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GPG
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TARRONE BATTERY ENERGY STORAGE SYSTEM

Planning Permit Application Report

FINAL

October 2024

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Prepared by
Umwelt (Australia) Pty Limited
on behalf of
Global Power Generation Australia Pty Ltd

Project Director:	David Knight
Project Manager:	Joseph Thom
Technical Director:	Joseph Thom
Technical Manager:	Louise Hill
Report No.	R02
Date:	October 2024

This report was prepared using Umwelt's ISO 9001 certified Quality Management System.

Acknowledgement of Country

Umwelt would like to acknowledge the traditional custodians of the country on which we work and pay respect to their cultural heritage, beliefs, and continuing relationship with the land. We pay our respect to the Elders – past, present, and future.

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Glossary

Acronym	Name
BESS	Battery Energy Storage System
CaLP Act	*Catchment and Land Protection Act 1994*
CBD	Central Business District
CHMP	Cultural Heritage Management Plan
CMA	Catchment Management Authority
EP Act	*Environment Protection Act 2017*
EPBC Act	*Environment Protection Biodiversity Conservation Act 1999*
ESO	Environmental Significance Overlay
FFG Act	*Flora and Fauna Guarantee Act 1988*
FPQ	Fire protection quantity
FZ	Farming Zone
GPGA	Global Power Generation Australia Pty Ltd
LGA	Local government area
Li-Ion	Lithium Ion
MWac	megawatt AC
MWh	megawatt hour
NEM	National Energy Market
P&E Act	*Planning and Environment Act 1897*
REZ	Renewable Energy Zone
SUZ	Special Use Zone
The Planning Scheme	Moyne Planning Scheme
The Project	Tarrone Battery Energy Storage System
Umwelt	Umwelt (Australia) Pty Ltd

1.0 Introduction

As Victoria increasingly shifts to renewable energy generation, the transmission network is undergoing significant changes. The Australian Energy Market Operator (AEMO) has outlined a 25-year roadmap to transition the National Electricity Market (NEM) to net zero by 2050. Victoria aims to achieve 65% renewable energy by 2030, with at least 2.6 GW of energy storage capacity by 2030 and at least 6.3 GW by 2035. This storage capacity is sufficient to power approximately half of Victoria's current homes at peak energy use. The transition includes large-scale solar, wind, and storage solutions like utility-scale batteries. As part of this effort, Global Power Generation Australia Pty Ltd (**GPGA**) has proposed installing a Battery Energy Storage System (**BESS**) to connect to and make use of the existing Tarrone Terminal Station.

The Tarrone BESS (**the Project**) is a grid-scale battery energy storage facility proposed by GPGA in Tarrone, Victoria. The BESS is anticipated to have a storage capacity of 200-megawatt AC (MWac) / 400-megawatt hour (MWh), which will utilise the latest in grid forming inverter and Lithium Ion (Li-Ion) battery storage technologies. The purpose of the Project seeks to install battery storage capacity connecting to the existing Tarrone 500 kV Terminal Station located to the west of the Project site and will connect the Ryan Corner and Hawkesdale wind farms into the Tarrone Terminal Station.

Umwelt has been commissioned by GPGA to submit a planning permit application to the Minister for Planning for the use and development of the land at 574 Tarrone North Road, Tarrone, Victoria pursuant to section 47 of the *Planning and Environment Act 1987* (the **P&E Act**). The Project site is located on land spanning six hectares (ha) across two lots (Lot 2 PS918936 and Lot 2 LP218923) and is owned by Ryan Corner Development Pty Ltd, a wholly owned subsidiary of GPGA.

This planning permit application (this document) seeks approval for the use and development of a utility installation and native vegetation removal, pursuant to Clause 35.07-1, Clause 35.07-4, Clause 42.01-2, and 52.17 of the Moyne Planning Scheme (**the Planning Scheme**). This document seeks to provide details of the proposed BESS, describe the Project and its local and regional context, and assesses the relevant provisions of the Moyne Planning Scheme and identify relevant legislation and policies.

The following technical assessments have been undertaken to inform the planning design and planning permit application and are referenced within this document:

- **Appendix A**: Certificate of Title
- **Appendix B:** Development Plans
- **Appendix C:** Traffic Impact Assessment
- **Appendix D:** Noise Assessment
- **Appendix E:** Flora and Fauna Assessment
- **Appendix F**: Preliminary Hazard Assessment
- **Appendix G:** Bushfire Impact Assessment
- **Appendix H:** Landscape and Visual Impact Assessment
- **Appendix I:** Cultural Heritage Management Plan.

2.0 Planning Summary

A summary of the planning permit application details is provided in **Table 2.1** below.

Table 2.1 Planning Summary

Project	Tarrone Battery Energy Storage System
Site	574 Tarrone North Road, Tarrone, VIC 3283
Planning Scheme	Moyne Planning Scheme
Certificate of Title	Lot 1 on Plan of Subdivision 918386G Lot 2 on Plan of Subdivision 918386G Lot 2 on Plan of Subdivision 218923A
Applicant	Global Power Generation Australia Pty Ltd (GPGA)
Permit Application Contact	Joseph Thom, Principal Environmental Planner, Umwelt Email: jthom@umwelt.com.au Phone: 0400 599 803
Zoning	Farming Zone Special Use Zone – Schedule 6
Overlays	Environmental Significance Overlay (Schedule 5 – Tarrone Power Station Environs)
Other	Contains areas of Aboriginal Cultural Heritage Sensitivity
Proposed Land Use	Utility Installation
Permit Triggers	Clause 35.07-1 (Use of land as a utility installation in Farming Zone) Clause 35.07-4 (Buildings and works in Farming Zone) Clause 37.01-4 (Buildings and works in a Special Use Zone) Clause 42.01-2 (Native vegetation Removal in Environmental Significance Overlay) Clause 52.17 (Native vegetation removal)

3.0 Project Site and Regional Context Analysis

3.1 Project Site and Immediate Surrounds

The Tarrone Battery Energy Storage System (BESS) (the Project) is a grid-scale battery energy storage facility proposed by GPGA in Tarrone, Victoria. The Project is proposed to be located at 574 Tarrone North Road, Tarrone, on vacant land next to the existing Tarrone Terminal Station (**Project site**). The Project site has been selected based on its proximity to the Tarrone Terminal Station. The Project is located within Moyne Shire local government area (LGA), approximately 7.5 km east of the township of Orford, 14.5 km west of Hawkesdale, 23 km north of Port Fairy and 250 km west of Melbourne Central Business District (CBD). Moyne Shire forms a large proportion of the South West Victoria candidate Renewable Energy Zone (REZ) and is the major growth area for wind energy development in Victoria.

The Project site is approximately six hectares in size, inclusive of the underground transmission connection to the National Energy Market (NEM) at Tarrone Terminal Station. An existing 500 kV transmission line extends generally north of the Project site from the east and connects to the Tarrone Terminal Station. The Project site is bound by Riordans Road to the south, Tarrone Terminal Station to the west, a private road to the north (utilised to access the Tarrone Terminal Station) and Tarrone North Road to the east.

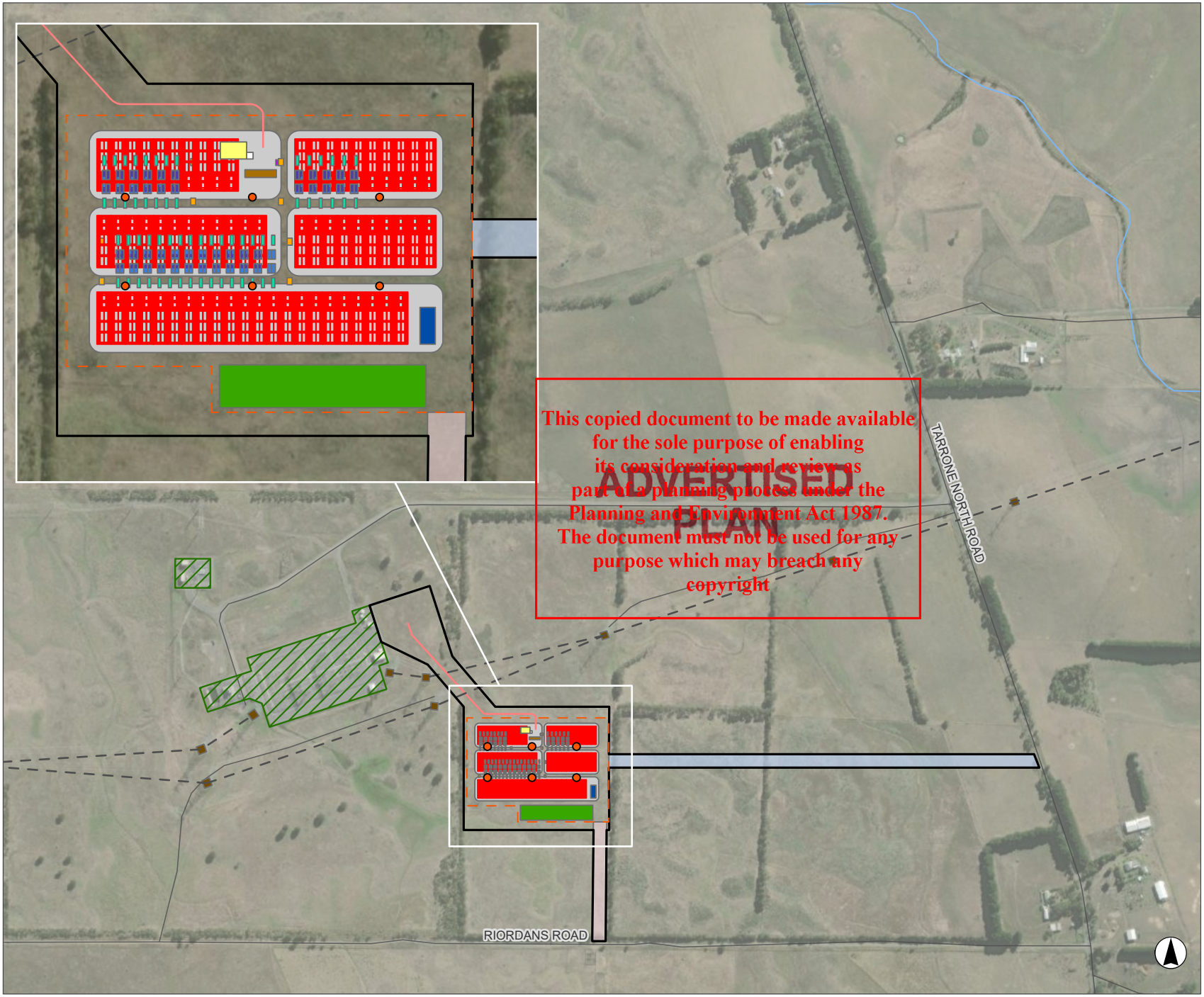
The primary land use within the Project site is agriculture consisting of pasture and grassland. The Project site has historically been used for domestic stock grazing. Under the Moyne Planning Scheme, the Project site is predominantly located in the Farming Zone (FZ) with a small portion of the Project site (transmission connection) located within the Special Use Zone – Schedule 6 (**SUZ6**), which applies to the Tarrone Power Station. The majority of the Project site is also affected by the Environmental Significance Overlay – Schedule 5 (**ESO5**), which relates to the Tarrone Power Station Environs. There are no crown land or public land sites present within the Project site.

The Project site supports basaltic soils with a topography consisting of a gently undulating landscape, characterised by wet depressions at the low points and stony rises, exposing basaltic rock at the high points. A coordinated ephemeral drainage line dissects the east of the Project site in a north-south orientation. There are no major or minor waterways that intersect with the Project site.

The Project site lies within the Victoria Volcanic Plain Bioregion and falls within the Glenelg Hopkins Catchment Management Authority (CMA). Vegetation primarily consists of introduced pasture grasses and broad-leaf weeds. The broader property is surrounded by planted windrows of native trees and shrubs. Areas supporting native vegetation are primarily restricted to the wet depressions or stony rises, although drier flatter land along the adjoining reserves of Tarrone North Road and Riordans Road also support native vegetation. These wet depressions support wetland species typical of Plains Grassy Wetland, such as Spike Sedge, Rush, Australian Sweet-grass, Common Blown-grass, and Common Tussock-grass. The stony rises support Stony Knoll Shrubland and were characterised by the presence of Weeping Grass and Austral Bracken. Other native species included wallaby and spear grasses, Kidney Weed and Sheep's Burr.

FIGURE 3.1

Project Site Layout



Legend

- Project Site Boundary
- Road
- Watercourse

Existing Infrastructure

- Tarrone Terminal Station 500kV
- 500kV Transmission Line

Proposed Infrastructure

- Security Fence
- Site Compound and Laydown Area
- Vials
- BESS Module
- Battery Unit
- Inverter
- BESS Auxiliary Transformer
- Step Up Transformer
- Auxiliary Systems Transformer
- Fire Water Supply Storage Tanks
- Electrical Building
- Diesel Generator
- Eastern Access Road (25m Corridor)
- Southern Access Road (25m Corridor)
- Underground 132kV Transmission Line
- Place Point
- Fire Hydrant

0 100 200
Metres

Scale 1:10,000 at A4
GDA 1994 MGA Zone 54

Image Source: ESRI Basemap (2024) **Data source:** DELWP (2024), GPG (2024)

3.1.1 Land tenure

The Project site is located on Lot 1 and Lot 2 on Plan of Subdivision 918386G, and Lot 2 on Plan of Subdivision 218923A. As illustrated in **Figure 3.2**. The Project site is owned by Ryan Corner Development Pty Ltd, a wholly owned subsidiary of GPGA. Several easements exist within the site boundary. The easements described in **Table 3.1** relate to the transmission of electricity and associated powerlines. The powerline easements are in favour of AusNet. Permission will be required from AusNet and Powercor for works within these easements.

A copy of the title particulars is included in **Appendix A** – Certificate of Title.

Table 3.1 Easements and Encumbrances on Site

Parcel Description	Easement Reference	Purpose	Land Benefitted / In favour of
Lot 1 and Lot 2 on Plan of Subdivision 918386G Sole Proprietor: Ryan Corner Development Pty	E-1	Transmission of Electricity	State Electricity Commission
	E-2	Transmission of Electricity	State Electricity Commission
	E-3	Transmission of Electricity	SPI PowerNet Pty Ltd (AusNet Services)
	E-4	Powerline	Powercor Australia Ltd
	E-5	Powerline	Powercor Australia Ltd
	E-5	Transmission of Electricity	State Electricity Commission
Lot 2 on Plan of Subdivision 218923A Sole Proprietor: AGL Energy Limited	E-1	Easement of Electricity	Electricity Commission of Victoria
	E-4	Transmission of Electricity	SPI PowerNet Pty Ltd (AusNet Services)

