

PROTECTED



# Broome Future Energy System

*Environmental Protection Act 1986 Section 38 – Referral Supporting Document*

16/04/2025

**HORIZON**  
POWER

## Document control

Revision	Reviewer		Approved for issue		
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## Executive Summary

Regional Power Corporation, trading as (T/A) Horizon Power, is a Western Australia (WA) Government Trading Enterprise (GTE) and the state's regional and remote energy provider. Horizon Power operates under the *Electricity Corporations Act 2005* and is governed by a Board of Directors accountable to the Minister for Energy.

The WA State Government has committed to reducing government emissions by 80% below 2020 levels by 2030, and Horizon Power is supporting the Government to achieve this. Many towns in the Kimberley are powered by high emission fossil fuels such as diesel and gas. In Broome, Horizon Power currently purchases power from an independent power producer. The power purchase agreement (PPA) is due to expire, providing Horizon Power with an opportunity to integrate grid-scale renewable electricity into the town supply.

Horizon Power is proposing to construct a Future Energy System (FES) in Broome in the Kimberley region of WA (the Proposal). The Proposal will ensure security of energy supply to Broome after the expiry of the PPA. As part of this future energy supply, Horizon Power is targeting higher renewables and a reduction in emissions as part of the decarbonisation strategy for the town. The Broome FES project will nominally consist of solar PV system (up to 90 megawatts alternating current (MWAC)), battery energy storage systems (BESS) (up to 42 megawatts MW / 239 megawatt-hour (MWh)), a network connection route (up to 16 km).

The solar PV and BESS will be installed at a site approximately 10 km north of Broome. The network connection route corridor will follow Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street to connect the solar PV and BESS to the existing substation on Fredrick Street in Broome. The network connection will either be an overhead or underground distribution or transmission line and will be up to 16 km long.

The Proposal has been designed to limit impacts to flora and vegetation, terrestrial fauna, inland waters and social surroundings. Final design of the Proposal will limit (where possible) direct and indirect impacts to identified environmental values.

Horizon Power is referring the Proposal to the Western Australia (WA) Environmental Protection Authority (EPA) under Part IV (Section 38) of the *Environmental Protection Act 1986* (EP Act), as the Proposal has the potential to impact on one or more of the EPA's key environmental factors. The purpose of this document is to provide additional information to support the referral submission.

The following EPA factors are considered key environmental factors for the Proposal:

- Flora and Vegetation
- Terrestrial Fauna
- Inland Waters
- Social Surroundings.

An additional three factors have been identified as 'other environmental factors' for the Proposal, including:

- Terrestrial Environmental Quality
- Air Quality
- Greenhouse Gas (GHG) emissions.



It is considered that all factors can be managed through avoidance and mitigation measures to meet the EPA’s objectives. Tables ES-1 and ES-2 summarise the Proposal as required under current EPA guidance. Table ES-3 provides a summary of potential impacts of the Proposal, proposed mitigation and anticipated environmental outcomes for key environmental factors.

*Table ES-1 General Proposal content description*

<b>Proposal title</b>	Broome Future Energy System
<b>Proponent name</b>	Regional Power Corporation, trading as (T/A) Horizon Power
<b>Short description</b>	<p>Horizon Power is proposing to construct the Broome Future Energy System (FES) in Broome in the Kimberley region of WA (the Proposal). The Proposal will ensure security of energy supply to Broome after the expiry of the current Power Purchase Agreement. As part of this future energy supply, Horizon Power is targeting higher renewables and a reduction in emissions as part of the decarbonization strategy for the town.</p> <p>The Broome FES will consist of ground-mounted solar PV system, battery energy storage systems (BESS) and a network connection route. The solar PV and BESS will be installed at a site approximately 10 km north of Broome. A network connection route will follow Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street to connect the solar PV and BESS to the existing substation on Fredrick Street in Broome. The network connection will either be an overhead or underground electrical distribution or transmission line and will be up to 16 km long.</p>

*Table ES-2 Proposal content elements*

<b>Proposal element</b>	<b>Location/description</b>	<b>Maximum extent, capacity or range</b>
<b>Physical elements</b>		
Solar and BESS facility Network connection.	The solar and BESS facility is approximately 10 km northeast of Broome, with the network connection route following Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street to the existing substation in Broome.  See Figure 2-1 and Figure 2-2.	Clearing of up to 265.1 ha within a 271.3 ha Development Envelope (DE).
<b>Construction elements</b>		
Solar and BESS facility	The solar and BESS facility is approximately 10 km northeast of Broome.  See Figure 2-1 and Figure 2-2.	<p>Clearing of up to 265.1 ha within a 271.3 ha DE to accommodate the following permanent and temporary project elements. This will involve clearing of vegetation, topsoil removal and stockpiling, grading and excavations.</p> <p>Permanent elements:</p> <ul style="list-style-type: none"> <li>• Permanent clearing for construction and operation including weed control.</li> <li>• Construction of access roads and tracks.</li> </ul>



		<ul style="list-style-type: none"> <li>• Construction of water supply bore.</li> <li>• Installation of a solar PV and BESS including ground mounted solar panels, inverters, transformers, cabling, battery containers, substation and other ancillary infrastructure.</li> </ul> <p>Temporary elements:</p> <ul style="list-style-type: none"> <li>• Minor and preliminary works including site surveying and marking, Soil and geotechnical investigations</li> <li>• Temporary lay down areas, ablutions, kitchen, offices, crib room, first aid, water supply and generators.</li> <li>• Concrete supply via either establishment of a temporary on-site concrete batch plant or concrete truck deliveries.</li> </ul>
Network connection	<p>The network connection route follows Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street to the existing substation in Broome.</p> <p>See Figure 2-1 and Figure 2-2.</p>	<p>Clearing of up to 265.1 ha within a 271.3 ha DE to accommodate the following permanent and temporary project elements. This will involve clearing of vegetation, topsoil removal and stockpiling, grading and excavations.</p> <p>Permanent elements:</p> <ul style="list-style-type: none"> <li>• Permanent clearing for construction and operation including weed control.</li> <li>• Installation of either overhead or underground network connection</li> <li>• Construction of access roads and tracks.</li> </ul> <p>Temporary elements:</p> <ul style="list-style-type: none"> <li>• Minor preliminary works including site surveying and marking</li> <li>• Soil and geotechnical investigations</li> <li>• Temporary lay down areas, water supply and generators.</li> </ul>
<b>Operational elements</b>		
Solar and BESS facility	<p>The solar and BESS facility is approximately 10 km northeast of Broome.</p> <p>See Figure 2-1 and Figure 2-2.</p>	<p>Operational activities:</p> <ul style="list-style-type: none"> <li>• Operation and maintenance of the solar and BESS facility</li> <li>• Routine maintenance activities including weed control.</li> </ul>
Network connection	<p>The network connection follows Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street to the existing substation in Broome.</p> <p>See Figure 2-1 and Figure 2-2.</p>	<p>Operational activities:</p> <ul style="list-style-type: none"> <li>• Operation and monitoring of the network connection</li> <li>• Routine maintenance activities including vegetation control.</li> </ul>



Proposal elements with greenhouse gas emissions		
<b>Construction elements:</b>		
Scope 1	20,611 tCO <sub>2</sub> e	
Scope 2	0 tCO <sub>2</sub> e	
Scope 3	41,723 tCO <sub>2</sub> e	
<b>TOTAL</b>	<b>62,334 tCO<sub>2</sub>e</b>	
<b>Operation elements:</b>		
Scope 1	21,842 tCO <sub>2</sub> e/yr <sup>1</sup>	
Scope 2	0 tCO <sub>2</sub> e/yr	
Scope 3	3,120 tCO <sub>2</sub> e/yr	
<b>TOTAL</b>	<b>24,962 tCO<sub>2</sub>e/yr</b>	
<b>Rehabilitation</b>		
No rehabilitation will be undertaken as part of the Proposal. The DE is to be permanently cleared, with temporary impacted areas still within the permanent footprint.		
<b>Commissioning</b>		
There are no environmental impacts specific to commissioning.		
<b>Decommissioning</b>		
Infrastructure is expected to be permanent and become part of the Broome electricity network. The agreement with the independent power producer will likely be 20 years, with options for extension. The asset is expected to be refurbished/replaced as required and continue to be utilised. If the infrastructure should be decommissioned, this would be at end of asset life.		
<b>Other elements which affect extent of effects on the environment</b>		
Proposal time*	Maximum project life	20 years
	Construction phase	The construction phase of the Proposal is estimated to take three years subject to approvals from 2027 - 2029
	Operations phase	20 years
	Decommissioning phase	N/A

<sup>1</sup> A greenhouse gas (GHG) assessment was undertaken for Broome as two one of Horizon Power’s larger GHG emitting towns. This assessment includes project elements that are subject to this referral, plus additional requirements that could be needed in the future such as new power station infrastructure. This approach was taken to demonstrate that both the towns would be well below the safeguard threshold (100,000 tonnes carbon dioxide equivalent (tCO<sub>2</sub>e) per year).



Table ES-3 Summary of potential impacts, proposed mitigation and proposed environmental outcomes

Flora and Vegetation	
<p><b>Potential impacts</b></p>	<ul style="list-style-type: none"> <li>• Native vegetation:                             <ul style="list-style-type: none"> <li>○ Clearing of up to 265.1 ha, of which 241.0 ha is native vegetation including:                                     <ul style="list-style-type: none"> <li>▪ Native vegetation mapped across Vegetation Association 750</li> <li>▪ Native vegetation across three vegetation types.</li> </ul> </li> <li>○ Clearing of up to 1.5 ha of riparian vegetation within VT07 and VT08.</li> </ul> </li> <li>• Significant flora:                             <ul style="list-style-type: none"> <li>○ Clearing of up to 11 known individuals of <i>Glycine pindanica</i> (Priority 3)</li> <li>○ Clearing of up to 4 known individuals of <i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028) (Priority 1)</li> <li>○ Clearing of up to 190 known individuals of <i>Polymeria</i> sp. Broome (K.F. Kenneally 9759) (Priority 3)</li> <li>○ Clearing of up to 33 known individuals of <i>Corymbia ?paractia</i> (Priority 2).</li> </ul> </li> <li>• Flora that represent a range extension:                             <ul style="list-style-type: none"> <li>○ Clearing of individuals of <i>Neptunia ?major</i></li> <li>○ Clearing of individuals of <i>Gyrocarpus americanus</i> subsp. <i>Americanus</i></li> <li>○ Clearing of individuals of <i>Melaleuca ?glomerata</i>.</li> </ul> </li> </ul> <p>The Proposal will avoid impacts to the Relict dune system dominated by extensive stands of Minyjuru (Mangarr - <i>Sersalisia sericea</i>) Priority Ecological Community (PEC) (Priority 1). Indirect impacts may include introduction and/or the spread of weeds, alteration of fire regimes, alteration to hydrological flows, generation of dust or spills or leaks of chemicals, hydrocarbon and/or hazardous materials. These impacts will be avoided and mitigated through detailed design planning and standard construction management measures, including the implementation of an EMP.</p>
<p><b>Mitigation hierarchy</b></p>	<p><u>Avoid</u></p> <ul style="list-style-type: none"> <li>• The DE has been located to avoid impacts to 44.4 ha of the Relict dune system dominated by extensive stands of Minyjuru (Mangarr - <i>Sersalisia sericea</i>) Priority 1 PEC</li> <li>• The DE has been located to avoid impacts to the following listed flora species:                             <ul style="list-style-type: none"> <li>○ Three known individuals of <i>Corymbia ?paractia</i></li> <li>○ Two known individuals of <i>Glycine pindanica</i></li> <li>○ 1 known individual of <i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028) is outside the DE and an avoidance area has been established around 21 known individuals of <i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028). Therefore, 22 known individuals will be avoided in total</li> <li>○ 256 known individuals of <i>Polymeria</i> sp. Broome (K.F. Kenneally 9759)</li> </ul> </li> </ul>

	<ul style="list-style-type: none"> <li>○ One known individual of <i>Acacia monticola x tumida</i> var. <i>kulparn</i></li> <li>○ Five known individuals of <i>Bonamia oblongifolia</i></li> <li>○ 15 known individuals of <i>Terminalia kumpaja</i>.</li> </ul> <p><u>Minimise</u></p> <ul style="list-style-type: none"> <li>● The network connection route follows an existing cleared corridor along Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street, reducing the amount of clearing required for access tracks and network connection</li> <li>● Clearing impacts will be further reduced through the detailed design process, including the positioning of solar and BESS facility infrastructure and network connection infrastructure to minimise impacts to vegetation and flora (including Priority flora where possible)</li> <li>● Network connection infrastructure will avoid riparian vegetation where possible</li> <li>● Implementation of the management measures in the EMP (Appendix A) to minimise risks to vegetation and flora from the introduction and/or spread of weeds, alteration of fire regimes, alteration of hydrological flows, generation of dust, spills or leaks of chemicals, hydrocarbon or other hazardous materials, and to provide monitoring during construction.</li> </ul>
<p><b>Residual impacts, including assessment of significance</b></p>	<p>Direct and indirect impacts to flora and vegetation associated with the Proposal are not expected to be significant. These impacts can be managed through Horizon Power’s mitigation and management measures, and the implementation of the EMP (Appendix A).</p>
<p><b>Proposed environmental outcomes</b></p>	<p>The Proposal is not expected to result in significant residual impacts to flora and vegetation.</p> <p>The Proposal requires clearing of up to 265.1 ha, of which 241.0 ha is native vegetation, including up to 1.5 ha of riparian vegetation. The Proposal also requires the removal of up to 11 known individuals of <i>Glycine pindanica</i>, up to 4 known individuals of <i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028), up to 190 known individuals of <i>Polymeria</i> sp. Broome (K.F. Kenneally 9759) and up to 33 known individuals of <i>Corymbia ?paractia</i>. The Proposal may also clear individuals of <i>Neptunia ?major</i>, <i>Gyrocarpus americanus</i> subsp. <i>Americanus</i> and <i>Melaleuca ?glomerata</i>, which are flora species that represent a range extension.</p> <p>Indirect impacts may include the introduction and/or spread of weeds, alteration of fire regimes, alteration to hydrology, generation of dust and spills or leaks of chemicals, hydrocarbon and/or hazardous materials.</p> <p>Horizon Power considers that the potential direct and indirect impacts to flora and vegetation (with implementation of the avoidance and minimisation measures proposed) will meet the EPA’s objective for flora and vegetation.</p>
<p><b>Assessment of offsets (if relevant)</b></p>	<p>N/A</p>



Terrestrial Fauna	
<b>Potential impacts</b>	<ul style="list-style-type: none"> <li>• Clearing of 239.5 ha of pindan shrubland, which provides habitat for Bilby (critical habitat), Northern Brushtail Possum (critical habitat and supporting habitat), Fork-tailed Swift (supporting habitat), Yellow-lipped Cave Bat (supporting habitat), Northern Coastal Free-tailed Bat (critical habitat and supporting habitat), Bare-rumped Sheath-tailed Bat (critical habitat and supporting habitat), Northern Short-tailed Mouse (supporting habitat), Dampierland Burrowing Snake (supporting habitat), Dampierland Plain slider (supporting habitat), Gouldian Finch (critical habitat), Grey Falcon (supporting habitat), Peregrine Falcon (supporting habitat), Osprey (supporting habitat), and Barn Swallow (supporting habitat).</li> <li>• Clearing of up to 12 hollow containing trees identified in the GHD (2024) survey within the pindan shrubland habitat type in the network connection route portion of the DE, which could provide suitable important nesting/roosting/breeding habitat to the Northern Brush-tail Possum, Northern Coastal Free-tailed Bat, Bare-rumped Sheath-tailed Bat and the Gouldian Finch.</li> <li>• Clearing of 0.6 ha of open Eucalypt dampland habitat, which provides supporting habitat for Northern Brush-tail Possum, Fork-tailed Swift, Northern Coastal Free-tailed Bat, Dampierland Burrowing Snake, Dampierland Plain Slider, Gouldian Finch and Osprey.</li> <li>• Clearing of 0.9 ha of sparse mangrove tidal mudflat, which provides supporting habitat for Fork-tailed Swift, Northern Coastal Free-tailed Bat, Grey Falcon, Peregrine Falcon and Osprey.</li> <li>• Clearing of 3.9 ha of scattered plantings and native trees, which provides supporting habitat for Northern Brush-tail Possum, Fork-tailed Swift, Northern Coastal Free-tailed Bat, Dampierland Burrowing Snake, Dampierland Plain Slider and Osprey.</li> <li>• Indirect impacts such as fauna injury/death from vehicle strike/clearing activities/direct collision with infrastructure, fauna activity disturbance from temporary increase in noise/vibration/light, attraction of feral animals, alteration of fire regimes, and increased generation of dust during construction.</li> </ul>
<b>Mitigation hierarchy</b>	<p><u>Avoid</u></p> <ul style="list-style-type: none"> <li>• An avoidance area has been established around the active Bilby burrow within the DE</li> <li>• An avoidance area has been established around four habitat trees within the DE (of which two had suitable nesting/roosting hollows)</li> <li>• Presence of a licenced fauna specialist prior to the commencement of clearing activities to supervise avoidance, dispersal and relocation of any fauna.</li> </ul> <p><u>Minimise</u></p> <ul style="list-style-type: none"> <li>• Clearing impacts will be further reduced where possible through the detailed design process, including the positioning of solar and BESS facility infrastructure and network connection infrastructure to minimise impacts to fauna habitat</li> <li>• Dust, noise, vibration and light management measures will be implemented during construction</li> </ul>



