

Table 4.4 Threatened terrestrial bird species most likely to occur within the Study Area

Common Name	Species name	Conservation Status	
		ЕРВС	FFG
Glossy Black-Cockatoo	Calyptorhynchus lathami	VU	cr
Gang-gang Cockatoo	Callocephalon fimbriatum	EN	
Orange-bellied Parrot	Neophema chrysogaster	CR	Cr
Swift Parrot	Lathamus discolor	CR	Cr
White-throated Needletail	Hirundapus caudacutus	VU, Migratory	V
Pilotbird	Pycnoptilus floccosus	VU	
Painted Honeyeater	Grantiella picta	VU	٧
Grey Goshawk	Accipiter novaehollandiae		Е
Little Eagle	Hieraaetus morphnoides		٧
White-bellied Sea-Eagle	Haliaeetus leucogaster		Е
Square-tailed Kite	Lophoictinia isura		V
Barking Owl	Ninox connivens		Cr
Powerful Owl	Ninox strenua		٧
Masked Owl	Tyto novaehollandiae		Cr
Hooded Robin	Melanodryas cucullata		٧
Chestnut-rumped Heathwren	Calamanthus pyrrhopygius		٧
White-browed Treecreeper	Climacteris affinis		е
Diamond Firetail	Stagonopleura guttata		v

Table Note: EPBC Status: EN = Endangered, CR = Critically Endangered, VU = Vulnerable. FFG Status: Cr= Critically Endangered, E = Endangered, V = Vulnerable, Cd = Conservation Dependent

The following additional information on parrot species has been derived from the report prepared by BMT.

Orange-bellied parrots inhabit coastal and surrounding areas including saltmarshes, littoral heathlands and scrublands. They breed in Tasmania and then migrate to southern mainland Australia for winter. The species is listed as critically endangered under the EPBC Act, with only 140 birds recorded leaving the Tasmanian nesting site after the 2020/2021 breeding season. Typically, the species migrate closer to Port Phillip Bay, then disperse east and west along the Victorian coastline.

Swift Parrot (listed as critically endangered under the EPBC Act) also breeds in Tasmania and migrate to mainland Australia in autumn. During winter the parrots disperse across a broad landscape, foraging on nectar in eucalypt woodlands mainly in inland Victoria and New South Wales. The migratory pathways of the species are not well understood however, it is considered most likely they cross the Victorian coastline around Port Phillip Bay including the Mornington and Bellarine Peninsulas. Whilst the onshore Study Area does not contain habitat for the species such as eucalypt woodlands, it is possible that individuals pass through the Study Area whilst migrating to their preferred habitat.

Shorebirds, wetlands birds, and terns

Thirty-five (35) listed shorebird species have a medium or higher likelihood of occurring within the Study Area, as listed in **Table 4.5**. Of these, 11 are listed under the EPBC Act and 33 are listed under the FFG Act (these do not equal 35 as some species are listed under both Acts). Areas that are frequented by shorebirds



within the Study Area and surrounds include the Gippsland Lakes and the Corner Inlet Ramsar Wetlands, which are internationally recognised as important habitat for resident and migratory shorebirds.

The Corner Inlet Ramsar Wetlands provides important foraging habitat for over 30,000 shorebirds each year and is also an important gathering site for trans-equatorial migratory shorebirds. Migratory shorebirds may be at risk of collision with wind turbines, particularly during their departure and arrival.

Table 4.5 Threatened shorebird, wetland birds and terns likely to occur within the Study Area

Common Name	Species Name	Conservation St	Conservation Status	
		EPBC	FFG	
Australian Painted-snipe	Rostratula australis	EN	Cr	
Australasian Bittern	Botaurus poiciloptilus	EN	Cr	
Australian fairy Tern	Sternula nereis nereis	VU		
Bar-taield Godwit (baueri)	Limosa lapponica baueri	VU, Migratory		
Hooded Plover	Thinornis cucullatus	VU	V	
Lesser Sand Plover	Charadrius mongolus	EN, Migratory	E	
Greater Sand Plover	Charadrius leschenaultii	VU, Migratory	V	
Eastern Curlew	Numenius madagascariensis	CR, Migratory	Cr	
Curlew Sandpiper	Calidris ferruginea	CR, Migratory	Cr	
Red Knot	Calidris canutus	EN, Migratory	Е	
Great Knot	Calidris tenuirostris	CR, Migratory	Cr	
Lewin's Rail	Lewinia pectoralis		V	
Little Egret	Egretta garzetta		С	
Plumed Egret	Ardea intermedia plumifera		Cr	
Eastern Great Egret	Ardea alba modesta		V	
Australian Little Bittern	Ixobrychus dubius		Е	
Magpie Goose	Anseranas semipalmata		V	
Australasian Shoveler	Spatula rhynchotis		V	
Freckled Duck	Stictonetta naevosa		Е	
Hardhead	Aythya australis		V	
Blue-billed Duck	Oxyura australis		V	
Musk Dusk	Biziura lobata		V	
Caspian Tern	Hydroprogne caspia	Migratory	V	
Little Tern	Sternula albifrons	Migratory	Cr	
Ruddy Turnstone	Arenaria interpres	Migratory	E	
Grey Plover	Pluvialis squatarola	Migratory	V	
Pacific Golden Plover	Pluvialis fulva	Migratory	V	
Whimbrel	Numenius phaeopus	Migratory	Е	
Wood Sandpiper	Tringa glareola	Migratory	E	
Grey-tailed Tattler	Tringa brevipes	Migratory	Cr	
Common Sandpiper	Actitis hypoleucos	Migratory	V	
Common Greenshank	Tringa nebularia	Migratory	Е	



Common Name	Species Name	Conservation Status	
		ЕРВС	FFG
Marsh Sandpiper	Tringa stagnatilis	Migratory	E
Terek Sandpiper	Xenus cinereus	Migratory	E
Black-tailed Godwit	Limosa limosa		cr

Table Note: EPBC Status: EN = Endangered, CR = Critically Endangered, VU = Vulnerable. FFG Status: Cr= Critically Endangered, E = Endangered, V = Vulnerable, Cd = Conservation Dependent

Additional information on shorebirds is provided in the report prepared by BMT (2022).

Of particular note is the resident shorebird species, Hooded Plover *Charadrius rubricollis*, which is known to nest between August and March along Victorian open beaches. The density of birds along the Ninety Mile Beach is less than 1 bird per kilometre (Department of Sustainability and Environment, 2002).

4.1.5.2 Terrestrial and Aquatic Fauna

Twenty listed terrestrial and aquatic fauna have a medium to high likelihood of occurring within the Study Area, as listed in **Table 4.6.** Of these, nine are listed under the EPBC Act, and 19 are listed under the FFG Act (these do not equal 20 as some species are listed under both Acts). Threatened arboreal species such as Southern Greater Glider and Grey-headed Flying Fox may use large trees and native vegetation within the onshore Study Area. Wetlands and waterways within the Study Area and surrounds are likely to provide important habitat for nationally listed amphibian and ichthyofauna populations.

Table 4.6 Threatened terrestrial and freshwater fauna likely to occur within the Study Area

Common Name	Species Name	Conservation Status	
		EPBC	FFG
Southern Greater Glider	Petauroides volans	VU	V
New Holland Mouse	Pseudomys novaehollandiae	VU	Е
Southern Brown Bandicoot	Isoodon obesulus obesulus	EN	Е
Grey-headed Flying Fox	Pteropus poliocephalus	VU	V
Green and Golden Bell Frog	Litoria aurea	VU	
Growling Grass Frog	Litoria raniformis	VU	V
Australian Grayling	Prototroctes maraena	VU	Е
Dwarf Galaxias	Galaxiella pusilla	VU	Е
Macquarie Perch	Macquaria australasica	EN	Е
White-footed Dunnart	Sminthopsis leucopus		V
Platypus	Ornithorhynchus anatinus		V
Yellow-bellied Sheathtail Bat	Saccolaimus flaviventris		V
Lace Monitor	Varanus varius		Е
Swamp Skink	Lissolepis coventryi		Е
Glossy Grass Skink	Pseudemoia rawlinsoni		Е
Southern Toadlet	Pseudophryne semimarmorata		E
Martin's Toadlet	Uperoleia martini		Cr
Flinders Pygmy Perch	Nannoperca sp. 1		V
Alpine Darner Dragonfly	Austroaeschna (Austroaeschna) flavomaculata		V



Common Name	Species Name	Conservation Status	
		EPBC	FFG
South Gippsland Spiny Crayfish	Euastacus neodiversus		E

Table Note: EPBC Status: EN = Endangered, CR = Critically Endangered, VU = Vulnerable. FFG Status: Cr= Critically Endangered, E = Endangered, V = Vulnerable, Cd = Conservation Dependent

4.1.5.3 **Seabirds**

This section identifies threatened seabirds that are likely to occur within the Study Area. Other threatened marine fauna with potential to occur within the offshore Study Area are addressed in **Section 3.0.**

As listed in **Table 4.7,** 16 listed seabird species have a medium to high likelihood of occurring within the Study Area,. Of these, 15 are listed under the EPBC Act and 10 are listed under the FFG Act (these do not equal 16 as some species are listed under both Acts).

The Bass Strait Islands, particularly those west and east of Wilsons Promontory, provide nesting habitat for several other important seabird species. While there are no known seabird breeding colonies within the Study Area, several breeding species are known to breed within 50 km of the Study Area including:

- Little Penguin *Eudyptula minor*
- Short-tailed Shearwater Ardenna tenuirostris
- Black-faced Cormorant Phalacrocorax fuscescens
- Common Diving-Petrel Pelecanoides urinatrix
- Fairy Prion Pachyptila turtar
- Pacific Gull Larus pacificus.

Given the high mobility and dispersal capabilities of seabirds, particularly outside of the breeding period, it is highly likely that these species' ranges overlap with the Study Area.