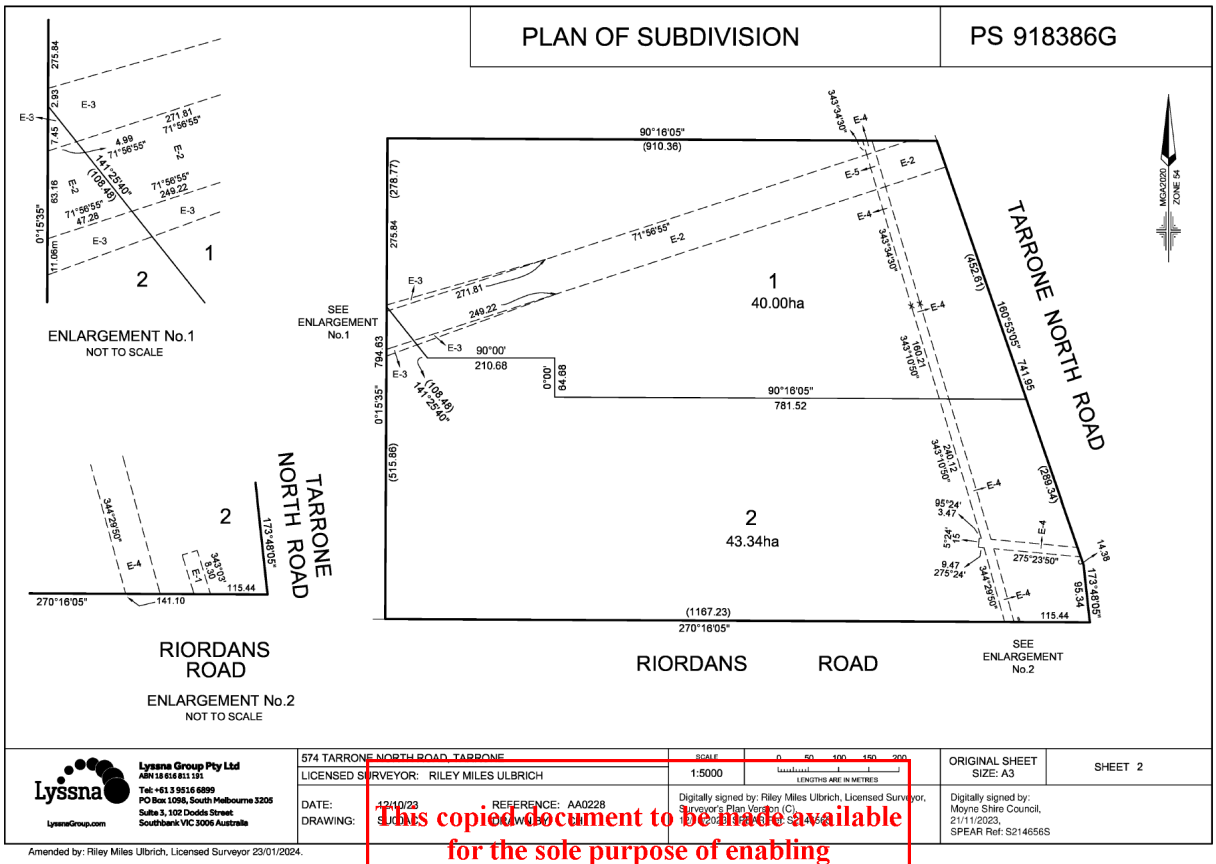


Figure 3.2 Lot 1 and Lot 2 of Plan of Subdivision 918386G Plan and Easements

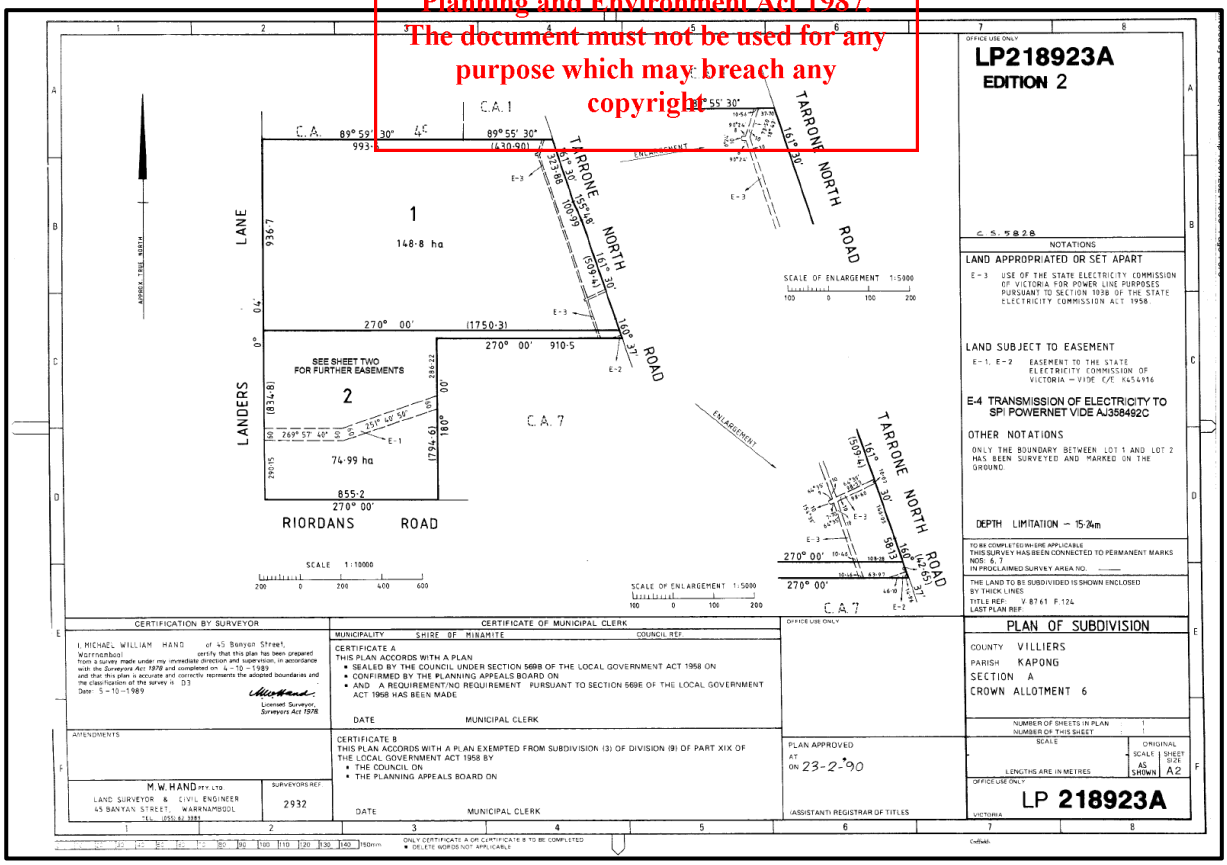


Figure 3.3 Lot 2 on Plan of Subdivision 218923A and Easements

3.2 Regional Context

The Project Site is located approximately 7.5 km north-east of Orford township, 13.5 km south-east of Hawkesdale township, 23 km north of Port Fairy and 250 km west of Melbourne CBD. The closest sensitive receivers to the Project are dwellings located approximately 1.27 km south-west and approximately 3 km north-east of the Project, both located on Tarrone North Road.

The nearest waterway to the Project site is Back Creek, which runs parallel to the east of the site.

The nearest railway infrastructure is Warrnambool railway station (Geelong-Warrnambool Line), located approximately 35 km south-east of the Project Site, and is part of the Victorian Regional Railway network. The closest roads which are part of the principal road network to the site include Woolsthorpe-Heywood Road and Hamilton-Port Fairy Road to the West (Arterial roads).

The Project site is surrounded by numerous renewable energy projects, as shown in **Figure 3.4**, including:

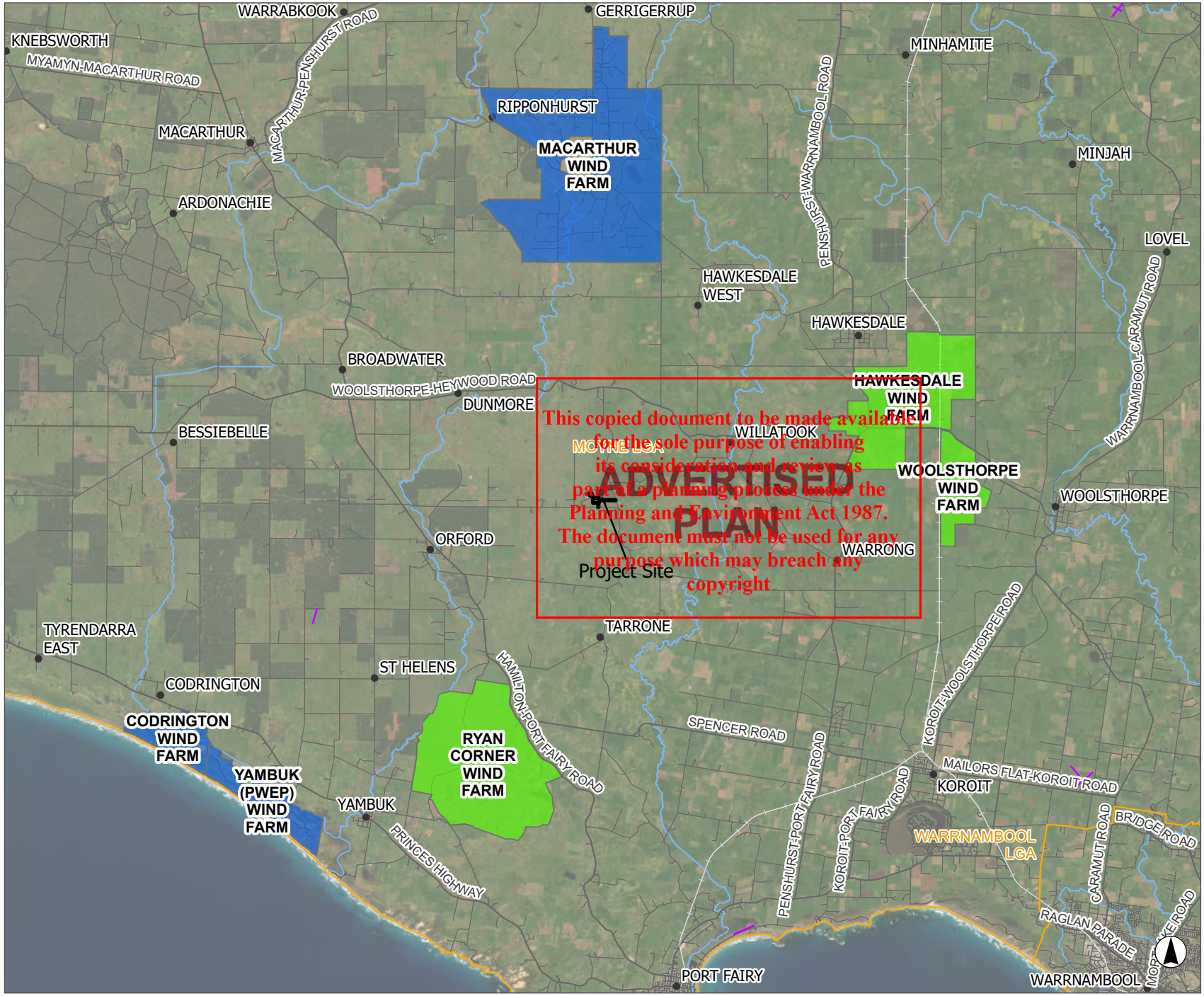
- Macarthur Wind farm, approximately 11 km north of the Project site.
- Hawkesdale Wind farm, approximately 11 km north-east of the Project site.
- Woolsthorpe Wind farm, approximately 15 km east of the Project site.
- Ryan Corner Wind Farm, approximately 10 km south-west of the Project site.

Transmission lines connecting into Tarrone Terminal Station include:

- 500 kv line connecting Tarrone Terminal to Mortlake from the east.
- 500 kv line connecting Tarrone Terminal to McArthur Zone from the north.
- 500 kv line connecting Tarrone Terminal to Heywood Terminal.
- 500 kv line connecting Tarrone Terminal to Moorabool Terminal.

FIGURE 3.4

Regional Context



Legend

- Project Site Boundary
- Local Government Area
- Wind Farm - Operating
- Wind Farm - Approved
- Airport Infrastructure
- Railway
- Major Road
- Road
- Watercourse

0 2 4
Kilometres

Scale 1:250,000 at A4
GDA 1994 MGA Zone 54

Image Source: ESRI Basemap (2024) **Data source:** DELWP (2024), GPG (2024)

4.0 Project Description

4.1 Project Components

The Project is a grid-scale battery energy storage facility proposed by GPGA in Tarrone, Victoria. The BESS is anticipated to have a storage capacity of 200 MWac / 400 MWh, which will utilise the latest in grid forming inverter and Lithium Ion (Li-Ion) battery storage technologies. The purpose of the Project seeks to install battery storage capacity connecting to the existing Tarrone 500 kV Terminal Station located to the west of the Project site. The Project aims to connect to and make use of the existing Tarrone Terminal Station. An underground Transmission line will stretch from the power transformer within the BESS to a recently built 132 kV switchyard at the Tarrone Terminal Station. This switchyard is crucial for facilitating the connection of both GPGA's Ryan Corner Wind Farm and Hawkesdale Wind Farm Projects.

Table 4.1 below describes the key project components and features of the BESS.

Table 4.1 Key Project Components and Features

Component	Features
BESS	• Internal electrical facilities for the storage and export of power will comprise of up to 64 separate battery energy storage system (BESS) module arrays consisting of one electrical inverter and three or four BESS modules installed in groups with a total storage capacity of 200 MWac / 400 MWh. Each individual BESS module will have approximately 2.2 MWh of storage. • These individual BESS modules are fully enclosed in prefabricated shipping container sized containers, with individual fire detection and suppression, ventilation systems and cooling systems. The current site layout allows for up to 130 of the individual BESS modules. • The electrical inverters will be installed outside of the BESS module groups, mainly located towards the centre of the Project to reduce visual impact and noise of the inverters on nearby properties. • The combined inverter and BESS module stations are proposed to be arranged in three rows of approximately twenty stations per row and position in a north to south arrangement. • One 132/33/33 kV transformer (and supporting auxiliary systems). • Site facility containers. • Back-up diesel generator.
Transmission Line	• An underground 132 kV transmission line connecting the Project to the Tarrone Terminal Station with a length of approximately 200 m. • The transmission line will extend from the power transformer within the BESS to the recently built 132 kV switchyard at the Tarrone Terminal Station to support the connection of the GPGA's Ryan Corner Wind Farm and Hawkesdale Wind Farm Projects. • This connection will include the construction of a new 132 kV bay within the new Tarrone Terminal Station 132 kv switchyard.

Component	Features
Ancillary Infrastructure	• Site office and control room. • The main access to the Project site will be via an access road from Tarrone North Road, with a proposed corridor of 25 m. • An Emergency Access point is proposed at the southern end of the site, provided through a private north south road connecting to Riordans Road. This location will be designated exclusively for emergency access only and will be gated and signposted to prevent any unauthorised access. • Four-metre-wide internal access roads to support movement through the facility during the operations. • Security fencing of up to 2.1 m high around the Project infrastructure. • Fire water supply storage tanks. • A 10 m buffer zone to the east and west of the proposed facility location to provide an adequate buffer from site-based works to the existing vegetation located on the property. • A site laydown area of approximately 28 m by 135 m, for the housing of Project infrastructure, site construction facilities and parking (where required). This area is included in the Project impact area.

4.2 Project Timing

The time frame of the Project is subject to obtaining all necessary planning and environmental approvals, and associated permits and consents. The following timeframes are anticipated for the three key phases of the Project:

- **Construction**: Commence in Q3 2025
- **Operation:** Commissioning of the Project in Q3 2026
- **Decommissioning:** It is anticipated the Project would have an estimated lifecycle of 20 years. The BESS and associated infrastructure will either be decommissioned or upgraded at that time, to extend its operational life.

4.2.1 Construction

Construction activities will comprise of three phases:

- Early works and site preparation (approximately three months duration)
  - Approximately 40 anticipated full time / part time employees
  - Approximately 30 vehicles will be required.
- Full site construction (approximately nine months duration)
  - Approximately 120 staff will be expected on site during peak construction
  - Approximately 90 of vehicles will be required.
- Commissioning (approximately three months duration)

- Approximately 30 employees will be required
- 22 vehicles will be required.

4.2.2 Operation

Operational activities will include the ongoing monitoring and maintenance of the BESS and is estimated to begin in 2026 and end in 2046.

- Two full time employees will be required sourced from the local region.
- 5 permanent car parking spaces will be required.
- Up to four (4) daily vehicle movements associated with routine maintenance during operation.

4.2.3 Decommissioning

- It is anticipated the Project would have an estimated lifecycle of 20 years. The BESS and associated infrastructure will either be decommissioned or upgraded at that time to extend its operational life.

5.0 Planning Assessment

The following sections provide an assessment of the planning framework, as relevant to the proposal.

5.1 Planning Context

The proposed BESS is to be located within the Moyne Shire Council local government area. The Moyne Planning Scheme (Planning Scheme), along with the provisions of the *Planning & Environment Act 1987* sets the planning requirements for the proposal.

The Planning Scheme applies the following zones and overlays to the proposal footprint:

- Farming Zone (FZ)
- Special Use Zone -Schedule 6 (SUZ6)
- Environmental Significance Overlay – Schedule 5 (ESO5).

Figure 5.1 and **Figure 5.2** below illustrate the zones and overlays that apply to the site.

5.2 Land Use Definition

The proposed BESS is defined as a **Utility Installation** as per **Clause 73.03** of the Moyne Planning Scheme:

"Land used for a utility installation comprising any of the following:
…c) to transmit, distribute or store power"

5.3 State Planning Policy Framework Assessment

The state planning policy framework contains overarching state level policies that apply across Victoria. **Table 5.1** summarises the clauses which are most relevant to this proposal and provides a brief assessment of each.

Table 5.1 Planning Policy Framework Assessment

Clause		Relevant Objectives	Assessment
Clause 12 Environmental and Landscape Values	Clause 12.01-1S Protection of Biodiversity	To ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation.	**Consistent.** As shown in the flora and fauna assessment (**Appendix E**), the Project aims to preserve the majority of the native vegetation on-the Project site, with offsetting to be undertaken for the anticipated minimal impacts to vegetation. Out of 2.972 hectares of vegetation within the Project Site, only 0.313 hectares are identified for removal, leaving approximately 90% of vegetation intact. The Project will retain over 95% of the wetland habitat within the Project site by impacting only small, disconnected patches totalling 0.079 ha, while preserving 1.569 ha.
	Clause 12.03-1S Water bodies and wetlands	To protect and enhance waterway systems including river and riparian corridors, waterways, lakes, wetlands, and billabongs.	

Clause		Relevant Objectives	Assessment
			The largest and most intact wetland instance housing EPBC-listed community *Seasonal Herbaceous Wetlands* will remain unaffected. Overall, impacts are likely to be minimal with the significant wetland values being preserved.
Clause 13 Environmental Risks and Amenity	Clause 13.02-1S – Bushfire Planning	To strengthen the resilience of settlements and communities to bushfire through risk-based planning that prioritises the protection of human life.	**Consistent.** The bushfire impact assessment (**Appendix G**) conducted for the proposed works indicated that the BESS is at risk of bushfire exposure. All recommendations from the assessment, including the suggested firebreak widths around the battery storage compound and substation, will be followed to reduce the potential impact of bushfires on equipment.
	Clause 13.05-1S Noise management	To assist the management of noise effects on sensitive land uses.	**Consistent.** A noise impact assessment conducted by Marshall Day Acoustics (**Appendix D**) found that the operational noise associated with the BESS is predicted to be below the noise limits derived in accordance with EPA Publication 1826.4 *Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues* (the Noise Protocol), when considered individually. The nearest noise sensitive areas to the Project comprise dwellings identified by Umwelt / GPGA and provided to MDA via correspondence dated 29 May 2024. Compliance has been achieved at these sensitive receivers. The coordinates of these dwellings are provided in **Appendix** D. Receivers within 2 km of the Project have been considered.
	Clause 13.07-1S Land use compatibility	To protect community amenity, human health and safety while facilitating appropriate commercial, industrial, infrastructure or other uses with potential adverse off-site impacts.	**Consistent.** The Project layout prioritizes community well-being and safety while allowing for suitable activities with potential off-site implications. Various environmental assessments have been completed to minimise any adverse off-site effects. The preliminary hazard assessment (**Appendix F**) determined no observed off-site hazards from the Project. With risks deemed within acceptable levels, the Project is classified as potentially hazardous but compliant with current land zoning regulations. The bushfire impact assessment (**Appendix G**) highlighted the BESS's bushfire vulnerability, prompting prescribed firebreak widths around the storage compound and substation to mitigate potential risks. The noise impact assessment (**Appendix D**) found that noise associated with the BESS is predicted to be below the noise limits derived in accordance with EPA Publication 1826.4 (the Noise Protocol), when considered individually.

Clause		Relevant Objectives	Assessment
Natural Resource Management	Clause 14.01-1S - Protection of agricultural land	To protect the state's agricultural base by preserving productive farmland.	**Consistent.** While a small portion of agricultural land will be affected due to the site's proximity to the Tarrone Terminal Station, there will be no long-term changes to agricultural practices. The Project will be directly linked to the existing Tarrone Terminal Station, and efforts will be made to preserve as much vegetation as possible while ensuring the safe and efficient functioning of the BESS.
Clause 19 Infrastructure	Clause 19.01-1S Energy Supply	To facilitate appropriate development of energy supply infrastructure.	**Consistent.** The development of the BESS aids the shift towards renewable energy solutions, essential for upgrading Victoria's power infrastructure and delivering a dependable, affordable, and secure energy source within the state.
	Clause 19.01-2S Renewable Energy	To promote the provision of renewable energy in a manner that ensures appropriate siting and design considerations are met.	

5.3.1 Municipal Planning Strategy Assessment

The municipal planning strategy sets out the overarching vision, strategic planning, land use and development objectives for the Shire of Moyne. **Table 5.2** below summarises an assessment of the clauses that are most relevant to this proposal.

Table 5.2 Municipal Strategic Statement Assessment

Clause	Strategic Directions of relevance	Assessment
Clause 02.03-2 Environmental and landscape values	Protect areas of remnant native vegetation, particularly along roadsides and on freehold land, recognising the ecological and economic value.	**Consistent.** As shown in the flora and fauna assessment (**Appendix E**), the Project aims to preserve most of the remnant native vegetation on-site, offsetting minimal proposed impacts. Out of 2.972 ha of remnant vegetation, only 0.313 ha are identified for removal, leaving approximately 90% vegetation in situ.
Clause 02.03-3 Environmental risks and amenity	Ensure land use and development responds to fire risk.	**Consistent.** The bushfire impact assessment (**Appendix G**) conducted for the Project indicated that the BESS is at risk of bushfire exposure. All recommendations from the assessment, including the suggested firebreak widths around the battery storage compound and substation, will be followed to reduce the potential impact of bushfires on equipment.