	<ul style="list-style-type: none"> <li>• Implementation of the management measures in the EMP (Appendix A) to minimise risks to terrestrial fauna, and to provide monitoring during construction</li> <li>• Habitat trees suitable for the Northern Brush-tail Possum, Northern Coastal Free-tailed Bat, Bare-rumped Sheath-tailed Bat and the Gouldian Finch will be avoided where possible during site selection and design.</li> </ul>
<b>Residual impacts, including assessment of significance</b>	Direct and indirect impacts to terrestrial fauna associated with the Proposal are not expected to be significant. These impacts can be managed through Horizon Power’s mitigation and management measures, and the implementation of the EMP (Appendix A).
<b>Proposed environmental outcomes</b>	<p>The Proposal is not expected to result in significant residual impacts to terrestrial fauna.</p> <p>The Proposal requires the permanent clearing of up to 265.1 ha, of which 244.9 ha is potential fauna habitat which includes four habitat types. The Proposal will require the removal of habitat that potentially provides foraging, breeding, roosting, shelter and dispersal value to significant fauna species, however this impact is not expected to be significant. Further refinement of the design of the Proposal will seek to minimise impacts to fauna habitats including potential habitat trees.</p> <p>Indirect impacts include fauna injury/death from vehicle strike/clearing activities/direct collision with infrastructure, fauna activity disturbance from temporary increase in noise/vibration/light, attraction of feral animals, alteration of fire regimes, and increased generation of dust during construction.</p> <p>Horizon Power considers that the potential direct and indirect impacts to terrestrial fauna (with implementation of the avoidance and minimisation measures proposed) will meet the EPA’s objective for terrestrial fauna.</p>
<b>Assessment of offsets (if relevant)</b>	N/A
<b>Inland Waters</b>	
<b>Potential impacts</b>	<ul style="list-style-type: none"> <li>• A minor and temporary impact on the quality of inland waters as a result of sediments and/or contaminants being transported with stormwater runoff</li> <li>• Changes to surface water flows and increased risk of land erosion and sedimentation in nearby waterways due to clearing of native vegetation within the DE</li> <li>• Risk of contamination of soils and subsequent mobilisation to surface waters may result from accidental release of chemicals and/or hydrocarbons (i.e. leaks, spills)</li> <li>• Exposure of ASS by ground disturbing associated with construction of the network connection infrastructure. If groundwater is encountered, short-term dewatering of potentially acidic groundwater could result.</li> <li>• Changes to groundwater infiltration from clearing of native vegetation within the DE</li> <li>• Minor temporary drawdown of groundwater, should dewatering be required to construct solar infrastructure and network connection infrastructure.</li> </ul>



<p><b>Mitigation hierarchy</b></p>	<p><u>Minimise</u></p> <ul style="list-style-type: none"> <li>• Implementation of EMP to prevent chemical/ hydrocarbon leaks and spills, and prescribe corrective actions in the event of accidental releases</li> <li>• Any water abstraction required for construction of the Proposal will be undertaken to minimise drawdown, and water allowed to infiltrate as close to the source as possible. If the groundwater is acidic, it would be treated and discharged in accordance with an ASS Management Plan.</li> <li>• Weather will be monitored to avoid construction works during heavy rainfall to prevent runoff, erosion and mobilisation of sediment</li> <li>• If ASS or any other contaminants are encountered, additional investigations will be undertaken. An ASS Management Plan will be developed if required.</li> </ul>
<p><b>Residual impacts, including assessment of significance</b></p>	<p>Impacts to inland waters associated with the Proposal are not expected to be significant. These impacts can be managed through Horizon Power’s mitigation and management measures, and the implementation of the EMP (Appendix A).</p>
<p><b>Proposed environmental outcomes</b></p>	<p>No significant alteration of surface water hydrological regimes or quality. No significant alteration of groundwater hydrological regimes or quality.</p>
<p><b>Assessment of offsets (if relevant)</b></p>	<p>N/A</p>
<p><b>Social Surroundings</b></p>	
<p><b>Potential impacts</b></p>	<ul style="list-style-type: none"> <li>• Aboriginal cultural heritage:             <ul style="list-style-type: none"> <li>○ No direct disturbance is proposed to any known Aboriginal cultural heritage sites, to be identified via a heritage survey. Implementation of avoidance areas to prevent impacts to Aboriginal cultural heritage.</li> <li>○ Potential indirect impacts to Aboriginal cultural heritage through dust generation, vibrations and accidental fires during construction or operations.</li> </ul> </li> <li>• National and European heritage:             <ul style="list-style-type: none"> <li>○ Construction of the network connection route will directly disturb land within municipal heritage site, ‘Tram Line’ (Place Number: 26423)</li> <li>○ Potential indirect impacts to European heritage through dust generation, vibrations and accidental fires during construction or operations.</li> </ul> </li> <li>• Amenity:             <ul style="list-style-type: none"> <li>○ The Proposal has the potential to impact on the visual amenity of the local area, noting that proposed infrastructure is consistent with existing infrastructure in the region</li> <li>○ Potential indirect impacts to amenity through dust, noise and vibration emissions generated during construction.</li> </ul> </li> </ul>



<p><b>Mitigation hierarchy</b></p>	<p><u>Avoid</u></p> <ul style="list-style-type: none"> <li>• Execution of a Heritage Protection Agreement with Yawuru traditional owner group to establish cultural heritage surveys and cultural heritage monitoring protocols</li> <li>• The location and extent of Aboriginal cultural heritage values within the DE will be confirmed during an Aboriginal cultural heritage survey with the support of Yawuru Traditional Owners</li> <li>• Prior to conducting ground disturbing activities, known Aboriginal cultural heritage sites will be delineated as avoidance areas. The avoidance areas will be demarcated in a culturally appropriate manner to ensure a suitable buffer is maintained between avoidance areas and construction activities (where permitted by and with assistance of Yawuru Traditional Owners).</li> <li>• Aboriginal cultural heritage monitors may be present during initial ground disturbing works as per Heritage Protection Agreement requirements</li> <li>• Impact to all Aboriginal cultural heritage sites (newly recorded and previously verified) should be avoided</li> <li>• Potential new finds of Aboriginal Cultural Heritage (including human remains) uncovered during ground disturbing works are protected (i.e. cease work in the immediate area until assessed by Yawuru Traditional Owners and a consultant archaeologist/anthropologist as appropriate, and cleared by police if relating to human remains).</li> </ul> <p><u>Minimise</u></p> <ul style="list-style-type: none"> <li>• Alignment of network connection route with existing roads</li> <li>• Use of existing disturbed areas to minimise clearing</li> <li>• Dust, noise, vibrations and fire risk will be managed in accordance with the Proposal EMP (Appendix A). EMP mitigation measures will include (but are not limited to):             <ul style="list-style-type: none"> <li>○ Construction works will be undertaken in accordance with the Environmental Protection (Noise) Regulations 1997</li> <li>○ Dust suppression controls (i.e. use of water carts) to be implemented.</li> </ul> </li> </ul>
<p><b>Residual impacts, including assessment of significance</b></p>	<p>Based on the impacts identified and the mitigation proposed, the Proposal is not expected to have a significant residual impact on social surroundings.</p>
<p><b>Proposed environmental outcomes</b></p>	<p>The Proposal is expected to meet EPA’s objective for social surroundings. No direct impacts to known Aboriginal cultural heritage sites within or adjacent to the DE.</p> <p>Works undertaken for the Proposal will comply with the <i>Aboriginal Heritage Act</i>.</p> <p>Indirect impacts from dust and vibration occurs for a short duration (intermittent and only during the construction phase) with mitigation implemented in accordance with the EMP.</p> <p>Minor direct impact to ‘Tram Line’ (Place Number: 26423) municipal heritage site along the network connection route portion of the DE.</p> <p>Long-term minor impacts to visual amenity. Impacts are adequately mitigated through Proposal design, and DE alignment with existing developed areas.</p> <p>Short-term minor impacts to amenity from noise, dust and vibrations are adequately managed through the EMP.</p>



	No direct impact to nature reserves.
<b>Assessment of offsets (if relevant)</b>	N/A



## Table of Contents

1	Introduction .....	20
1.1	Background .....	20
1.2	Scope and purpose of this document .....	20
1.3	Proponent .....	22
2	Proposal .....	23
2.1	Proposal construction and operational requirements .....	26
2.1.1	Pre-construction .....	26
2.1.2	Construction.....	26
2.1.3	Operations .....	27
2.2	Proposal benefits and justification .....	28
2.3	Several Proposal alternatives .....	28
2.3.1	Alternative sites .....	28
2.3.2	Wind energy option .....	29
2.3.3	Consumer energy resources .....	29
2.3.4	Do nothing .....	29
2.4	Local and regional context .....	32
2.4.1	Climate .....	32
2.4.2	Geology, landform and soils .....	32
2.4.3	Hydrology .....	34
2.4.4	Regional biogeography .....	34
2.4.5	Social context .....	34
2.4.6	Other Proposals in the surrounding area .....	37
3	Legislative context .....	38
3.1	Environmental impact assessment process.....	38
3.1.1	<i>Environmental Protection Act 1986</i> , Part IV Environmental Impact Assessment 38	
3.1.2	<i>Environment Protection and Biodiversity Conservation Act 1999</i> .....	38
3.2	Other approvals and regulation.....	38
3.2.1	Land access .....	40
3.2.2	Decision-making authorities .....	40
4	Stakeholder engagement.....	42
4.1	Key stakeholders.....	42
4.2	Stakeholder engagement process .....	42

4.3	Stakeholder consultation outcomes .....	43
5	Object and principles of the EP Act .....	50
6	Environmental factors and objectives .....	53
6.1	Environmental Factor - Flora and Vegetation .....	58
6.1.1	Relevant policy and guidance .....	58
6.1.2	Receiving environment .....	59
6.1.3	Potential impacts .....	75
6.1.4	Mitigation.....	79
6.1.5	Assessment and significance of residual impact .....	80
6.1.6	Environmental outcome .....	86
6.2	Environmental Factor – Terrestrial Fauna .....	88
6.2.1	Relevant policy and guidance .....	88
6.2.2	Receiving environment .....	88
6.2.3	Potential impacts .....	115
6.2.4	Mitigation.....	120
6.2.5	Assessment and significance of residual impact .....	121
6.2.6	Environmental outcomes.....	131
6.3	Inland Waters.....	133
6.3.1	Relevant policy and guidance .....	133
6.3.2	Receiving environment .....	133
6.3.3	Potential impacts .....	136
6.3.4	Mitigation.....	136
6.3.5	Assessment and significance of residual impact .....	137
6.3.6	Environmental outcomes.....	138
6.4	Environmental Factor – Social Surroundings.....	139
6.4.1	Relevant policy and guidance .....	139
6.4.2	Receiving environment .....	139
6.4.3	Potential impacts .....	145
6.4.4	Mitigation.....	147
6.4.5	Assessment and significance of residual impact .....	148
6.4.6	Environmental outcomes.....	149
6.5	Other environmental factors .....	150
7	Offsets.....	156
8	Holistic impact assessment.....	157
8.1	Vegetation and flora .....	159



8.2	Terrestrial fauna.....	159
8.3	Inland waters .....	160
8.4	Social surroundings.....	160
9	Cumulative environmental impact assessment.....	162
9.1	Flora and vegetation .....	162
9.2	Terrestrial fauna.....	163
9.3	Inland waters .....	164
9.4	Social surroundings.....	164
10	References .....	165
11	Appendices.....	171

### Table index

Table 1-1	Proponent contact details .....	22
Table 3-1	Other approvals .....	38
Table 3-2	Decision-making authorities .....	41
Table 4-1	Key project stakeholders .....	42
Table 4-2	Stakeholder consultation register.....	44
Table 5-1	Object and principles of the EP Act .....	50
Table 6-1	WA EPA Environmental Factors and their relevance to the Proposal.....	54
Table 6-2	Policy and guidance for environmental factor flora and vegetation.....	58
Table 6-3	Summary of flora and vegetation surveys conducted within and surrounding the Proposal	59
Table 6-4	Summary of relevant flora and vegetation surveys reviewed in vicinity of Proposal	59
Table 6-5	Vegetation Associations within the DE.....	60
Table 6-6	Mapped vegetation types within the DE .....	63
Table 6-7	Mapped vegetation condition within the DE .....	64
Table 6-8	Cumulative impacts to flora and vegetation from other Proposals.....	77
Table 6-9	Impacts to Vegetation Association 750 from the Proposal.....	80
Table 6-10	Environmental outcomes for flora and vegetation .....	87
Table 6-11	Policy and guidance for environmental factor terrestrial fauna .....	88
Table 6-12	Summary of fauna surveys conducted within and surrounding the Proposal	88
Table 6-13	Summary of relevant fauna surveys reviewed in vicinity of Proposal.....	89
Table 6-14	Fauna habitats recorded within the DE .....	91
Table 6-15	Conservation significant fauna species that are known to occur or are considered likely to occur within the DE .....	95
Table 6-16	Counts of suitable habitat trees within the Survey Area, DE and IDF .....	106
Table 6-17	Cumulative impacts to terrestrial fauna from other Proposals.....	118
Table 6-18	Assessment of significant residual impacts as a result of clearing significant fauna species habitat .....	122
Table 6-19	Environmental outcomes for terrestrial fauna .....	132
Table 6-20	Policy and guidance for environmental factor inland waters .....	133



Table 6-21	Environmental outcomes for inland waters .....	138
Table 6-22	Policy and guidance .....	139
Table 6-23	Registered Heritage Sites overlapping the DE .....	140
Table 6-24	Environmental outcomes for social surrounds.....	149
Table 6-25	Other environmental factors relevant to the Proposal .....	151
Table 9-1	Flora and vegetation cumulative impacts relevant to Proposal.....	163
Table 9-2	Terrestrial fauna cumulative impacts relevant to Proposal .....	163

**Figure index**

Figure 2-1	Proposal location and Development Envelope.....	24
Figure 2-2	Development Envelope and Avoidance Areas.....	25
Figure 2-3	Survey Area and fauna sensitivities recorded .....	30
Figure 2-4	Survey Area and flora and vegetation sensitivities recorded.....	31
Figure 2-5	Land systems within the Development Envelope.....	33
Figure 2-6	Conservation areas within the vicinity of the Development Envelope .....	36
Figure 6-1	Vegetation Associations (Beard, 2013) within the Development Envelope ...	62
Figure 6-2	Vegetation types within the Development Envelope.....	66
Figure 6-3	Vegetation condition within the Development Envelope .....	67
Figure 6-4	Riparian vegetation within the Development Envelope .....	68
Figure 6-5	Significant flora within the Development Envelope .....	74
Figure 6-6	Fauna habitats within the Development Envelope .....	93
Figure 6-7	Bilby records within the Development Envelope .....	105
Figure 6-8	Fauna habitat trees within the Development Envelope.....	108
Figure 6-9	Surface water and groundwater features within the vicinity of the Development Envelope.....	135
Figure 6-10	Aboriginal cultural heritage within the Development Envelope .....	142
Figure 6-11	European heritage within the vicinity of the Development Envelope .....	144
Figure 6-12	Contaminated sites within the Development Envelope .....	155
Figure 8-1	Intrinsic interactions between key environmental factors .....	158