Table 4.7 Threatened Seabirds species most likely to occur within the Study Area

Common Name	Species Name	Conservation St	Conservation Status	
		ЕРВС	FFG	
Fairy Prion (southern)	Pachyptila turtur subantarctica	VU		
Gould's Petrel	Pterodroma leucoptera leucoptera	EN		
Blue Petrel	Halobaena caerulea	VU		
Wandering Albatross	Diomedea exulans	VU, Migratory	Cr	
Black-browned Albatross	Thalassarche melanophris	VU, Migratory		
Indian Yellow-nosed Albatross	Thalassarche carteri	VU, Migratory	E	
Grey-headed Albatross	Thalassarche chrysostoma	EN, Migratory	E	
Shy Albatross	Thalassarche cauta	EN, Migratory	E	
Sooty Albatross	Phoebetria fusca	VU, Migratory	Cr	
Southern Giant-Petrel	Macronectes giganteus	EN, Migratory	E	
Buller's Albatross	Thalassarche bulleri	VU, Migratory	Е	



Common Name	Species Name	Conservation Status	
		ЕРВС	FFG
Northern Giant-Petrel	Macronectes halli	VU, Migratory	E
Southern Royal Albatross	Diomedea epomophora	VU, Migratory	Cr
White-capped Albatross	Thalassarche steadi	VU, Migratory	
Campbell Albatross	Thalassarche impavida	VU, Migratory	
Light-mantled Sooty Albatross	Phoebetria palpebrata	Migratory	Cr

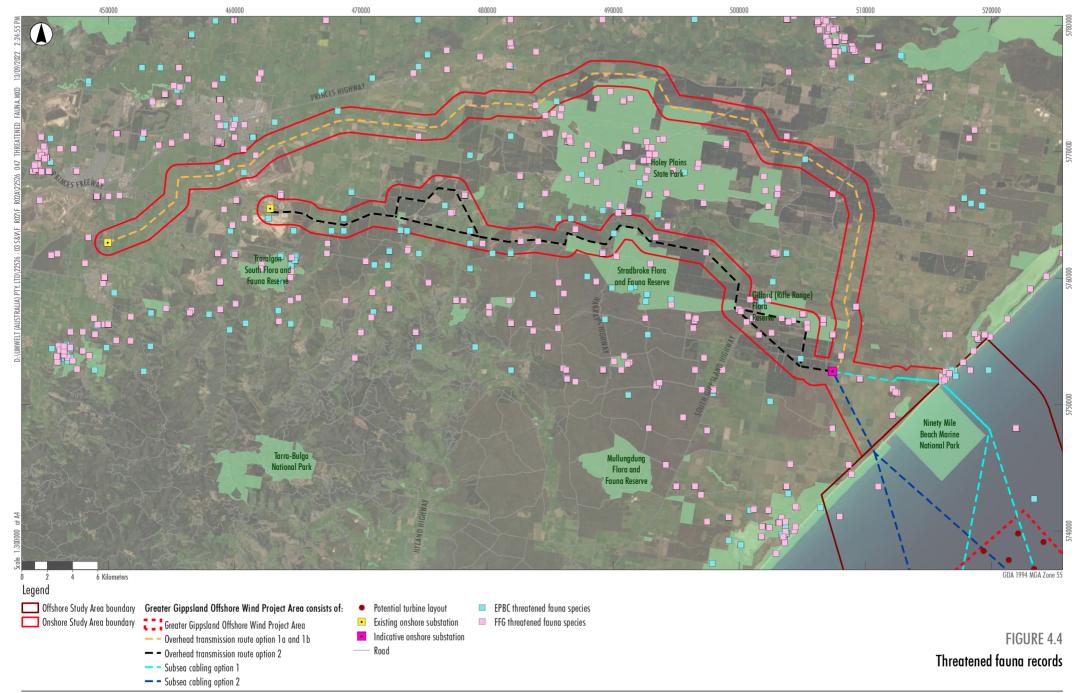
Table Note: EPBC Status: EN = Endangered, CR = Critically Endangered, VU = Vulnerable. FFG Status: Cr= Critically Endangered, E = Endangered, V = Vulnerable, Cd = Conservation Dependent

The following additional information on seabirds has been provided in the report prepared by BMT (2022).

The Study Area is mapped as a BIA for the Black-browed Albatross *Thalassarche melanophris*, Buller's Albatross *Thalassarche bulleri*, Campbell Albatross *Thalassarche impavida*, Indian Yellow-nose Albatross *Thalassarche carteri*, Shy Albatross *Thalassarche cauta*, Wandering Albatross *Diomedea chionoptera*, and the Antipodean Albatross *Diomedea antipodensis*.

Albatross and petrel species largely breed in Antarctica and islands south of Australia and exhibit a broad range of diets and foraging behaviours, making their at-sea distributions diverse. All waters within Australian jurisdiction can be considered foraging habitat for albatross and petrel species, however the most critical foraging habitat is waters south of 25 degrees where most species spend the majority of their foraging time. Seabirds are known to feed on fish, cephalopod and/or crustaceans within the marine environment, diving to the surface water level or just below. This potentially makes them vulnerable to turbine strike.







4.1.6 Migratory Species

A search of the Study Area with a 10 km buffer (the search area) of the PMST and Victorian databases identifies 63 migratory bird species that occur, or are predicted to occur. Thirty-three of these species are also listed as threatened under the EPBC Act and are identified above in **Table 4.4**, **Table 4.5**, and **Table 4.7**. A list of these migratory bird species is provided in **Table 4.8**. Migratory marine fauna (whales, dolphins, turtles, sharks) are addressed in **Section 3.0**.

Table 4.8 Migratory species predicted to occur within 10 km of the Study Area

Common Name	Species Name
Pin-tailed Snipe	Gallinago stenura
Swinhoe's Snipe	Gallinago megala
Latham's Snipe	Gallinago hardwickii
Glossy Ibis	Plegadis falcinellus
Eastern Osprey	Pandion cristatus
Fork-tailed Swift	Apus pacificus
Osprey	Pandion haliaetus
Sooty Shearwater	Ardenna grisea
Short-tailed Shearwater	Ardenna tenuirostris
Flesh-footed Shearwater	Ardenna carneipes
Common Tern	Sterna hirundo
Northern Royal Albatross	Diomedea antipodensis
New Zealand Wandering Albatross	Diomedea antipodensis
Salvin's Albatross	Thalassarche salvini
White-capped Albatross	Thalassarche steadi
Campbell Albatross	Thalassarche impavida
Ruff (Reeve)	Philomachus pugnax
White-winged Black Tern	Chlidonias leucopterus
Crested Tern	Thalasseus bergii
Double-banded Plover	Charadrius bicinctus
Oriental Plover	Charadrius veredus
Little Curlew	Numenius minutus
Red-necked Stint	Calidris ruficollis
Sharptailed Sandpiper	Calidris acuminata
Sanderling	Calidris alba
Pectoral Sandpiper	Calidris melanotos
Yellow Wagtail	Motacilla flava
Rufous Faintail	Rhipidura rufifrons
Satin Flycatcher	Myiagra cyanoleuca
Black-faced Monarch	Monarcha melanopsis



4.1.7 Threatened Ecological Communities

As identified in **Table 4.9** and shown on **Figure 4.5**, 11 threatened ecological communities (TECs) are likely to occur within the Study Area.

Table 4.9 TECs likely to occur within the Study Area

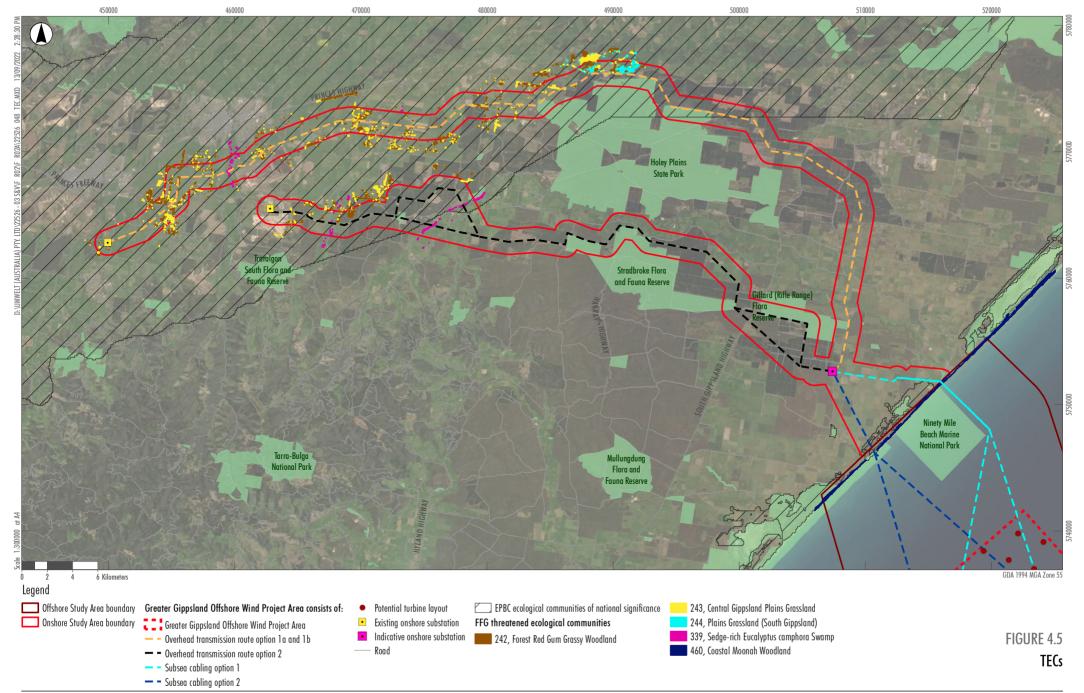
Community Name	Conservation Status	Modelled extent within the Study Area
EPBC Act listed		
Gippsland Red Gum (<i>Eucalyptus</i> tereticornis subsp. mediana) Grassy Woodland and Associated Native Grassland	CR	Broadly modelled throughout large swathes of the Study Area, predominantly within the western end of the transmission route 1a and 1b.
Natural Damp Grassland of the Victorian Coastal Plains	CR	Modelled in the eastern extent of the onshore Study Area south west of Lake Denison near Giffard.
Seasonal Herbaceous Wetlands (Freshwater) of the Temperate Lowland Plains	CR	Modelled within the transmission route option 1a and 1b.
Subtropical and Temperate Coastal Saltmarsh	VU	Modelled within the coastline of the Study Area over waterbodies (including Lake Denison).
FFG Act listed		
Coastal Moonah (<i>Melaleaula lanceolata</i> subsp. <i>lanceolata</i>) Woodland Community	Threatened	This TEC is modelled to occur along almost the entire length of the coastline within the Study Area.
Cool Temperate Rainforest Community	Threatened	These TECs are all modelled in small patches the
Central Gippsland Plains Grassland Community	Threatened	western end of the transmission line corridor. Many of the listed TECs remain as small, disjunct patches of vegetation running alongside roadsides and between
Forest Red Gum Grassy Woodland Community	Threatened	plantations. Roadside remnant vegetation can be highly diverse and plays an important role in providing
Herb-rich Plains Grassy Wetland (West Gippsland) Community	Threatened	biodiversity and habitat in otherwise agricultural landscapes.
Plains Grassland (South Gippsland) Community	Threatened	
Sedge Rich <i>Eucalyptus camphora</i> Swamp Community	Threatened	

4.1.8 Matters of National Environmental Significance

Under the EPBC Act, an action may require approval if the action has, will have, or is likely to have, a significant impact on a MNES. Of the nine MNES protected under the EPBC Act, the Biosis report identified the Project has potential to impact on four MNES within the Study Area:

- Nationally listed threatened species and ecological communities
- Migratory species
- Ramsar wetlands
- Commonwealth marine area.







