Y	N	N		No	Standard	Unknown	Other Issue	Landscape character and visual amenity
		odour	Unlikely	Construction and operation would not emit odours									Scoping Report	Air quality
		microclimate	Unlikely	The project would not result in impacts to microclimate given its scale and nature of operations									Scoping Report	Climate change and greenhouse gas
		other - please specify												
	ACCESS	access to property	Unlikely	The project would not temporarily or permanently affect access to property. The project is located on land largely owned by the Proponent									Scoping Report	Land use and property
		access to services	Unlikely	The project would not result in the change to services, increase demand of existing services or result in the disruption of services. It would not affect the access and availability of services									Scoping Report	socio-economic project description
		road and rail network	Likely	The project would not affect access to the road and rail network. There is the potential for some minor, short term construction traffic impacts.	Y	N	N	Y	Yes	Unknown	Standard	Unknown	Other Issue	Traffic and transport
		offsite parking	Unlikely	The project would include parking onsite within the project footprint for vehicles during construction and operation. No offsite parking would be required.									Scoping Report	Traffic and transport
		other - please specify												
	BUILT ENVIRONMENT	public domain	Unlikely	The project would include new building (s), transmission line, and site access road. The site is largely shielded from nearby receptors and in an industrialised setting. As a result, it is not expected to impact on the existing public domain, including the aesthetic appeal of the nearby Wallerawang village.									Scoping Report	Landscape character and visual amenity
		public infrastructure	Unlikely	The project would not result in activities (construction and/or operation) that would impact on existing public infrastrutcure, including the nearby Western Railway Line. A conneciton enquiry has been lodged with TransGrid.									Scoping Report	socio-economic
		other built assets	Unlikely	Built assets near the project would not be affected by construction or operation of the project									Scoping Report	Land use and property
		other - please specify												
	HERITAGE	natural	Unlikely	The project would not impact on landscape features of heritage value									Scoping Report	Non-Aboriginal heritage
		cultural	Unknown	The project site is not located on or near items or areas of known European heritage. The potential for unknown items or areas of European heritage to be present within the project site is low.	N	Y	N	N	No	No	Standard	Unknown	Other Issue	Non-Aboriginal heritage
		Aboriginal cultural	Unknown	The project site is not located on or near previously identified Aboriginal objects and places. The potential for unknown items or areas of Aboriginal cultural heritage heritage is unknown, subject to additional assessment to be included in the EIS.	N	Y	?	Y	Yes	No	Project Specific	Unknown	Key Issue	Aboriginal heritage
		built	Unlikely	The project site is not located on or near items of known built heritage and there are no existing structures present on the project site. The potential for unknown items or areas of built heritage to be present within the project site is low.									Scoping Report	Non-Aboriginal heritage
		other - please specify												
		health	unlikely	The potential for the project to result in impacts to human health are unlikely given the distance of the project to residential receivers and community facilities, combined with the scale and nature of the project's construction and operation.									Scoping Report	Hazards and risk
		safety	Unknown	Construction and operation of the Project would not result in impacts such as flooding that would result in saefty concerns for the community. The project is located on bushfire prone land However, a PHA will be prepared to assess the hazards associated with the operation of the BESS.	N	N	Y	Y	Yes	No	Project Specific		Key Issue	Hazards and risk