Abbreviation	Definition
ACHIS	Aboriginal Cultural Heritage Inquiry System
AH Act	<i>Aboriginal Heritage Act 1972</i>
ALA	Atlas of Living Australia
ASS	Acid Sulfate Soils
BAM Act	<i>Biosecurity and Agriculture Management Act 2007</i>
BC Act	<i>Biodiversity Conservation Act 2016</i>
BESS	Battery Energy Storage System
CALM Act	<i>Conservation and Land Management Act 1984</i>
CER	Customer Energy Resources
CLD	Customer-led Decarbonisation
CO <sub>2</sub> e	Carbon Dioxide Equivalent
DBCA	Department of Biodiversity Conservation and Attractions
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DE	Development Envelope
DPIRD	Department of Primary Industries and Regional Development
DPLH	Department of Planning, Lands and Heritage
EMP	Environmental Management Plan
EOPA	<i>Energy Operators (Powers) Act 1979</i>
EP Act	<i>Environmental Protection Act 1986</i>
EPA	Environmental Protection Authority
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
ESA	Environmentally Sensitive Area
FES	Future Energy System
GHG	Greenhouse Gas
GTE	Government Trading Enterprise
ha	Hectare
IBRA	Interim Biogeographic Regionalisation of Australia
km	Kilometres
LA Act	<i>Land Administration Act 1997</i>
m	Metres
MNES	Matters of National Environmental Significance
MW	Megawatts

Abbreviation	Definition
MWAC	Megawatts Alternating Current
MW	Megawatt-hour
NVCP	Native Vegetation Clearing Permit
PDWSA	Public Drinking Water Source Area
PEC	Priority Ecological Community
PMST	Protected Matters Search Tool
PPA	Power Purchase Agreement
PV	Photovoltaic
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i>
RNTBC	Registered Native Title Body Corporate
TEC	Threatened Ecological Community
WA	Western Australia

# 1 Introduction

## 1.1 Background

Regional Power Corporation, trading as (T/A) Horizon Power, is a Western Australian (WA) Government Trading Enterprise (GTE) and the state's regional and remote energy provider. Horizon Power operates under the *Electricity Corporations Act 2005* and is governed by a Board of Directors accountable to the Minister for Energy.

The WA State Government has committed to reducing government carbon emissions by 80% below (2020 levels by 2030, and Horizon Power is supporting the Government to achieve this. Many towns in the Kimberley are powered by high emission fossil fuels such as diesel and gas. In Broome, Horizon Power currently purchases power from an independent power producer. The power purchase agreement (PPA) is due to expire, providing Horizon Power with an opportunity to integrate grid-scale renewable electricity into the town supply.

Horizon Power is proposing to construct a Future Energy System (FES) in Broome in the Kimberley region of WA (the Proposal). The Proposal will ensure security of energy supply to Broome after the expiry of the PPA. As part of this future energy supply, Horizon Power is targeting higher renewables and a reduction in emissions as part of the decarbonisation strategy for the town.

The Broome FES project will nominally consist of solar photovoltaic (PV) system (up to 90 megawatts alternating current (MWAC)), battery energy storage systems (BESS) (up to 42 megawatts MW / 239 megawatt-hour (MWh)), and a network connection route (up to 16 km).

The solar PV and BESS will be installed at a site approximately 10 km north of Broome, at Lot 501 on Deposited Plan 414127, Reserve 25716. The network connection route corridor will follow Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street to connect the solar PV and BESS to the existing substation on Fredrick Street in Broome. The network connection will either be an overhead or underground electrical distribution or transmission line and will be up to 16 km long.

The Proposal location is shown in Figure 2-1. Along with the solar and BESS facility and network connection, the additional construction and operational requirements for the Proposal are detailed in Section 2.1.

## 1.2 Scope and purpose of this document

The Proposal is being referred to the WA Environmental Protection Authority (EPA) under Part IV (Section 38) of the *Environmental Protection Act 1986* (EP Act), as the Proposal has the potential to impact on one or more of the EPA's key environmental factors. Horizon Power is also referring the Proposal to the Commonwealth Department of Climate Change, Energy, the Environment and Water (DCCEEW) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) as the Proposal has the potential to impact Matters of National Environmental Significance (MNES). The purpose of this document is to support Horizon Power with their referral submission to the EPA.

The following EPA factors are considered preliminary key environmental factors for the Proposal:

- Flora and Vegetation

- Terrestrial Fauna
- Inland Waters
- Social Surroundings.

An additional three factors have been identified as ‘other environmental factors’ for the Proposal, including:

- Terrestrial Environmental Quality
- Air Quality
- Greenhouse Gas (GHG) emissions.

This supporting document has been prepared in accordance with the ‘Environmental Impact Assessment (Part IV Division 1 and 2) Administrative Procedures 2021’ (EPA 2021a) and ‘Procedures Manual’ (EPA 2021b), and the ‘Instructions for the referral of a Proposal to the EPA under Section 38 of the EP Act’ (EPA 2021c) to inform the EPA and DCCEEW consideration of the referral.

Consistent with the EPA instructions for referral, this supporting document is structured according to the ‘Instructions on how to prepare an Environmental Review Document’ (EPA 2021d). This document details the key characteristics of the Proposal and provides an environmental impact assessment against the EPA’s environmental factors. The assessment summarises:

- The EPA environmental factors that may potentially be impacted
- Relevant policy and guidance that has been considered
- The condition of the receiving environment
- Potential environmental impacts and risks associated with the Proposal
- Proposed management and mitigation measures
- Outcomes of stakeholder consultation.

A greenhouse gas (GHG) assessment was undertaken for Broome as one of Horizon Power’s larger GHG emitting towns. This assessment includes project elements that are subject to this referral, plus additional requirements that could be needed in the future such as new power station infrastructure. This approach was taken to demonstrate that the town would be well below the safeguard threshold (100,000 tonnes carbon dioxide equivalent (tCO<sub>2</sub>e) per year) and also inform any future EPA referrals for other Horizon Power towns, which are significantly smaller in terms of energy consumption and GHG production.

### 1.3 Proponent

The proponent for this Proposal is Horizon Power. Contact details are provided in Table 1-1.

*Table 1-1 Proponent contact details*

Contact	Details
<b>Horizon Power</b>	ABN: 57 9550 116 97 Address: 18 Brodie Hall Drive Technology Park, Bentley WA 6102
<b>Proposal key contact</b>	Oliver Scheidegger Project Manager integratedresourceplanning@horizonpower.com.au

## 2 Proposal

The Proposal is located in Broome, Western Australia. The solar and battery infrastructure is located approximately 10 km northeast of Broome, with the network connection route following Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street to the existing substation on Frederick Street in Broome. The solar and battery infrastructure will be located on Lot 501 on Deposited Plan 414127, Reserve 25716, Volume LR3172, Folio 67. Lot 501 is currently a Crown Reserve (25716) for 'Water Supply' with Management Order to Water Corporation, it is proposed that a portion of the site will be excised and placed under Management Order to Horizon Power. A letter of consent from Water Corporation has been included in this application.

A Development Envelope (DE) has been utilised for the Proposal approvals, as the exact location of Proposal elements are unknown, and will be subject to detailed design in the future. The DE is shown on Figure 2-1. The DE has a total extent of 271.3 ha and represents the boundary surrounding the Proposal within which all development will be contained. Construction and operation of the Proposal will require permanent clearing of up to 265.1 ha within the DE (of which 4.6 ha is already cleared land). It should be noted that the 265.1 ha clearing extent within the DE represents the maximum area of disturbance required to construct and install the Proposal, where opportunities are available clearing will be minimised. The DE has been developed as the area within which the least environmental constraints were identified in the biological survey (detailed in Section 2.3.4, Figure 2-3 and Figure 2-4). To ensure the Proposal avoids impacts to significant environmental and heritage values identified within the DE, avoidance areas have been developed within the DE (Figure 2-2). The final design of the Proposal will avoid these areas to minimise impacts to environmental and Aboriginal cultural heritage values as much as possible.

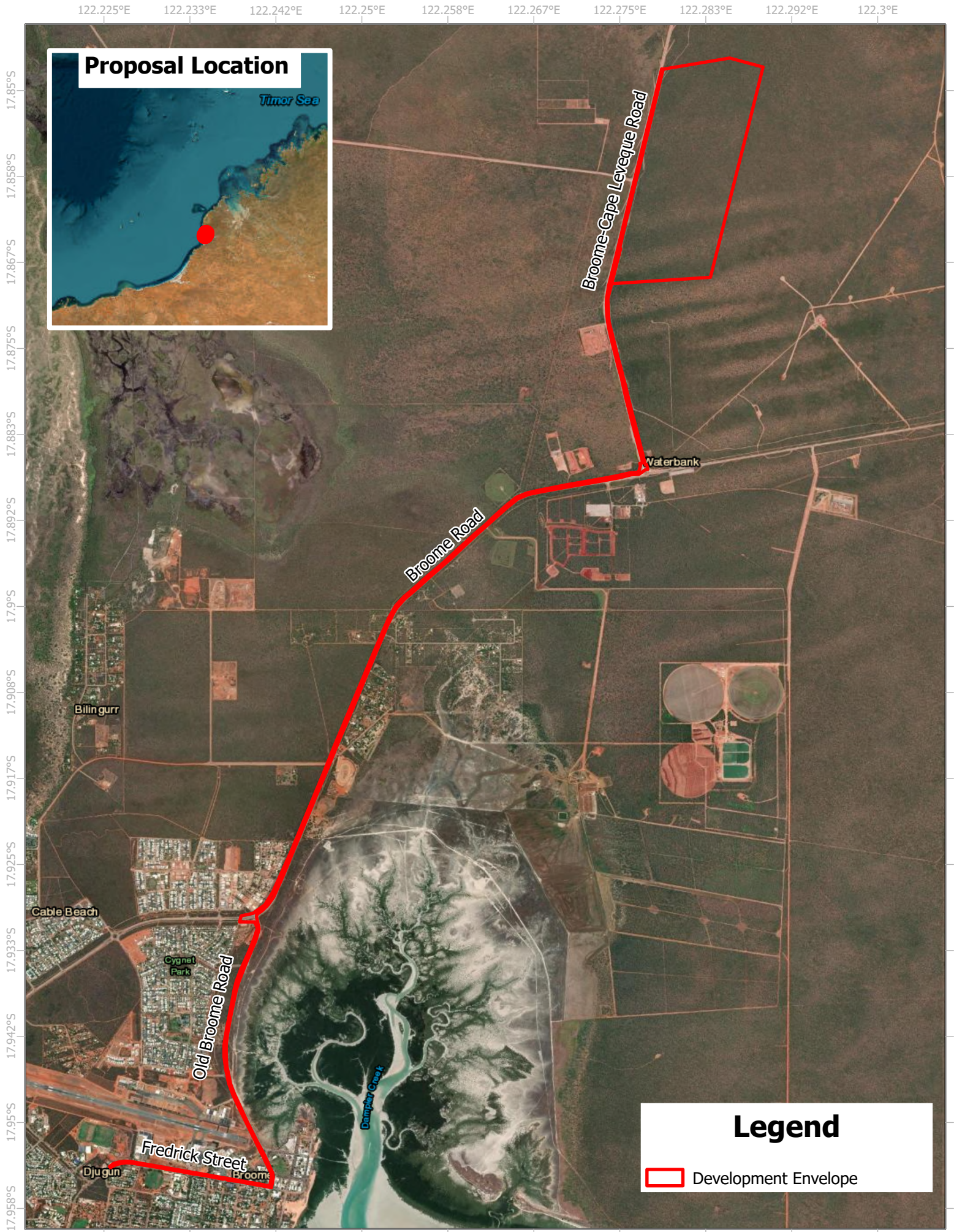
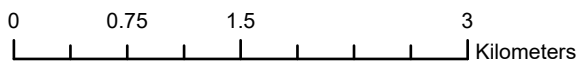


Figure 2-1 | Proposal Location and Development Envelope



Scale: 1:50,000



All figures have the projection GDA2020

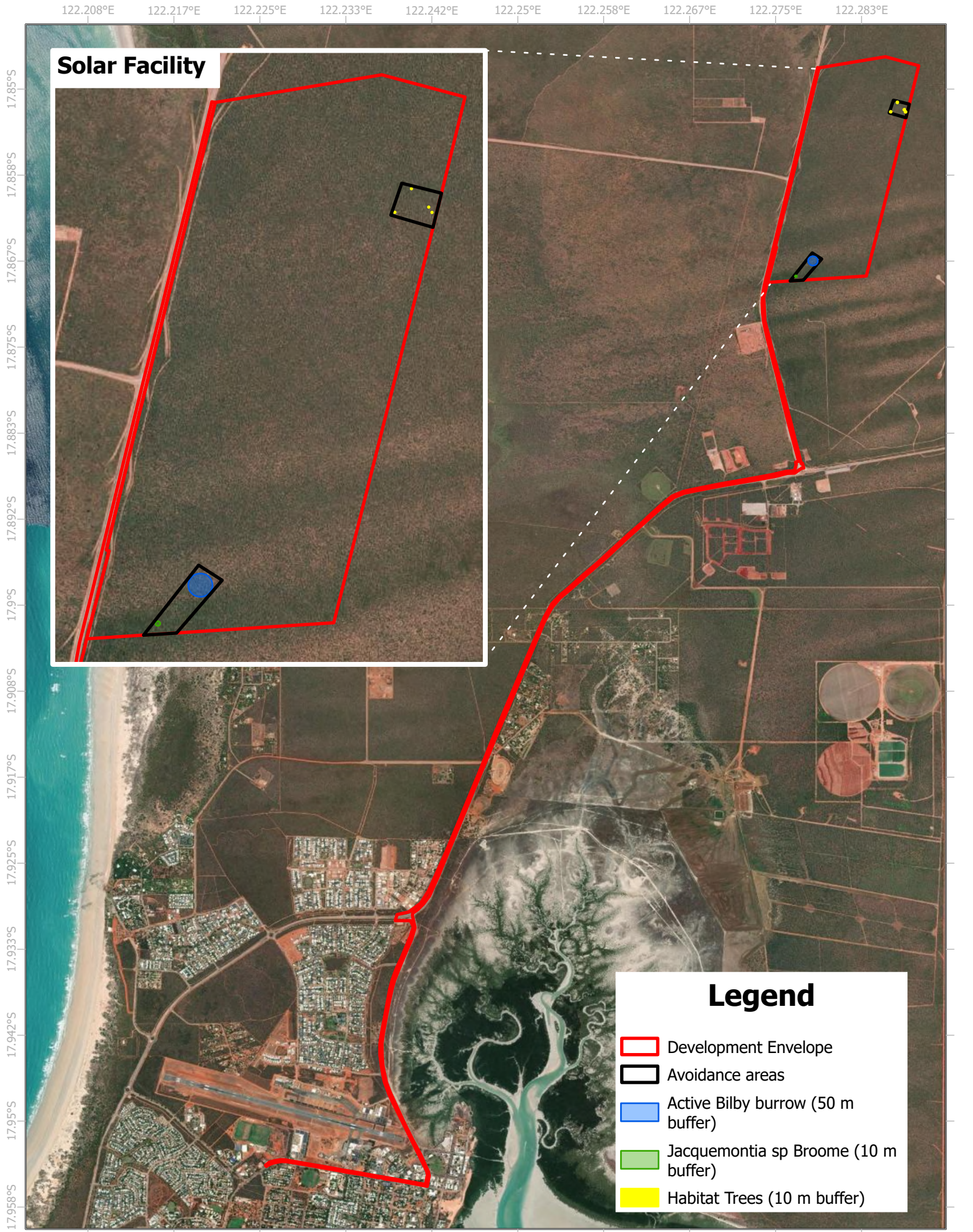


Figure 2-2 | Development Envelope and Avoidance Areas



0 0.75 1.5 3 Kilometers

Scale: 1:50,000



## 2.1 Proposal construction and operational requirements

### 2.1.1 Pre-construction

Pre-construction activities will occur up to 12 months prior to construction and involve the following activities:

- Solar and BESS facility and network connection route site surveying and marking – surveying personnel utilising Global Positioning System (GPS) equipment to mark project boundaries and exclusion zones.
- Solar and BESS facility soil and geotechnical investigations – geotechnical engineering and crew utilising excavators and vehicle mounted drill rig will conduct borehole drilling, soil sampling, soil testing and compaction tests. Up to 80 boreholes to a depth of 25 metres (m) and up to 50 tests pits (up to 5 m width by 5 m width) and up to 3 m depth may be conducted to support the geotechnical investigations. No more than 10 m x 10 m of clearing is permitted per test location. Geotechnical investigations require driving on vegetation to access test locations.
- Network connection route soil and geotechnical investigations – geotechnical engineering and crew utilising excavators and vehicle mounted drill rig to conduct borehole drilling, soil sampling, soil testing and compaction tests. Up to 30 boreholes to a depth of 25 m and up to 20 tests pits (up to 5 m width by 5 m width) and up to 3 m depth may be conducted to support the geotechnical investigations. Access is expected to be from the existing road. No more than 10 m x 10 m of clearing is permitted per test location. Geotechnical investigations require driving on vegetation to access test locations.