Clause	Strategic Directions of relevance	Assessment
Clause 02.03-7 Economic Development	Protect agricultural land from non-productive use and development. Ensure that the use and development of land does not prejudice agricultural industries or the productive capacity of the land.	**Consistent.** While the project will result in some loss of agricultural land, a considerable amount will remain available in the wider region, which will continue to be dominant in agriculture. There will be no long-term changes to agricultural practices or impacts to productive agricultural areas as a result of the BESS. Efforts have been made to preserve as much agricultural land as possible whilst ensuring the safe and efficient functioning of the BESS. Overall, the impact on agricultural land will be negligible.
Clause 02.03-9 Infrastructure	Provide timely, efficient, cost-effective, and sustainable development infrastructure that meets the needs of the community.	**Consistent.** The BESS project facilitates the adoption of renewable energy solutions and ensures timely, efficient, cost-effective, and sustainable development of infrastructure catering to the community's energy needs. This plays a crucial role in modernising Victoria's power system and enhancing its reliability for all residents.

5.4 Planning Controls

5.4.1 Zones

5.4.1.1 Clause 35.07 - Farming Zone Schedule 1

Majority of the Project site is located within the Farming Zone (FZ) – Schedule 1 (as shown in **Figure 5.1**) and is therefore subject to **Clause 35.07** of the Planning Scheme. Pursuant to **Clause 35.07**, the purpose of the FZ- Schedule 1 of relevance to the Project is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To provide for the use of land for agriculture.
- To encourage the retention of productive agricultural land.
- To ensure that non-agricultural uses, including dwellings, do not adversely affect the use of land for agriculture.
- To encourage the retention of employment and population to support rural communities.
- To encourage use and development of land based on comprehensive and sustainable land management practices and infrastructure provision.
- To provide for the use and development of land for the specific purposes identified in a schedule to this zone.

Whilst the Project is not consistent with the purpose of the Farming Zone, it is proposed to be located adjacent to an established use and development (the Tarrone Terminal Station) and this proposal seeks to increase the footprint within agricultural land as minimally as possible. The Project aims to connect to and make use of the existing Tarrone Terminal Station. Transmission lines will stretch from the Project transformers within the BESS to a newly constructed 132 kV switchyard at the Tarrone Terminal Station. This switchyard is crucial for the connection of both GPGA's Ryan Corner Wind Farm and Hawkesdale Wind Farm Projects. The Project's operations are reliant on the ongoing usage of the Tarrone Terminal Station and will not cause disruptions to the terminal station. The Project will not interfere or compromise any of the surrounding Farming Zone operations.

Pursuant to **Clause 35.07-1** of the Planning Scheme, a utility installation is considered a Section 2 use and therefore a permit is required to use the land for a utility installation. Pursuant to **Clause 35.07-4** of the Planning Scheme, a permit is required to construct or carry out buildings or works associated with a use in Section 2. Therefore, a permit is required for buildings and works.

Permit Requirements for Earthworks under the Farming Zone Schedule 1

The Project's earthworks do not necessitate a permit under the FZ1. Specifically, the proposed works will not impact the flow rate or alter discharge points across property boundaries, nor will there be any changes in the discharge of saline groundwater.

The earthmoving activities will primarily involve soil compaction for project purposes. When trenching for transmission lines, GPGA will ensure digging does not exceed 1.5 m underground. Drainage systems will be implemented to redirect water sources adequately. All design aspects aim to safeguard the natural flow rates. In accordance with the above, the earthworks do not trigger a permit in the FZ1.

5.4.1.2 Farming Zone Assessment

Table 5.3 below summarises the decision guidelines that are applicable to the Project under the Farming Zone. An assessment of the consistency with the purpose of each is provided in the right-hand column.

Table 5.3 Farming Zone Decision Guidelines Assessment.

Farming Zone Decision Guidelines	Assessment
General Issues	
The Municipal Planning Strategy and the Planning Policy Framework.	Consistent. The Project is consistent with the below in the Municipal Planning Strategy: • Ensure that the use and development of land does not prejudice agricultural industries or the productive capacity of the land. • Provide infrastructure and services to meet the needs of the community. • Provide timely, efficient, cost-effective, and sustainable development infrastructure that meets the needs of the community.

Farming Zone Decision Guidelines	Assessment
	The Project is consistent with the below in the Planning Policy Framework: • Support the development of energy generation, storage, transmission, and distribution infrastructure to transition to a low-carbon economy. • Develop appropriate infrastructure to meet community demand for energy services. • Ensure energy generation, storage, transmission and distribution infrastructure and projects are resilient to the impacts of climate change. • Facilitate the production and distribution of zero emission gases and fuels. • Support energy infrastructure projects in locations that minimise land use conflicts and that take advantage of existing resources and infrastructure networks. • Facilitate energy infrastructure projects that help diversify local economies and improve sustainability and social outcomes. • Facilitate renewable energy generation and storage to meet on-site energy needs.
Any Regional Catchment Strategy and associated plan applying to the land.	Not applicable. There is no regional catchment strategy applying to the land.
The capability of the land to accommodate the proposed use or development, including the disposal of effluent.	Consistent. The Project has been sited due to its proximity next to an established terminal station. Effluent will be disposed of via a septic tank.
How the use or development relates to sustainable land management.	Consistent. The proposed works aim to minimise disruption by preserving as much vegetation as possible and minimising impacts on surrounding agricultural land to the greatest extent possible.
Whether the site is suitable for the use or development and whether the proposal is compatible with adjoining and nearby land uses.	Consistent. The Project site is suitable for the proposed works as it is adjacent to an established terminal station. Adjoining land uses include agricultural farmland. The greatest potential incompatibility is due to potential noise impacts. A noise impact assessment conducted by Marshall Day (**Appendix D**) assessed compliance with EPA noise criteria and the General Environmental Duty and found that operational noise associated with the Project is predicted to be below the noise limits derived in accordance with EPA Publication 1826.4 when the Project is considered individually.
How the use and development makes use of existing infrastructure and services.	Consistent. The proposed works will continue to make use of the existing infrastructure and services on the site.

Farming Zone Decision Guidelines	Assessment
Agricultural issues and the impacts from non-agricultural uses	
Whether the use or development will support and enhance agricultural production.	Consistent. The proposed works will take place immediately next to an established terminal station site. These works have been designed so that there will be limited impact on soil quality or agricultural land. The Flora and Fauna Assessment (**Appendix E**) considers the impacts of the use and development on the flora and fauna on the site and surrounds arising from the Project. The Project aims to preserve most of the remnant native vegetation on-site, offsetting minimal proposed impacts. Out of 2.972 ha of remnant vegetation, only 0.313 ha are identified for removal, leaving approximately 90% intact.
Whether the use or development will adversely affect soil quality or permanently remove land from agricultural production.	
The potential for the use or development to limit the operation and expansion of adjoining and nearby agricultural uses.	
The capacity of the site to sustain the agricultural use.	
The agricultural qualities of the land, such as soil quality, access to water and access to rural infrastructure.	
Any integrated land management plan prepared for the site.	Not applicable. An integrated land management plan has not been prepared for the Site.
Whether Rural worker accommodation is necessary having regard to: • The nature and scale of the agricultural use. • The accessibility to residential areas and existing accommodation, and the remoteness of the location.	Not applicable. No rural worker accommodation is proposed as part of the Project.
The duration of the use of the land for Rural worker accommodation.	
Accommodation Issues	
Whether the dwelling will result in the loss or fragmentation of productive agricultural land.	Not applicable. No dwelling, accommodation, or rural worker accommodation is proposed as part of the Project.
Whether the dwelling will be adversely affected by agricultural activities on adjacent and nearby land due to dust, noise, odour, use of chemicals and farm machinery, traffic and hours of operation.	
Whether the dwelling will adversely affect the operation and expansion of adjoining and nearby agricultural uses.	
The potential for the proposal to lead to a concentration or proliferation of dwellings in the area and the impact of this on the use of the land for agriculture.	
The potential for accommodation to be adversely affected by noise and shadow flicker impacts if it is located within one kilometre from the nearest title boundary of land subject to: • A permit for a wind energy facility • An application for a permit for a wind energy facility • An incorporated document approving a wind energy facility	

Farming Zone Decision Guidelines	Assessment
• A proposed wind energy facility for which an action has been taken under section 8(1), 8(2), 8(3) or 8(4) of the Environment Effects Act 1978.	
The potential for accommodation to be adversely affected by vehicular traffic, noise, blasting, dust and vibration from an existing or proposed extractive industry operation if it is located within 500 m from the nearest title boundary of land on which a work authority has been applied for or granted under the Mineral Resources (Sustainable Development) Act 1990.	
Environmental Issues	
The impact of the proposal on the natural physical features and resources of the area, in particular on soil and water quality.	Consistent. The proposed works are taking place immediately adjacent to an established terminal station site. The Flora and Fauna Assessment by Nature Advisory (**Appendix E**) considers the impacts of the use and development on the flora and fauna on the site and surrounds arising from the Project. The Project aims to preserve most of the remnant native vegetation on-site, offsetting minimal proposed impacts. Out of 2.972 ha of remnant vegetation, only 0.313 ha are identified for removal, leaving approximately 90% intact. Additionally, the Project aims to safeguard the majority of the ephemeral wetland habitat within the Project site, with only minor isolated wetland patches being affected. Specifically, 0.079 ha of wetland habitat will be impacted, while 1.569 ha will be conserved—representing retention of approximately 95% of the wetland habitat within the Project site. Notably, the largest and most intact habitat zone within the Project site (Habitat Zone A) harbouring EPBC-listed community Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains (SHWTLP) will remain untouched. Thus, the key wetland values will be preserved, with impacts expected to be very minimal.
The impact of the use or development on the flora and fauna on the site and its surrounds.	
The need to protect and enhance the biodiversity of the area, including the retention of vegetation and faunal habitat and the need to revegetate land including riparian buffers along waterways, gullies, ridgelines, property boundaries and saline discharge and recharge area.	
The location of on-site effluent disposal areas to minimise the impact of nutrient loads on waterways and native vegetation.	Consistent. Effluent will be disposed of via a septic tank and will not impact waterways and native vegetation.
Design and siting issues	
The need to locate buildings in one area to avoid any adverse impacts on surrounding agricultural uses and to minimise the loss of productive agricultural land.	Consistent. The Project has been designed and sited to avoid adverse impacts on surrounding agricultural uses and to minimise the loss of productive agricultural land as much as possible. The proposed works are taking place immediately adjacent to an established terminal station site. The Flora and Fauna Assessment by Nature Advisory (**Appendix E**) considers the impacts of the use and development on the flora and fauna on the site and surrounds arising from the Project. The Project aims to preserve most of the remnant native vegetation on-site.

Farming Zone Decision Guidelines	Assessment
	Out of 2.972 ha of existing vegetation, only 0.313 ha are identified for removal, leaving approximately 90% intact.
The impact of the siting, design, height, bulk, colours, and materials to be used, on the natural environment, major roads, vistas and water features and the measures to be undertaken to minimise any adverse impacts.	Consistent. The Landscape and Visual Impact Assessment (**Appendix H**) assessed that the Project site falls within the Farming Zone with no significant views or designated sites nearby. Views of the Project are limited to local roads, but existing topography and vegetation provide substantial screening to the Project. Therefore, landscape mitigation is not required.
The impact on the character and appearance of the area or features of architectural, historic, or scientific significance or of natural scenic beauty or importance.	
The location and design of existing and proposed infrastructure including roads, gas, water, drainage, telecommunications, and sewerage facilities.	Consistent. The Project will make use of existing infrastructure and utilities located on Site.
Whether the use and development will require traffic management measures.	Consistent. The existing access to the site is to be upgraded. A traffic management plan will be used to manage traffic impacts during construction. During operation the site will be largely operated remotely. There is no requirement for traffic management to and from the site during operation, due to low numbers of vehicles to attend the site.
The need to locate and design buildings used for accommodation to avoid or reduce noise and shadow flicker impacts from the operation of a wind energy facility if it is located within one kilometre from the nearest title boundary of land subject to: • A permit for a wind energy facility • An application for a permit for a wind energy facility • An incorporated document approving a wind energy facility • A proposed wind energy facility for which an action has been taken under section 8(1), 8(2), 8(3) or 8(4) of the Environment Effects Act 1978.	Not applicable. No buildings will be used for accommodation are part of the proposed works.
The need to locate and design buildings used for accommodation to avoid or reduce the impact from vehicular traffic, noise, blasting, dust and vibration from an existing or proposed extractive industry operation if it is located within 500 m from the nearest title boundary of land on which a work authority has been applied for or granted under the Mineral Resources (Sustainable Development) Act 1990.	

5.4.2 Clause 37.01- Special Use Zone Schedule 6

A small portion towards the north-west of the Project site relating to the underground transmission line is located within the Special Use Zone – Schedule 6 (**SUZ6**) (as shown in **Figure 5.1**), which applies to the Tarrone Power Station. Therefore, the Project is subject to **Clause 37.01** of the Planning Scheme. Pursuant to **Clause 37.01**, the purpose of the SUZ is:

- To implement the Municipal Planning Strategy and the Planning Policy Framework.
- To recognise or provide for the use and development of land for specific purposes as identified in a schedule to this zone.

The purpose of the SUZ6 is:

- To facilitate the development and use of a gas-fired power station.
- To provide for electricity generation using natural gas as the energy source.
- To provide for the transmission, distribution, and storage of power.

Pursuant to **Clause 37.01-2** of the Planning Scheme, any requirement in schedule 6 to this zone must be met to use the land for a Utility Installation. Pursuant to **Clause 37.01-4** of the Planning Scheme, a permit is required to construct a building or construct or carry out works, unless the schedule to this zone specifies otherwise. Any requirement in the schedule to this zone must be met.

Therefore, under **Section 1.0 of Schedule 6 to Clause 37.01** of the SUZ, a utility installation must meet the requirements of **Section 2.0** and **Section 4.0** of Schedule 6.

Under **Section 2.0** of **Schedule 6** to **Clause 37.01**, no permit is required to use land for a gas-fired power station in accordance with this clause. For the purpose of this schedule, a gas-fired power station means an industrial complex or *utility installation* using plant, equipment, and facilities for the generation of electricity for public use and for connection and export of the electricity into the high voltage transmission system. The proposed works for this project encompass a utility installation for the generation of electricity, and therefore, no use permit is required.

Under **Section 4.0** of **Schedule 6** to **Clause 37.01**, a permit is required to construct a building or construct or carry out works as the Project does not meet the exemptions under **Section 4.0**. However, the buildings and works do not require an environmental management plan or development plan to be approved by the responsible authority as the buildings and works are associated with the use of land for a Utility Installation to transmit, distribute or store power.

5.4.3 Overlays

5.4.3.1 Clause 42.01 - Environmental Significance Overlay - Schedule 5

A majority of the Project site is affected by the Environmental Significance Overlay- Schedule 5 (ESO5) (as shown in **Figure 5.2**) and is therefore subject to **Clause 42.01** of the Planning Scheme. ESO5 relates to the Tarrone Power Station Environs. The purpose of the ESO5 is to protect Tarrone Power Station, envisaged to be developed at the Tarrone development and use of the Tarrone Power Station is not constrained by potential conflicting accommodation uses and developments surrounding the Project site.

The statement of environmental significance of the Tarrone Power Station Environs is:

> *The Tarrone Power Station will provide gas-fired power to contribute to meeting the demand for electricity in Australia. The development and use of the power station will be in accordance with the approved Development Plan and Environmental Management Plans.*
>
> *There is potential for noise generated by the power station to impact on any proposed sensitive uses and developments of land surrounding the power station site, particularly accommodation uses and developments.*
>
> *If accommodation land uses and developments which are sensitive to potential noise emissions from the power station are permitted to be located in proximity to the facility this may result in real or perceived impacts and land use conflicts.*
>
> *Accommodation land uses and developments should not be permitted within the 32 dB(A) contour for adverse meteorological conditions without consideration of the potential noise impacts from the facility.*

Pursuant to **Clause 42.01-2** of the Planning Scheme, a permit is required to construct a building or construct or carry out works. This does not apply if a schedule to this overlay specifically states that a permit is not required. Additionally, a permit is required to remove, destroy, or lop any vegetation, including dead vegetation. This does not apply if a schedule to this overlay specifically states that a permit is not required.

Pursuant to **Schedule 5 of the ESO** (Tarrone Power Station Environs), a permit is not required to construct a building or construct or carry out works except if the buildings or works are to be used for accommodation or a dwelling. As the Project is not proposing accommodation or a dwelling, no permit is required for buildings or works under the ESO5. Additionally, a permit is not required to remove, destroy, or lop any non-native vegetation, including non-native dead vegetation. As this clause does not specify native vegetation, a permit is still required to remove native vegetation from the Project Site under the ESO5.

Table 5.4 below summarises the overlays that are applicable to the Project. An assessment of consistency with the decision guidelines of the overlay is provided in the right-hand column.

Table 5.4 Overlay Assessment

ESO Decision Guidelines	Assessment
Environmental Significance Overlay General	
The Municipal Planning Strategy and the Planning Policy Framework.	**Consistent.** The Project is consistent with the below in the Municipal Planning Strategy: • Ensure that the use and development of land does not prejudice agricultural industries or the productive capacity of the land. • Provide infrastructure and services to meet the needs of the community. • Provide timely, efficient, cost-effective, and sustainable development infrastructure that meets the needs of the community. The Project is consistent with the below in the Planning Policy Framework: • Support the development of energy generation, storage, transmission, and distribution infrastructure to transition to a low-carbon economy. • Develop appropriate infrastructure to meet community demand for energy services.