In accordance with the *Matters of National Environmental Significance Significant Impact Guidelines 1.1*, a person who proposes to take an action that will have, or is likely to have, a significant impact on a MNES must refer that action to the Minister for the Environment and Water for a decision on whether assessment and approval is required under the EPBC Act.

A summary of the biodiversity desktop assessment outcomes is provided in **Table 4.10**.

Table 4.10 Summary of Desktop Assessment Outcomes – Biodiversity

Summary of Assessment Outcomes

- Native vegetation within the Gippsland bioregion has been significantly cleared however, 19 EVCs are modelled to occur within the Study Area covering around 15,000 ha.
- The Gippsland Lakes Ramsar Wetlands borders the onshore Study Area north of Seaspray. The Corner Inlet Ramsar Wetlands is located within proximity to the Study Area. Both sites provide habitat for nationally and internationally threatened flora and fauna and support several saltmarshes and mangroves.
- 15 EPBC Act listed and 58 FFG Act listed flora species have a medium to high likelihood of occurring within the Study Area, including seven terrestrial orchid species. Areas of greatest value for flora species include Giffard (Rifle Range) Flora Reserve, Stradbroke Flora Reserve, wetlands, lakes and waterways.
- 57 EPBC Act listed and 78 FFG Act listed fauna species have a medium or higher likelihood of occurring within the Study Area, including avifauna, terrestrial and aquatic fauna, and seabirds.
- 63 Migratory bird species listed under the EPBC Act occur, or are predicted to occur, within the search area (Study Area with a 10 km buffer).
- Eleven TECs are likely to occur within the Study Area, four listed under the EPBC Act and seven listed under the FFG Act.

4.2 Potential Impacts

Following definition of the existing environmental context of the Project Area and surrounding area, potential biodiversity impacts have been identified with consideration of the Project design, construction, operation, and decommissioning activities. An overview of these potential impacts is provided in **Table 4.11**.

Table 4.11 Potential Impacts – Biodiversity

Impact	Project Component	Phase
Potential impact on native vegetation through the clearing of large areas of EVCs (i.e. more than 10 ha) to construct the underground cable, onshore substation and transmission line.	Onshore	Construction
Potential indirect impacts such as sedimentation from ground disturbance works, which may alter habitat conditions in downstream Ramsar wetlands, lakes and wetlands of regional and local significance (Lake Denison and Jack Smith Lake).	Onshore	Construction Decommissioning
Potential loss or fragmentation of habitat, or disturbance to FFG Act- listed threatened species and communities (terrestrial flora and fauna), through the removal of vegetation for the substation, underground cabling, and transmission line easement.	Onshore	Construction Operation
Potential impacts from construction works on the health or biodiversity of terrestrial aquatic habitats and species that utilise these habitats (i.e. Dwarf Galaxias, Growling Grass Frog).	Onshore	Construction Decommissioning



Impact	Project Component	Phase
Potential loss of or fragmentation habitat or disturbance to EPBC Act- listed threatened species and communities (terrestrial), through the removal of vegetation for the substation, underground cabling, and transmission line easement.	Onshore	Construction Operation
Potential loss of habitat or disturbance to EPBC Act-listed threatened species and communities due to dredging, piling or other invasive construction activities in the marine environment.	Offshore	Construction Operation
Potential loss of habitat or disturbance to EPBC Act-listed migratory birds, or their habitat such as foraging or roosting/nesting areas.	Onshore & Offshore	Construction Operation
Potential fatality due to turbine collision for EPBC Act – listed threatened bird species and migratory birds.	Offshore	Operation
Potential fatality due to turbine collision for non-listed migratory shorebirds.	Offshore	Operation
Potential for long term impacts on the ecological character of the Gippsland Lakes and Corner Inlet Ramsar Wetlands, including listed species that use the sites, wetland habitats and waterbird breeding functions.	Offshore	Construction Operation
Potential introduction or spread of pests or weeds from construction works which may impact native vegetation, threatened species / communities or agricultural productivity.	Onshore & Offshore	Construction Operation Decommissioning
Potential cumulative ecological impacts with the adjacent proposed offshore wind projects (terrestrial and marine).	Onshore & Offshore	Construction Operation



5.0 Social

This section provides a summary of the information provided in the Preliminary Social Risks and Opportunities Analysis prepared by Umwelt (September, 2022).

5.1 Existing Conditions

A preliminary social baseline profile has been compiled for the Project's social locality or 'area of social influence.' The area of social influence for the Project is defined as:

- The landholdings, property owners and residents situated on or intersecting with the onshore Study Area as well as the footprint of any ancillary infrastructure.
- The Wellington and Latrobe LGAs.
- The broader Gippsland Region.

The area of social influence may extend beyond these boundaries at subsequent stages of Project planning and assessment, to include offshore infrastructure and locations where construction contractor workforces may be sourced and where materials may be supplied for the Project.

5.1.1 Social Baseline

To understand the communities of interest to the Project and to evaluate their resilience and adaptive capacity to change, a social baseline has been developed which captures several capital areas –natural, human, physical, social, economic, political, and cultural. The vulnerability of each capital area can be assessed through the selection of a suite of socio-economic indicators specific to each capital area to assess a community's vulnerability to change or conversely their adaptive capacity.

An overview of the capital areas and the key characteristics relevant to the area of social influence is provided in **Table 5.1.**

Table 5.1 Social Baseline

Capital Description **Natural Capital** The Gippsland region is a nationally recognised tourist destination with some of the State's most important environmental and cultural heritage assets. Natural capital refers to the The northern parts of the Wellington LGA are remote and densely forested, that contribute to rising from the Latrobe Valley into the mountains of the Victorian Alps, with community sustainability, some parts used for timber production. The main population centres are such as minerals, land, generally located in the central fertile floodplains surrounded by land mainly used for grazing and agriculture. Latrobe LGA is traditionally recognised as the centre of Victoria's electricity industry, derived from one of the largest brown coal reserves in the world. The LGA is also at the centre of a large forestry industry which services Australian Paper's pulp and paper mill.



Capital Description **Human Capital** The population of Wellington in 2021 was 46,639 and in Latrobe at 77,318 (ABS, 2021). According to the Gippsland Regional Growth Plan (2014), the population of the Gippsland region is around 154,357 (ABS, 2021) and is projected to reach within a community is 386,000 by 2041. As such, there has been a strong focus from the Victorian assessed by considering Government to develop the region and accommodate strong population population size, age growth across Gippsland. skills, general population The two LGAs have an Aboriginal population of 1.5% (Wellington) and 1.9% (Latrobe). of vulnerable groups within The median age for Wellington is 46 years old and Latrobe is 42 years old. The three most common occupations in Wellington are Managers (16.6%). Technicians and Trade Workers (16.2%) and Professionals (15.6%). In Latrobe, the Health Care and Social Assistance industry sector is the region's largest employer (16.63%), followed by retail (11.7%), public administration / safety (8.8%) and construction (8.7%). Unemployment is 6.2% in Wellington and 4.5% in Latrobe. **Physical Capital** Future growth in Wellington is likely to occur in the main towns, particularly the northern part of Sale, where there is considerable residential supply and existing services. Minimal growth is forecast for the more remote rural areas, provision of infrastructure continuing the trend of stable population change. and services to the In the 5 years up to 2020/21, there were an average of 42,964 international to consider the type, visitors to Wellington and East Gippsland Shires, accounting for 62.7% of all quality, and degree of visitors. access to public, built and Currently new residential development across Gippsland is occurring at an average of 10 lots per developable hectare. This is considered low density. (including amenities, as housing. **Social Capital** The closure of Hazelwood and Energy Brix coal-fired power stations have caused significant disruptions and changes to the Latrobe Valley and broader Various indicators can be Gippsland community and economy. social capital, including the There are several key community/environmental groups, including Voices of the Valley and the Gippsland Climate Change Network, that are supportive of population mobility, crime renewable energy projects across Gippsland. rates, and the demographic The attraction of the region's natural amenity is one of the main drivers for population growth. Population growth is mostly through migration from outer eastern and south-eastern Melbourne. percentage of people born Project infrastructure would be located within proximity to Seaspray and overseas, language Woodside Beach townships, as well as small coastal communities. proficiency etc. Key projects receiving media attention in the news over the last few years are the proposed Star of the South Project Offshore Wind Farm, the existing Bald Hills Wind Farm and the approved Delburn Wind Farm. While media coverage of onshore wind farms may not directly reflect media coverage or community perceptions of offshore wind farms, it does provide the local community with insight into commentary surrounding wind turbines and renewable energy in the Gippsland region. There are several onshore projects that have been recently developed, or are proposed, which could result in changes to the community, or which may have further cumulative effects across the region, particularly in relation to impacts associated with concurrent construction activities. Community consultation for the Star of the South Project Offshore Wind Farm revealed 37% of respondents had suggestions or concerns regarding site



Capital	Description
	investigations, 40% were concerned about possible environmental impacts and 20% were concerned about impacts on fish species (Star of the South Community Consultation Summary 2019).
Examining a community's economic capital involves consideration of several indicators, including industry and employment distribution, workforce participation and unemployment, income levels and cost of living pressures, such as weekly rent or mortgage repayments.	 Gippsland's energy production is closely linked to brown coal mining and electricity generation, with Latrobe Valley generating 85% of Victoria's electricity. The Project is located within the Gippsland Renewable Energy Zone (REZ). The establishment of REZs is intended to facilitate an increase in renewable energy development. In November 2016 the Victorian government established the Latrobe Valley Authority (LVA) and efforts are now underway to coordinate a productive and sustainable transition for the local economy and community, through supporting economic diversification, growth, and resilience in the region. Gippsland's economy is predominantly based around natural resources and commodities, with key industry sectors including agriculture, forestry, dairy and pastoral industries, fishing, and coal mining, oil and gas extraction and processing. The agribusiness sector is a significant employer in the region, with over a third of Gippsland's business involved in agriculture and fishing. The Wellington Shire Council has developed the Renewable Energy Forum as a networking platform to facilitate, support and progress projects within the shire. Key stakeholders are involved from offshore wind, onshore wind, solar, hydrogen, biomass, and other renewable energy projects. Wellington's natural amenity encourages tourism to the region. The Ninety Mile Beach stretches from Port Albert to Lakes Entrance (in the East Gippsland Shire), and the towns along this stretch are smaller and have a high rate of holiday homes.
Political Capital Political capital refers to the governing and organisational structures of the population, including formal and informal systems, and the existing means for public participation in various aspects of civil life.	 National Party Member of Parliament (MP) Hon Darren Chester holds the Federal seat of Gippsland and has been a vocal supporter for further investment in renewable technologies in regional communities. The sitting MP for the State Gippsland South electorate is Danny O'Brien (The Nationals), who supports opportunities for renewable energy projects in Gippsland, including offshore wind and hydrogen, with proper planning and community consultation. Wellington Shire Council is committed to investing in a sustainable future with a strong focus on reducing emissions. Latrobe is focused on supporting existing industry and encouraging new industry to assist with the transition from coal, signalling the establishment of a bipartisan Transition Taskforce to support this process.
Cultural Capital Cultural capital includes the way people know and understand their place within the world. It may also refer to the extent to which the local culture, traditions, or language, may promote or hinder wellbeing, social inclusion, and development	 The Project is located within the traditional lands of the Gunaikurnai people. The Gunaikurnai people are recognised by the Federal Court and the State of Victoria as the Traditional Owners of a large area of Gippsland, constituting approximately 10% of the state. The Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) is the Registered Aboriginal Party for the Study Area. The Gunaikurnai Traditional Owner Land Management Board works with Aboriginal people and the Victorian Government to set and guide the partnership for joint management of ten parks and reserves that have been granted as Aboriginal Title to the Gunaikurnai people.