### 2.1.2 Construction

The construction phase is expected to commence in 2028 for a duration of up to 24 months. Construction personnel will consist of a project workforce of up to 200 staff for the solar and BESS facility and up to 60 staff for the network connection. Construction works will consist of:

- Clearing of up to 265.1 hectares (ha) of vegetation, topsoil removal and stockpiling, grading and excavations.
- Weed control measures to manage the spread of invasive weeds.
- Supply of concrete will be either through the establishment of a temporary on-site concrete batch plant or concrete truck deliveries. Licences will be obtained by the contractor as required in accordance with Part V of the *Environmental Protection Act 1986*.
- Supply of water for construction purposes will be either trucked water or construction of a bore in accordance with the *Rights in Water and Irrigation Act 1914*.
- Supply of civil materials for ground levelling and fill will be trucked in from local sources.
- During construction, temporary laydown areas, ablutions, kitchen, offices, crib room, first aid, water supply, generators and other supporting facilities will be established onsite.
- Installation of the solar PV and BESS consisting of ground mounted solar panels, inverters, transformers, cabling, battery containers, substation and other ancillary infrastructure

- Solar PV panels and frame will be nominally up to 4 m tall from ground level. The battery containers, substation and office building will nominally be up to 5 m tall.
- Footings of the solar system will involve either installed piles or concrete blocks. The piles solution may involve up to 40,000 steel piles (250 mm diameter) installed to a nominal depth of up to 5 m.
- Excavation works for footings for the substation, battery system, office building and other ancillary infrastructure may involve excavation of up to 4,500 m<sup>3</sup> of soil (footing depth typically up to 2 m deep).
- Excavation works for internal electrical cabling may involve excavation of up to 20 km of trenching and up to 1.5 m deep, resulting in excavation of up to 45,000 m<sup>3</sup> of soil.
- Installation of a network connection from the solar and BESS facility, following Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street to the existing substation in Broome. The network connection will either be an overhead or underground distribution or transmission line:
  - Underground – Trenching excavations of up to 16 km and up to 3 m wide and up to 2 m deep, total excavation of up to 90,000 m<sup>3</sup> of soil.
  - Overhead – Electrical poles of up to 20 m height installed at spans of up to 200 m. Total of up to 75 poles installed along the 16 km connection route, and excavation for each pole up to 2.5 m deep, total excavations of up to 1,300 m<sup>3</sup> of soil.
- Construction of access tracks.

Typical heavy machinery and vehicles are proposed to be utilised onsite during the construction phase will include (not limited to):

- |                                  |                      |
|----------------------------------|----------------------|
| ● Bulldozer                      | ● Hydraulic pullers  |
| ● Excavator                      | ● Water cart         |
| ● Grader                         | ● Loader             |
| ● Telehandler                    | ● Cranes             |
| ● Trenching machines             | ● Semi-trailer truck |
| ● Horizontal directional driller | ● Light vehicles.    |
| ● Cable reel trailers            |                      |

### 2.1.3 Operations

The operational phase is expected to commence in 2029, with operational personnel shifts conducted during daylight hours at the solar and BESS facility while the solar is producing energy. Operations personnel will consist of a local workforce of up to four personnel per shift for the solar and BESS facility. There will be no accommodation onsite, personnel will commute to site daily.

Activities associated with the operational phase will include:

- Operation and maintenance of the solar and BESS facility and network connection.
- Routine maintenance activities for the solar and BESS facility including visual inspections, solar panel cleaning (if required), solar panel replacement, electrical inspections and testing.

- Regular maintenance of the network line. Activities will depend on whether it is an overhead or underground network connection:
  - Overhead network connection – visual inspections, thermal imaging, tower and pole maintenance, conductor and insulator cleaning, vegetation management and protection system testing.
  - Underground network connection – visual inspections, thermal imaging and electrical testing.
  - Routine maintenance activities including weed control.

Machinery and vehicles used onsite during operational phase will include light vehicles, semi-trailer truck, cranes and telehandler.

## 2.2 Proposal benefits and justification

As a renewable energy project, the Proposal has the potential to reduce up to 50,000 tonnes of CO<sub>2</sub>e per annum compared to the emissions of the existing Broome power station. If the FES were to operate for 20 years, this would equate to a reduction of up to one million tonnes of CO<sub>2</sub>e. The Proposal will ensure security of energy supply to Broome after the expiry of the existing PPA and contribute to the local economy through construction and operation phase job opportunities.

## 2.3 Several Proposal alternatives

### 2.3.1 Alternative sites

The biological survey covered a larger extent than the DE, and two additional sites were also surveyed approximately 3.6 km and 6 km south of the DE during options assessment. These areas combined are referred to as the Survey Area and provide regional context for this Proposal. These surveys were undertaken to inform environmental constraints in Broome, to aid in site selection for the Proposal. The DE for this Proposal was selected as it presented the fewest environmental constraints, including avoidance of trees with hollows where possible, and active Bilby burrows. Selection of the location of the DE allowed the following environmental sensitivities to be avoided (as shown in Figure 2-3 and Figure 2-4):

- 646 habitat trees suitable for the Northern Brushtail Possum, of which 308 have hollows suitable for breeding. These trees are also considered suitable habitat for the Northern Coastal Free-tailed Bat, Bare-rumped Sheath-tailed Bat and Gouldian Finch (as described in Section 6.2)
- 25 old Bilby burrows and 5 recently active Bilby burrows
- 44.4 ha of the Relict dune system dominated by extensive stands of Minyjuru (Mangarr - *Sersalisia sericea*) Priority 1 PEC
- Records of the following listed flora species:
  - Three known individuals of *Corymbia ?paractia* (listed as Priority 2 by DBCA)
  - Two known individuals of *Glycine pindanica* (listed as Priority 3 by DBCA)
  - One known individual of *Jacquemontia* sp. Broome (A.A. Mitchell 3028) (listed as Priority 1 by DBCA)
  - 256 known individuals of *Polymeria* sp. Broome (K.F. Kenneally 9759) (listed as Priority 3 by DBCA)
  - One known individual of *Acacia monticola* x *tumida* var. *kulparn* (listed as Priority 3 by DBCA)

- Five known individuals of *Bonamia oblongifolia* (listed as Priority 3 by DBCA)
- 15 known individuals of *Terminalia kumpaja* (listed as Priority 3 by DBCA).

### 2.3.2 Wind energy option

A combined option of wind, solar, PV and energy storage system was considered for the Proposal. Desktop assessments, energy modelling and financial assessments were conducted, and wind energy was not considered a feasible option due to the following factors:

- Poor wind resource – low wind speeds, diurnal pattern mismatch and seasonal variability
- High cyclone risk – structural challenges, high cost of mitigation measures
- Remoteness – high maintenance, logistics, supply issues
- Higher capital cost (compared to solar)
- Environmental and regulatory approval challenges and potential significant impacts to aerial fauna.

### 2.3.3 Consumer energy resources

Horizon Power is embracing technology and products that enable more Customer Energy Resources (CER) for greater community participation in decarbonisation. CER will be a complimentary solution to the Broome FES.

### 2.3.4 Do nothing

A 'do-nothing' approach and continuing to operate a thermal power station to meet Broome's electricity requirements was considered unfavourable due to economic, environmental and energy security concerns, and would likely result in:

- High electricity supply costs due to volatile fuel prices and transport logistics
- Reduced grid reliability due to fuel supply chain disruptions
- Increased carbon emissions
- Missed economic opportunities in a renewable transition

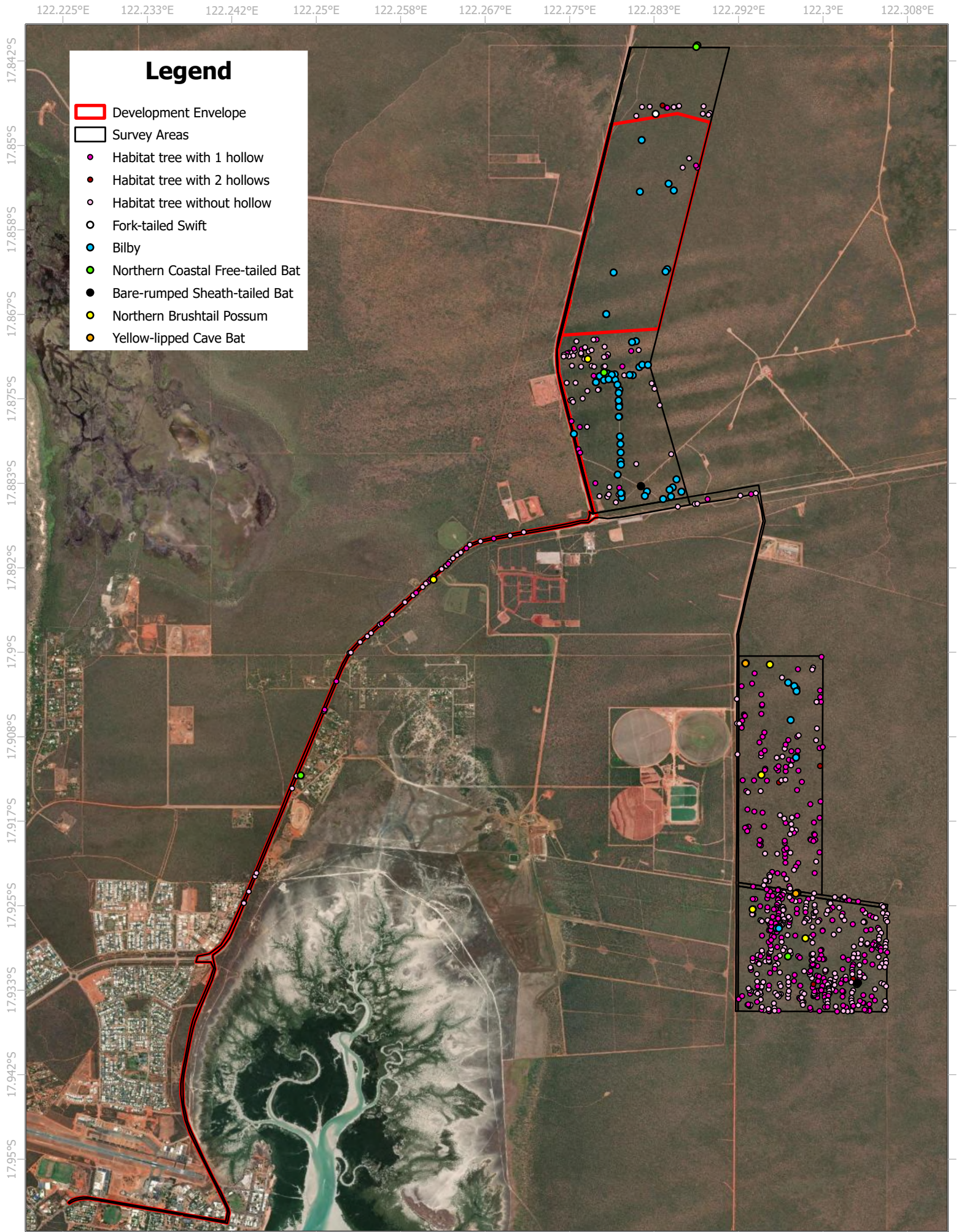


Figure 2-3 Survey Area and Fauna Sensitivities Recorded



0 0.75 1.5 3 Kilometers  
Scale: 1:51,000



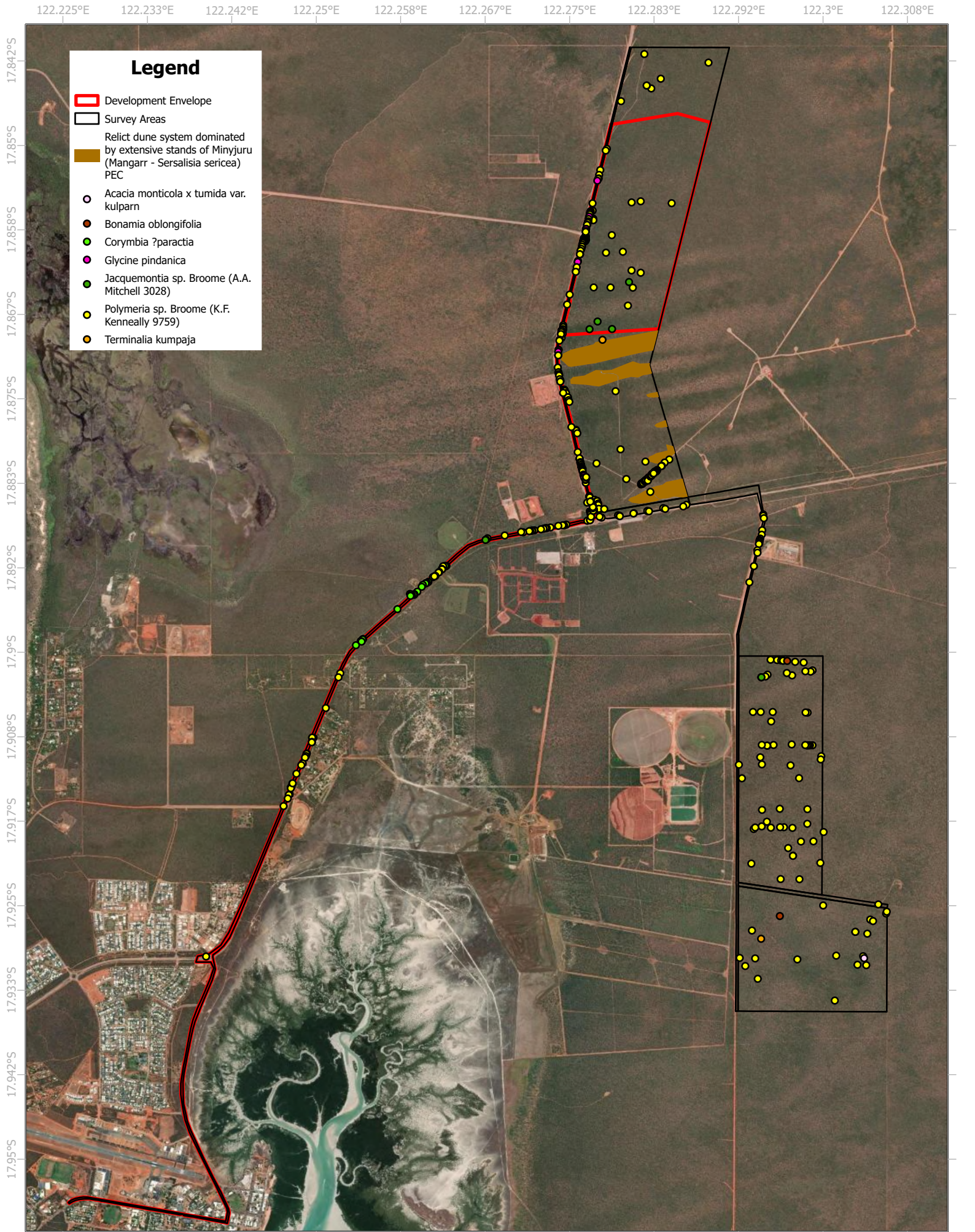


Figure 2-4 | Survey Area and Flora and Vegetation Sensitivities Recorded



0 0.75 1.5 3 Kilometers

Scale: 1:51,000



## 2.4 Local and regional context

### 2.4.1 Climate

The Proposal is located in Broome within the Kimberley region of WA, which experiences a tropical climate. Temperatures are warm to hot all year and there is a wet and dry season. The wet season is generally from November to April. The closest meteorological recording station is located in at Broome Airport (Site No. 003003). Climatic data from this station indicates the mean maximum temperature ranges from 34.3 °C in April, to 29.0 °C in July. The mean minimum temperature ranges from 26.6°C in December to 13.7°C in July. The mean annual rainfall is 628.0 mm, receiving highest rainfall in January (average of 198.7 mm) (BoM, 2025).