	SOCIAL	community services and facilities	Unlikely	Construction and operation of the project would not result in added pressure on existing services or result in the removal of existing services or public facilities.									Scoping Report	socio-economic
		housing availability	unknown	The project would not result in an impact to housing availability during operation. There is the potential for cumulative impacts to temporary and short term accommodation facilities during construction, if construction occurs at the same time as construction of the Great Western Battery Project and/or a major outage/maintenance period at the Mt Piper power station	Y	N	N	Y	Yes	Yes	Standard		Other Issue + CIA	socio-economic
		social cohesion	Unlikely	The project would not result in division of a community or parts of a community by major road or rail, acquisition of properties, loss of services or extra pressure on existing services, creation of conflict within community									Scoping Report	socio-economic
		other - please specify												
	ECONOMIC	natural resource use	Likely	The project would change the land use of the project site from cleared and forestry land, to electricity generating works. However, would not impact on receptors, given its location on privately owned land.	N	Y	N	N	No	Yes	Standard		Other Issue + CIA	Land use and property
		livelihood	Unlikely	the project would not impact on livelihood. It would not result in a lack of resources or offsite impacts to agriculture or a person's ability to continue to make a living									Scoping Report	Socio-economic
		opportunity cost	Unlikely	The project would not result in any loss of business opportunity or changes in customer access to business									Scoping Report	Socio-economic
		other - please specify												
What does the proposal mean for the natural environment?	AIR	particulate matter	Likely	The project would result in the generation of dust during construction from ground disturbance . Operation of the project would not result in PM emissions	y	N	N	y	Yes	No	Standard	Unknown	Other Issue	Air quality
		gases	Likely	Emissions from construction plant and equiment would be likely. Operational emissions would be negligible, given the project would not be generating electiricty and the only opportunity for emissions would be from vehicle movements of the small operational workforce (up to 5 workers per day on an as needs basis only)	n	n	n	y	No				Scoping Report	Air quality
		atmospheric emissions	Likely	Emissions from construction plant and equipment are likely, however construction would be temporary for up to 18 months.	N	N	N	N	No			Unknown	Scoping Report	Air quality
		other - please specify												
	BIODIVERSITY	native vegetation	Unknown	Potential for clearance of some native vegetation clearance; however, vegetation present is subject to future additional investigation as part of the EIS	n	y	?	?	Unknown	Unknown	Unknown		Key Issue	Biodiversity
		native fauna	unknown		N	y	?	?	Unknown	Unknown	Unknown		Key Issue	Biodiversity
		other - please specify												
	LAND	stability / structure	Likely	Construction of the project would result in ground disturbance during construction. The project would not have a permanent or ongoing impact on erosion or stability	y	n	?	?	Unknown	Unknown	Standard		Other Issue	Soils
		soil chemistry	Likely	Construction of the project has the potential to disturb existing contamination, or result in the contmaination of areas of ground disturbance as a result of accidental spills and/or leaks of chemicals during construction	y	N	?	N	Unknown	No	Standard		Other Issue	soils
		capability	Unlikely										Scoping Report	N/A
		topography	Unlikely	The project site is generally flat, and earthworks and levelling would be minimal. The project would not significantly impact on the slope or elevation of the land									Scoping Report	soils
		other - please specify												
	WATER	water quality	Likely	The Project (unmitigated) has the potential to result in erosion and sedimentation during construction as a result of ground disturbance.	y	n	n	y	Yes	No	Standard		Other Issue	
		water availability	Unlikely	the project would not include any activities that would impact on water availability.									Scoping Report	
		hydrological flows	Unlikely	The project would not result in the alteration of hydrological flows									Scoping Report	
		other - please specify												
What risks does the proposal face?	RISKS	coastal hazards	Unlikely	The project is not near any areas where coastal hazards would be present									Scoping Report	
		flood waters	Unlikely	the project is not located on flood prone land, nor would it result in flooding impacts from altering floodpaths or impacting on floodways									Scoping Report	
		bushfire	Likely	The project is located on bushfire prone land	y	n	y	n	Yes	No	Project Specific		Key Issue	
		undermining	Unlikely	The project does not include tunneling, and is not located near any existing tunnels, including those for road, rail, mining or quarrying									Scoping Report	
		steep slopes	Unlikely	The project is not located on or near steep slopes									Scoping Report	
		other - please specify												

APPENDIX B ENGAGEMENT REGISTER

Table B-1 Consultation with the community

Stakeholder	Details of consultation and engagement activities undertaken to-date
Community	• February 12 2021: Article regarding the project published in the Village Voice (https://issuu.com/villagevoice.net.au/docs/village20210212_web)
Targeted community consultation to date has focused primarily on notifying nearby residents of Greenspot's intention to lodge the Scoping Report for the Project. For the residents where contact was able to be made, the general feedback that has been received was requesting more information about how they would be directly impacted by the Project. It was communicated that more information would be provided as the Project development progressed, including at key milestones such as EIS preparation. Overall, the initial feedback from the community has been positive.	
Residential receiver 14 Millers Road, Springvale, NSW, 2790	• 5 February 2021: Doorknock by Greenspot and spoke with property owner to give overview of the Project, prior to lodgement of Scoping Report.
Residential receiver 4 Millers Road, Springvale, NSW, 2790	• 5 February 2021: Doorknock by Greenspot; however, no one was at the property. Contact details were left, and Greenspot plan to follow up with property owner.
Residential receiver 9 Springvale Lane, Springvale, NSW, 2790	• 5 February 2021: Doorknock by Greenspot; however, no one was at the property. Contact details were left, and Greenspot plan to follow up with property owner.
Residential receiver 31 Springvale Lane, Springvale, NSW, 2790	• 5 February 2021: Doorknock by Greenspot and spoke with property owner to give overview of the Project, prior to lodgement of Scoping Report.
Residential receiver 80 Springvale Lane, Springvale, NSW, 2790	• 5 February 2021: Doorknock by Greenspot and spoke with property owner to give overview of the Project, prior to lodgement of Scoping Report.
Residential receiver 83 Springvale Lane, Springvale, NSW, 2790	• 5 February 2021: Doorknock by Greenspot. Property is under temporary rental to contractors.
Residential receiver 14 Springvale Lane, Springvale, NSW, 2790	• 5 February 2021: Doorknock attempted by Greenspot; however, property access was unavailable, and contact details were not left. Greenspot plan to follow up.
Wallerawang Lidsdale Progress Association	• 5 February 2021: Telephone call to provide high level overview of the Project and its current status. Follow up meeting to be scheduled.