Capital	Description	
	The Nanjit to Mallacoota Sea Country Indigenous Protected Area involves the GLaWAC and the consultation area is located in the coastal waters of the Gippsland region.	

5.1.2 Stakeholder Identification

Preliminary stakeholder analysis has identified stakeholder groups that BFE should engage with during the next phase of the assessment. A list of these stakeholders is provided in **Table 5.2**. It should be noted this is a preliminary list of stakeholders and is not definitive.

A wide range of community and stakeholder groups should be consulted during the Project. Further information about consultation are provided in the Project Partnership and Engagement Strategy (PES) (BFE, 2022).

Table 5.2 Potential Stakeholders

able 5.2 Fotential stakeholders			
Stakeholder Group	Potential Stakeholders		
Host landholders	Landholders that will host project infrastructure onshore		
Proximal landholders/communities	 Private landholders neighbouring/proximate to the transmission line Seaspray, Giffard, Stradbroke, and Woodside communities 		
(onshore)	Seaspray, Girlard, Stradbroke, and Woodside Communities		
Broader community	Residents in Wellington and Latrobe LGAs		
Ocean users	 Ferry operators, fishing charter boats, whale watching and marine observation cruises. 		
Aboriginal / heritage	Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC)		
stakeholders	Brayakaulung Advisory Committee (Latrobe City Council)		
	First Peoples – State Relations		
	Heritage Victoria		
Commonwealth, State and	DCCEEW		
local government	DELWP Impact Assessment Unit, Environment and Planning		
	Wellington Shire Council		
	Latrobe City Council		
	Latrobe Valley Authority		
	Regional Development Victoria		
	Parks Victoria		
	Department of Transport		
	Southern Rural Water		
	West Gippsland Catchment Management Authority		
	Country Fire Authority		
Local business and service	AusNet		
providers	Destination Gippsland		
	TAFE Gippsland		
	Federation University		
	Tourism operators		



Stakeholder Group	Potential Stakeholders	
Community and	One Gippsland	
development groups	Re-Alliance	
	Startup Gippsland	
	Voices of the Valley	
	Wellington Renewable Energy Forum Group	
Environmental groups	Gippsland Environment Group	
	Coastcare	
	Fishcare	
	Birdlife Australia	
	Waterwatch Victoria	
	Latrobe Landcare Network	
	Local conservation groups – Seaspray, Woodside etc.	

A summary of the desktop social risks and opportunities analysis outcomes is provided in **Table 5.3.**

Table 5.3 Summary of Desktop Assessment Outcomes - Social

Summary of Assessment Outcomes

- The Gippsland region has a strong history and existing industry base in traditional fossil fuels, with the Latrobe LGA traditionally recognised as the centre of Victoria's electricity industry.
- Local government and community in the Wellington and Latrobe LGA show overall support for renewables and the future energy transition. Wellington Renewable Energy Forum attests to this.
- The most common occupations in Wellington LGA are managers, technicians, and trade workers, and professionals. The most common occupations in Latrobe LGA are health care and social assistance, retail, public administration/safety, and construction.
- Tourism is a key industry especially near the Seaspray coast and the Ninety Mile Beach, with the Gippsland region a nationally recognised tourist destination for its important environmental and cultural heritage assets
- Regional economy would welcome investment from offshore wind projects and the associated indirect economic benefits including employment and training opportunities.

5.2 Potential Impacts

Following definition of the existing environmental context of the Project Area and surrounding area, potential social impacts have been identified with consideration of the Project design, construction, operation, and decommissioning activities in the context of the existing conditions. An overview of these potential impacts is provided in **Table 5.4.**

Table 5.4 Potential Impacts – Social

Impact	Project Component	Phase
Concerns around underground cabling, including impacts to housing and water bodies associated with subsidence.	Onshore	Construction
Aesthetic changes to the coastline may not 'fit' with the ascribed characteristics and values of the coastal landscape.	Offshore	Operation
Social amenity issues associated with onshore construction of the transmission line e.g., noise and lighting.	Onshore	Construction Decommissioning



Impact	Project Component	Phase
Disruption to current land uses due to construction of onshore Project infrastructure.	Onshore	Construction
Disruptions to local tourism due to industrialisation of the landscape reducing visitor experience.	Onshore Offshore	Operation
Impacts to onshore recreation activities due to clearing of critical habitats or other temporary or permanent ecological change/ exclusion zones or reduced access.	Onshore	Construction Operation Decommissioning
Impacts on availability and affordability of short-term accommodation in construction phases, particularly in areas with high levels of tourism.	Onshore	Construction
Impacts on Traditional Owners and Aboriginal communities including impacts on connection to Country.	Onshore Offshore	Construction Operation
Reduction in levels of social cohesion resulting from differing levels of support for the Project.	Onshore Offshore	Planning
Changes to sense of place for coastal communities and/or location of onshore facilities.	Onshore Offshore	Operation
Opposition to the Project due to concerns about energy transition and reliance on existing extractive infrastructure.	Onshore Offshore	Planning Operation
Low community acceptance based on limited understanding of Project design (unfamiliarity with offshore wind).	Offshore	Planning Operation
Perceived lack of fairness and quality of decision-making processes.	Onshore Offshore	Planning
Cumulative impacts from high volume of existing onshore and committed offshore large-scale wind farms across the region.	Offshore	Operation

The Project is also anticipated to generate several benefits, including:

- Local employment generation and procurement of local businesses/services resulting in decreased unemployment rates and local economic benefits.
- Increased energy security and reliability for the future .
- Reduced reliance on carbon emitting industries.



6.0 Hydrology

This section provides a summary of the information provided in the Preliminary Hydrology Constraints Assessment prepared by Umwelt (September 2022).

6.1 Existing Conditions

6.1.1 Catchment, Waterways and Waterbodies

The eastern end of transmission route option 1a and 1b and most of transmission route option 2 is located within the catchment system for Merriman Creek and drains towards the east, discharging into McLoughlins Beach. This catchment system is part of the larger Seaspray catchment system.

Most of transmission route option 1a and 1b is located within tributaries of the Latrobe River, e.g. Bennetts Creek, Traralgon Creek and Flynns Creek. This catchment is part of the larger Central Gippsland catchment system. Transmission route option 2 commences on the Gippsland coastline near McLoughlins Beach and runs through to Loy Yang Power Station, largely in parallel to the existing Basslink route. The west end of the transmission route option 2 is located in the catchment system for Flynns Creek, which is a tributary of the Latrobe River.

There are several lakes and intertidal wetland systems within the onshore Study Area just inland from the coastal waters, including Lake Denison as well as the Gippsland Lakes Ramsar wetlands. Ramsar wetlands are wetland sites that have been designated as being representative, rare or unique wetlands, or important for serving biological diversity. The Gippsland Lakes Ramsar wetlands and DELWP mapped wetland Jack Smith Lake (DELWP, 2022) as shown on **Figure 6.1.**

Transmission route option 1a and 1b intercept 13 main watercourses – Traralgon Creek, Flynns Creek, Merriman Creek, Bennetts Creek, Waterhole Creek, Plough Creek, Boyds Creek, Sheepwash Creek, Blind Joe Creek, Crooke Creek, Deep Creek, Carr Creek and Monkey Creek and minor unnamed watercourses.

Transmission route option 2 intercepts five main watercourses – Flynns Creek, Merriman Creek, Bayliss Gully, Monkey Creek and Little Monkey Creek, as well as minor unnamed watercourses.

6.1.2 Groundwater Dependent Ecosystems (GDEs)

All the transmission route options intersect with low, moderate, and high potential Groundwater Dependent Ecosystems (GDEs) from the coast to approximately 30 km along the transmission routes, and low to moderate GDEs further west.

A groundwater impact assessment would be required to determine the depth to groundwater within the onshore Study Area and the potential for construction works associated with the transmission line to intersect with groundwater.

6.1.3 Flooding

A high level TUFLOW 2-dimensional (2D) hydraulic model was developed to estimate the indicative 1% Annual Exceedance Probability (AEP) flood extents to assist in consideration of site design and configuration. The indicative 1% AEP design flood inundation extents and flood depth shows the



accumulation of floodwater along the major channels of Bennetts Creek, Traralgon Creek, Blind Joe Creek, Carr Creek, Flynns Creek, Merriman Creek and Monkey Creek as floodwater is conveyed through the Study Area.

Transmission route option 1a and 1b generally traverses the waterways and associated floodplains of Merriman Creek and its local tributaries. Transmission route option 2 generally traverses the waterways and associated floodplains of the southern tributaries of the Latrobe River in the onshore Study Area.

The flood inundation extents, depth and velocities are variable depending on the local flooding conditions at each waterway crossing, driven by the local topography and hydrology of the contributing catchments.