### 2.4.2 Geology, landform and soils

The Proposal is located within the Dampier Peninsula Sandplain Zone, which is described as sandplains and dunes (with some sandy plateaux and coastal mudflats) on sedimentary rocks of the Canning Basin with Red deep sands and some Yellow sandy earths and Tidal soils (DPIRD, 2022; Payne & Schoknecht, 2011)). The Proposal overlaps the following land systems (Figure 2-5):

- Yeeda System: Red sandplains supporting pindan vegetation with dense *Acacia* shrubs, scattered bloodwood and grey box trees and curly spinifex and ribbon grass.
- Wanganut System: Sandplains and linear dunes supporting pindan woodlands with *Acacias* and bloodwoods and curly spinifex- ribbon grass, and broad low-lying swales supporting bloodwood-grey box woodlands with curly spinifex-ribbon grass.
- Carpentaria System: Coastal plains, extensive bare mud flats, associated sandy margins and minor dunes, saline sands and muds, supporting paperbark thickets, samphire shrublands and fringing mangrove forests.

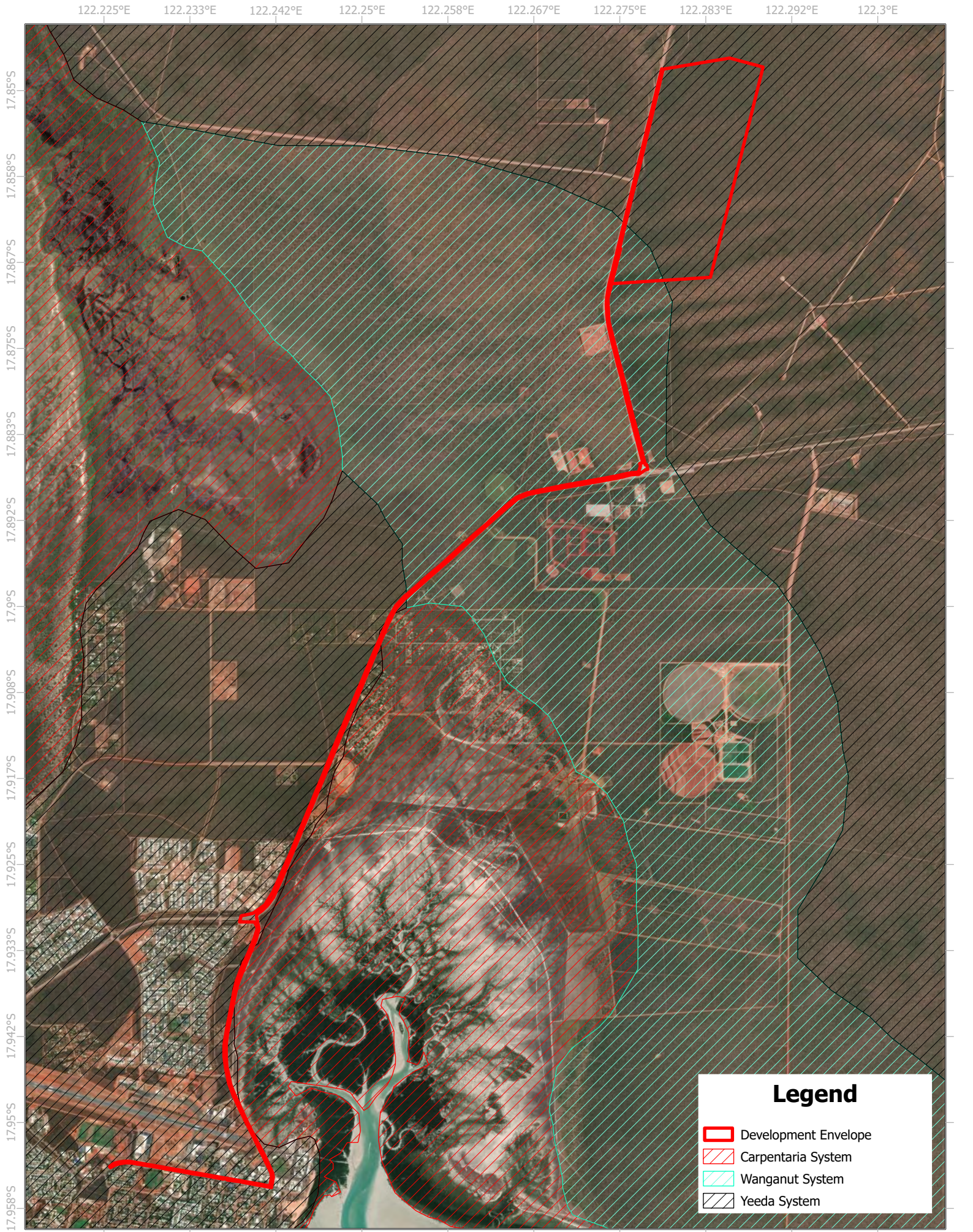


Figure 2-5 | Land Systems within the Development Envelope



0 0.75 1.5 3  
Kilometers  
Scale: 1:50,000

### 2.4.3 Hydrology

No permanent water bodies or drainage lines are located within the DE. The DE overlaps the Broome Water Reserve, which is a Public Drinking Water Source Area (PDWSA), and it also overlaps the Broome Groundwater Area proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act).

The southern portion of the network connection route is located in close proximity to the Dampier Creek. This area is characterised by mangroves that experience tidal inundation. The Roebuck Bay wetland is located less than 20 m east of the DE (DBCA, 2018). Roebuck Bay is also associated with a Ramsar wetland which is located approximately 7 km east of the DE (DBCA, 2017).

The hydrology of the DE is further described in Section 6.3.

### 2.4.4 Regional biogeography

The Proposal is located within the Dampierland bioregion and Pindanland subregion as described by the Interim Biogeographic Regionalisation of Australia (IBRA).

The Pindanland subregion is the Quaternary sandplain overlying Jurassic and Mesozoic sandstones with pindan, quaternary marine deposits on coastal plains and Quaternary alluvial plains associated with the Permian and Mesozoic sediments of Fitzroy Trough (McKenzie and May, 2003). The Pindanland subregion comprises sandplains of the Dampier Peninsular and western part of Dampier Land. The vegetation is described primarily as pindan (McKenzie and Nay, 2003).

The Dampierland bioregion is characterised by extensive plains, ranges and spectacular gorges. The vegetation is characterised by *Acacia* thickets with scattered trees and areas of grasslands and savannas (Bastin & ACRIS Management Committee, 2008).

### 2.4.5 Social context

#### 2.4.5.1 Native title

The DE is located within the Rubibi Community Native Title Determination Area (Federal Court file number: WAD6006/1998), which has the Yawuru Native Title Holders Aboriginal Corporation as the registered Native Title Body Corporation.

Consultation with the Yawuru Native Title Holders Aboriginal Corporation has been undertaken for the Proposal and is detailed in Section 4.

#### 2.4.5.2 Land Use

The solar and BESS facility located in the Shire of Broome, approximately 10 km northeast of Broome township on Lot 501, Deposited Plan 414127. Lot 501 is currently a Crown Reserve (25716) designated for 'Water Supply' under Management Order to Water Corporation. The larger parcel is utilised to extract bore water; however no bores are within the DE.

The network connection route follows Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street and connects to the existing substation on Fredrick Street in Broome township (Figure 2-1).

Broome has a population of approximately 14,660 people (ABS, 2021). Within Broome:

- Approximately 28.8% of the population is younger than 20 years, 58.6% of the population is aged between 20 – 60 years, and approximately 12.5% of the population is aged over 60 years.
- Unemployment rate is 4.0%. Approximately 64.4% of those working are employed full time, and a further 24.5% are employed on a part-time basis.
- Major industries of employment are hospitals, accommodation, primary education, other social assistant services and secondary education (ABS, 2021).

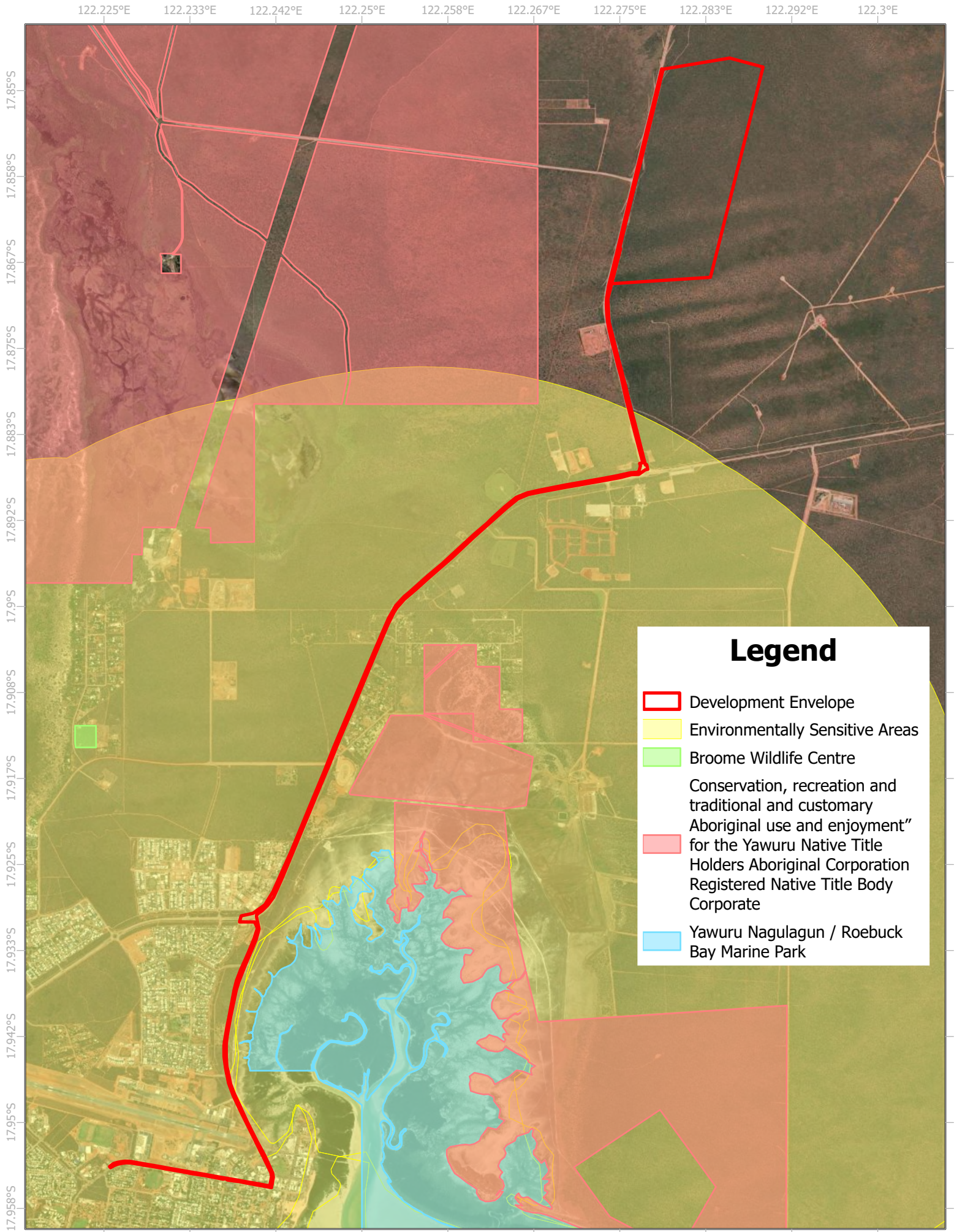
The DE is located on reserve land, freehold land, road, surveyed strata, easement and Crown land (Landgate, 2025a).

#### 2.4.5.3 Conservation reserves and environmentally sensitive areas

There are no DBCA managed lands within the DE (DBCA, 2024a). However, approximately 310 m east and 705 m west of the DE, there is land protected under the *Conservation and Land Management Act 1984* (CALM Act) for the purpose of “conservation, recreation and traditional and customary Aboriginal use and enjoyment” for the Yawuru Native Title Holders Aboriginal Corporation Registered Native Title Body Corporate (RNTBC). The Yawuru Nagulagun / Roebuck Bay Marine Park is also approximately 140 m east of the DE.

The network connection route portion of the DE overlaps an Environmentally Sensitive Area (ESA) that is associated with the buffer of the Roebuck Bay mudflats Threatened Ecological Community (TEC). This TEC is listed as Vulnerable under the *Biodiversity Conservation Act 2016* (BC Act) and is not listed as Threatened under the EPBC Act. The DE only overlaps the buffered extent of this TEC, and does not overlap the mapped boundary of the TEC. No vegetation commensurate with these ecological communities was identified in the DE.

The conservation reserves within the vicinity of the DE are shown in Figure 2-6.



### Legend

- Development Envelope
- Environmentally Sensitive Areas
- Broome Wildlife Centre
- Conservation, recreation and traditional and customary Aboriginal use and enjoyment" for the Yawuru Native Title Holders Aboriginal Corporation Registered Native Title Body Corporate
- Yawuru Nagulagun / Roebuck Bay Marine Park

Figure 2-6 Conservation Reserves within the vicinity of the Development Envelope



0      0.75      1.5      3  
 Kilometers

Scale: 1:50,000



#### 2.4.6 Other Proposals in the surrounding area

There are several reasonably foreseeable developments within the Proposal region and, more broadly, within the Pindanland subregion of the Dampierland bioregion generally with similar dominant land systems. These developments include:

- Shire of Broome - Broome Regional Resource Recovery Park Landfill Development located immediately adjacent (west) of the DE. The project was referred to the EPA under Section 38 of the EP Act in 2023. The referral was examined and the proposal was not assessed under Part IV of the EP Act.
- Ten active Native Vegetation Clearing Permits (NVCP) within the Pindanland Subregion, totalling 874.3 ha and mainly related to commercial development, mining, hydrogeological and geotechnical investigations and agricultural developments.

The above Projects have been used to inform the assessment of cumulative impacts of the Proposal with other nearby developments.

Note, the Asian Renewable Energy Hub Revised Proposal was referred to the EPA under Section 38 of the EP Act in 2020. The referral was examined, and the proposal is to be assessed under Part IV of the EP Act via a Public Environmental Review. This proposal is located approximately 240 km southwest of the DE, and the majority of the proposal is located outside of the Pindanland subregion, therefore has been excluded from the cumulative impact assessment.