ESO Decision Guidelines	Assessment
	• Ensure energy generation, storage, transmission and distribution infrastructure and projects are resilient to the impacts of climate change. • Facilitate the production and distribution of zero emission gases and fuels. • Support energy infrastructure projects in locations that minimise land use conflicts and that take advantage of existing resources and infrastructure networks. • Facilitate energy infrastructure projects that help diversify local economies and improve sustainability and social outcomes. • Facilitate renewable energy generation and storage to meet on-site energy needs.
The statement of environmental significance and the environmental objective contained in a schedule to this overlay.	**Consistent.** The Project aligns with the ESO5 as the Project is a utility installation aiming to connect to the Tarrone Terminal Station and no accommodation is proposed. Matters relating to schedule 5 of the ESO are assessed below.
The need to remove, destroy or lop vegetation to create a defendable space to reduce the risk of bushfire to life and property.	**Consistent.** The Bushfire Risk Assessment (**Appendix G**) recommended that no vegetation should be permitted within the security fenced area of the site. The surface area within the fenced security area, not including areas of constructed assets or roadways, should be maintained with a gravel surface to a depth that ensures vegetation growth is minimised or eliminated. The Project will adopt these recommendations.
Any other matters specified in a schedule to this overlay.	**Consistent.** Matters relating to schedule 5 of the ESO are assessed immediately below.
Environmental Significance Overlay – Schedule 5 (Tarrone Power Station Environs)	
The comments of the Environment Protection Authority.	**Not applicable.** No direct contact has been undertaken with the Environment Protection Authority for the Project, as there was no direction from the Department of Transport and Planning for GPGA to undertake consultation.
The comments of the manager of the Tarrone Power Station in relation to the likely acoustic impact of the power station on the development.	**Not applicable.** No direct contact with the manager of the Tarrone Power Station regarding the noise has been undertaken for the Project.
Proposed sound attenuation measures to be used in construction of the development, and the effectiveness of such measures.	**Consistent.** A noise impact assessment has been undertaken by Marshall Day (**Appendix D**) which outlines proposed sound attenuation measures to be used in construction of the Project, including (but not limited to): • All construction works to be undertaken during normal work hours where possible • Scheduling work to minimise noise impacts, for example; scheduling work when neighbours/residents are not present, scheduling noisy works together to reduce the overall duration of exposure, scheduling noisy activities for less-sensitive times, for example during the later morning or afternoon

ESO Decision Guidelines	Assessment
	• Notify community to keep them informed of upcoming construction works, including the anticipated duration of works, type of noise and contact details for information or in the event they want to make a noise complaint • Undertake preparatory work offsite where there is low potential for impacting people (e.g., formwork, cutting or prefabrication of materials offsite prior to transporting to the construction site) • Connect to the electricity grid as early as possible to avoid the use of diesel generators • Restrict areas where mobile plant can operate so that it is away from people who could be affected by noise • Locate site vehicle access and waiting areas away from people who could be affected by noise • Plan vehicle movements to avoid manoeuvres and idling at location nearest to nearby people • Use quieter equipment or methods • Use low noise saw blades • Use electrical equipment rather than equipment driven by a diesel generator • Use low noise emitting generators • Use effective alternatives to 'beeper' alarms (e.g., broadband alarms, proximity sensors) • Avoid using reversing alarms by designing site layout to avoid reversing (e.g., drive-through for parking and deliveries) • Maintain equipment and vehicles Limit noise caused by people on-site • Implement substitute methods taking into consideration: alternatives to rock-breaking work methods, such as hydraulic splitters for rock and concrete, hydraulic jaw crushers, chemical rock and concrete splitting, and controlled blasting such as penetrating cone fractures. The suitability of alternative methods should be considered on a case-by-case basis, including what potential risks they involve • Alternatives to diesel and petrol engines and pneumatic units, such as hydraulic or electrical generator located away from nearby people • All construction and noise vibration recommendations by Marshall Day will be implemented by the Project.
The likely amenity of the proposed development.	**Consistent.** To guarantee minimal adverse effects on nearby land uses, GPGA has conducted various studies focusing on the Project's amenity. The following technical evaluations have been carried out to shape the Project's design and ensure that its overall impact on amenity is kept to a minimum: • **Appendix C**: Traffic Impact Assessment • **Appendix D**: Noise Modelling • **Appendix E**: Flora and Fauna Assessment • **Appendix F**: Preliminary Hazard Assessment • **Appendix G**: Bushfire Impact Assessment • **Appendix H**: Landscape and Visual Impact Assessment • **Appendix I**: Cultural Heritage Management Plan

ESO Decision Guidelines	Assessment
The potential impact of the development upon the continued use of the Tarrone Power Station, corner Landers Lane and Riordans Road, Tarrone.	**Consistent.** The Project aims to connect to and make use of the existing Tarrone Terminal Station. Transmission lines will stretch from the Project transformers within the BESS to a newly constructed 132kV switchyard at the Tarrone Terminal Station. This switchyard is crucial for the connection of both GPGA's Ryan Corner Wind Farm and Hawkesdale Wind Farm Projects. Furthermore, there will be an approximately 200-metre underground 132kV transmission line connecting the Project to the Tarrone Terminal Station. The Project's operations are reliant on the ongoing usage of the Tarrone Terminal Station and will not cause disruptions to the terminal station. Riordians Road will serve as the access route for the Project, with included pavement enhancements along Riordans Road to ensure its continual usability.

5.4.4 Particular Provisions

The following particular provisions in **Table 5.5** apply to the Project.

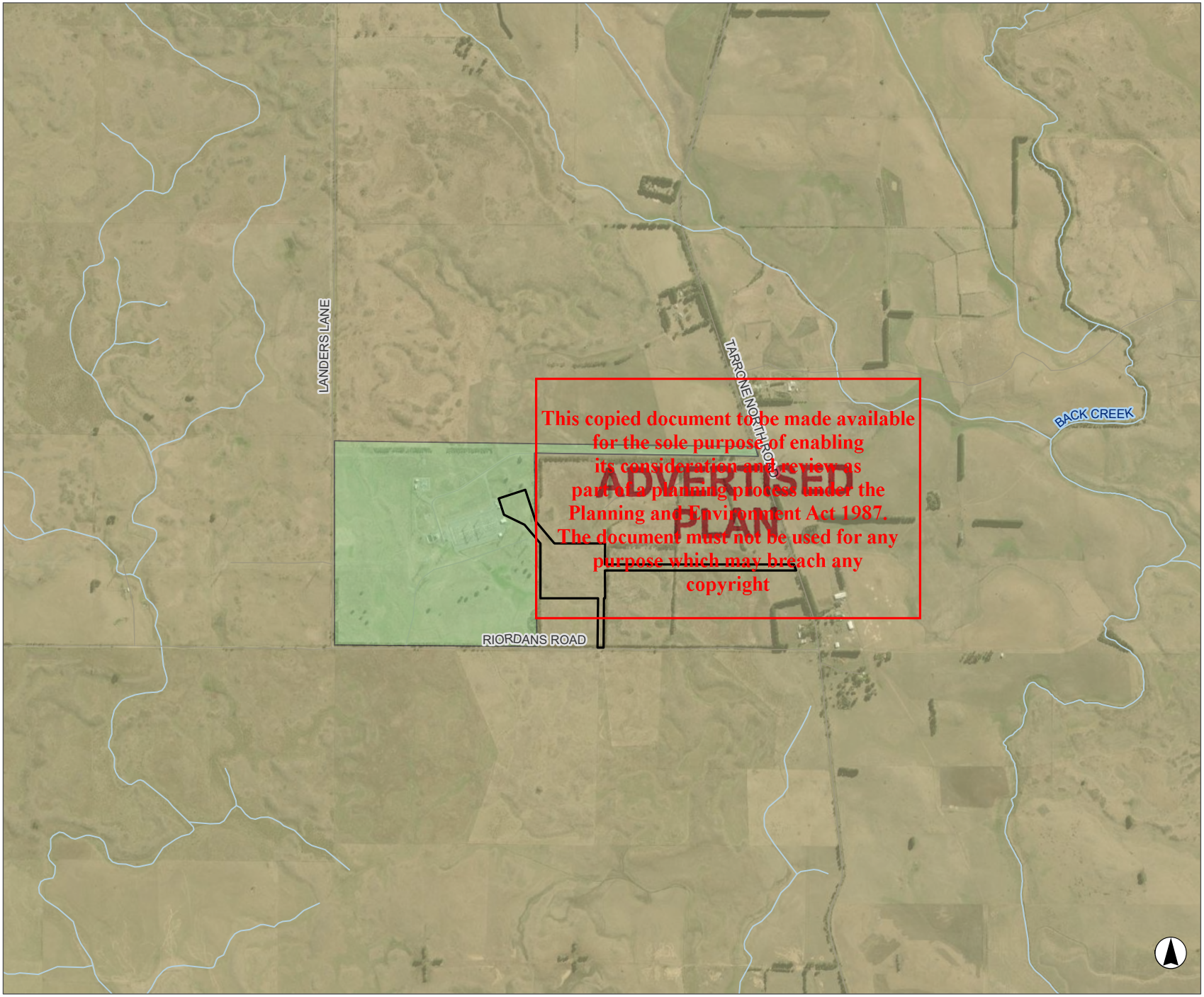
Table 5.5 Particular Provision Assessment

Clause	Assessment against guidelines
Clause 52.05 Signs The purpose of this clause is: • To regulate the development of land for signs and associated structures • To ensure signs are compatible with the amenity and visual appearance of an area, including the existing or desired future character • To ensure signs do not contribute to excessive visual clutter or visual disorder • To ensure that signs do not cause loss of amenity or adversely affect the natural or built environment or the safety, appearance, or efficiency of a road.	Project identification and safety signage will be erected at the Tarrone North Road entrance and Riordan's Road entrance. This signage will not be more than 3 square metres and will therefore comply with the requirements of **52.05-14** and will not trigger the requirement for a planning permit.
Clause 52.06 Car Parking The purpose of this clause is: • To ensure that car parking is provided in accordance with the Municipal Planning Strategy and the Planning Policy Framework • To ensure the provision of an appropriate number of car parking spaces having regard to the demand likely to be generated, the activities on the land and the nature of the locality • To support sustainable transport alternatives to the motor car • To promote the efficient use of car parking spaces through the consolidation of car parking facilities • To ensure that car parking does not adversely affect the amenity of the locality • To ensure that the design and location of car parking is of a high standard, creates a safe environment for users and enables easy and efficient use.	During construction, up to 40 staff are anticipated to be working on site. During maintenance and operation phase, up to 2 staff may be operating from the site at any one time. A total of 20 parking spaces is proposed to be provided at the BESS site during construction. While 52.06 does not specify a number of parking spaces for utility installations the proposed allowance is expected to be sufficient based on expected site attendance. Car parking spaces will be constructed in accordance with the dimensions required under Clause 52.06-9 of the Moyne Planning Scheme.

Clause	Assessment against guidelines
Clause 52.17 Native vegetation The purpose of this clause is: • Avoid the removal, destruction, or lopping of native vegetation. • Minimise impacts from the removal, destruction, or lopping of native vegetation that cannot be avoided. • Provide an offset to compensate for the biodiversity impact if a permit is granted to remove, destroy, or lop native vegetation.	A flora and fauna assessment were undertaken by Nature Advisory (**Appendix E**) and determined that the Project will result in the loss of a total extent of 0.313 ha of native vegetation patches (including no large trees in patches) under the Guidelines. No exemptions to Clause 52.17 are relevant to the Project and therefore triggers a permit under Clause 52.17

FIGURE 5.1

Project Zoning



Legend

- Project Site Boundary
- Road
- Watercourse

Planning Zones

- Farming Zone (FZ)
- Special Use Zone - Schedule 6 (SUZ6)

0 250 500
Metres

Scale 1:22,500 at A4
GDA 1994 MGA Zone 54

Image Source: ESRI Basemap (2024) **Data source:** DELWP (2024), GPG (2024)

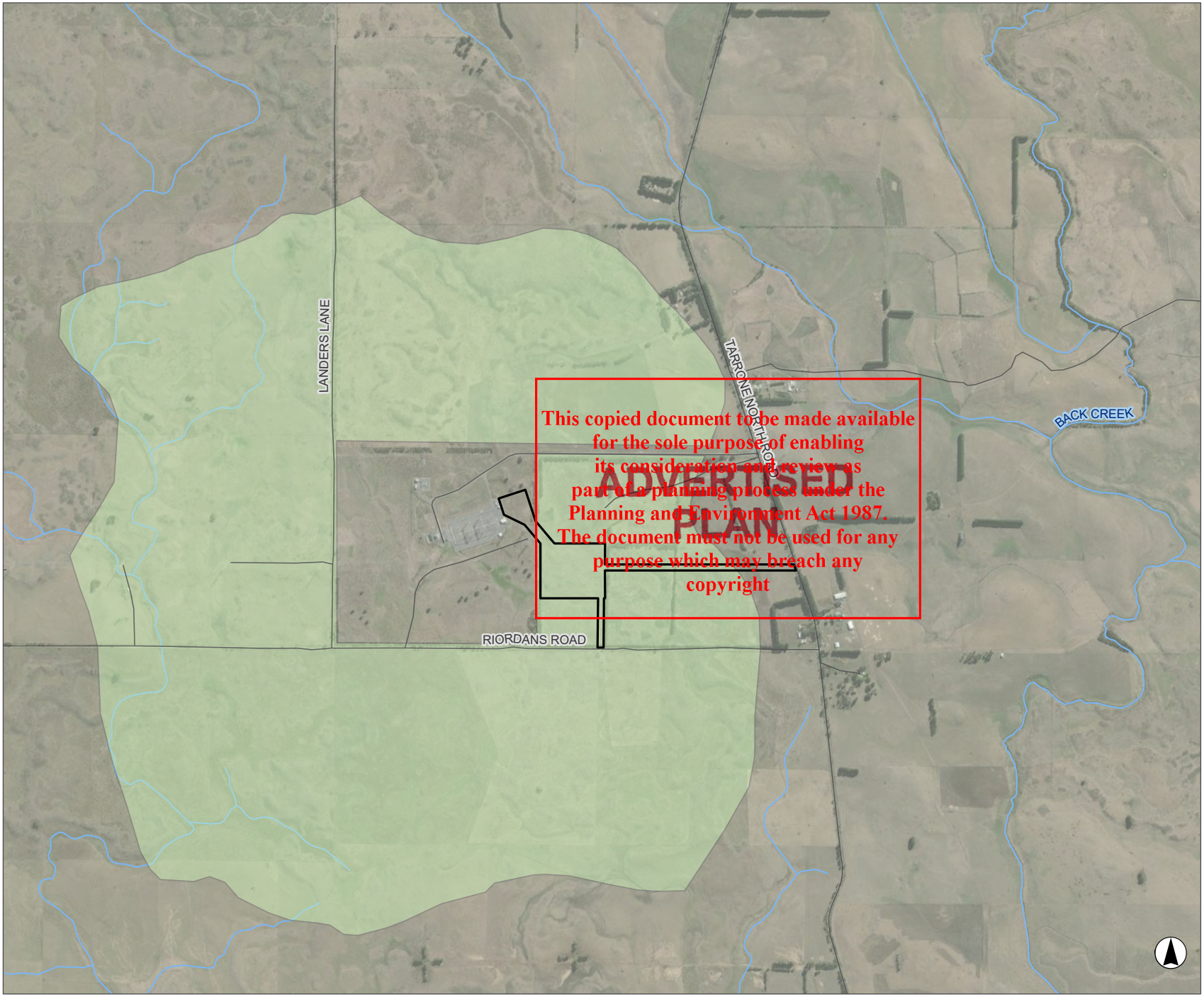


FIGURE 5.2

Project Overlays

Legend

- Project Site Boundary
- Road
- Watercourse

Planning Overlays

- ENVIRONMENTAL SIGNIFICANCE OVERLAY - SCHEDULE 5 (ESO5)

0 250 500
Metres

Scale 1:22,500 at A4
GDA 1994 MGA Zone 54

Image Source: ESRI Basemap (2024) **Data source:** DELWP (2024), GPG (2024)

5.5 General Provisions

5.5.1 Clause 66.02 - Use and Development Referrals

Table 5.6 below discusses the use and development referrals that are relevant to the Project. No other referrals will be required in accordance with **Clause 66.02**

Table 5.6 Use and Development Referrals

Clause	Response	Referral Authority
Clause 66.02-2 Native Vegetation	Pursuant to **Clause 66.02-2** of the Planning Scheme, any kind of application to remove, destroy, or lop native vegetation in the Detailed Assessment Pathway as defined in the *Guidelines for the removal, destruction, or lopping of native vegetation* is recommended to be referred to the Secretary to the Department of Energy, Environment, and Climate Action. Based on the extent of native vegetation removal being <0.5 hectares, not including any large trees, and being in Location 2, the Guidelines stipulate that the proposal is to be assessed under the **Intermediate assessment pathway,** the Flora and Fauna Assessment (**Appendix E**) determined that the Project would not trigger a referral to DEECA based on the assessment pathway determination.	Secretary to DEECA (as constituted under Part 1 of the *Conservation, Forest, and Lands Act 1987*)
Clause 66.04 Major electricity line or easement	Pursuant to **Clause 66.02-7** of the Planning Scheme, any application to construct a building or construct or carry out works on land within 60 m of a major electricity transmission line or an electricity transmission easement is required to be referred to the relevant electricity transmission authority as a determining referral authority. The BESS is within 60 m of the Tarrone Terminal Station; therefore, a referral will be required to AusNet Services.	AusNet Services
Clause 66.02-7 (Industry, utility installation or warehouse	Pursuant to **Clause 66.02-7,** the Victorian Workcover Authority, as a determining authority, where a fire protection quantity (FPQ) under the Dangerous Goods (Storage and Handling) Regulations 2012 is exceeded. As the FPQ for lithium-ion does not apply to batteries that are in use, the site is not considered to exceed any FPQ, and the application is not required to be referred to the Victorian workover Authority. However, occasional storage of spare batteries may surpass the FPQ limit for lithium-ion. In such instances, full compliance with dangerous goods legislation will be followed.	Victorian Workcover Authority

5.6 Operational Provisions

5.6.1 Clause 72.01 - Responsible Authority

As prescribed in **Clause 72.01-1** of the Moyne Planning Scheme, the Minister for Planning is the responsible authority for the assessment of planning permit applications in relation to the use and development of land for a Utility Installation used to transmit or distribute electricity or store electricity if the installed capacity is 1 megawatt or greater.

5.7 Summary of Planning Permit Requirements

Table 5.7 summarises the permits required for the Project.

Table 5.7 Summary of Planning Permit Requirements

Clause	Use Permit?	Buildings or Works Permit?	Vegetation Removal Permit?
Clause 35.07 Farming Zone	✓	✓	Not applicable
Clause 37.01 Special Use Zone – Schedule 6	×	✓	Not applicable
Clause 42.01- Environmental Significance Overlay Schedule 5	Not applicable	Not applicable	✓
Clause 52.17 Native Vegetation	Not applicable	Not applicable	✓

5.8 Policy Documents

The following are policy documents included in the Planning Scheme and relevant to the planning permit application.

5.8.1 State and Regional Policies, Strategies, and Guidelines

5.8.1.1 Guidelines for the Removal, Destruction or Lopping of Native Vegetation (Department of Environment, Land, Water and Planning, 2017)

The *Guidelines for the removal, destruction or lopping of native vegetation* (the native vegetation guidelines) stipulate the application of Victoria's policy for assessing and compensating for the removal of native vegetation. The guidelines ensure that the proposed removal of native vegetation is appropriately assessed, opportunities to avoid and minimise removal are considered, and appropriate offsets are secured. The guidelines define native vegetation to be either a patch or scattered tree. The definition of a patch of native vegetation includes *"any mapped wetland included in the Current wetlands map, available in DELWP systems and tools"*.