Table 6.1 Summary of Desktop Assessment Outcomes – Hydrology

Summary of Assessment Outcomes

- Most of transmission route option 2, and the eastern end of transmission route option 1a and 1b is located within the catchment system for Merriman Creek and drains towards the east, discharging into McLoughlins Beach. This catchment system is part of the larger Seaspray catchment system.
- Transmission route option 1a and 1b intersects with 13 main watercourses Traralgon Creek, Flynns Creek, Merriman Creek, Bennetts Creek, Waterhole Creek, Plough Creek, Boyds Creek, Sheepwash Creek, Blind Joe Creek, Crooke Creek, Deep Creek, Carr Creek and Monkey Creek
- Transmission route option 2 intersects with five main waterways: Flynns Creek, Merriman Creek, Bayliss Gully, Monkey Creek and Little Monkey Creek.
- The transmission line corridor intersects with low, moderate, and high potential Groundwater Dependent Ecosystems.
- The most significant flooding within the Study Area is typically limited to along the major channels of Bennetts Creek, Traralgon Creek, Blind Joe Creek, Carr Creek, Flynns Creek, Merriman Creek and Monkey Creek as floodwater is conveyed through the Study Area.

6.2 Potential Impacts

Following definition of the existing environmental context of the Project Area and surrounding area, potential hydrology impacts have been identified with consideration of the Project design, construction, operation, and decommissioning activities in the context of the existing conditions. An overview of these potential impacts is provided in **Table 6.2.**

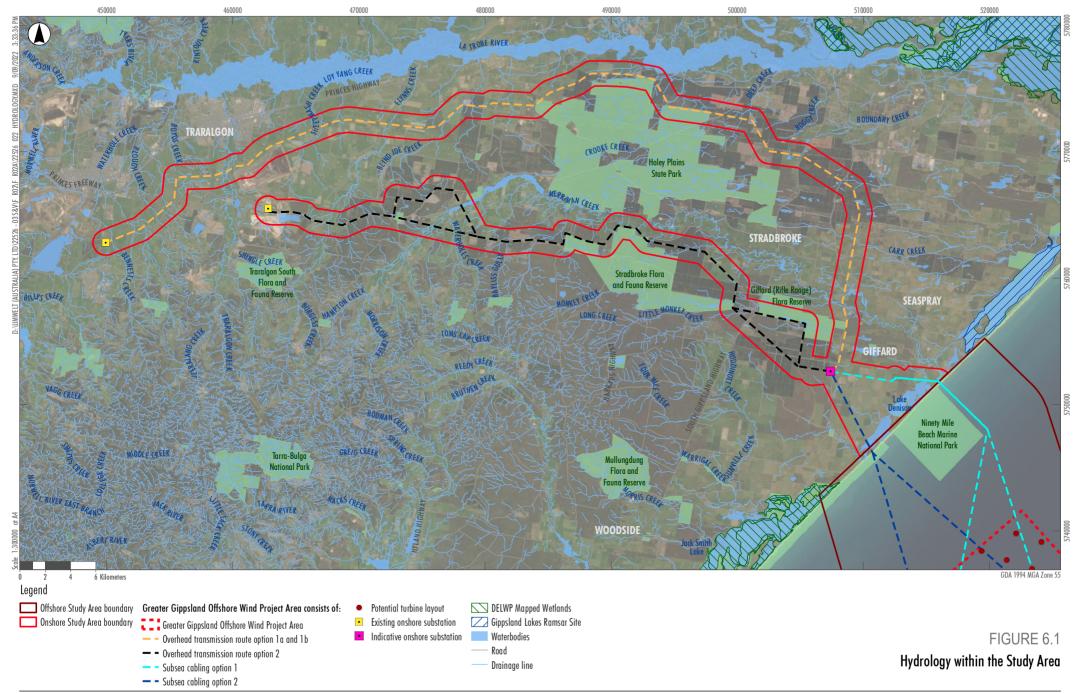
Table 6.2 Potential Impacts – Hydrology

Impact	Project Component	Phase
Surface water quality impacts to watercourses and sensitive waterbodies in the Study Area due to soil erosion and sedimentation from construction and decommissioning activities such as vegetation removal, earthworks and movement of heavy vehicles.	Onshore	Construction Decommissioning
Trenching of ephemeral watercourses have the potential to impact the surface water quality of watercourses and sensitive waterbodies within the Study Area and result in soil erosion and sedimentation in downstream waterways.	Onshore	Construction Decommissioning
Fuel or chemical spills, or inappropriate material storage can lead to contamination of groundwater, nearby waterways and/or sensitive waterbodies resulting in environmental degradation.	Onshore	Construction Decommissioning



Impact	Project Component	Phase
Impacts to groundwater resources including Groundwater Dependent Ecosystems (GDEs).	Onshore	Construction
Flood risk to project infrastructure such as access tracks.	Onshore	Construction Operation
Afflux to nearby properties due to project infrastructure displacing floodplain storage or altering drainage flow paths.	Onshore	Construction Operation
Fuel or chemical spills, fire management systems or inappropriate material storage, leads to contamination of groundwater, nearby waterways and/or sensitive waterbodies resulting in environmental degradation.	Onshore	Operation
Discharge of stormwater from the Study Area during operation resulting in adverse impacts on receiving environment surface and groundwater water quality.	Onshore	Operation
Discharge of stormwater from the Study Area during operational phase resulting in adverse impacts on receiving environment surface water geomorphology (e.g. stream bank erosion and scouring) or hydroecology.	Onshore	Operation







7.0 Cultural Heritage

This section provides a summary of the information provided in the Preliminary Cultural Heritage Constraints Assessment prepared by Umwelt (September 2022).

7.1 Existing Conditions

7.1.1 Aboriginal Cultural Heritage

The onshore and offshore Study Area falls within the jurisdiction of one Registered Aboriginal Party (RAP), the Gunaikurnai Land and Waters Aboriginal Corporation (GLaWAC) which is the representative of the Gunaikurnai People.

A total of 157 registered Aboriginal Places (Aboriginal cultural heritage sites registered on the Victorian Aboriginal Heritage Register (VAHR)) are located within the Study Area. The types of sites within the Study Area include artefact scatters, earth features, shell middens, low density artefact distributions (LDADs), Aboriginal ancestral remains (burials), object collections, and scarred trees. A summary of these sites is presented in **Table 7.1.**

Table 7.1 Summary of Registered Aboriginal Places within the Study Area

Site Type	Number of Sites
Aboriginal Ancestral Remains (Burials)	2
Artefact Scatter	53
Earth Feature (Soil Deposit)	3
Low Density Artefact Distribution	68
Scarred Tree	5
Shell Midden	13
Total	157

The VAHR is not a complete record of Aboriginal cultural heritage values. These recorded sites are not necessarily the only culturally significant sites in the area, rather an indication that some investigations have been undertaken for specific developments in the vicinity. There may be additional sites located within the Study Area.

There are also multiple areas of cultural heritage sensitivity within the Study Area, as shown in **Figure 7.1**. These are associated with:

- The registered Aboriginal Places listed in **Table 7.1** plus land within 50 m of them (Reg 25).
- Several named waterways including Sheepwash Creek, Flynns Creek, Blind Joe Creek, Merriman Creek, Waterholes Creek, Kangaroo Creek, Bayliss Gully, Monkey Creek, Little Monkey Creek, Mason Creek, Lake Denison, Redmond Lake and Lake Reeve plus land within 200 m of them (Reg 26).
- The Gippsland Lakes Ramsar Wetlands in the northeast of the Study Area plus land within 200 m of it (Reg 29).



- Land within 200 m of the high-water mark of the coastal waters (coastal land) (Reg 31).
- Dune deposits, as identified in the Surface Geology of Victoria 1:250 000 map book by unit code "Qd2", occurring across parts of the Study Area between Seaspray and Gormandale (dunes) (Reg 40).

7.1.2 Non-Aboriginal Cultural Heritage ('Historical')

There are no registered non-Aboriginal cultural heritage values within the onshore Study Area.

A search of the Australasian Underwater Cultural Heritage Database (AUCHD) confirmed that there are non-Aboriginal cultural heritage values within the offshore Study Area; four shipwrecks as identified in **Table 7.2.**

Table 7.2 Sites on the AUCHD within the Study Area

Shipwreck ID Number	Victorian Heritage Register Number	Vessel Name	Year Wrecked
6231	VHRS291	SS GLENELG	1900
6386	VHRS437	MAGNOLIA	1887
6066	VHRS123	CITY OF HOBART	1877
6700	VHRS767	Unidentified	Unknown

Source: AUCHD

The SS Glenelg Shipwreck has a 500 m exclusion zone. As specified in the Commonwealth *Underwater Cultural Heritage Act 2018,* undertaking prohibited conduct activities within this exclusion zone requires a permit. Prohibited conduct within the exclusion zone includes:

- allowing a vessel to become stationary
- underwater activities
- anchoring or mooring vessels
- fishing including trawling, netting, dredging and pot or trap fishing.

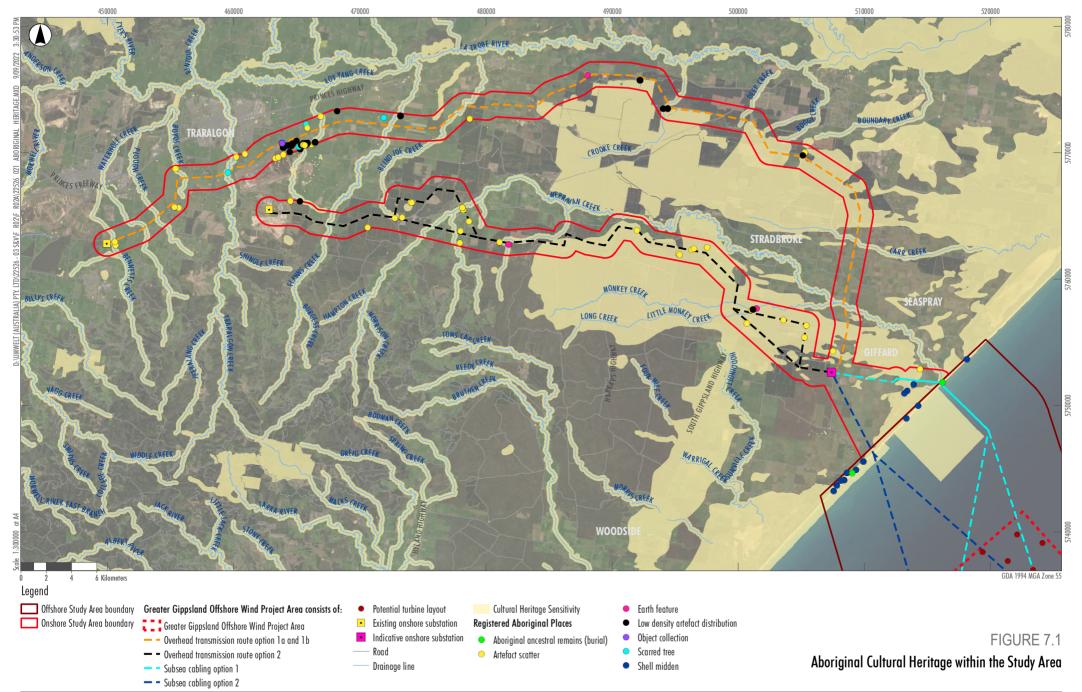
The location of these shipwrecks is shown in **Figure 7.2**, along with other non-Aboriginal cultural heritage assets within the surrounds of the Study Area.