Table B-2 Consultation with Agencies

Stakeholder	Details of consultation and engagement activities undertaken to-date
NSW Department of Planning, Industry and Environment (DPIE)	• 2 February 2021: A Scoping Meeting with DPIE was held (via teleconference) to provide an overview of the Project. The meeting was attended by representatives of Greenspot, DPIE and Arcadis. The meeting minutes from the Scoping Meeting with DPIE are included as Appendix C of this Scoping Report.
Paul Toole, MP State Member for Bathurst	• 21 January 2021: Meeting held at the Wallerawang Power Station site with the State Member for Bathurst and a high level overview of the project was discussed.
Andrew Gee MP Federal Member for Calare	• 11 February 2021: Telephone call with Federal Member's office, and email sent to Federal Member. A follow up meeting is to be arranged in the coming weeks.
Lithgow City Council	• 20 January 2021: Craig Butler (General Manager) and Paul Cashel (Development Manager, Economic Development and Environment) was advised of our intention for

Stakeholder	Details of consultation and engagement activities undertaken to-date
	the project at a meeting regarding various broader matters related to the Greenspot 2458 Activity Hub during a meeting at the Lithgow City Council Chambers • 11 February 2021: Greenspot met with Craig Butler, Andrew Muir (Director, Economic Development and Environment) and Paul Cashel at Lithgow City Council Chambers to provide a briefing on the Project and the contents of the Scoping Report, including project features, key environmental issues and consultation proposed to be undertaken. The following matters were raised/questioned by Lithgow City Council as part of the meeting, relevant to the Project and Scoping Report: – The level of community consultation that has been completed to date was questioned – Whether Regional NSW and NSW Treasury are aware of the Project – Whether the substation connection will be underground or overhead – When the Project would be operations – Lithgow City Council indicated the Lithgow LEP and LSPS is not scheduled to be updated for another five years – indicated a future conversation should occur in the next 4-6 weeks, March 2021.
NSW Rural Fire Service	• 5 February 2020: Telephone call with Wallerawang Rural Fire Service to provide high level overview of the project.
Forestry Corporation of NSW	• 10 February 2020: Telephone call and follow up email regarding the project. As part of the telephone call, plans for tree harvesting was discussed. Following the telephone call, Greenspot provided the Forestry Corporation of NSW with a figure, showing an overview of the Project.
NSW Treasury	• 11 February 2021: Telephone call with, and email to NSW Treasury to notify of Greenspot's intention to lodge the Scoping Report for the Project.
Department of Regional NSW	• 11 February 2021: Telephone call with, and email to NSW Treasury to notify of Greenspot's intention to lodge the Scoping Report for the Project.

Table B-3 Consultation with Aboriginal community stakeholder

Stakeholder	Details of consultation and engagement activities undertaken to-date
Mingaan Wiradjuri Aboriginal Corporation	• 10 December 2020: Discussed initial plans for the Project with Aunty Helen Riley in a meeting at the Wallerawang Power Station • 11 February 2020: Met with Aunty Helen Riley and Aunty Sharon Riley at the Wallerawang Power Station site to provide an update on the project including an overview and its current status

Table B-4 Consultation with other stakeholders

Stakeholder	Details of consultation and engagement activities undertaken to-date
TransGrid	• 17 November 2020: Connection enquiry was lodged • 21 December 2020: Formal connection response was received • 20 January 2021 and 2 February 2021: Meetings held between TransGrid and Greenspot to progress the connection process
John Holland (as the operator of the Country Regional Rail Network)	• 10 February 2021: Telephone call with representative from John Holland, during which a high level overview of the Project was provided. • 12February 2021: Email to John Holland, providing an overview of the Project.