5.8.1.2 Protecting Victoria's Environment – Biodiversity 2037

The Protecting Victoria's Environment – Biodiversity 2037 plan (DELWP, 2017), supports the Victorian government's plans to stop the decline of native plants, animals and improve the natural environment over the next 20 years. The plan incorporates the latest conservation and social sciences to represent a contemporary approach to achieving the plan's vision: that Victoria's biodiversity is healthy, valued and actively cared for. Community participation, collaboration, and an improved alignment across all relevant stakeholders are promoted in the Biodiversity Plan, to restore our biodiversity and strengthen our economy.

The plan seeks to mark the start of a long-term pathway for the overall improvement of biodiversity, while sustaining the state's strong economy. The plan sets out State-wide and contributing targets that are to be achieved by 2037, to meet both goals. The contributing targets are to be reviewed and updated every five years. Priorities for action are also established in the plan to support the government with aligning to its specific priorities and investments within a broader national context.

5.8.1.3 Victoria's Climate Change Strategy

Victoria's Climate Change Strategy (DELWP, May 2021) provides a roadmap to net-zero emissions and a climate resilient Victoria by 2050. The strategy sets out the current responses to climate change and next steps to support communities and businesses to make the changes needed to reduce the impacts of climate change and continue to support the growth of the economy.

The strategy is underpinned by a five-point plan which includes an approach to supporting a clean energy economy. The strategy seeks to support the transformation of the electricity system with renewable energy and achieving the 2050 net-zero emissions goal. The legislated Victorian Renewable Energy Targets will stimulate new investments in large-scale solar and wind projects and create employment opportunities primarily located within regional Victoria. This will also create flow-on benefits for supply chains, related services, and local community. Both the employment opportunity and flow-on benefits will assist in expanding the skills of the clean energy workforce and encourage uptake of new energy technologies.

5.8.1.4 Victoria's Renewable Energy Action Plan

Victoria's Renewable Energy Action Plan (DELWP, 2018) represents the action being taken to encourage investment in the energy sector and ensure Victorians continue to benefit from a renewable, affordable, and reliable energy system into the future.

The action plan sets out the long-term renewable energy policy agenda and pathway. It connects a suite of initiatives that will drive investment and action in renewable energy including moving to a clean energy supply by increasing renewable energy generation as a key pillar of the state's approach to emissions reduction.

5.8.1.5 Victorian Renewable Energy Zones Development Plan Directions Paper

The Victorian Renewable Energy Zones Development Plan Directions Paper (DELWP, 2021) outlines three key actions the Victorian Government intends to undertake to fully develop Renewable Energy Zones (REZs) in Victoria and seeks feedback from key stakeholders. The plan outlined in the Directions Paper will unlock 10 GW of new renewable energy capacity in Victoria, taking the total capacity across Victorian REZs to 16 GW. The Project is located in the South West Victoria REZ.

5.8.1.6 Victorian Waterway Management Strategy

The Victorian Waterway Management Strategy (Victorian Government, 2013) provides a framework for the government, in partnership with the community, to maintain or improve the condition of rivers, estuaries and wetlands, to ensure environmental, social, cultural, and economic values are sustained. The framework is centred around regional planning processes and decision-making, within the broader system of integrated catchment management in Victoria.

The strategy's vision is for "Victoria's rivers, estuaries and wetlands are healthy and well-managed; supporting environmental, social, cultural and economic values that are able to be enjoyed by all communities" (Victorian Government, 2013). The document incorporates a transparent, adaptive, and integrated waterway management framework that is intended to facilitate regional decision-making with community input, within an integrated catchment management context, and capable of comprehensively integrating waterway management activities.

5.8.2 Local Policies, Strategies, and Guidelines

5.8.2.1 Moyne Shire Council 2021–25 Council Plan

The Moyne Shire Council 2021–25 Council Plan outlines the strategic direction and priorities for the Moyne Shire over a four-year period. Its purpose is to guide the council's decisions and actions to improve community wellbeing, enhance local infrastructure, and promote sustainable development. The plan focuses on key areas such as economic growth, environmental stewardship, social inclusion, and community engagement, ensuring that the needs and aspirations of the residents are met through effective governance and resource management.

This plan is relevant to the Project as it identifies renewable energy use and uptake as a priority for 2040 and includes renewable energy as a strategic direction and action for the council. Target projects for the Shire include:

- Investigating opportunities to support and increase the installation of renewable energy and sustainable living systems and products for communities, residences, businesses, and industry.
- Supporting initiatives and plans that promote the undergrounding and co-location of transmission infrastructure associated with renewable energy projects.
- Continue to strongly advocate for the strategic assessment and consideration of cumulative impacts of renewable energy projects and investments in Moyne, ensuring greater benefits for host communities.

5.8.2.2 Moyne Shire Council Environmental Sustainability Strategy

The Moyne Shire Council Environmental Sustainability Strategy provides a thorough plan for tackling environmental challenges and promoting sustainability in the region. It focuses on protecting and enhancing the natural environment, cutting carbon emissions, managing waste effectively, and encouraging sustainable practices among residents and businesses. By setting clear goals and actions, this strategy aims to ensure the long-term health and resilience of local ecosystems while supporting the community's shift towards a more sustainable and environmentally responsible future. This strategy is pertinent to the Project as it includes efforts to reduce greenhouse gas emissions, address the impacts of climate change, and minimise the use of non-renewable energy sources in the Shire. One of its key objectives is to develop adaptation and mitigation strategies to respond to climate change.

5.9 Other Legislation

Other relevant legislation and any implications for the proposal is summarised in the following table.

Legislation	Relevance	Implications for Project	Approvals Required
Commonwealth Legislation			
***Environment Protection and Biodiversity Conservation Act 1999* (Cth)**	The Australian Government's key piece of environmental legislation providing for the protection of the environment, especially matters of national environmental significance and conservation of heritage.	The Flora and Fauna Assessment (**Appendix E**) found that the project is unlikely to impact on any species or communities listed under the EPBC Act. Therefore, referral under the EPBC Act is not required.	No referral required to the Commonwealth Minister for Environment and Water.
State Legislation			
Aboriginal Heritage Act 2006 / Aboriginal Heritage Regulations 2018	The primary legislation providing for the protection of Aboriginal cultural heritage and Aboriginal intangible heritage in Victoria. The purpose of the Aboriginal Heritage Regulations 2018 is to prescribe the circumstances in which a cultural heritage management plan is required for an activity.	The proposed activity is a high impact activity, and the activity Area is in an area of cultural heritage sensitivity, as defined under the Aboriginal Heritage Regulations 2018. Accordingly, a mandatory Cultural Heritage Management Plan was prepared by Umwelt (Appendix I). The two landforms identified in the desktop and standard assessment were confirmed as containing Aboriginal Cultural Heritage through testing. Of these, two test pits were positive for Aboriginal cultural heritage (TP 8 and TP 12). An extent testing program was completed around these test pits which identified three more positive extent STP locations. As a result, one new Aboriginal place was identified: Tarrone Stony Rise LDAD (VAHR pending). The CHMP is pursuing full avoidance of the Aboriginal place with a 25 m exclusion buffer surrounding the point locations as a no-go zone to protect the LDAD and stony rise extent on which it was identified.	Approval of Cultural Heritage Management Plan by the Registered Aboriginal Party who are the Eastern Maar Aboriginal Corporation.
Catchment and Land Protection Act 1994	*The Catchment and Land Protection Act 1994* (CaLP Act) requires that landowners (or a third party to whom responsibilities have been legally transferred) must eradicate regionally prohibited weeds and prevent the growth and spread of regionally controlled weeds.	The Flora and Fauna Assessment (**Appendix E**) recorded a noxious weed species within the Project Site (Spear Thistle). Therefore, in accordance with the CaLP Act, the noxious weed must be controlled. Precision control methods that minimise off-target kills (e.g. spot spraying) should be used in environmentally sensitive areas (e.g. within or near native vegetation, waterways, etc.).	Permit required from DEECA to buy, move, sell, display, or transport declared pest animals or weed species into or within Victoria.

Legislation	Relevance	Implications for Project	Approvals Required
Environment Protection Act 2017	The *Environment Protection Act 2017* (EP Act) ensures that Victoria's focus for environment protection and human health are from a prevention-based approach. The EP Act focuses on the general environmental duty which requires all Victorians to take reasonable and practical steps to reduce the human and environmental health risks of their activities.	A Development Licence, Operating Licence, Permit or Registration is not required for the Project under the EP Act. GPGA will also have an obligation to Discharge its General Environmental Duty to minimise the risk of harm to human health and the environment as a result of pollution and waste relating to this proposal. GPGA has measures in place to discharge its General Environmental Duty and is deemed compliant, detailed in the supporting assessments to this planning application found at: • **Appendix C**: Traffic Impact Assessment • **Appendix D**: Noise Modelling • **Appendix E**: Flora and Fauna Assessment • **Appendix F**: Preliminary Hazard Assessment • **Appendix G**: Bushfire Impact Assessment • **Appendix H**: Landscape and Visual Impact Assessment • **Appendix I**: Cultural Heritage Management Plan Further, a Construction Environmental Management Plan will be developed to prevent and minimise potential harm during the construction phase of the project.	Discharging general environmental duty only, no permit required from EPA Victoria.
Heritage Act 2017	The *Heritage Act 2017* regulates the protection and conservation of places and objects of heritage significance listed in the Victorian Heritage Register and archaeological sites and relics listed in the Victorian Heritage Inventory.	The Project site does not contain any items listed on the Victorian Heritage Register; therefore, no approval has been sort under *Heritage Act 2017.*	A heritage permit or heritage consent to be applied for pursuant to Part 5 of the *Heritage Act 2017* if unexpected historic archaeological material is detected during construction.
Road Management Act 2004	The *Road Management Act 2004* establishes a coordinated management system that will promote safe and efficient state and local public road networks and the responsible road use in	Under Section 63 (1) of the Roads Act, a person must not conduct any work in, on, under, or over a road without the written consent of the coordinating road authority. Any works on a road corridor generally need permission from the road manager. The Proponent is to obtain	Works in, on, under, or over a roadway consent may be required from Moyne Shire Council as a secondary consent.

Legislation	Relevance	Implications for Project	Approvals Required
	Victoria. The Act sets out general principles and obligations for which the road authority is responsible for administering.	written consent from Moyne Shire Council for any works in, on, under, or over Tarrone North Road for the Project.	
The Flora and Fauna Guarantee Act 1988	The *Flora and Fauna Guarantee Act 1988* (FFG Act) regulates conservation of Victoria's native flora and fauna and enables management of potentially threatening processes listed under the FFG Act. The FFG Act provides for the listing of taxa (genera, species, subspecies, and varieties), threatened communities of flora and fauna, and potentially threatening processes. Its objectives are to conserve all of Victoria's native plants and animals.	The Flora and Fauna Assessment (**Appendix E**) found that the following FFG Act values listed as protected are not anticipated to be impacted from the proposed development on public land: ▪ Black Wattle *Acacia mearnsii* ▪ Jersey Cudweed *Laphangium luteoalbum* Therefore, a Protected Flora Permit under the FFG Act would not be required for the current proposal.	Permit required to 'take' (including remove or destroy) any FFG Act listed protected flora is not required for the Project.
Water Act 1989	The *Water Act 1989* regulates impacts on and use of surface water and groundwater in Victoria. The main purpose of the Water Act 1989 is to promote the efficient and equitable use of water resources and ensure water resources are conserved and appropriately managed for sustainable use. The Act provides a formal means of protecting and enhancing waterway flow, water quality and catchment conditions.	Approval is required under the *Water Act 1989* for any works on, over or under a designated waterway, construct a bore, or to take and use water (e.g., at the proposed borrow pits). As no works for the Project are anticipated to affect a designated waterway, bore installation, or water extraction, there is no need for approval from the Glenelg Hopkins Catchment Management Authority (CMA).	Works in, on, or under waterway consent from the CMA under Section 51 of the *Water Act 1989.* This is not required for the Project.
Wildlife Act 1975	The *Wildlife Act 1975* promotes the protection and conservation of wildlife. All fauna species indigenous to Victoria are listed as protected under the Wildlife Act 1975, except for pest animals declared under the Catchment and Land Protection Act 1994 or wildlife declared to be unprotected wildlife. Under the Wildlife Act 1975, it is an offence to hunt, take or destroy protected or threatened wildlife without authorisation.	The Project would require an authority to control wildlife pursuant to Sections 22, 28A and 28G of the *Wildlife Act 1975* should any wildlife encountered during construction require salvage. A suitably qualified wildlife handler holding a current management authorisation under the *Wildlife Act 1975* may be engaged to salvage wildlife if required.	Authority to Control Wildlife from DEECA if encountered.

6.0 Stakeholder Engagement

In 2023, two pre-application meetings were conducted in February and March with various stakeholders for the Project. Engagement occurred with:

- Department of Transport and Planning (DTP)
- Country Fire Authority (CFA)
- Energy Safe Victoria (ESV).

The first, held in February 2023, meeting aimed to introduce the team, provide DTP with an overview of the project, planning context, planning permit application, and indicative timeframes. Attendees included representatives from DTP, ESV, CFA, GPGA, and Umwelt. During the meeting, DTP noted the importance of aligning the timing of the Planning Permit Application (PPA) and the Cultural Heritage Management Plan (CHMP) to avoid delays. Once the CHMP proposal is approved and work begins, Umwelt will prepare a schedule to coordinate the two processes and refine timing.

The second meeting, held in March 2023, included attendees from DTP, CFA, and ESV, GPGA and Umwelt. The agenda covered bushfire, and hazard considerations, as well as indicative timeframes. Discussions focused on CFA and ESV guidance and expectations for the lithium-ion battery project during the approvals phase. Ongoing engagement between GPGA, CFA, and ESV was emphasized to ensure effective management of bushfire and other hazard risks, particularly those risks associated with the potential for chemical fires as a result of the battery modules igniting due to improper safety testings.

Additionally, GPGA presented several projects in development to the Moyne Shire Council on 23 January 2024. At this time GPGA formally introduced the Project to the Moyne Shire Council, detailing the studies undertaken for the Planning Permit, the timelines for development, construction and operation and next steps from GPG Australia to formalise the Project

7.0 Summary of Supporting Assessments

7.1 Traffic Impact Assessment

The Traffic Impact Assessment by Impact Traffic Engineering (**Appendix C**) focused on providing guidance for construction and long-term operational traffic. Recommendations include pavement upgrades along Tarrone North Road and Riordans Road, ensuring smooth vehicle access. The traffic impact assessment highlighted accommodation for large vehicles, sightline restrictions, and traffic management considerations for oversized deliveries.

The main access corridor to the site will be from Tarrone North Road. The intention of this site access is to accommodate all staff vehicle movements during the construction and maintenance stages. An emergency access point is proposed at the southern end of the site, provided through a private north-south road connecting to Riordans Road. This location will be designated exclusively for emergency access only and will be gated and signposted to prevent any unauthorised access. Further information is provided in **Appendix C.**

The traffic impact assessment recommended the section of road between Riordans Road and Tarrone North Road between the proposed Site Access location and the existing Tarrone Terminal Station Site Access be upgraded and widened to an 'all weather' standard pavement to facilitate the anticipated construction vehicles. Tarrone North Road which provides access to the site is not approved for access for B-doubles or HML vehicles and will require an application to the satisfaction of Council and/or the National Heavy Vehicle Regulator (NHVR). The Traffic Impact Assessment does not cater for the assessment of OSOM vehicle deliveries and further assessment will be required which takes into consideration of vehicles over 26m as part of the NHVR application process. The Tarrone Terminal Station extension would have leveraged a similar OSOM delivery route and is not expected to cause / trigger any major infrastructure works.

During peak construction, 81 daily movements are expected, with 8-over-dimension vehicle trips during Stage 2. Routine maintenance will see up to four (4) daily vehicle movements with minimal impact on surrounding roads' operation. For deliveries, approval from Council and the National Heavy Vehicle Regulator is necessary due to vehicle sizes exceeding standard lengths. The traffic impact assessment accounted for B-double vehicles but not oversize deliveries, requiring further evaluation during the NHVR application process.

It is anticipated that deliveries of BESS components to the subject site will arrive from Geelong. The proposed traffic movements will include:

- Geelong Port – Corio Quay Road (C115) – Melbourne Road / Princes Highway (A10) – Aberdeen Street (B140) – Hamilton Highway – Geelong Ring Road / Princes Highway (M1) – Cobden-Stonyford Road (C149) – Neylon Street / Cobden-Port Campbell Road (C164) – Cobden-Warrnambool Road (C167) – Princes Highway (A1) – Raglan Parade – Caramut Road (C174) – Mailors Flat Kororit Road (C183) – Penshurts-Warrnambool Road (C178) – Woolsthorpe-Heywood Road – Tarrone North Road – Project Site.

The Traffic Impact Assessment found that overall, the Project is not expected to have any material impact on the operation of the external road network.

7.2 Noise Assessment

A noise assessment was undertaken by Marshall Day Acoustics (**Appendix D**) and represents a 'proof of concept' based on the specific site layout and nominal equipment selections available at this stage and summarises the noise and vibration assessment for the Project. It contains details of the current project layout, proposed project infrastructure and associated noise data, and evaluation of predicted noise levels against the relevant environmental noise criteria**. Figure 7.1** below highlights nearby sensitive receptors and Proposed infrastructure clearly delineated.

The noise assessment found that operational noise associated with the Project is predicted to be below the noise limits derived in accordance with EPA Publication 1826.4 Noise limit and assessment protocol for the control of noise from commercial, industrial and trade premises and entertainment venues published May 2021 (the Noise Protocol), when considered individually.

Cumulative considerations of noise for the Project are complex and have been reviewed in detail as part of the noise assessment. Other projects in the area include the existing Tarrone Terminal Station, and the proposed and approved Tarrone Power Station and Willatook substation and BESS. The two proposed and approved (but not yet built) projects are known to have significant development delays and challenges. Tarrone Power Station received EPA Works Approval in 2010, with a facilitating Amendment C47 to the Moyne Planning Scheme being approved by the Minister for Planning in 2012. No construction has commenced since approval by the developer, AGL Energy Ltd.

Willatook substation and BESS is associated with the wider Willatook Wind Farm, which is subject to a Ministers Assessment, significantly restricting the scale of the development.

The published noise assessments associated with the projects demonstrate that even in the absence of the Project, cumulative predicted noise levels will be above the Noise Protocol noise limits at nearby receivers.