7.1.3 Non-Registered (Predicted) Cultural Heritage

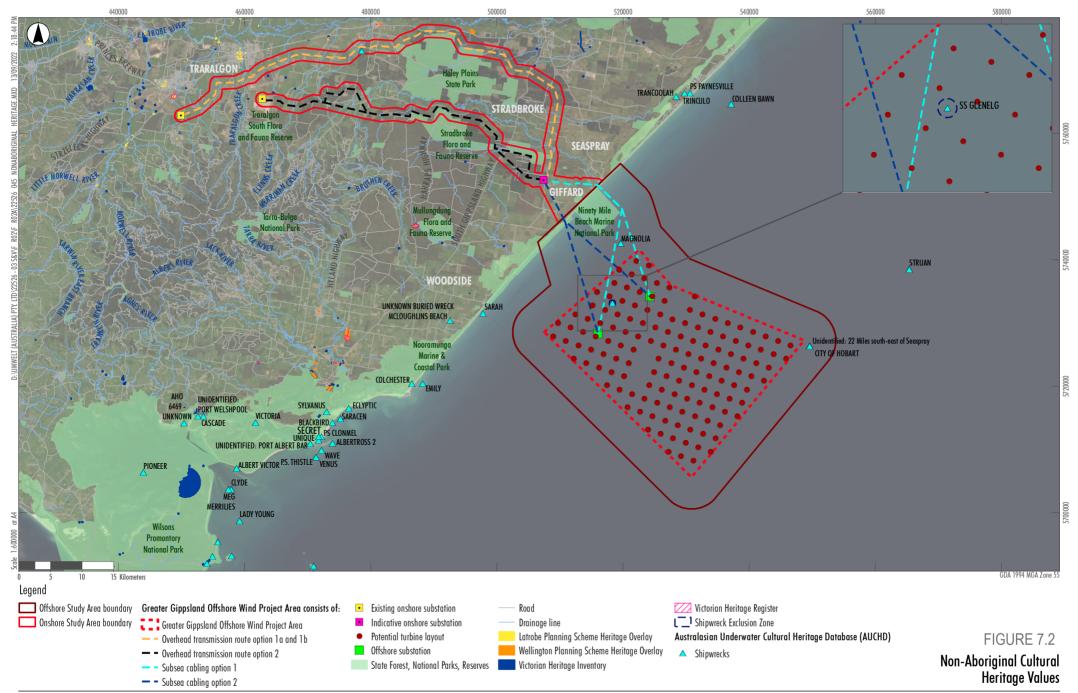
The Study Area has been used by Aboriginal people and then also by non-Aboriginal people in various ways over a long period of time, for an array of purposes. Therefore, the Study Area is likely to contain a range of cultural heritage material, both Aboriginal and non-Aboriginal.

The following predictive statements can be made regarding non-registered cultural heritage values that may exist within the Study Area, Aboriginal and non-Aboriginal:











- It is highly likely that non-registered Aboriginal cultural heritage material exists within the Study Area:
 - Non-registered Aboriginal sites are highly likely to exist within areas of cultural heritage sensitivity, including near water sources, swamps, areas of remnant vegetation, dune deposits, coastal areas, and wetlands.
 - It is highly likely that non-registered Aboriginal sites will include surface and sub-surface stone artefact scatters, camping and occupation sites, scarred trees, and <u>Aboriginal ancestral remains</u>.
 - There is potential for non-registered <u>underwater</u> Aboriginal sites to exist within the Study Area.
- Based on the post-colonisation background of the area, there is **potential** for unrecorded Aboriginal
 cultural heritage associated with acts of colonial violence to be present within the Study Area, and this
 may include <u>human remains</u>.
- It is **unlikely** that *in situ* Aboriginal material will be located within the Study Area where significant ground disturbance in the form of construction of infrastructure has occurred, such as areas in proximity to the town of Seaspray, logging plantations, sealed public roads and highways, and the Loy Yang Power Station.
- Sub-surface Aboriginal cultural heritage material is **likely** to exist in disturbed/cleared areas and farmland/grazing paddocks across the area despite historical surface disturbances.
- It is **highly likely** that non-registered non-Aboriginal ('historical') cultural heritage material exists within the Study Area:
 - It is **likely** that historical material such as surface artefact scatters and features exist within the Study Area related to the region's land use by squatters, pastoralists, explorers, and miners. If present, surface artefact scatters are likely to be associated with temporary camps and historical structures (e.g., shearing sheds, squatters' huts, etc.), former homesteads or agricultural equipment, structures, historical irrigation, and earthworks.
 - It is highly likely this material exists within overhead transmission route option 1a and 1b due to its proximity to the historical towns of Traralgon and Morwell
 - It is likely this material exists within overhead transmission route option 2
 - It is **unlikely** for previously unidentified built historical heritage places (buildings) to be present within the Study Area.
 - It is **unlikely** that further non-registered underwater non-Aboriginal cultural heritage sites including shipwrecks exist within the Study Area.

A summary of the cultural heritage desktop assessment outcomes is provided in **Table 7.3.**



Table 7.3 Summary of Desktop Assessment Outcomes – Cultural Heritage

Summary of Assessment Outcomes

- A total of 157 registered Aboriginal Places (Aboriginal cultural heritage sites registered on the Victorian Aboriginal Heritage Register (VAHR)) are located within the Study Area. The types of sites within the Study Area include artefact scatters, earth features, shell middens, low density artefact distributions (LDADs), Aboriginal ancestral remains (burials), object collections, and scarred trees.
- There are no registered non-Aboriginal cultural heritage values within the onshore Study Area, however, there are four shipwrecks located offshore.
- The Study Area has been utilised by Aboriginal people and then also by non-Aboriginal people in various ways over a long period of time, for an array of purposes. Therefore, the Study Area is likely to contain a range of non-registered cultural heritage material, both Aboriginal and non-Aboriginal.

7.2 Potential Impacts

Following definition of the existing environmental context of the Project Area and surrounding area, potential cultural heritage impacts have been identified with consideration of the Project design, construction, operation, and decommissioning activities in the context of the existing conditions. An overview of these potential impacts is provided in **Table 7.4.**

Table 7.4 Potential Impacts – Cultural Heritage

Impact	Project Component	Phase
Disturbance causing activities associated with the Project disturb registered Aboriginal Places within the onshore Study Area resulting in significant impacts on the cultural heritage values of these places.	Onshore	Construction
Disturbance causing activities associated with the Project disturb the physical material of registered non-Aboriginal cultural heritage sites (shipwrecks) within the offshore Study Area, resulting in significant impacts on the cultural heritage values of these sites.	Offshore	Construction
Disturbance of unrecorded non-Aboriginal cultural heritage material within Study Area.	Onshore Offshore	Construction
Disturbance of unrecorded Aboriginal cultural heritage material within the Study Area.	Onshore	Construction



8.0 Land Use

8.1 Existing Conditions

As shown on **Figure 8.1**, land uses within the onshore Study Area and surrounds are predominantly agriculture and forestry plantation, with areas of State forests, parks and reserves. The onshore Study Area also encompasses part of the Seaspray township, which is located adjacent to the cable landing option 1. Transmission route option 1a and 1b is located to the south of Rosedale.

The underground cabling options for the transmission line cross the shoreline over public land at McLoughlins Beach — Seaspray Coastal Reserve to the north and south of the Ninety Mile Beach Marine National Park. This reserve is public land used for conservation and recreation purposes. Transmission route 1a and 1b then heads north through freehold agricultural land, crossing Merrimans Creek Water Frontage, until it reaches plantation land. It then travels west through various freehold and public plantation and agricultural land, as well as the border of Holey Plains State Park, until it reaches the Hazelwood Terminal Station. Transmission route option 2 of crosses freehold agricultural land until it meets the Giffard Plantation. From there, the primary land use is agricultural land and plantation (both public and freehold), however it also covers some areas of conservation reserves and State forests until it reaches the connection point at Loy Yang Power Station.

The onshore Study Area and surrounding area is in a predominantly rural setting. The Study Area does not contain significant urban development and has a low population density. Transmission route option 1a and 1b has been sited to avoid the nearby town centres of Giffard, Stradbroke, Longford, Rosedale, Flynn, Traralgon, and ends just south of Hazelwood North, and north of the town of Churchill. The most densely populated areas within the Study Area are Seaspray and Hazelwood, with small clusters of dwellings near Hiamdale, Gormandale, Rosedale, and Loy Yang (see **Figure 11.1** for the locations of dwellings).

8.1.1 Public land

As shown in **Figure 8.1,** there are several areas of public (Crown) land in the Study Area, including parks, reserves, Indigenous protected areas, plantations. This land is primarily used for conservation and recreation uses. Some of this land has significant flora and fauna values, while others provide a range of defined visitor experiences in a sustainable way that protects the natural and cultural values.

An overview of the amount of Crown land within the onshore Study Area is provided in Table 8.1.

Table 8.1 Crown land within the onshore Study Area

	Total Area (ha)	Number of land parcels	Area of public land (ha)	% of area is public land
Onshore Study Area	34,017 ha	1,168	2,356 ha	7 %
Transmission Route option 1a and 1b corridor	16,6672 ha	668	868 ha	5%
Transmission route option 2 corridor	13,568 ha	297	1,343 ha	10%

A summary of the Crown land intersected by the onshore Study Area is provided in Table 8.2.