### 3 Legislative context

#### 3.1 Environmental impact assessment process

##### 3.1.1 Environmental Protection Act 1986, Part IV Environmental Impact Assessment

The Proposal is being referred to determine if assessment is required under Part IV of the EP Act. Part IV of the EP Act is the primary legislation governing environmental protection and impact assessment in WA. Division 1 of Part IV of the EP Act provides for the referral and assessment of significant or strategic Proposals. If the EPA chooses not to assess the project, it will be sent to the Department of Water and Environment Regulation (DWER) for a clearing permit under Part V of the EP Act.

##### 3.1.2 Environment Protection and Biodiversity Conservation Act 1999

A proposed action that may have a significant impact on MNES requires approval from the DCCEEW under the EPBC Act. A ‘controlled action’ under the EPBC Act is one that is likely to cause a significant impact to a MNES and which must be approved under the EPBC Act. Parts 7 and 8 of the EPBC Act provides for the referral and assessment of controlled actions.

The Proposal will be referred to DCCEEW under the EPBC Act due to potential impacts to habitats for listed Threatened and Migratory species. Should the EPA decide to assess, and the Proposal be determined a controlled action, Horizon Power would request that the EPBC Act assessment approach be an ‘accredited assessment’ of MNES to be undertaken as part of the EPA assessment of the Proposal. The EPA assessment will then inform a decision by the Federal Minister for Environment and conditions for the Proposal under the EPBC Act.

#### 3.2 Other approvals and regulation

Following primary environmental approval of the Proposal under Part IV of the EP Act, additional regulatory approvals potentially required to develop and operate the Proposal are summarised in Table 3-1.

*Table 3-1 Other approvals*

Decision-making authority	Legislation or Agreement regulating the activity	Approval required (and specify which Proposal element the approval is related to)	Whether and how statutory decision-making process can mitigate impacts on the environment?
Department of Planning, Lands and Heritage (DPLH)	<i>Aboriginal Heritage Act 1972 (AH Act)</i>	<p>All Proposal activities must be undertaken in accordance with the AH Act, which are relevant to the Social Surroundings element of the Proposal.</p> <p>There will be no planned disturbance, damage, impact or removal of any Aboriginal Heritage sites as part of Proposal activities.</p> <p>However, if this did become necessary it would only be done if it could be performed in accordance with the AH Act and any other applicable legislation, as</p>	<p>Yes: The AH Act is relevant to management of the risk associated with “Direct physical disturbance of Aboriginal heritage features from construction and operational activities” which is further described in Section 6.3. This is aligned to the EPA factor objectives for Social Surroundings.</p>

Decision-making authority	Legislation or Agreement regulating the activity	Approval required (and specify which Proposal element the approval is related to)	Whether and how statutory decision-making process can mitigate impacts on the environment?
		well as being in accordance with the Horizon Power <a href="#">Aboriginal Cultural Heritage Management Policy</a> and consultation with the Yawuru Traditional Owners.	
DPLH	<i>Land Administration Act 1997</i> (LA Act)	Construction and operation within the solar infrastructure portion of the DE will require a management order under the <i>Land Administration Act 1997</i> .	No: The access to portions of the DE will be governed and managed by a licence and management order under the <i>Land Administration Act 1997</i> . The requirements of the LA Act are administrative and unlikely to mitigate impacts on the environment.
Department of Biodiversity Conservation and Attractions (DBCA)	BC Act	Authorisation to Take or Disturb Threatened Fauna	<p>Yes: Any conditions attached to the approved Authorisations will be adhered to during clearing and disturbance works.</p> <p>A Ministerial Authorisation under section 40 of the BC Act is required to take or disturb threatened species (critically endangered, endangered or vulnerable). Regulation 76 of the Western Australia's Biodiversity Conservation Regulations 2018 outlines the requirements for considering applications for section 40 authorisations related to wildlife licences, emphasising the conservation and protection of biodiversity.</p> <p>All applications will be considered in the context of the objective of the BC Act in section 3(1)(a) to conserve and protect biodiversity and biodiversity components in the State.</p>
DWER	EP Act (Part V)	<p>Construction and operation of prescribed activities and premises.</p> <p>The Proposal may include the construction and operation of solar infrastructure, new concrete batching plant, wastewater treatment plant and other supporting infrastructure which may require approval from DWER through a works approval/licence</p>	Yes: The Works Approvals and Licensing process has been designed to prevent, control, abate, and mitigate pollution or environmental harm. It sets limits and focuses on management controls to minimise impacts on the environment from emissions associated with the proposed prescribed activities and categories

Decision-making authority	Legislation or Agreement regulating the activity	Approval required (and specify which Proposal element the approval is related to)	Whether and how statutory decision-making process can mitigate impacts on the environment?
		application under Part V of the EP Act.	under Part V of the EP Act. Assessment of the Works Approval and subsequent Licence applications includes a risk assessment of the identified emissions and discharges and their potential to cause environmental harm.
DWER	RIWI Act	The Proposal may include groundwater abstraction for dewatering during construction and construction of a bore to supply water for construction purposes. These activities may require approval from DWER through Section 5C and 26D Licences under the RIWI Act.	Yes: Sets limits on the location and quantity of water abstraction to ensure impacts to groundwater levels and quality are minimised. Relevant licences related to the Proposal include licence to: <ul style="list-style-type: none"> <li>• take water (a 5C groundwater or surface water licence)</li> <li>• construct wells, including bores and soaks (a 26D licence).</li> </ul> As part of the approval process, impacts on the water environment will be considered and assessed. These licences have terms, conditions and limits which must be complied with.
Department of Energy, Mines, Industry Regulation and Safety	Dangerous Good Safety (Major Hazard Facilities) Regulations 2007 (WA)	Dangerous Goods Site Licence	Possible: A Dangerous Goods Licence is likely to be required for operation of the FES if Dangerous Goods are required to be stored on site.

### 3.2.1 Land access

As an ‘energy operator’, Horizon Power has certain rights under sections 46 and 49 of the *Energy Operators (Powers) Act 1979* (EOPA) which allow Horizon Power to access and use land for the purpose of constructing, maintaining and operating electricity infrastructure. Horizon Power will utilise these powers for the network connection route portion of the Proposal.

The solar and battery infrastructure will be located at Lot 501, which is currently a Crown Reserve (25716) for ‘Water Supply’ with Management Order to Water Corporation. It is proposed that a portion of the site will be excised and placed under Management Order to Horizon Power in accordance with the *Land Administration Act 1997*.

### 3.2.2 Decision-making authorities

The authorities listed in Table 3-2 have been identified as decision-making authorities for the Proposal.

*Table 3-2 Decision-making authorities*

Decision-making authority	Relevant legislation
Minister for Aboriginal Affairs	AH Act
Minister for the Environment	BC Act, EP Act
Minister for Water	RIWI Act
Minister for Lands	LA Act
Commonwealth Minister for Environment	EPBC Act
Department of Energy, Mines, Industry Regulation and Safety	Dangerous Good Safety (Major Hazard Facilities) Regulations 2007 (WA)

## 4 Stakeholder engagement

### 4.1 Key stakeholders

The key stakeholders identified for the Proposal are provided in Table 4-1.

*Table 4-1 Key project stakeholders*

Category	Stakeholders
Agencies acting on behalf of the Commonwealth Government	<ul style="list-style-type: none"> <li>Regional Development Australia Kimberley, DCCEEW</li> </ul>
State Government –Ministers	<ul style="list-style-type: none"> <li>Hon Divina D’Anna – Member for Kimberley</li> <li>Hon Amber-Jade Sanderson – Minister for Energy and Decarbonisation</li> </ul>
State Government - Agencies	<ul style="list-style-type: none"> <li>Department Planning, Lands and Heritage, Kimberley Development Commission, Water Corporation, Department of Communities, Department of Biodiversity Conservation and Attractions</li> </ul>
Traditional Owners	<ul style="list-style-type: none"> <li>Yawuru Prescribed Body Corporate</li> </ul>
Local Government	<ul style="list-style-type: none"> <li>Shire of Broome</li> </ul>
Corporate	<ul style="list-style-type: none"> <li>Nyamba Buru Yawuru Limited, Major Account Holders, Broome Chamber of Commerce and Industry, Clean Energy Council, First Nations Clean Energy Network</li> </ul>
Broome Community	<ul style="list-style-type: none"> <li>Customer and community members</li> </ul>
Community-led environmental organisations	<ul style="list-style-type: none"> <li>Environs Kimberley</li> </ul>

### 4.2 Stakeholder engagement process

The stakeholder engagement process is guided by an Engagement and Communications Plan that is informed by a strategic engagement framework. This framework combines the principles of the International Association for Public Participation, The Energy Charter and Free Prior and Informed Consent approach to engagement.

By integrating these principles, Horizon Power aims to foster inclusive, transparent, and rights-respecting engagement processes that empower communities and uphold fundamental rights. Horizon Power is committed to working with communities and engaging with them on projects that impact them. We are committed to sharing the journey with our communities to gain their valuable knowledge, enabling us to translate their worthy ideas into our decisions and actions.

Each engagement activity is tailored to the local context, encouraging two-way dialogue. Information has been delivered in-person where possible. Throughout engagement and communications, queries and concerns have been captured and responses provided, and documented via a stakeholder consultation register.

A dedicated project website with FAQs has been established, providing access to information, and a portal for community members to sign up and receive further project updates. Community members and stakeholders can contact the team via a dedicated project email address or through the local Horizon Power depot in Broome.

On 20 September 2023, a face-to-face community information session was held in Broome. The session was attended by representatives from Horizon Power's various divisions, including Customer & Community, Operations, Future Energy Systems and Retail and Products. The session saw a good turnout with 46 RSVPs and 30 attendees representing a diverse group of Broome residents. As a key local stakeholder, Environs Kimberley were invited to the event and members encouraged to attend.

Horizon Power met with the Shire of Broome on 20 September 2023, 22 January, 19 March and undertook a workshop on 14 May 2024. Each meeting and workshop activity was tailored to the Shire audience and in response to queries raised.

Horizon Power first met with members of Yawuru on 26 September 2023 and several meetings have ensued. Community participation models and a Heritage Protection Agreement will be required, and engagement continues to secure this and other related discussions.

The project was presented to the Regional Development Australia Kimberley Committee, in Derby on 7 September 2023.

As a member of the Broome Chamber of Commerce and Industry, Horizon Power co-hosted a Business After Hours event on 17 April 2024, where the Broome Future Energy System planning featured as an agenda item and senior regional and executive Horizon Power staff attended to undertake Question and Answer session, and face-to-face engagement following the formal presentation.

Two electronic direct mail campaigns have been issued to Broome and Kimberley Horizon Power customers via a dedicated project update notification and as part of a quarterly update. All information disseminated is tailored to the Broome audience. Insights gathered throughout the project informed the content. The current database for the Broome community members requesting information about Broome Future Energy System planning totals 147 people.

#### 4.3 Stakeholder consultation outcomes

The outcomes of the stakeholder consultation undertaken to date for the Proposal is provided in Table 4-2.

Table 4-2 Stakeholder consultation register

Stakeholder	Date	Type of consultation	Stakeholder comments/issue/topic raised	Outcomes/ Response
Resident & Horizon Power customer and community	25 November 2023	Email inquiry	Requested to be kept up to date  Asked when residents can get more rooftop solar and more details on rooftop solar  Support for renewable energy	Horizon Power constrained customer rooftop solar installs prior to Q2 2024 because the network could not manage the energy flow back into the grid and maintain grid stability. The Distributed Energy Resource Management System (DERMS) has since enabled Smart Connect Solar and there are now zero-refusals.
	20 September 23	Info session	Asked when residents can get more rooftop solar and more details on rooftop solar	Rooftop solar response as above
	20 July 2024	Email inquiry	Requested detail on residential roof top solar access and battery storage issues specific to the region.	Rooftop solar response as above
	20 September 2023	Community information session	Request to please ensure Horizon Power communications present a fair representation of energy options (including the full value proposal - land, emissions, waste, end of life recovery)	Update to Horizon Power website with requested details
	5 October 2023	Email inquiry	Requested to be kept up to date	Added to project e-newsletter distribution
	20 September 2023	Community information session	Community member impressed by our efforts to implement new technology (batteries, hydrogen, electric vehicles, etc)	Added to project e-newsletter distribution
	11 April 2024	Email inquiry	Queries regarding rooftop solar	Rooftop solar response as above

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Stakeholder	Date	Type of consultation	Stakeholder comments/issue/topic raised	Outcomes/ Response
Buru Energy	30 May 2024	Newsletter correspondence	Discussion of Rafael conventional gas and condensate discovery - currently, all natural gas (via LNG) and diesel is imported into the Kimberley, hence a local source will provide very favourable energy security, affordability and environmental credentials as an alternate supply.	Acknowledged and recorded.
Environs Kimberley	14 November 2024 2 May 2024 20 September 2023	Email inquiry Letter Community Information session	Stakeholder strongly urges Horizon Power to ensure that all power stations it is responsible for in the Kimberley use at least 80% renewable energy by 2027.	Acknowledged and recorded.
Groundbreaking Energy	November 2023	Email inquiry	Groundbreaking Energy looking to understand the power requirements and community expectations in the region and to assess whether geothermal energy can contribute to the mix of solutions.	Geothermal energy solutions were not considered due to technical considerations and economic viability.
Kimberley Development Commission	20 September 2023	Community information session	Discussion of project and short-listed sites Stakeholder asked to be kept updated	<ul style="list-style-type: none"> <li>• Smart Connect Solar launched in Broome Q2 2024.</li> <li>• Project to continue with corridor identified along road access for connection routes.</li> <li>• Confirmed Water Corporation identified the portion in line with their bore field planning.</li> <li>• Key community messaging:                             <ul style="list-style-type: none"> <li>o Greener solution</li> <li>o Reduced fossil fuels</li> </ul> </li> </ul>
	17 January 2024	Meeting	Discussed previous projects and initiatives in Broome which ended up being withdrawn or impacted by community sentiment over the perceived 'industrialisation' of Broome (floating pontoon, Woodside project, which was withdrawn due to community pressure, increased trucks on road which was already	

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Stakeholder	Date	Type of consultation	Stakeholder comments/issue/topic raised	Outcomes/ Response
			<p>approved for such purpose). Preference for undergrounding cables for reliability.</p> <p>Request that Horizon Power ensure clear messaging to manage perceptions and combat incorrect messages regarding renewables to gain community support.</p> <p>Discussed alternate connection routes (utilising previous Water Corporation pipes) and shape of the preferred site (Water Corporation site).</p>	<ul style="list-style-type: none"> <li>o Reliability of renewable energy</li> <li>o Increased capacity for additional roof top solar</li> <li>o Underground feeders where possible where no existing overhead lines (combination may be okay, if possible)</li> </ul>
Broome Chamber of Commerce and Industry members (102 attendees)	17 April 2024	Business After Hours event: Project presentation and Q&A session	The project was discussed, and methods for seeking more information or providing feedback communicated	Nothing further
Shire of Broome	17 January 2024	Shire meeting	Confidentially shared preliminary flora and fauna survey results and preferred sites	Acknowledged and recorded
	19 March 2024	Shire meeting	Discussion of planning advice - design to take into consideration visual amenity, set back from road and screening.	
	14 May 2024	Shire Council workshop	Request to engage early with the community Undergrounding of network connection preferred, particularly within townsite	
Yawuru PBC Board including Elders	15 May 2024	Meeting Letter	Work with Traditional Owners to build capacity and/or broker joint-venture opportunities with capacity partners in the delivery of renewable energy.	Commence discussions about community participation models and Heritage Protection Agreement

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Stakeholder	Date	Type of consultation	Stakeholder comments/issue/topic raised	Outcomes/ Response
	23 May 2024 20 February 2025 13 March 2025	Yawuru Law Boss meeting to discuss cultural heritage surveys and Environmental surveys Meeting	Discussion of project sites	
2024 Kimberley Economic Forum delegates (150 attendees)	28-30 August 2024	Regional economic development event – project presentation and brochure handout	Query regarding other towns and communities in the Kimberley being considered for decarbonisation	Additional towns in the Kimberley are being considered for decarbonisation
Broome Senior High School	15 July 2024	Email inquiry	Query around rooftop solar	Rooftop solar response as above
Broome small business owner and business account holder	20 September 2023	Letter	Request for renewable energy in Broome. Requested that no further new gas fields, fracking, gas processing plants or any other retrograde step in that direction should be taken.	Acknowledged and recorded
	20 September 2023	Community information session	Enquiry about where gas for Broome is sourced	Horizon Power purchases energy from an Independent Power Producer through a Power Purchase Agreement.
Argyle Pastoral	20 November 2023	Email inquiry	Request to explore more reliable, renewable and lower cost energy solutions	Acknowledged and recorded