On this basis the cumulative noise assessment detailed in the noise report is capable of demonstrating compliance with the Noise Protocol noise limits provided:

- An equal sharing principle is adopted for noise budget distribution for component commercial, industrial and trade (CIT) premises i.e. Tarrone Terminal Station, Tarrone Power Station, Willatook substation and BESS, and the Tarrone BESS.
- The Project is developed during detailed design such that predicted noise levels are at or below the equal sharing noise limit – preliminary noise control analysis indicates that there is likely to be sufficient engineering noise controls available that this is achievable.
- Noise associated with Tarrone Power Station and Willatook substation and BESS is controlled by their respective developers such that the equal sharing noise limit is achieved individually, and therefore the Noise Protocol noise limit is achieved cumulatively (noting that this is a legal obligation for any and all premises that may be developed in the area).
- Construction noise levels have been estimated under typical worst-case scenarios (i.e. with equipment working closest to receivers) to inform best practice noise controls that should be incorporated into a Construction Noise and Vibration management plan at the detailed design phase of the project.

- Peak vibration levels due to construction plant are expected to be well below the most stringent peak vibration criteria.
- Further information can be found in the noise assessment at **Appendix D.**

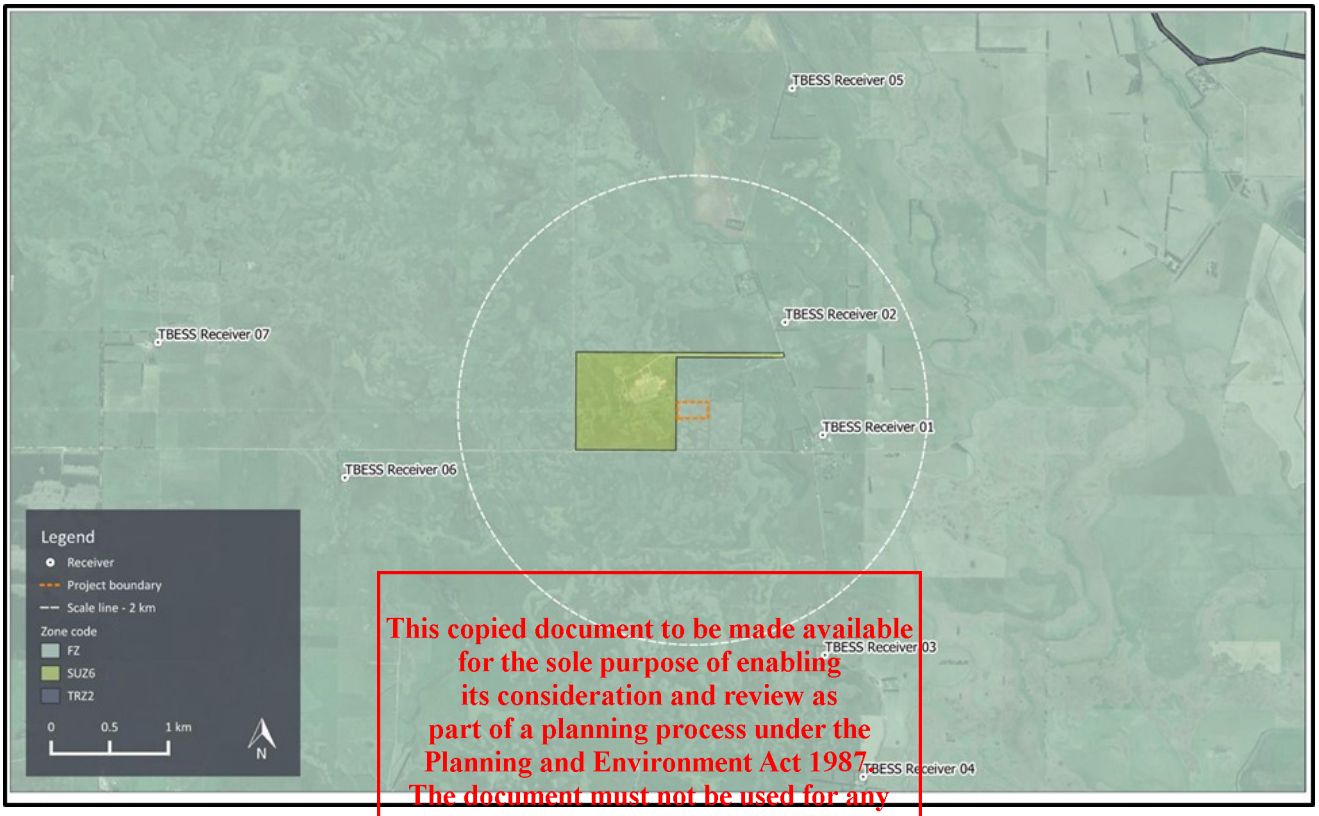


Figure 7.1 Sensitive Receivers Delineated from Proposed Project. Source: MDA (2024)

7.3 Flora and Fauna

The flora and fauna assessment by Nature Advisory (**Appendix E**) identified and evaluated native vegetation in the Project site as per Victoria's guidelines. It found that 0.313 ha of endangered Ecological Vegetation Class are proposed for removal under Clause 52.17, requiring a permit. Refer to **Figure 7.2** below for location of proposed vegetation removal.

The flora and fauna assessment showed:

- 0.313 ha of native vegetation in patches (including no large trees) to be removed (Refer to **Figure 7.2** below).
- No FFG or EPBC listed flora species would be at risk from the project.
- Nine (9) FFG or EPBC listed fauna species are likely present but not significantly affected.
- Seasonal herbaceous wetlands (freshwater) community is avoided by the Project.
- Noxious weed species (Spear Thistle) found in Project site must be controlled under CaLP Act.

Efforts to avoid/minimise impacts to flora and fauna include:

- Designing the BESS facility footprint to spare vital native vegetation.
- Retaining approximately 90% of native vegetation in the Project site.

Offsets required for removal are 0.095 general habitat units and must include the following offset attribute requirements:

- Minimum strategic biodiversity value of 0.302.
- Occur within the Glenelg Hopkins CMA boundary or the Moyne Shire municipal district.
- Include protection of no large trees.
- Under the Guidelines all offsets must be secured prior to the removal of native vegetation.

Based on the extent of native vegetation removal being <0.5 hectares, not including any large trees, and being in Location 2, the Guidelines stipulate that the proposal is to be assessed under the **Intermediate assessment pathway.** Therefore, no referral to DEECA is required.

7.3.1 Avoid and minimise statement

In accordance with the Guidelines, all applications to remove native vegetation must provide an avoid and minimise statement that describes any efforts undertaken to avoid the removal of and minimise the impacts to biodiversity and other values of native vegetation, and how these efforts were focused on areas of native vegetation with the highest value. Efforts to avoid and minimise impacts to native vegetation in the current application are presented as follows:

"The footprint of the proposed BESS facility has been designed to avoid any impacts on the largest and most important area of native vegetation in the project area, that being Habitat Zone A, which also constitutes the EPBC Act-listed community SHWTLP. Access tracks have also been redesigned to minimise impacts to native vegetation and to avoid fragmentation within existing patches. These design changes resulted from multiple meetings and discussions between Umwelt, Nature Advisory and GPGA to prepare the current development plan. The proposed layout will allow for retention of approximately 90% of native vegetation in the Project site. The client has advised that no feasible opportunities exist to further avoid and minimise impacts to native vegetation without undermining the key objectives of the proposal."

GPGA has advised that no feasible opportunities exist to further avoid and minimise impacts to native vegetation without undermining the key objectives of the proposal.

Design recommendations to enhance native vegetation, flora, and fauna habitats, including mitigation strategies for vegetation impacts during construction, are provided below.

- Any proposed plantings for screening purposes or otherwise should utilise species of an appropriate EVC such as Plains Grassy Woodland or Stony Knoll Shrubland. The planting design and management be to the satisfaction of Moyne Shire.
- Establish appropriate vegetation protection zones around areas of native vegetation to be retained prior to works.

- Ensure all construction personnel are appropriately briefed prior to works, and that no construction personnel, machinery or equipment are placed inside vegetation zones.
- A suitably qualified zoologist should undertake a pre-clearance survey of any trees to be removed during the week prior to removal to identify the presence of any nests or hollows.
- If considered necessary based on the results of the pre-clearance survey, a suitably qualified zoologist should be on site during any tree removal works to capture and relocate any misplaced fauna that may be present.

Figure 7.2 Location of Proposed Native Vegetation Removal. Source: Nature Advisory (2024)

7.4 Preliminary Hazard Assessment

Riskcon Engineering Pty Ltd was engaged to conduct a preliminary hazard assessment of the Tarrone BESS (**Appendix F**). A hazard identification table was developed for the Project to identify potential hazards that may be present at the site as a result of operations or storage of materials.

A hazard identification table was created to pinpoint potential hazards linked to operations or material storage. Based on the identified hazards, scenarios were developed, focusing on incidents with offsite impacts. Following a qualitative analysis, scenarios without offsite effects were eliminated, and the rest underwent consequence analysis. Upon reviewing these incidents, no offsite impacts were observed. Consequently, it is determined that the risks at the Project site are within acceptable criteria, classifying the Project as potentially hazardous but permissible within current zoning regulations.

The following recommendations were made as a result of the assessment:

- BESS must be tested in accordance with UL9540A.
- Testing to demonstrate clearances required to prevent propagation of fires between separated units.
- BESS to be installed in accordance with manufacturer and UL9540A report recommended clearances based on testing.
- BESS to be installed with fire protection systems specified by the manufacturer and UL9540A report.
- Before construction, detailed design to validate the system can be installed in the Project site whilst meeting the recommended clearances.
- UL testing information shall be made available to the certifying authority. It is noted that a confidentiality agreement may be required.
- The vent covers of the BESS shall be constructed of non-combustible material.
- The vents shall not be located above battery packs within the BESS container.

7.5 Bushfire Risk Assessment Report

Australian Bushfire Protection Planners Pty Ltd (ABPP) undertook a bushfire risk assessment report for the Tarrone BESS (**Appendix E**).

The examination of the bushfire risk has found that the BESS site is exposed to the risk of bushfire from a fire event that occurs under winds from any direction and conducive temperature and humidity combinations. Without appropriate levels of protection, these fire events are likely to over-run the site and present a risk to the equipment and personnel. The bushfire risk assessment report examined the minimum level of protection required to reduce the likelihood of flame contact with the equipment. However, the risk of fire over-run remains.

The following recommendations were made in the bushfire risk assessment report:

- The bushfire risk assessment recommended that the maintained firebreak area exceed the minimum 10 m distance prescribed in the CFA Design Guidelines for Renewable Energy Facilities and extend to the perimeter of the site boundary.
- It is recommended that no vegetation should be permitted within the security fenced area.
- The surface area within the fenced security area, not including areas of constructed assets or roadways, should be maintained with a gravel surface to a depth that ensures vegetation growth is minimised or eliminated
- Exposed cables should be shielded with a non-combustible collar to a height of 400 mm above ground or pavement level.
- The installation of 'knock-down' fire extinguishment equipment such as CO2 or Dry Chemical dousing system should be considered to mitigate the risk of cabinet-to-cabinet fire spread.

- Although not mandatory, it is recommended that construction of buildings within the site be to the minimum standard of BAL 29 as per the requirements of the Australian Standard AS3959 – 2018.
- All access roads shall provide satisfactory access for emergency services.
- Emergency vehicle access to and within the facility should allow unobstructed access to battery energy storage systems, substations, and fire service Infrastructure (hydrants).
- A fire protection system suitable for the risks and hazards at the facility must be provided.
- A risk assessment should be undertaken regarding the presence of staff and visitors on site on days of declared Total Fire Ban Days and/or when fire danger ratings are elevated, Advice from emergency services regarding early evacuation, shelter in place or egress from site should be monitored and implemented.
- No 'hot works' should be undertaken on Total Fire Ban Days without a full risk assessment and the approval of the CFA.
- If emergency work is required to be undertaken during extreme/catastrophic fire danger weather, all works should be carried out with notification to, and the approval of the CFA and with adherence to any conditions that they may impose.
- The use of heavy earthmoving equipment and works that include grinding/welding shall not take place during declared Total Fire Ban days without a full risk assessment and the approval of the CFA.
- The bushfire risk to personnel and equipment will remain during the construction and decommissioning works.
- The head contractor shall include the management of bushfire risk in the Construction Management Plan (CMP), Decommissioning Plan (DP), Evacuation Plan (EP) and Operations Plan (OP). It is also recommended that, during the construction and decommissioning works periods, the contractor shall provide a suitable fire response Tanker Trailer and portable fire extinguishers on all construction vehicles.
- The operator of the facility should prepare and submit to the CFA a Bushfire Emergency Evacuation Plan (BEEP) for the site for comment.

The report concluded that the provision of the bushfire protection measures outlined above and in the bushfire risk assessment report will mitigate the likely threat of bushfire on equipment.

7.6 Landscape and Visual

A landscape and visual impact assessment was undertaken by Alexandra Elliot Landscape Architecture to understand the visual impact of the Project (**Appendix H**).

The landscape and visual assessment found that the majority of the Project site and surrounding area, as defined in the landscape and visual impact assessment, is located within the Farming Zone and there are no designated views or sites of significance within the study area. Views of the Project would be limited to local roads within the Farming Zone earthwrsurrounding the Project.

The landscape and visual impact assessment has shown that the Project would be predominantly screened or filtered from views by existing topography and vegetation surrounding the Project and within the surrounding study area. For these reasons, landscape mitigation of the project would not be required.

7.7 Cultural Heritage Management Plan

A large section to the Project site is located within an area of cultural heritage sensitivity. The relevant Registered Aboriginal Party (RAP) within the region pursuant to the *Aboriginal Heritage Act 2006* is the Eastern Maar Aboriginal Corporation. The proposed activity is a high impact activity, and the activity Area is in an area of cultural heritage sensitivity, as defined under the Aboriginal Heritage Regulations 2018.

A cultural heritage management plan (CHMP) has been prepared by Umwelt (**Appendix I**) (CHMP 19608). It is a mandatory CHMP, commissioned to fulfil the requirements of the *Aboriginal Heritage Act 2006.* The proposed activity is a high impact activity under Regulation (46)(1) of the Aboriginal Heritage Regulations 2018. The activity area is in an area of cultural heritage sensitivity under Regulation 46(1)(b)(xxvii)(D) – a utility installation where the works affect an area exceeding 25 m² under the Aboriginal Heritage Regulations.

The CHMP includes a number of mitigation measures, each of which will be adopted by the Project. The two landforms identified in the desktop and standard assessment were confirmed as containing Aboriginal Cultural Heritage through testing. The testing was consistent for each landform with shallow clays and little soil on the stony rises, with deeper soil profiles in the plains. A total of 38 excavations were undertaken, 13 Test Pits, and 25 shovel test pits.

Of these two test pits were positive for Aboriginal cultural heritage (TP 8 and TP 12). An extent testing program was completed around these test pits which identified three more positive extent STP locations.

As a result, one new Aboriginal place was identified: Tarrone Stony Rise LDAD (VAHR pending). The CHMP is pursuing full avoidance of the Aboriginal place with a 25m exclusion buffer surrounding the point locations as a no-go zone to protect the LDAD and stony rise extent on which it was identified.

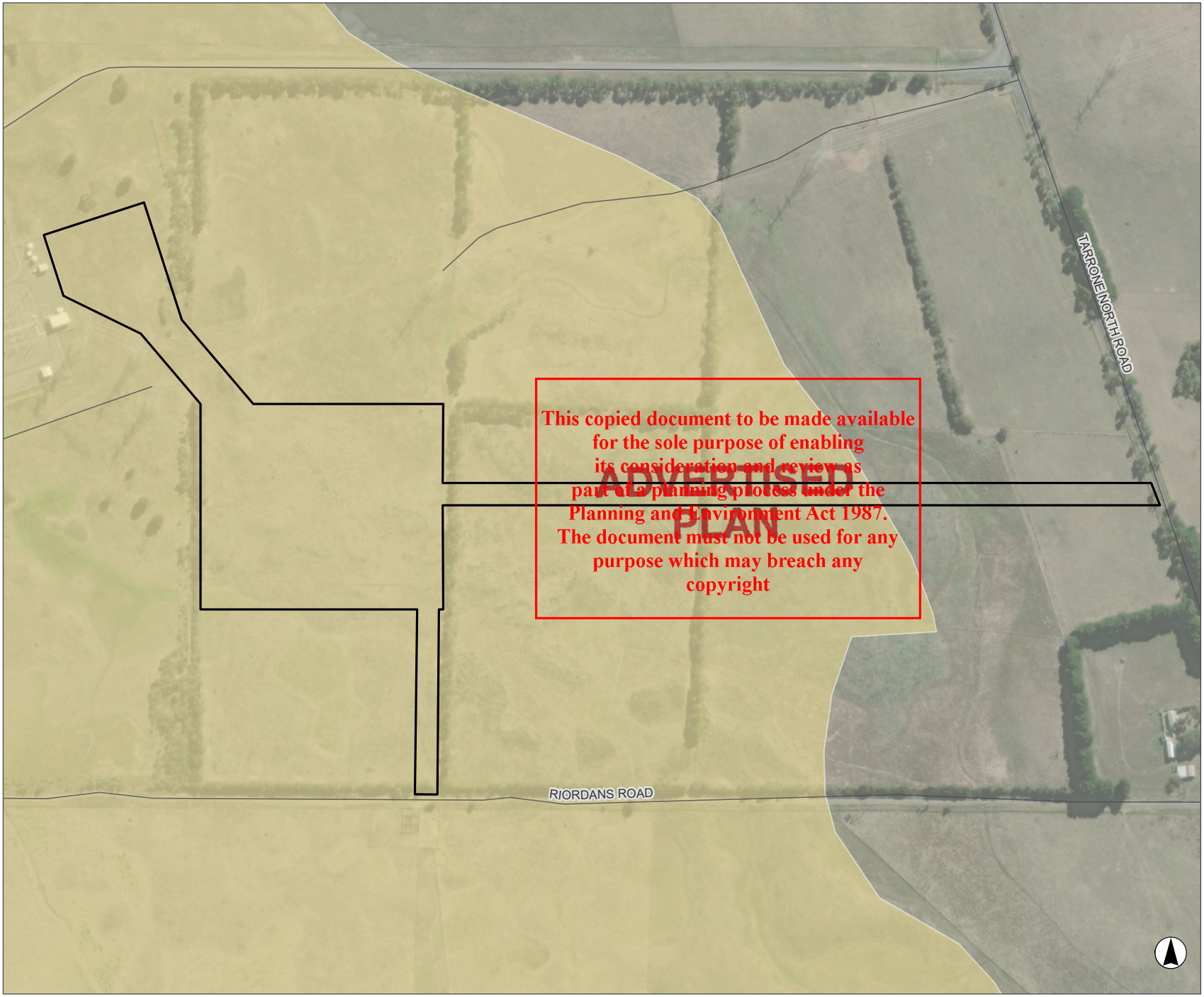
CHMP 19608 is currently progressing through the final phase of consultation with the RAP group prior to approval processes at the time this planning permit is being submitted.