Table 8.2 Crown land within the onshore Study Area

Name	Description	Managing Agency and Legislation
Ninety Mile Beach Marine National Park	Located between the shoreline and the 3 nautical mile point within the offshore Study Area and has an area of approximately 2,750ha. It is known for the diverse benthic subtidal marine life that inhabit the sandy environment including crustaceans and molluscs. The subsea cabling will pass within proximity of but outside the bounds of the National Park.	Reserved under Schedule 7, Part 7 of the National Parks Act 1975 and managed by Parks Victoria.
McLoughlins Beach – Seaspray Coastal Reserve	Located within the Seaspray Coastal Reserve. Both subsea cabling options will be located beneath the reserve.	Unreserved Crown land managed by Parks Victoria.
Seaspray Public Purposes Reserve	Locates along the coastline of the Seaspray township, adjacent to the McLoughlins Beach – Seaspray Coastal Reserve.	Reserved under the <i>Crown Land (Reserves) Act</i> 1978 and managed by a Committee of Management.
Lake Denson Wildlife Reserve	Located onshore behind Ninety Mile Beach Marine National Park. It is a hunting reserve that provides valuable habitat for water birds and covers approximately 80 ha.	Reserved under the <i>Crown Land (Reserves) Act</i> 1978 and managed by Parks Victoria.
Giffard Plantation	Located adjacent to the indicative location of the new substation and intersects with both transmission route options 1a and 1b and 2. It is a softwood plantation covering approximately 2,150 ha in size.	Crown land vested in the Victorian Plantations Corporation under the Victorian Plantations Corporations Act 1993 perpetually licenced to Hancock Victorian Plantations to use and manage as a plantation.
Giffard (Rifle Range) Flora Reserve	Located adjacent to Giffard Plantation, it is a nature conservation reserve that covers approximately 510 ha.	Reserved under the <i>Crown Land (Reserves) Act</i> 1978 and managed by Parks Victoria.
Mullundung State Forest	Located adjacent to Giffard Plantation and Giffard (Rifle Range) Flora Reserve and covers approximately 13,800 ha and comprises landscape-lowland forest and heathy woodland. It supports representative flora and fauna species for these types of forests and threatened species.	Unreserved Crown land managed by DELWP.
Stradbroke Flora and Flora	Located adjacent to Mullundung State Forest. It is a nature conservation reserve covering approximately 2,300 ha.	Reserved under the <i>Crown Land (Reserves) Act</i> 1978 and managed by Parks Victoria.
DELWP Plantations	There are areas of DELWP Plantations in the eastern end of the transmission route option 1a and 1b and in the western end of option 2 to the east and south of Willung township.	Unreserved Crown land managed by DELWP.
Merrimans Creek Water Frontage	A natural features reserve that extends east to west between transmission route option 1a and 1b. It intersects with option 1a in the eastern end and intersects with the western end of option 2.	Unreserved Crown land managed by DELWP.
Merrimans Creek Flora Reserve	A nature conservation reserve located adjacent to the water frontage and to the west of Willung.	Reserved under the <i>Crown Land (Reserves) Act</i> 1978 and managed by Parks Victoria.



Name	Description	Managing Agency and Legislation
Holey Plains State Park	Located between transmission route options 1a and b and 2.	Reserved under the <i>National Parks Act 1975</i> and managed by Parks Victoria.
Gormandale Flora Reserve	A nature conservation reserve intersected by transmission route option 2 in the western end and is surrounded by plantations.	Unreserved Crown land managed by Parks Victoria.
Unnamed State Forest land	Parcels located adjacent to DELWP Plantations in the western end of transmission route option 2, and adjacent to Holey Plains State Park within the option 1a and 1b.	Unreserved Crown land managed by DELWP.
Flynns Creek Water Frontage	Located along the border of the Wellington and Latrobe LGAs.	Unreserved Crown land managed by DELWP.
Loy Yang B Power Station Site	Located at Loy Yang Power Station, at the end of transmission route option 2.	Unreserved Crown land managed by the Department of Treasury and Finance.
Switching Yard Loy Yang A Power Station	Located at Loy Yang Power Station, at the end of transmission route option 2.	Unreserved Crown land managed by DELWP.
Monash Way Plantations	Located adjacent to the Hazelwood Terminal Station.	Unreserved Crown land, some parcels managed by DELWP, and some parcels managed by Department of Treasury and Finance.
Traralgon Creek Water Frontage	Located south of the Traralgon township.	Partly unreserved Crown land, and partly reserved the <i>Crown Land (Reserves) Act 1978</i> managed by DELWP.
Former Sand, Gravel and Rubbish Depot	Located adjacent (west) to Holey Plains State Park	Reserved under the <i>Crown Land (reserves) Act</i> 1978 and managed by a Committee of Management and Council.
Rosedale Racecourse and Recreation Reserve	Located south of the Rosedale township.	Reserved under the <i>Crown Land (Reserves) Act</i> 1978 and managed by a Committee of Management and Council.
Various Crown land parcels	Several small parcels of Crown land associated with services and utilities, water and sewerage, and channels near the Holey Plains State Park.	Unreserved Crown land managed by relevant statutory authority.
Crook Creek Frontage	Located north of the Holey Plains State Park within the transmission route option 1a and 1b.	Unreserved Crown land managed by DELWP.
Gippsland Lakes Coastal Park	Located north of the Seaspray township on the border of the Study Area. The Joint Management Agreement over the park provides for the joint management by the Gunaikurnai people with the State. The park has been granted as Aboriginal Title to GLaWAC but is leased back to the State and jointly managed.	Reserved under Schedule 3, Part 3 of the National Parks Act 1975 and managed by Parks Victoria and the Gunaikurnai people under a Joint Management Plan developed under a Traditional Owner Land Management Agreement, which was negotiated under the Conservation, Forests and Land Act 1987 and the Traditional Owner Settlement Act 2010.



8.1.1.1 Native Title

The Study Area is located within the following areas of Native Title:

- Parts of the Study Area fall within the boundaries of the existing Gunai/Kurnai People native title claim (National Native Title Tribunal No. VCD2010/001), for which the Registered Native Title Body Corporate is the GLaWAC.
- Parts of the Study Area overlap with a registered Indigenous Land Use Agreement (ILUA), the Gunaikurnai Settlement ILUA (Tribunal No. VI2010/003), however this ILUA is not relevant to the Project.

Compliance with the *Native Title Act 1993* would be required for the grant of any permits, approvals, or other rights and interests over areas where native title has been determined to exist in favour of the Gunai/Kurnai People. Compliance with any ILUA that is negotiated by the State with GLaWAC under the *Traditional Owner Settlement Act 2010* (Vic) is also likely to be required for the grant of any rights and interests over Crown land (which would replace any compliance requirements under the *Native Title Act 1993*).

8.1.2 Infrastructure

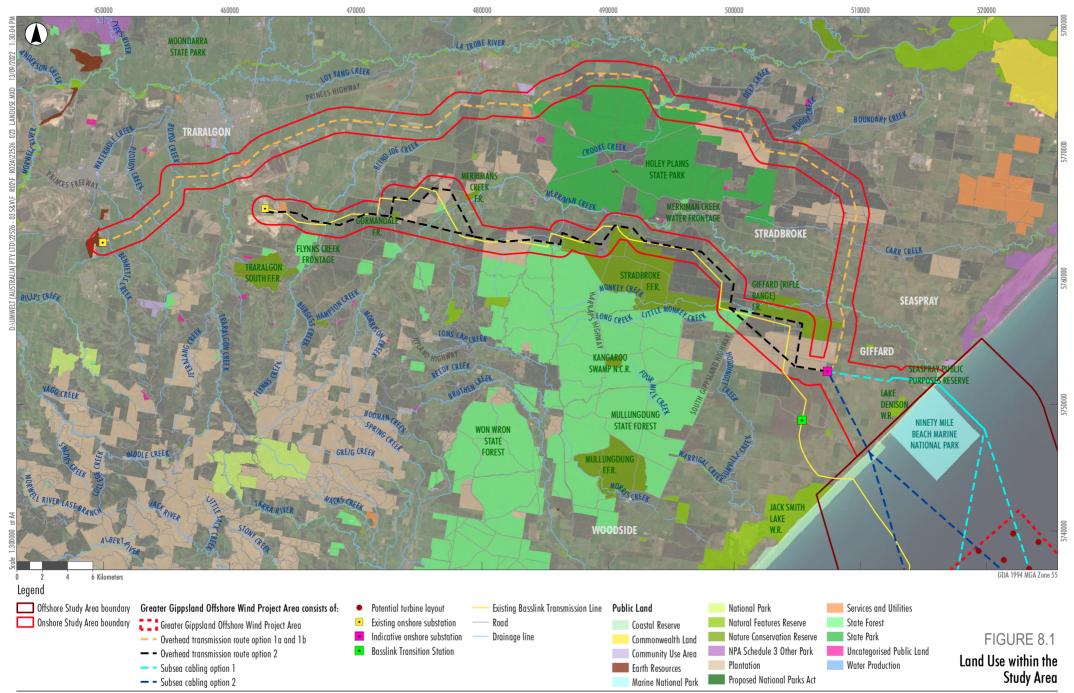
The arterial roads that intersect with the Study Area are South Gippsland Highway, Seaspray Road, Hyland Highway, Hazelwood Road, Rosedale-Longford Road, Firmins Lane and Tramway Road. These roads are all managed by the Department of Transport. Further information about these roads is provided in **Section 12.1.1.**

There are four perch wells within the centre of the offshore Study Area (within Commonwealth waters) that are operated by Esso. Two of the wells have been decommissioned, while the remaining two are inactive, but are yet to be decommissioned (NOPSEMA, 2022). The platforms around the wells have a 500 m exclusion zone. Esso's Management Plan indicates that decommissioning is likely to commence in 2025.

Two major existing pipelines traverse the offshore Study Area; the Tasmanian Gas Pipeline and the pipeline from the Esso Perch wells to Seaspray. There is a 500 m exclusion zone around both pipelines; the Esso pipeline is not currently in use and may be either remediated or removed completely over the next 5-10 years.

The transmission route option 2 runs parallel to the existing Basslink route. Basslink lands at McGaurans Beach just south of the Ninety Mile Beach Marine National Park, where it travels 6.4 km underground to a point where it transitions to a 61 km overhead transmission line to the Loy Yang Power Station (Basslink, 2022).







8.1.3 Recreation

The onshore Study Area contains several reserves that are set aside for conservation and recreation. The Gippsland coastline provides a number of recreational activities, including boating, fishing, camping, oceanside walking trails, and kayaking. Within the onshore Study Area, there are coastal walking tracks through McLoughlins Beach – Seaspray Coastal Reserve, the Seaspray caravan park and the Lake Denison Wildlife Reserve which is a game reserve for duck hunting. The Ninety Mile Beach National Marine Park is also used for swimming, surfing, boating, snorkelling, and diving. Mullungdung State Forest and Holey Plains State Park which lie within the onshore Study Area, contains walking tracks and camping facilities.

There are campsites north and south of the onshore Study Area along the coastline including at McGaurans Beach, Jack Smith Lake Camping Area and the Gippsland Lakes Coastal Park campground.

8.1.4 Planning Scheme Context

The onshore component of the Study Area is subject to the provisions of the Wellington Planning Scheme and Latrobe Planning Scheme. A list of the relevant planning zones and overlays which apply are listed in **Table 8.3**. These zones and overlays are shown in **Figure 8.2**, **Figure 8.3**, and **Figure 8.4**.