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Stakeholder	Date	Type of consultation	Stakeholder comments/issue/topic raised	Outcomes/ Response
DBCA	12 July 2024	Email inquiry	<p>The following advice was provided by DBCA regarding Priority Flora recorded during the GHD (2024) survey related to this referral:</p> <ul style="list-style-type: none"> <li>• <i>Polymeria</i> sp. Broome, <i>Terminalia kumpaja</i>, <i>Acacia monticola</i> × <i>tumida</i> var. <i>kulparn</i> while priority species, are all widely distributed within the West Kimberley. While damage to populations of species that are data deficient is preferably avoided until their status can be clarified, their wide distribution does mean the species is not at immediate risk from limited local development.</li> <li>• <i>Jacquemontia</i> sp. Broome and <i>Glycine pindanica</i> are all restricted to the Dampier Peninsula and as such an effort should be made to avoid damage to local populations of this species.</li> <li>• <i>Corymbia paractia</i> is restricted to Broome and its immediate geographical vicinity and is limited to approximately 1000 known plants in the wild despite extensive survey effort. Individuals of this species should not be interfered with."</li> </ul>	Information used to advise this referral
EPA	17 September 2024	Pre-referral meeting	<p>EPA indicated a high degree of interest in the minimisation of clearing via community solar supply. They could not advise if the Proposal required referral or not.</p> <p>EPA asked that the referral include an assessment of solar panels on birds.</p>	<p>Horizon Power made the decision to refer the Proposal and have included an impact assessment of solar panels on birds.</p> <p>Horizon Power has prepared an EMP for submission with the referral.</p> <p>Significant impacts to Bilbies has been assessed.</p>

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Stakeholder	Date	Type of consultation	Stakeholder comments/issue/topic raised	Outcomes/ Response
			<p>EPA requested that Environmental Management Plans (EMPs) be submitted with the referral and these should be outcomes based.</p> <p>EPA are interested in Bilby critical habitat and that an offset would be required if a significant impact is expected.</p> <p>EPA expressed that a wind farm in Broome rather than a solar farm would have impacts on migratory bird pathways.</p>	<p>Horizon Power made the decision to discount a wind farm option and proceed with a solar farm.</p>

## 5 Object and principles of the EP Act

Section 4A of the EP Act establishes the objectives and principles of the Act in accordance with the EPA’s Statement of Environmental Principles, Factors and Objectives (EPA, 2023a). This section describes how each of the five principles of the EP Act have been applied to the Proposal (Table 5-1).

*Table 5-1 Object and principles of the EP Act*

Principle	Consideration
<p><b>1. The precautionary principle</b></p> <p>Where there are threats of serious irreversible damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.</p> <p>In the application of the precautionary principle, decisions should be guided by:</p> <ul style="list-style-type: none"> <li>careful evaluation to avoid, where practicable, serious or irreversible damage to the environment; and</li> <li>an assessment of the risk-weighted consequences of various options.</li> </ul>	<p>Horizon Power has used existing environmental data and commissioned field studies within and adjacent to the DE to assess the environmental values and potential impacts of the Proposal, including:</p> <ul style="list-style-type: none"> <li>Flora and vegetation</li> <li>Terrestrial fauna.</li> </ul> <p>Horizon Power will commission Aboriginal cultural heritage surveys of the DE to confirm Aboriginal cultural heritage values. These will be carried out with the support of Yawuru Traditional Owners.</p> <p>Potential impacts have been identified and described under each preliminary key environmental factor. Information gathered during baseline studies has informed the environmental impact assessment and has reduced uncertainty surrounding predicted impacts.</p> <p>Horizon Power has consulted with key stakeholders (in particular the Yawuru Traditional Owners) early in the Proposal design to select a location and develop a design and footprint with the smallest environmental impact. Ongoing consultation with key stakeholders is planned as the Proposal enters the detailed design phase.</p> <p>Horizon Power has planned and designed the Proposal to avoid, where possible, serious or irreversible damage to the environment. The design characteristics take engineering, environmental, social investigations and stakeholder consultation into account. This will continue to be considered as the detail design develops.</p> <p>Horizon Power has applied the EPA’s mitigation hierarchy when developing mitigation measures for the Proposal. As far as practicable, Horizon Power intends to avoid direct impact to significant environmental and Aboriginal cultural heritage values within the DE, by delineating avoidance areas where disturbance is prohibited without approval by Horizon Power’s Manager of Sustainability. Clearing of native vegetation will be minimised where possible.</p>

Principle	Consideration
<p><b>2. The principle of intergenerational equity</b></p> <p>The present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations.</p>	<p>The Proposal will preserve the health, diversity and productivity of the environment by minimising disturbance of remnant native vegetation and fauna habitat through use of existing disturbed areas and flexible Proposal design. The Proposal seeks to avoid Aboriginal cultural heritage sites, maintaining heritage for the benefit of future generations.</p> <p>The Proposal is estimated to reduce annual emission from the supply of electrical power by up to 50,000 tonnes of CO<sub>2</sub>e per annum compared to the existing Broome power station. If the FES were to operate for 20 years, this would equate to a reduction of up to one million tonnes of CO<sub>2</sub>e. The Proposal will ensure security of energy supply to Broome after the expiry of the PPA. The Proposal is targeting higher renewables and a reduction in emissions.</p>
<p><b>3. The principle of the conservation of biological diversity and ecological integrity</b></p> <p>Conservation of biological diversity and ecological integration should be a fundamental consideration.</p>	<p>Baseline studies have identified and confirmed the range and condition of the environment within and surrounding the Proposal. There are patches of native vegetation within the Survey Area which are more biologically diverse and have high ecological integrity (i.e. Relict dune system dominated by extensive stands of Minyjuru (Mangarr - <i>Sersalisia sericea</i>) PEC). To ensure the Proposal avoids impacts to the PEC, it has been removed from the DE.</p> <p>Horizon Power has sought to preserve remnant biodiversity where possible by minimising clearing of native vegetation through use of existing disturbed areas and flexible Proposal design.</p>
<p><b>4. Principles relating to improved valuation, pricing, and incentive mechanisms</b></p> <p>Environmental factors should be included in the valuation of assets and services.</p> <p>The polluter pays principle – those who generate pollution and waste should bear the cost of containment, avoidance or abatement.</p> <p>The users of goods and services should pay prices based on the full life cycle costs of providing goods and services, including the use of natural resources and assets and the ultimate disposal of any waste.</p> <p>Environmental goals, having been established, should be pursued in the most cost-effective way, by establishing incentive structures, including market mechanisms, which benefit and/or minimise costs to develop their own solutions and responses to environmental problems.</p>	<p>Horizon Power acknowledges the need for improved valuation, pricing and incentive mechanisms and endeavours to pursue these principles when appropriate. For example, environmental factors have been considered in the planning and design of the Proposal, and there has been (and will continue to be) a strong focus on avoiding significant environmental and heritage values, and minimising clearing of native vegetation.</p> <p>Impacts on flora, vegetation, terrestrial fauna, inland waters and social surrounds have been assessed and mitigation measures proposed giving regard to the EPA’s mitigation hierarchy.</p> <p>Horizon Power accepts that the cost of the Proposal must include measures to mitigate environmental impacts. These requirements will be incorporated into the overall Proposal costs.</p>

Principle	Consideration
<p><b>5. The principle of waste minimisation</b></p> <p>All reasonable and practicable measures should be taken to minimise the generation of waste and its discharge into the environment.</p>	<p>The Proposal facilitates the reduction of GHG emissions in Broome.</p> <p>Management strategies will be implemented to ensure the generation of waste during the construction phase is minimised. All construction and maintenance activities will be carried out with a focus on waste minimisation.</p>
<p><b>Description of how the object of the EP Act has been considered</b></p> <p>The object of the EP Act is to protect the environment of the State, having regard to the EP Act principles. The Proposal's predicted outcomes have been considered in relation to the environmental principles and the EPA's environmental objectives for each key environmental factor.</p> <p>Mitigation of environmental impacts from this Proposal have been assessed through a hierarchy of avoid, minimise, rehabilitate and offset environmental impacts. This hierarchy is achieved primarily through changes in Proposal design to avoid and minimise impacts and development and implementation of management measures for construction and operation. Horizon Power considers the measures undertaken to reduce the Proposal's environmental and social impacts, will ensure that the object of the EP Act has been considered satisfactorily.</p>	

## 6 Environmental factors and objectives

Environmental factors are those parts of the environment that may be impacted by a Proposal (EPA, 2023a). The EPA has 14 environmental factors, organised into five themes (Sea, Land, Water, Air and People) as detailed in Table 6-1, which allow for a systematic approach to organising environmental information for the purpose of impact assessment. Each of the 14 environmental factors has an associated objective which is used to determine whether the potential environmental impacts of a Proposal or scheme may be significant. The EPA environmental factors and objectives, and their relevance to the proposed changes, are summarised in Table 6-1.

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*Table 6-1 WA EPA Environmental Factors and their relevance to the Proposal*

Theme	Factor	Objective	Relevance to Proposal	Addressed in Referral	Key Environmental Factor?
<b>Sea</b>	Benthic Communities and Habitats	To protect benthic communities and habitats so that biological diversity and ecological integrity are maintained.	The DE is located approximately 0.4 km from the coastline at the closest point, however, the Proposal will be confined to the DE and is not expected to have any impacts on sensitive coastal or marine environments.	No	No
	Coastal Processes	To maintain the geophysical processes that shape coastal morphology so that the environmental values of the coast are protected.		No	No
	Marine Environmental Quality	To maintain the quality of water, sediment and biota so that environmental values are protected.		No	No
	Marine Fauna	To protect marine fauna so that biological diversity and ecological integrity are maintained.		No	No
<b>Land</b>	Flora and Vegetation	To protect flora and vegetation so that biological diversity and ecological integrity are maintained.	The Proposal will require the clearing of up to 265.1 ha (of which 4.6 ha is already cleared land) and Priority flora species. This factor has been assessed in Section 6.1.	Yes	Yes
	Landforms	To maintain the variety and integrity of significant physical landforms so that environmental values are protected.	Distinctive, unique or important landforms are not present within the DE. A significant landform (relic dune system) associated with the Minyjuru PEC was recorded outside of the DE within the Survey Area. All activities for the Proposal will be limited to the DE and therefore significant impacts to this landform are not expected.	No	No

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Theme	Factor	Objective	Relevance to Proposal	Addressed in Referral	Key Environmental Factor?
	Subterranean Fauna	To protect subterranean fauna so that biological diversity and ecological integrity are maintained.	<p>No suitable habitat for subterranean fauna is known to occur within the DE.</p> <p>Digging for the Proposal is estimated to a depth of up to:</p> <ul style="list-style-type: none"> <li>• 5 m for infrastructure footings</li> <li>• 2.5 m for internal electrical cabling and gas piping</li> <li>• 2 m for an underground network connection /2.5 m for poles for an overhead network connection</li> <li>• 3 m for geotechnical pits</li> <li>• 25 m for boreholes for soil and geotechnical investigations.</li> </ul> <p>As the groundwater depth is variable in the surrounding area and the maximum probable groundwater level in the DE is 4.5 m (Landcorp, 2009), groundwater may be encountered during construction of the Proposal. If groundwater is encountered and dewatering is required, the risk of impacts from excessive drawdown related to the Proposal is low given the short-term nature of the construction period, and the negligible water requirements during the operational phase of the Proposal. Once dewatering activities have ceased groundwater is expected to recover to pre-impact level with no long-term effects on the environment.</p> <p>No significant impacts to subterranean fauna are expected for the Proposal.</p>	No	No
	Terrestrial Environmental Quality	To maintain the quality of land and soils so that environmental values are protected.	<p>The DE is within an area of extremely low probability of occurrence of Acid Sulfate Soils (ASS) (Fitzpatrick et al., 2011).</p> <p>Adjacent to the network connection route portion of the DE, there is a high probability of occurrence of ASS in intertidal and extratidal flats (Fitzpatrick et al., 2011).</p> <p>The DE overlaps and is adjacent to contaminated sites (DWER, 2025). The Proposal has a potential to disturb ASS, land erosion and contamination of soil, however significant impacts are not considered likely and this factor has been assessed in Section 6.5.</p>	Yes	No

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Theme	Factor	Objective	Relevance to Proposal	Addressed in Referral	Key Environmental Factor?
	Terrestrial Fauna	To protect terrestrial fauna so that biological diversity and ecological integrity are maintained.	The Proposal may clear up to 2651. Ha, of which 244.9 ha is habitat for significant fauna species. This factor has been assessed in Section 6.2.	Yes	Yes
<b>Water</b>	Inland Waters	To maintain the hydrological regimes and quality of groundwater and surface water so that environmental values are protected.	No permanent water bodies or drainage lines are located within the DE. The depth to groundwater in the area surrounding the DE is estimated to be between 2.1 m to 32 m below ground level (Landcorp, 2009 and Talis, 2023). The southern portion of the network connection route is located in close proximity to the Dampier Creek, and the Roebuck Bay wetland is located less than 20 m east of the DE (DBCA, 2018). Roebuck Bay is also associated with a Ramsar wetland which is located approximately 7 km east of the DE (DBCA, 2017). This factor has been assessed in Section 6.5.	Yes	Yes
<b>Air</b>	Air Quality	To maintain air quality and minimise emissions so that environmental values are protected.	Air quality impacts (i.e. dust) will be transient and of a short duration (only during clearing and construction). Dust emissions will be addressed via standard management measures. Significant impacts to air quality are not considered likely and this factor has been assessed in Section 6.5.	Yes	No
	GHG Emissions	To reduce net greenhouse gas emissions in order to minimise the risk of environmental harm associated with climate change	The Proposal is unlikely to exceed the 100,000 tonnes CO <sub>2</sub> e of Scope 1 or 2 greenhouse gas emissions per annum threshold defined in the Environmental Factor Guideline (EPA, 2024). The Proposal has the potential to reduce emissions by up to 50,000 tonnes CO <sub>2</sub> e per annum compared with the existing Broome power station. If the FES were to operate for 20 years, this would equate to a reduction of up to one million tonnes of CO <sub>2</sub> e. Significant impacts in relation to GHG are not considered likely and this factor has been assessed in Section 6.5.	Yes	No

PROTECTED

Theme	Factor	Objective	Relevance to Proposal	Addressed in Referral	Key Environmental Factor?
People	Social Surroundings	To protect social surroundings from significant harm.	The Proposal will have a permanent impact on visual amenity of the DE and surrounds, as well as temporary impacts on amenity during clearing and construction (i.e. dust, noise and vibrations). The location and extent of Aboriginal cultural heritage values within the DE will be confirmed during an Aboriginal cultural heritage survey with the support of Yawuru Traditional Owners. Horizon Power is committed to avoiding direct impacts to all known Aboriginal cultural heritage. This factor has been assessed in Section 6.4.	Yes	Yes
	Human Health	To protect human health from significant harm.	No human health impacts are expected. No radiation emissions will result from the Proposal. Significant impacts to human health are not expected as a result of the Proposal.	No	No

## 6.1 Environmental Factor - Flora and Vegetation

The EPA’s objective for flora and vegetation is ‘*To protect flora and vegetation so that biological diversity and ecological integrity are maintained*’ (EPA, 2016a).

### 6.1.1 Relevant policy and guidance

Table 6-2 provides consideration of how the relevant EPA policy and guidance, and additional State and Commonwealth guidance, have been applied to the assessment of impacts to flora and vegetation.