FIGURE 7.3

Areas of Cultural Heritage Sensitivity

Legend

- Project Site Boundary
- Stony rise
- Road



0 100 200
Metres

Scale 1:6,000 at A4
GDA 1994 MGA Zone 54

Image Source: ESRI Basemap (2024) **Data source:** DELWP (2024), GPG (2024)

8.0 Conclusion

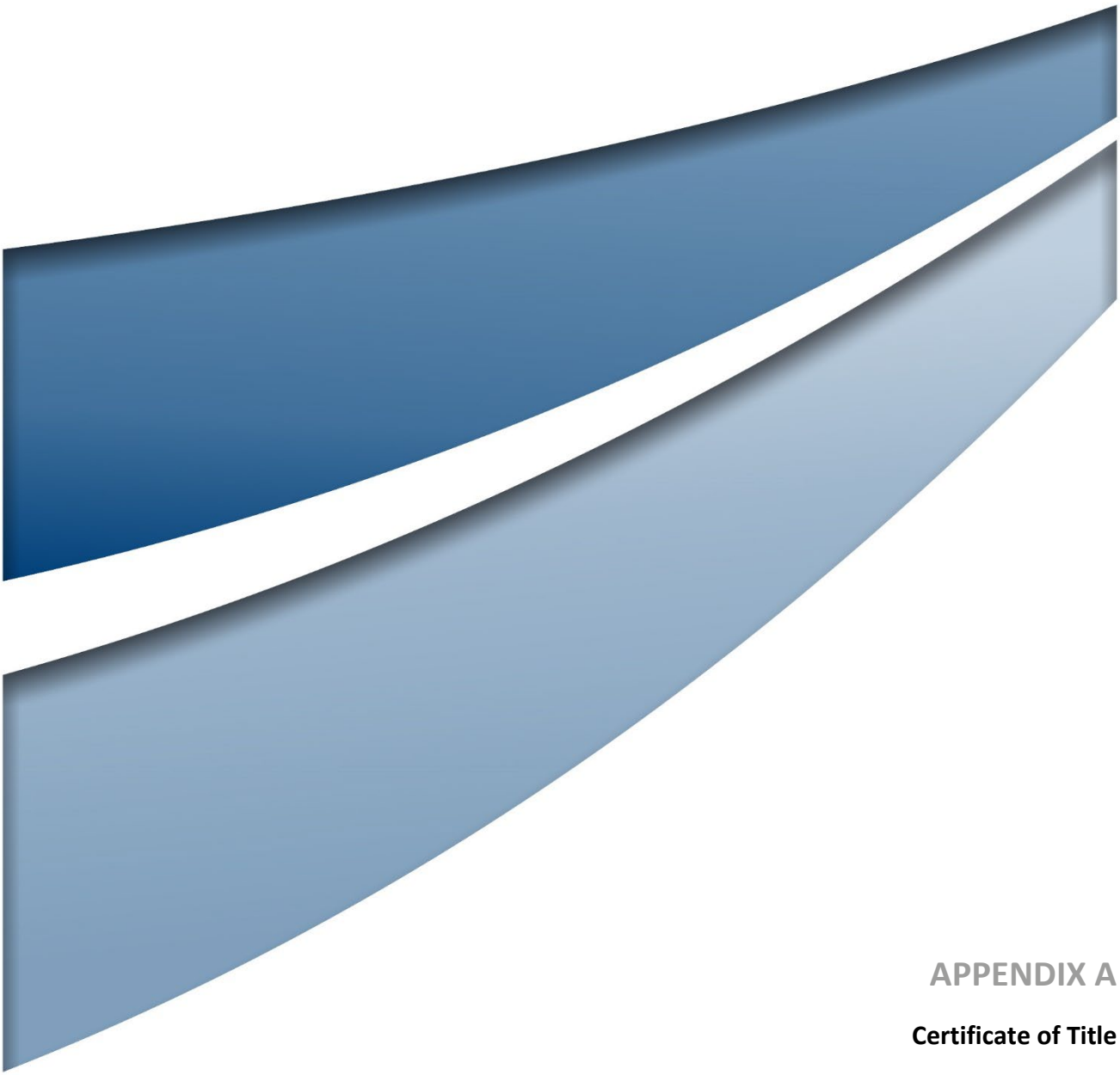
GPGA plans to construct the Tarrone Battery Energy Storage System (BESS), a grid-scale facility in Tarrone, Victoria. The BESS will feature a storage capacity of 200 MWac / 400 MWh, utilising advanced grid-forming inverter and Lithium-Ion battery technologies. Its objective is to link battery storage with the existing Tarrone 500 kV Terminal Station, connecting the Ryan Corner and Hawkesdale wind farms.

As Victoria transitions to renewable energy generation, the transmission network is undergoing significant changes. The Australian Energy Market Operator (AEMO) has set out a 25-year roadmap to achieve net zero in the National Electricity Market (NEM) by 2050. Victoria targets 65% renewable energy by 2030 and aims for at least 2.6 GW of energy storage capacity by 2030, increasing to 6.3 GW by 2035. The transition plan includes large-scale solar, wind, and storage solutions like utility-scale batteries. The proposed installation of the BESS at the Tarrone Terminal Station is a crucial part of this strategy. The Project is designed to have minimal impact on the current site, environment, and surrounding areas, marking a significant step towards Victoria's renewable energy goals. Overall, the proposed works are not anticipated to significantly impact the existing Site, environment, or surrounding land uses.

In summary:

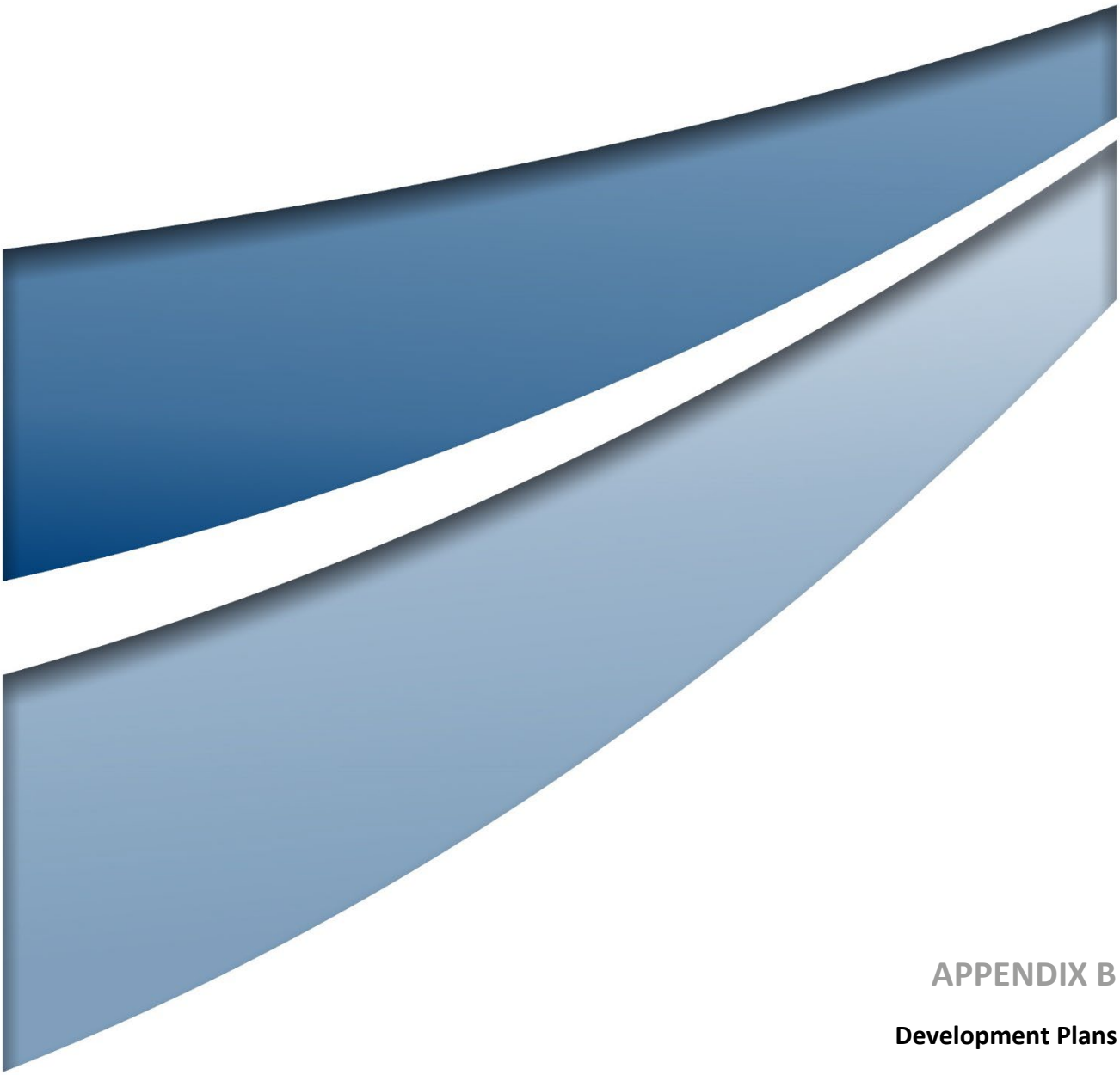
- The proposed works are consistent with the intent of the provisions of the Moyne Planning Scheme and with the Planning Policy Framework.
- The BESS will contribute towards the Victorian State Governments renewable energy goals and will result in a number of community benefits, including the capacity to provide energy to households and the creation of jobs for up to 120 staff during peak construction phase.
- Whilst the proposed works are not consistent with the purpose of the Farming Zone, the Project is to be located immediately next to a site which has an established use as a terminal station and the proposed works seek to increase the footprint with minimal impact to agricultural land.
- Several environmental assessments were undertaken to inform design and assess potential environmental impacts of the project. The recommendations and mitigation measures of these assessments have been adopted by the project in order to reduce potential environmental impacts. The assessments have found that the Project will not have any significant direct or cumulative impacts on the environment or surrounding area.
- The local community's safety and amenity will not be significantly impacted because GPGA remains committed to fulfilling its General Environmental Duty under the EP Act 2017.

On balance, based on the limited impact of the proposed works, we request approval of the planning permit be granted for the development.