Table 8.3 Planning Zones and Overlays

Planning Control	Description	Transmission route	
		1a and 1b	2
Wellington Planning Scheme			
Zones			
Clause 32.05 – Township Zone (TZ)	The onshore Study Area intersects with the TZ which applies to the Seaspray township	✓	✓
Clause 35.07 – Farming Zone (FZ)	The majority of the onshore Study Area is located within the FZ.	✓	√
Clause 36.01 – Public Use Zone (PUZ1 – Service and Utility)	Transmission route option 1a and b at the northern boundary of Holey Plains State Park intersects with this zone.	✓	
Clause 36.01 – Public Use Zone (PUZ6 – Local Government)	The PUZ relates to local government public land use and intersects with option 1a and b at the northern boundary of Holey Plains State Park.	✓	
Clause 36.02 – Public Park and Recreation Zone (PPRZ)	Small sections of the onshore Study Area are within the PPRZ at the eastern boundary of Mullungdong State Forest and in the western end of option 2. There is also a small section of land in the PPRZ intersected with the option 1 over the Rosedale Racecourse and Reserve.	√	*
Clause 36.03 – Public Conservation and Resource Zone (PCRZ)	Sections of the Study Area is located within the PCRZ. This includes the McLoughlins Beach – Seaspray Coastal Reserve, Lake Denison Wildlife Reserve, Giffard (Rifle Range) Flora Reserve, Mullungdong State Forest, Holey Plains State Park, Stradbroke Flora and Fauna Reserve, Gormandale Flora Reserve and Merrimans Creek Water Frontage.	√	*
Clause 36.04 – Transport Zone 2 (Principal road network) (TRZ2)	The TRZ2 covers the South Gippsland Highway and Rosedale-Longford Road within the Study Area. These roads are managed by the Department of Transport.	✓	~



Planning Control	Description	Transmission route	
		1a and 1b	2
Clause 36.04 – Transport Zone 3 (Significant municipal road) (TRZ3)	The TRZ3 covers Gormandale-Stradbroke Road, Giffard Road, and Willung Road which are located within the central and western sections of the onshore Study Area. These roads are managed by Shire of Wellington.	✓	√
Overlays			
Clause 42.01 – Environmental Significance Overlay (Schedule 1 - Coastal and Gippsland Lakes Environs) (ESO1)	ESO1 applies to the shoreline where the underground cabling meets the shoreline. The ESO1 identifies the significance of the coastal and Gippsland Lakes environs.		√
Clause 42.01 – Environmental Significance Overlay (Schedule 3 - Urban and Construction Buffer) (ESO3)	ESO3 applies to land to the south of Rosedale.	√	
Clause 42.01 Environmental Significance Overlay (Schedule 7 - Landfill Buffer) (ESO7)	ESO7 applies to land to the south of Rosedale.	✓	
Clause 42.01 – Environmental Significance Overlay (Schedule 2 - Wetlands) (ESO2)	ESO2 applies to small areas of land associated with wetlands.	✓	*
Clause 43.02 Design and Development Overlay (Schedule 6 - RAAF Building Height above 15 metres) (DDO6)	DDO6 applies to transmission route option 1 in the northeast. A permit is required for buildings and works with a height greater than 15 m.	√	
Clause 43.02 – Design and Development Overlay (Schedule 15 - Seaspray) (DDO15)	DDO15 applies to areas of the Seaspray township near the coastline of the onshore Study Area.	√	√
Clause 44.03 – Floodway Overlay (FO)	The FO applies to small areas of FO associated with Lake Denison and Merrimans Creek.	√	√
Clause 44.04 – Land Subject to Inundation Overlay (LSIO)	The LSIO applies to small areas associated with Merrimans Creek.	√	√
Clause 44.06 – Bushfire Management Overlay (BMO)	The BMO applies to almost the entire onshore Study Area.	√	√
Clause 44.07 – State Resource Overlay (Schedule 1 - Gippsland Brown Coalfields) (SRO1)	The SRO1 applies to land within the Gippsland Coalfields. Applications in this land must be referred to Secretary to the Department administering the Mineral Resources (Sustainable Development) Act 1990.	✓	√
Clause 45.12 – Specific Controls Overlay (Schedule 2 Basslink – Land Use and Development Controls (2002)) (SCO2)	SCO2 applies to most of the onshore Study Area.	✓	√



Planning Control	Description	Transmission route	
		1a and 1b	2
Latrobe Planning Scheme			
Zones			
Clause 35.03 – Rural Living Zone Schedule 1 (RLZ1)	The RLZ1 applies to an area of land associated with Hazelwood North which is crossed by transmission route option 1a and 1b.	✓	
Clause 35.07 – Farming Zone – Schedule 1 (FZ1)	The western end of transmission route options 1a, 1b and 2 is located within FZ1 as it enters the Latrobe LGA.	✓	√
Clause 36.01 – Public Use Zone (PUZ1)	This zone intersects with transmission route option 1a and 1b at the northern boundary of the Holey Plains State Park.	✓	
Clause 37.01 – Special Use Zone (Schedule 1 - Brown Coal) (SUZ1)	The western end of transmission route options 1a, 1b and 2 are located within SUZ1 near the Loy Yang Power Station and Hazelwood Terminal Station.	✓	✓
Clause 36.04 – Transport Zone 2 (Principal road network) (TRZ2)	The TRZ2 covers Hyland Highway, Bartons Lane, Mattingley Hill Road, Sanders Road, Hazelwood Road, Firmins Lane, Tramway Road in the northern-western corner to the north of Loy Yang Power Station. These roads are managed by the Department of Transport.	✓	√
Planning Overlays			
Clause 42.01 – Environmental Significance Overlay (Schedule 1 - Urban Buffer) (ESO1)	ESO1 is associated with the urban protection buffer for the adjacent coal mine at the Loy Yang Power Station.	√	
Clause 43.02 – Design and Development Overlay (Schedule 1 - Major Pipeline Infrastructure) (DDO1)	The north-western corner of the transmission route option 1a and 1b intersects with this DDO1. A permit is required for all buildings and works in excess of 10 m in height within this overlay.	√	
Clause 43.02 – Design and Development Overlay (Schedule 11 - Latrobe Regional Airport – Obstacle Height Area no. 4, 5 and 6)	The transmission route option 1a and 1b intersects with this DDO11.	√	
Clause 44.03 – Floodway Overlay (FO)	The FO applies to Bennetts Creek just north of the Hazelwood Terminal Station.	✓	
Clause 44.04 – Land Subject to Inundation Overlay (LSIO)	LSIO applies transmission route option 1a and 1b and Traralgon Creek and transmission route option 2 and Flynns Creek.	√	√
Clause 44.06 – Bushfire Management Overlay (BMO)	The onshore Study Area is affected by the BMO.	√	√
Clause 44.07 – State Resource Overlay – (Schedule 1 - Gippsland Brown Coalfields) (SRO1)	The onshore Study Area is affected by the SRO1 which identifies the significance of the Gippsland Brown Coalfields. Applications in this land must be referred to Secretary to the Department administering the Mineral Resources (Sustainable Development) Act 1990.	√	√



Planning Control	Description	Transmission route	
		1a and 1b	2
Clause 45.12 – Specific Controls Overlay (Schedule 4 - Loy Yang Power Station & Coal Mine Incorporated Document (April 2020)) (SCO4)	A small area of Study Area is affected by the SCO4 associated with the Loy Yang Power Station & Coal Mine Incorporated Document (April 2020).		√

8.1.4.1 Particular Provisions

The following particular provisions are likely to, or have potential to apply to the Project, subject to further investigation and detailed design:

- Clause 52.02 Easements, restrictions, and reserves: The clause seeks to enable the removal and variation of an easement or restrictions to enable a use or development that complies with the planning scheme after the interests of affected people are considered.
- Clause 52.05 Signs: The clause seeks to regulate the development of land for signs and associated structures, and to ensure signs are compatible with the amenity and visual appearance of an area. Zone provisions specify the category of sign control that applies to the zone.
- Clause 52.09 Extractive Industry and Extractive Industry Interest Areas: This clause seeks to ensure that use and development of land for extractive industry does not adversely affect the environment or amenity of the area during or after extraction, that excavated areas can be appropriately rehabilitated and that that stone resources, which may be required by the community for future use, are protected from inappropriate use and development. The clause applies to an application to use or develop land within an Extractive Industry Interest Area; or within 500 m of an existing or proposed extractive industry operation. Applications in this land must be referred to Secretary to the Department administering the Mineral Resources (Sustainable Development) Act 1990.
- Clause 52.17 Native vegetation: This clause seeks to ensure that there is no net loss to biodiversity as a result of the removal, destruction or lopping of native vegetation, by applying the three-step approach in accordance with the native vegetation guidelines (avoidance of impact, minimisation of impacts, and provision of offsets). This clause requires a planning permit to remove, destroy or lop native vegetation, including dead native vegetation.
- Clause 52.29 Land adjacent to principal road network: This clause seeks to ensure appropriate access to the Principal Road Network or land planned to form part of the Principal Road Network. This clause applies to land adjacent to a road in the Transport Zone 2.
- Clause 53.02 Bushfire Planning: This clause seeks to ensure that the development of land prioritises the protection of human life and strengthens community resilience to bushfire; to ensure that the location, design and construction of development appropriately responds to the bushfire hazard; and to ensure development is only permitted where the risk to life, property and community infrastructure from bushfire can be reduced to an acceptable level.



Operational Provisions

In accordance with Clause 72.01-1 (Minister is Responsible Authority), the Minister for Planning is the responsible authority for the use and development of land for a:

- Utility installation used to:
 - a) transmit or distribute electricity.
 - b) Store electricity if the installed capacity is 1 megawatt or greater.

8.1.4.2 State and Regional Policies

The Gippsland Regional Growth Plan (2014) is relevant to the Project. It provides broad direction for land use and development across the Gippsland region. It translates and integrates emerging state-wide regional land use planning policy and provides a basis for regional coordination and future planning of infrastructure to support regional land use objectives.

Coastal planning documents that are relevant to the Project include:

- The Victorian Marine and Coastal Policy (DELWP, 2020) provides an overarching framework and sets out policies for planning and managing the marine and coastal environments in Victoria.
- The Victorian Marine and Coastal Strategy (DELWP, 2022) supports sustainable use and improvements to how we manage the health of the marine and coastal environment.
- The Gippsland Regional Coastal Plan (2015 2020) provides a regional framework for protecting Gippsland's coastal values.