Stakeholder	Details of consultation and engagement activities undertaken to-date
Local business GoodEarth 879 Castlereagh Highway, Springvale, NSW, 2790	• 4 February 2021: Meeting with owner of business to provide a high level overview of the Project and its current status.
Generator Property Management Pty Ltd (Owner of Wallerawang Power Station Ash Dams on northern side of Castlereagh Highway)	• 4 February 2021: Greenspot met with the Managing Director (Steve Saladine) to give a high level overview of the Project and its current status
Centennial Coal (Owner of Springvale Colliery)	• 5 February 2021: Greenspot contacted Centennial Coal to identify the most appropriate contact to discuss the Project with. Awaiting contact details to progress consultation • 11 February 2021: Telephone call, and follow up email to Centennial Coal to provide a high level overview of the Project, and Greenspot's intent to lodge the Scoping Report for the Project.
Black Gold Motel	• 4 February 2021: Greenspot met with hotel owner to provide high level overview of the Project and its current status.
EnergyAustralia (Owner of Mt. Piper Power Station and other land near the Project)	• 21 January 2021: Met with EnergyAustralia at Mt Piper Power Station and advised of high level plans for the Project. • 4 February 2021: Telephone call with compliance, risks and property specialist to provide overview of the Project. • 11 February 2021: Email to EnergyAustralia advising of Greenspot's intent to lodge the Scoping Report for the Project.
St John the Evangelist Church	• 5 February 2020: Telephone call to provide a high level overview of the Project and its status. A follow up meeting is to be arranged in the coming weeks.
Lithgow Rangers Soccer Club	• 5 February 2020: Telephone call to provide a high level overview of the Project and its status. A follow up meeting is to be arranged in the coming weeks.
Neoen Australian (developer of the Great Western Battery Project at 173 Brays Lane, Wallerawang, NSW, 2845)	• 3 February 2021: Greenspot met with representatives of Neoen at a community information session for the Great Western Battery Project. • 4 February 2021: Email sent to Neoen, advising of their intent to develop the Project and indicative timing for this Scoping Report to be lodged, along with an overview of the Project Site.

APPENDIX C MEETING MINUTES

Issue date	8/02/2021
Issue to	DPIE, Greenspot, Engevity, Arcadis
Subject	Greenspot Wallerawang 2845 Activity Hub Presentation and DPIE Consultation
Client	Greenspot
Meeting date	2/02/2021
Time	2:30pm-3:30pm
Location	Teams Meeting
Distribution	Chris Ritchie (DPIE), Nicole Brewer (DPIE), William Hodgkinson (DPIE), Brett Hawkins (Greenspot), Bradley Searle (Arcadis), Westley Owers (Arcadis), Heather Tilley (Arcadis), Claire Vahtra (Arcadis), Kristen Branks (Arcadis), Andy Winter (Engevity)
Present	Chris Ritchie, Will Hodgkinson, Nicole Brewer, Brett Hawkins, Andy Winter, Westley Owers, Heather Tilley, Claire Vahtra, Kristen Branks

ITEM	DETAIL	ACTION
1	**Introduction** • Introductions of parties present including: DPIE Energy Team (Nicole), DPIE Planners (Chris Ritchie and Will Hodgkinson), Greenspot CEO (Brett Hawkins), Engevity (Andy Winter) and Arcadis (Westley, Claire, Heather and Kristen) • Outline of the presentation: Site redevelopment of the past Wallerawang Power Station and surrounding land, Master Plan, and the development of the Wallerawang Battery Energy Storage System (BESS).	No action
2	**Purpose and Context** • Greenspot has been in consultation with Regional NSW, Lithgow City Council (LCC) and Treasury NSW for the last 24-28 months for the greater repurposing of the Wallerawang 2845 site. Greenspot wish to specifically address the BESS Proposal in this meeting. • Greenspot described general context of the greater Wallerawang Hub and explained the current zoning of the site with reference to the land zone figure and provided characteristics of the site. • It is noted that other battery proposals exist in the area including the Great Western Battery Project. Greenspot are aware of the competition in the area.	Land use may change over time