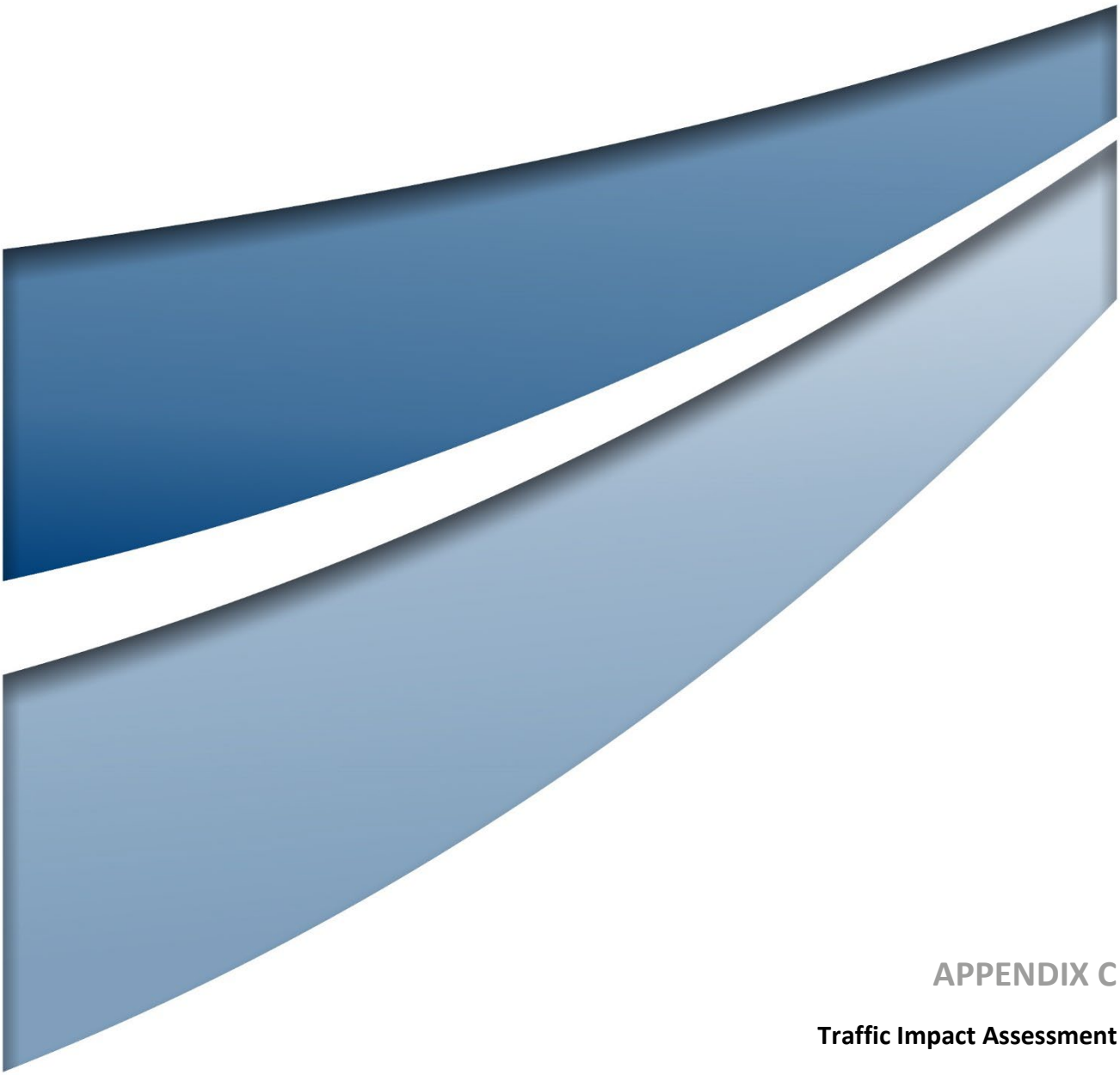
APPENDIX A

Certificate of Title



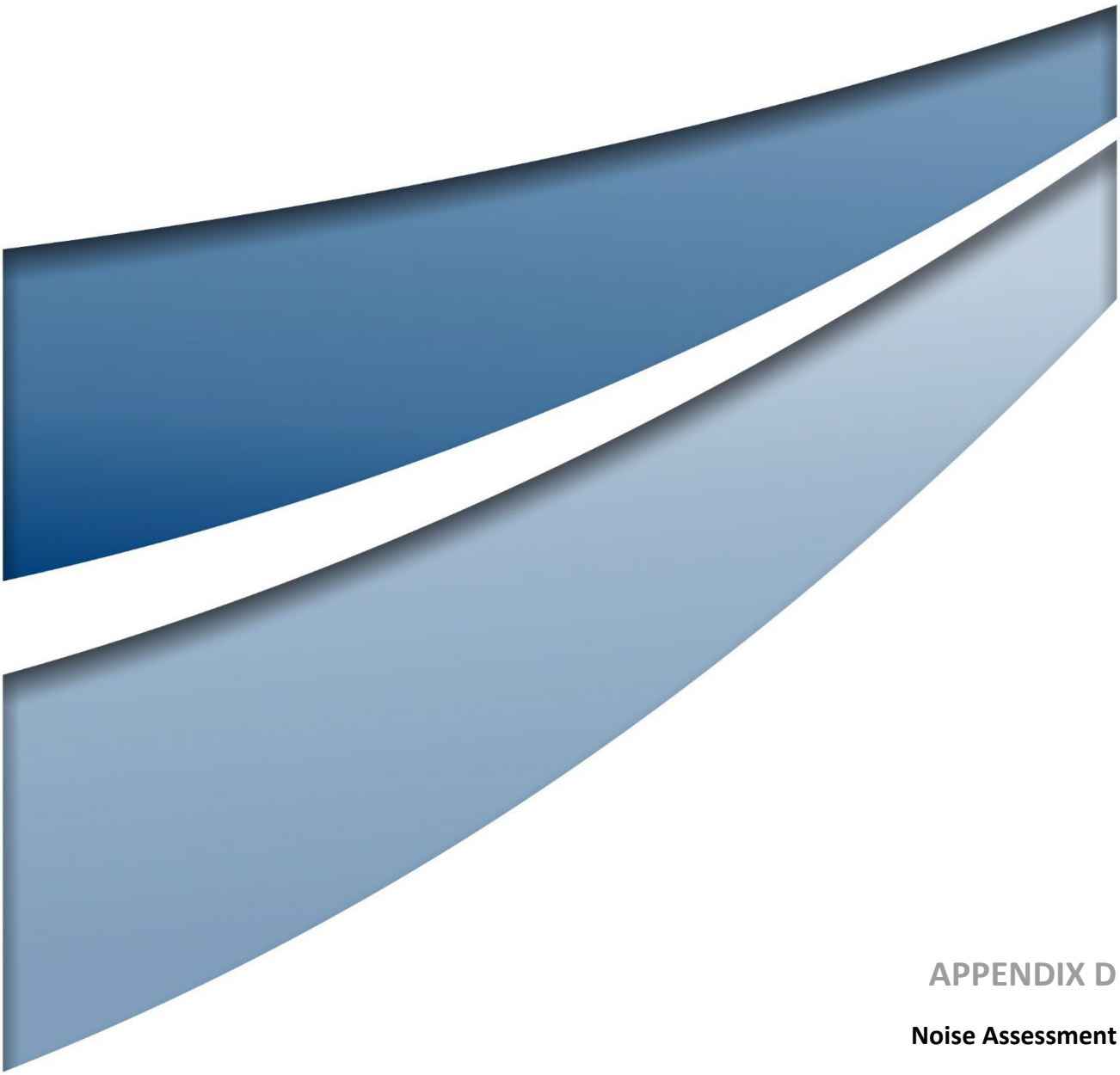
APPENDIX B

Development Plans



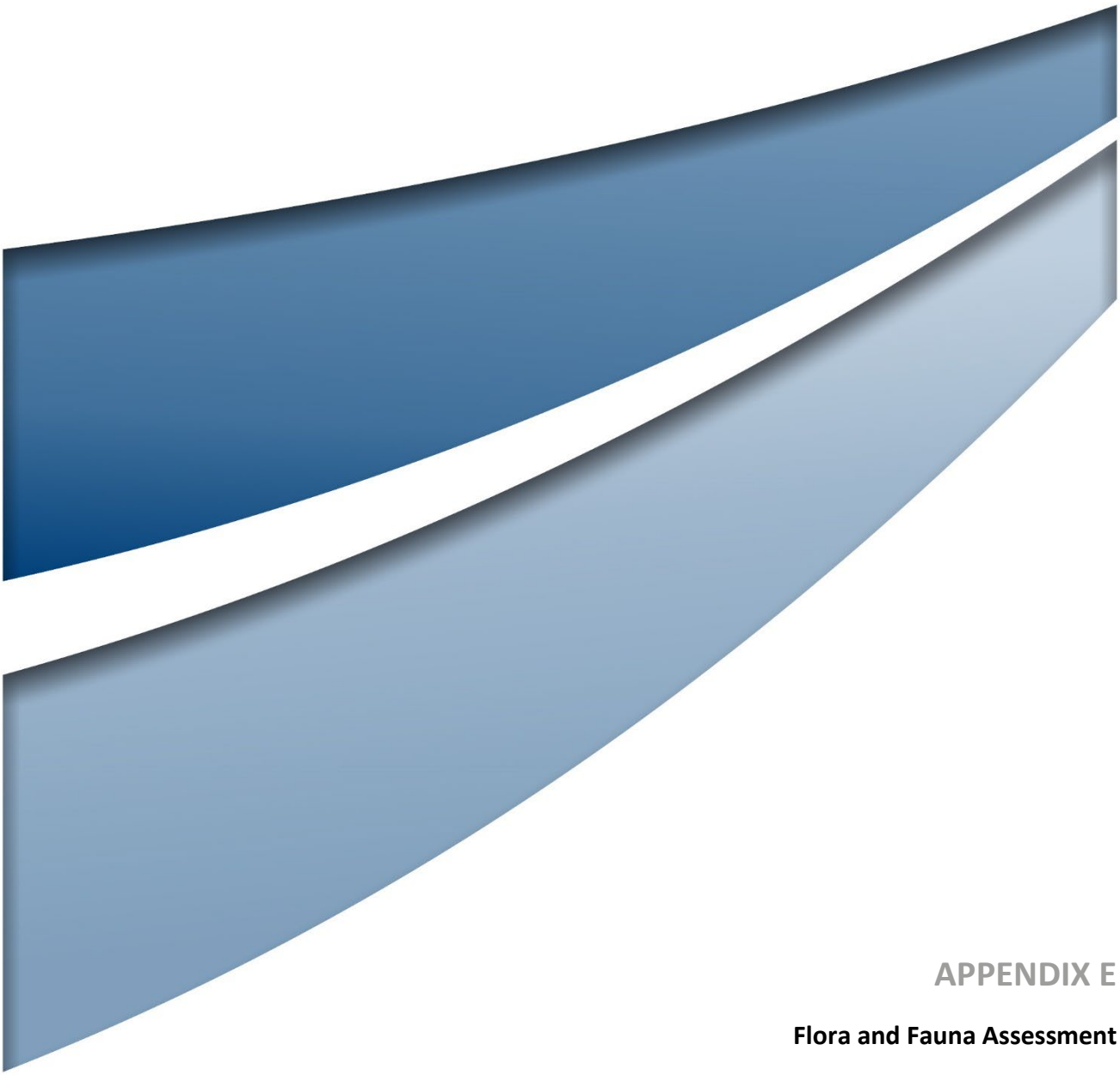
APPENDIX C

Traffic Impact Assessment



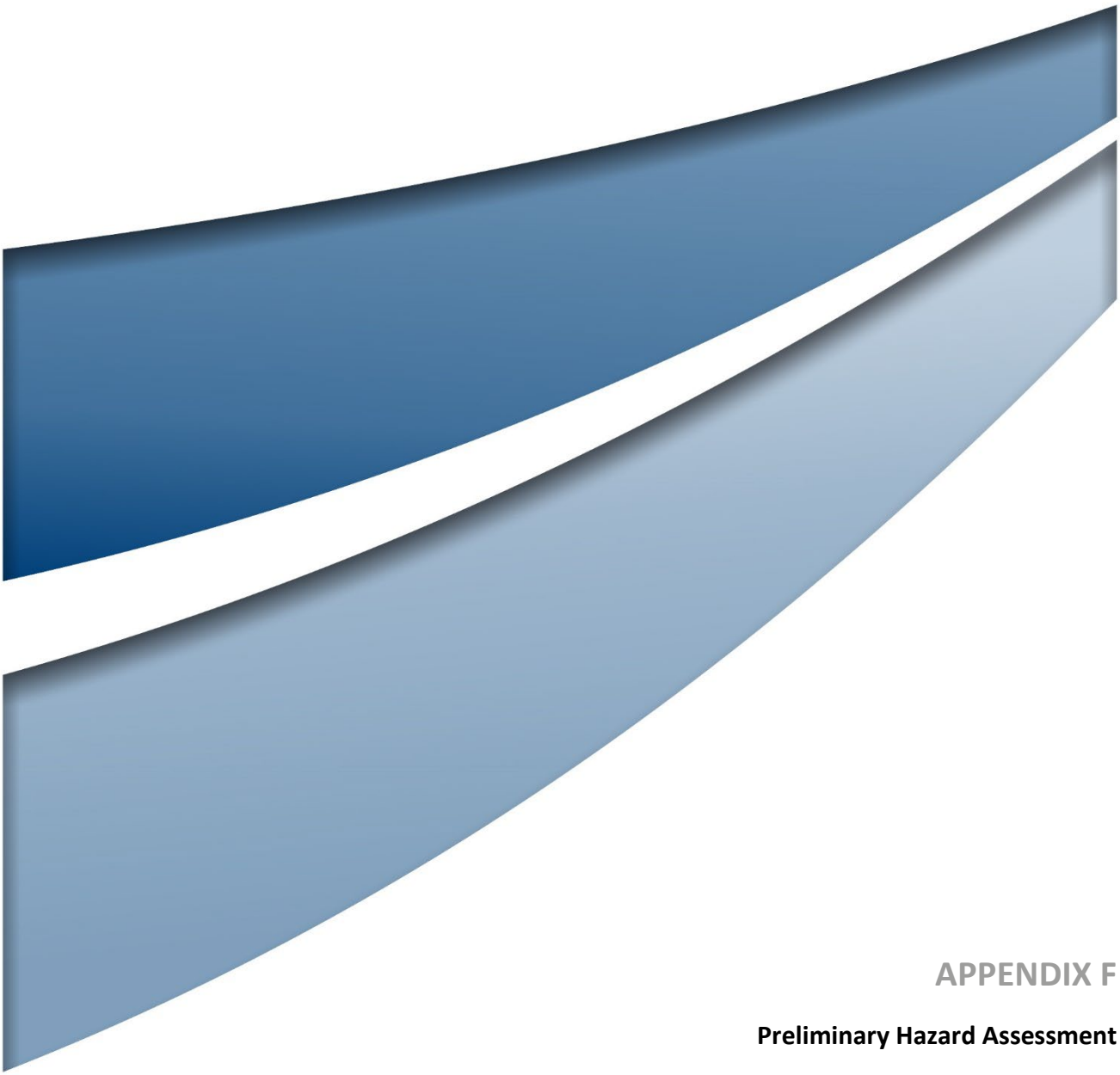
APPENDIX D

Noise Assessment



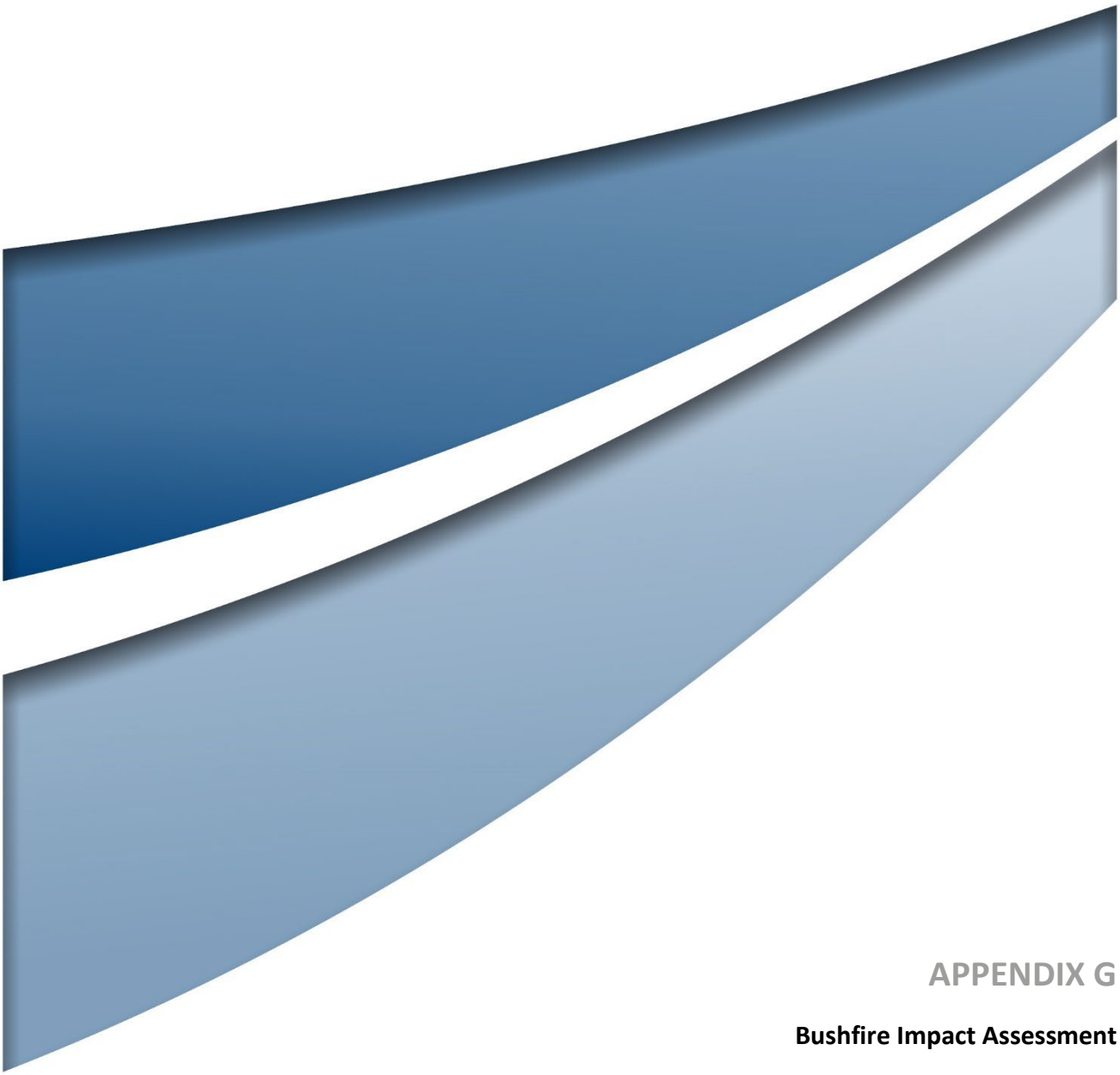
APPENDIX E

Flora and Fauna Assessment



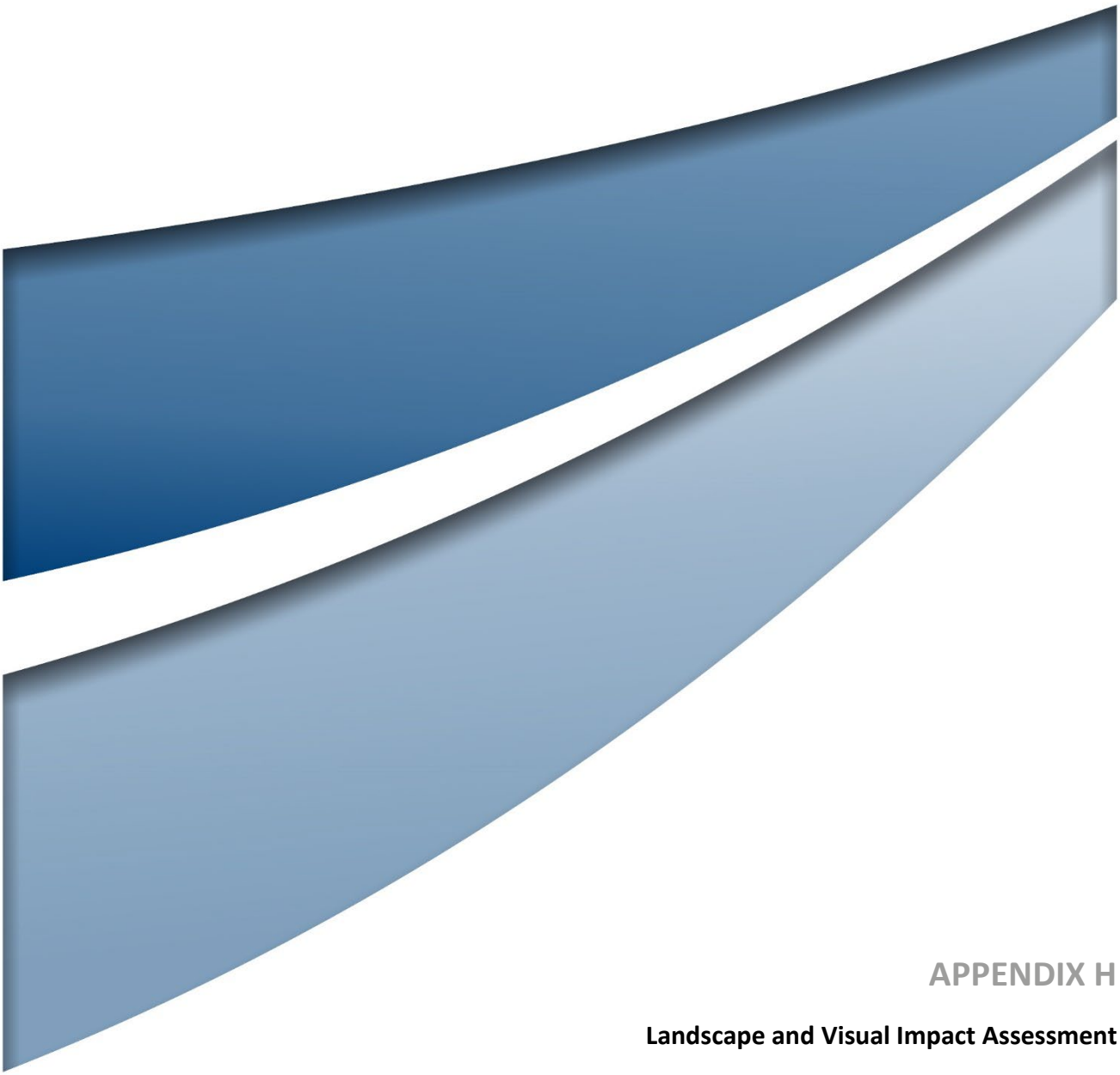
APPENDIX F

Preliminary Hazard Assessment



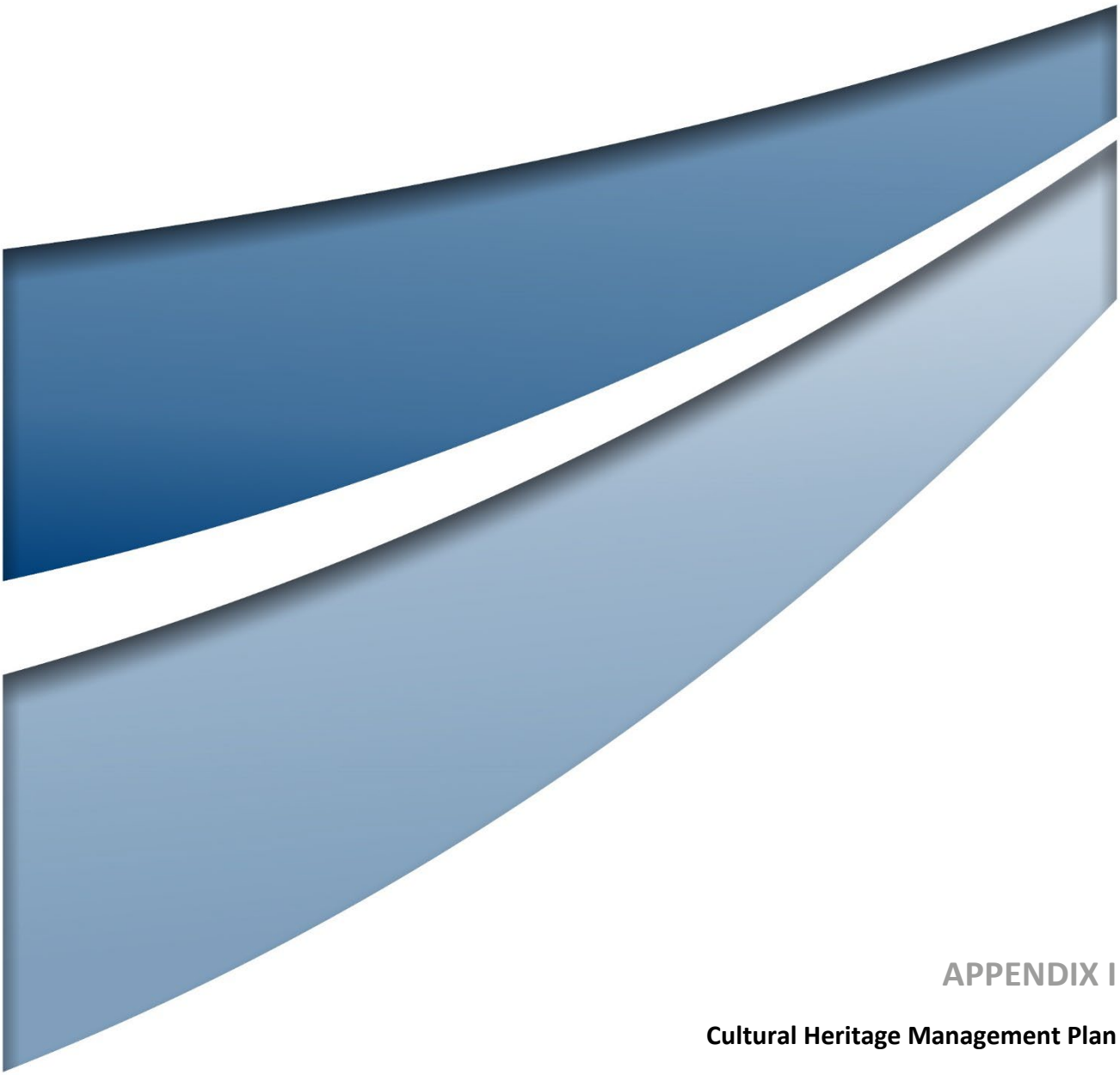
APPENDIX G

Bushfire Impact Assessment



APPENDIX H

Landscape and Visual Impact Assessment



APPENDIX I

Cultural Heritage Management Plan

umwelt
Environmental & Social
Consultants

Umwelt (Australia) Pty Limited
T| 1300 793 267 E| info@umwelt.com.au www.umwelt.com.au