ITEM	DETAIL	ACTION
3	**Masterplan and Hub** • The existing WPS site (including the turbine hall, existing railway site, green buffer Coxs River) and the masterplan for the northern, commercial, innovation, entertainment recreation, high level precincts in the area were described. • The Project site will be located in near the TransGrid 300kV Substation and the south-east area is zoned already suitable for heavy industrial. The lot required for the battery storage is 10 ha out of the acquired 40 ha. • No decision has been made on the battery location as it dependent on discussion with TransGrid and Forestry in the coming days • Greenspot predominantly wants to transform the old Wallerawang site for energy and water uses from an industrial and commercial perspective with a focus on contributing to a circular economy • DPIE questioned the total Hub timeframe and whether the final environmental assessments and land uses will be in relation to the current state of the area or future state with the battery site. • The BESS site will be developed as a separate component to the repurposing of the greater Wallerawang Hub • The community are aware of the larger project and consultation with key stakeholders has been undertaken as this is opportunity to employ the greater community after the closure of several power stations and coal mines in the area.	Determine final location of the BESS site Establish land use of site with consideration of BESS site Hub timeframe program
4	**Strategic and Planning Context** • The existing land uses and planning context are suitable for the location of the battery. Over time rezoning may occur within the greater Hub dependent on the longer-term reuse of the site. • There are a variety of different uses within this area and the zoning is not consistent with the plans to repurpose the proposal area. A mechanism to rezone land and the development pathway will need to be determined. • The BESS would take on a larger SSD application, but the concept of the Hub may be discussed further down the line and will not relate to battery storage. • The planning approval pathway could become a physical works approval. It was agreed that an SSD development was not necessary for all parts of the site.	Consider different strategic pathways for each part of the larger repurpose site Land use repurposing as time goes on
5	**Wallerawang BESS Background** • The site and demand for electricity in the region and the push to support renewable energy was described. • The BESS will run 1-2 hours a day, and produce 500 MW or up to 1000 MWh when in operation.	Consider competition in the area such as Neoen

ITEM	DETAIL	ACTION
	• Greenspot is aiming for a rapid development as competition in the area increases and demand for energy increases. • It is understood that the Greater Battery Project will provide electricity to the ACT Government, while the BESS would provide electricity to the Central West Orana Zone.	
6	**BESS Proposal Overview** • The exact location of the BESS, two options for the transmission lines and the vegetation present in the western area of the site was described. • Forestry NSW and TransGrid are in discussions with Greenspot to determine the best solution for the forestry and transmission line linkage in the coming weeks. One transmission line will then be chosen and presented in the EIS. • A Plantation Deed established by EnergyAustralia exists within the site. Trees will be avoided where necessary and removal may be determinate on the specialization of 500 MW power capacity battery and further discussions with technology specialists and TransGrid on the viability of transmission lines.	Consider the forestry to be removed or retained Consider the transmission lines location and impact with vegetation on the BESS site Contact TransGrid and Forestry NSW
7	**Stakeholder and Community Engagement** • Greenspot has undertaken consultation with stakeholders and key community groups over 18-24 months and have generally received support for the BESA and repurposing project. As part of EIS, additional consultation with the community will be undertaken. • Consultation with the community and a gap analysis will be undertaken before scoping report is lodged. • Early engagement and residential receivers in the south-east will need to be undertaken prior to the preparation of the EIS.	Consultation with the community prior to the scoping report release
8	**Key Issues of the BESS Proposal** • The key environmental issues as identified through the environmental risk and ranking analysis were described. • DPIE advised that operational noise should be considered in the risk analysis as battery fans tend to be loud when in operation. • DPIE advised that a PHA should be undertaken as the proposal is considered hazardous in nature. The land use may change as the project progresses and the PHA will need to consider the current land use and when in operation. • The other land uses that currently occupy different areas of the site will be taken into account. Mitigation will need to be considered for the level of risk of the transmission lines and proposal site. • There are no agricultural uses where the BESS is located and therefore it will not impact on employment or the local economy.	Undertake DPIE worksheet risk analysis to determine key impacts Consider current and future land use with reference to the greater site Consider a PHA early

ITEM	DETAIL	ACTION
	• This will be discussed further as part of the strategic context in the scoping report and EIS.	
9	**Next Steps and Questions** • Greenspot plan to submit scoping report within the next week and will consider consultation with community prior to submission. • Greater Battery Hume did not need a PHA because of size of the site, whereas Broken Hill needed a PHA as it is a larger operation. • Greenspot has spoken to Lithgow City Council and will provide a formal presentation in the coming days. Greenspot asked DPIE what other agencies should be approached for SEARs consultation. • The standard agencies will be consulted, but also BCS and Heritage. • A biodiversity site assessment will be undertaken, and it will be determined if a BDAR will be necessary • DPIE advised that Greenspot will need sufficient justification for a BDAR waiver. However, it may be beneficial approaching BCS prior to the release of SEARs. • Community and necessary agency consultation with all parties will occur before SEARs are released. This will set the site up for future development. Lithgow City Council is supportive of the Greenspot proposal. • DPIE advised that there will likely be multiple pathways moving forward for the total repurposing of the Hub. The meeting closed at 3:30pm.	Scoping Report to be summited within the week Greenspot presenting to LCC in the next week Discuss project with BCS and Heritage agencies A BDAR may be required for the BESS EIS