*Table 6-2 Policy and guidance for environmental factor flora and vegetation*

<b>Relevant policy and guidance</b>	<b>Explain how the EPA policy and guidance has been considered</b>
Environmental Factor Guideline Flora and Vegetation (EPA, 2016a)	The Proposal considers the mitigation hierarchy; direct and indirect impacts; implications of cumulative impacts; predicted residual impacts; feasibility of management approaches.
Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016b)	Surveys and assessments for the Proposal have been undertaken to a standard consistent with the guidance.
Environmental Guidance for Planning and Development, Guidance Statement No. 33 (EPA, 2008)	Naturally vegetated areas have been protected as much as practicable as the Proposal design has been developed.
Environmental Protection (Clearing of Native Vegetation) Regulations 2004 (Clearing Regulations)	Native vegetation clearing to be approved under Part IV EP Act, rather than being exempt under the Regulations.
Priority Ecological Communities for Western Australia Version 35 (DBCA, 2023)	Surveys and assessments for the Proposal have identified Priority Ecological Communities consistent with the definitions.
Conservation codes for Western Australia Flora and Fauna (DBCA, 2019)	Surveys and assessments for the Proposal have identified significant flora and fauna consistent with the WA conservation codes.

6.1.2 Receiving environment

6.1.2.1 Surveys and studies

Horizon Power commissioned a detailed (single season) flora and vegetation survey to gain an understanding of the flora and vegetation values within and surrounding the DE. The survey was undertaken in accordance with relevant EPA guidance.

The vegetation and flora survey within the DE is outlined in Table 6-3 with the extent of survey coverage shown on Figure 2-4. Three sites and two network connection route options were surveyed in Broome, referred to as the Survey Area. The Survey Area was 988.9 ha in total.

The Survey Area covers a larger area than the DE as the DE was selected to avoid environmental constraints identified in the biological survey where possible (see Figure 2-3).

*Table 6-3 Summary of flora and vegetation surveys conducted within and surrounding the Proposal*

Survey/Report	Details
Kimberly IRP: Biological Survey (GHD, 2024) IBSA-2024-0323	<p><b>Scope:</b> Detailed (single season) flora and vegetation survey, including a desktop assessment and field survey. Three sites were surveyed in Broome, with Site F being relevant to the Proposal. This survey was undertaken in accordance with EPA Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016b).</p> <p>The survey mapped the vegetation types and condition and recorded the presence of Priority flora. Field survey methods involved a combination of high intensity quadrat sampling and traversing the Survey Area by foot. Quadrats were conducted within the Survey Area to describe the broad-scale vegetation and physical features. There were 18 quadrats and 5 relevés across the three Broome sites.</p> <p><b>Survey dates:</b> 6 to 12 February and 6 to 12 March 2024.</p> <p><b>Survey Area:</b> The GHD (2024) Survey Area in Broome covered 988.9 ha.</p>

Horizon Power also reviewed a number of flora and vegetation surveys completed for other projects in the surrounding region, to obtain regional context and inform the survey effort for this Proposal. The most relevant surveys reviewed are summarised in Table 6-4, including the key findings applicable to this Proposal.

*Table 6-4 Summary of relevant flora and vegetation surveys reviewed in vicinity of Proposal*

Survey/Report	Author	Date	Key findings relevant to Proposal
Broome Asparagus Biological Assessment	Aecom	2017	<ul style="list-style-type: none"> <li>Recorded 365 individuals of <i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028) approximately 13 km east of the DE</li> </ul>
Cape Leveque Road Upgrade Biological Survey	Biota Environmental Sciences	2018	<ul style="list-style-type: none"> <li>Recorded 742 individuals of <i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028), of which 730 are within 250 m of the DE, and the</li> </ul>

Survey/Report	Author	Date	Key findings relevant to Proposal
			<p>furthest record is approximately 15 km north of the DE</p> <ul style="list-style-type: none"> <li>Recorded 368 individuals of <i>Polymeria</i> sp. Broome (K.F. Kenneally 9759) within 20 km of the DE, of which 93 were within 250 m of the DE</li> <li>Recorded 73 individuals of <i>Corymbia paractia</i> within 250 m of the DE</li> </ul>
LandCorp Broome Motorplex Environmental Site Investigation	GHD	2016	<ul style="list-style-type: none"> <li>Recorded one individual of <i>Glycine pindanica</i> within 1 km east of the DE</li> <li>Recorded 9,940 individuals of <i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028) within 1 km east of the DE</li> </ul>
Broome Regional Resource Recovery Park Detailed Flora and Vegetation Assessment	Spectrum Ecology	2020	<ul style="list-style-type: none"> <li>Recorded 715 individuals of <i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028) within 1 km east of the DE</li> <li>Recorded 14 individuals of <i>Corymbia paractia</i> within 1 km east of the DE</li> </ul>

### 6.1.2.2 Regional biogeography

The Proposal is located within the Dampierland bioregion and Pindanland subregion as described by IBRA. The Pindanland subregion comprises sandplains and it is a fine-textured sand-sheet with subdued dunes and includes the paleodelta of the Fitzroy River. The vegetation is described primarily as pindan. It is the coastal, semi-arid, north-western margin of the Canning Basin (McKenzie and Nay, 2003).

Broadscale (1:250,000) pre-European vegetation mapping (Beard, 2013) indicates that the DE intersects one Vegetation Association (Table 6-5 and Figure 6-1). This vegetation association is characterised as pindan woodland: *Acacia* thicket with Eucalypt woodland over spinifex *Acacia tumida*, *Eucalyptus tectifera*, *Corymbia grandifolia*, *Triodia pungens* and *T. bitextura*. Vegetation Association 750 is well retained above the Commonwealth and State Government targets of 30% of pre-European extent, which reflects the limited agricultural and urban development of the Dampierland Bioregion.

Table 6-5 Vegetation Associations within the DE

Vegetation Association	Scale	Pre-European extent (ha)	Current extent (ha)	% Remaining
Vegetation Association 750	State: WA	1,231,155.50	1,225,687.52	99.56
	IBRA Bioregion: Dampierland	1,229,182.16	1,225,280.52	99.68
	IBRA Subregion: Pindanland	1,221,734.45	1,217,843.72	99.68
	LGA: Shire of Broome	1,110,599.36	1,110,131.18	99.96

The Proposal overlaps the following land systems (Figure 2-5):

- Yeeda System: Red sandplains supporting pindan vegetation with dense acacia shrubs, scattered bloodwood and grey box trees and curly spinifex and ribbon grass.

## PROTECTED

- Wanganut System: Sandplains and linear dunes supporting pindan woodlands with acacias and bloodwoods and curly spinifex- ribbon grass, and broad low-lying swales supporting bloodwood-grey box woodlands with curly spinifex-ribbon grass.
- Carpentaria System: Coastal plains, extensive bare mud flats, associated sandy margins and minor dunes, saline sands and muds, supporting paperbark thickets, samphire shrublands and fringing mangrove forests.

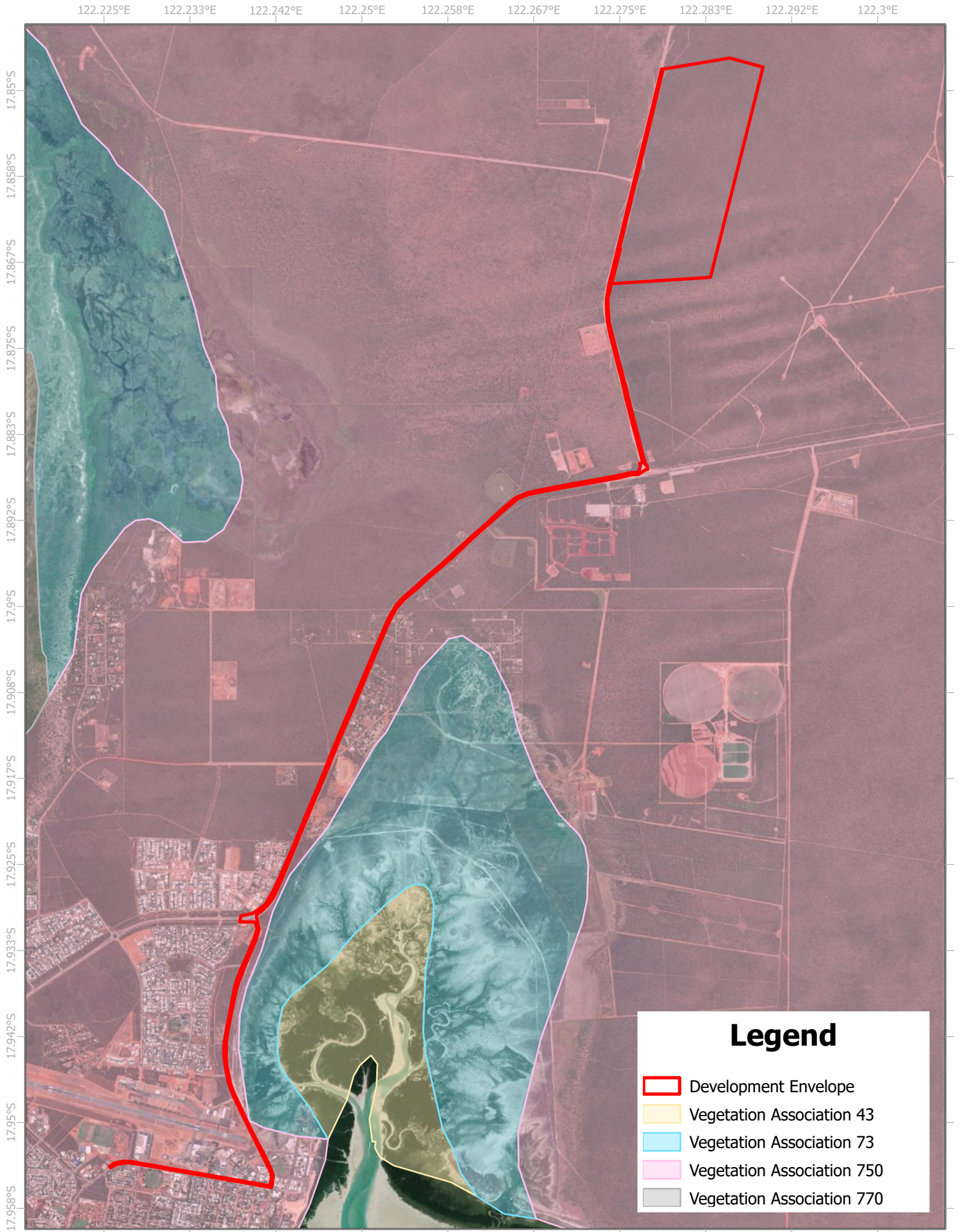


Figure 6-1 | Vegetation Associations within the vicinity of the Development Envelope



0 0.75 1.5 3  
Kilometers  
Scale: 1:50,000



6.1.2.3 Vegetation

*Types and condition*

The 271.3 ha DE comprises native vegetation representing three vegetation types (GHD, 2024). Areas that are not considered native vegetation have been modified with significant changes to the vegetation structure and no longer represent an intact vegetation type. These include areas of scattered natives over weeds, landscaped areas and planted gardens, cleared road verge and drains with regrowth of native forbs and grasses or cleared land (GHD, 2024). Development of the Proposal requires permanent clearing of up to 265.1 ha within the DE (of which 241.0 ha is native vegetation). Table 6-6 provides a summary of the vegetation types within the DE and Figure 6-2 shows the distribution of the vegetation types.

The GHD (2024) survey also recorded vegetation condition across the DE. The vegetation condition ranges from Excellent to Completely Degraded with the majority of the vegetation in Excellent condition (GHD, 2024). Degraded or Completely Degraded vegetation is associated with areas of scattered natives over weeds, landscaped areas and planted gardens, cleared road verge and drains with regrowth of native forbs and grasses. Areas of Excellent condition contained large continuous areas of pindan (GHD, 2024). Table 6-7 provides a summary of the vegetation condition within the DE and Figure 6-3 shows the distribution of the vegetation conditions.

*Table 6-6 Mapped vegetation types within the DE*

Vegetation type	Vegetation description	Vegetation Extent within DE (ha)	Vegetation Extent within DE to be cleared (ha)
VT05	Variable from low open forest to open woodland ( <i>Corymbia greeniana</i> , <i>C. zygophylla</i> and/or <i>C. flavescens</i> ) with <i>Acacia eriopoda</i> or <i>A. eriopoda</i> x <i>tumida</i> var. <i>tumida</i> (tree form or occasionally shrub form where more recently burnt) and scattered <i>Acacia colei</i> var. <i>colei</i> on pindan plains and dunes of very low relief.	245.7	239.5
VT07	Low open forest of <i>Eucalyptus tectifica</i> and * <i>Azadirachta indica</i> over <i>Melaleuca cajuputi</i> subsp. <i>cajuputi</i> , <i>Melaleuca glomerata</i> , <i>Lysiphyllum cunninghamii</i> and <i>Acacia colei</i> var. <i>colei</i> on clay dampland.	0.6	0.6
VT08	Sparse trees of <i>Avicennia marina</i> subsp. <i>marina</i> and ? <i>Ceriops australis</i> over a sparse low samphire shrubland of <i>Tecticornia ?pergranulata</i> subsp. <i>elongata</i> , <i>Neobassia astrocarpa</i> and <i>Sesuvium portulacastrum</i> subsp. <i>portulacastrum</i> on tidal mudflats.	0.9	0.9
Scattered natives over weeds	Occasional native tree/shrubs over weed/native herbs dominated understorey on road verges.	1.9	1.9

Vegetation type	Vegetation description	Vegetation Extent within DE (ha)	Vegetation Extent within DE to be cleared (ha)
Landscaped areas and planted gardens	Landscaped areas and planted gardens, street trees (including <i>Adansonia gregorii</i> ) and verge plantings	2.0	2.0
Cleared road verge and drains with regrowth of native forbs	Regularly cleared/graded road verges, drains and infrastructure corridors that support regrowth of native forbs and grasses	15.6	15.6
Cleared	Areas devoid of native vegetation, such as tracks and historically cleared areas.	4.6	4.6
<b>TOTAL</b>		<b>271.3</b>	<b>265.1</b>

Table 6-7 Mapped vegetation condition within the DE

Vegetation Condition	Vegetation condition extent within DE (ha)	% of DE	Vegetation condition extent within DE to be cleared (ha)	% of clearing area
Excellent	236.3	87.1	230.1	86.8
Very Good	1.1	0.4	1.1	0.4
Good	3.6	1.3	3.6	1.4
Degraded	5.3	2.0	5.3	2.0
Completely Degraded	25.0	9.2	25.0	9.4
<b>TOTAL</b>	<b>271.3</b>	<b>100</b>	<b>265.1</b>	<b>100</b>

### *Significant ecological communities*

The Survey Area intersects with the following PEC or TEC occurrences (or their buffers) (GHD, 2024):

- Minyjuru (*Sersalisia sericea*) Dune System Community (Priority 1)
- Roebuck Bay Mudflats (Vulnerable)
- Kimberley Vegetation Association No. 73 (Priority 3)
- Monsoon Vine Thickets of Dampier Peninsula (Endangered).

No State or Commonwealth listed TECs or DBCA listed PECs were recorded within the DE (GHD, 2024). One Priority 1 PEC was identified in the Survey Area by the GHD (2024), located approximately 15 m south of the DE at its closest point. The PEC is the Relict dune system dominated by extensive stands of Minyjuru (Mangarr - *Sersalisia sericea*). As shown in Figure 2-4, this PEC has been excluded from the DE and will not be impacted by the Proposal and will therefore not be described further.

### *Other significant vegetation*

Within the DE, none of the vegetation types represent significant vegetation as categorised by the EPA (2016b) including vegetation with a restricted distribution, historical impacts from threatening processes, a role as a refuge or providing an important function required to maintain ecological integrity of a significant ecosystem. The recorded vegetation types are widespread outside the DE (GHD, 2024).

VT07 and VT08 are considered to be riparian vegetation and occur in small patches within the network connection route section of the DE. There is 1.5 ha of riparian vegetation within the DE to be cleared (as shown in Table 6-6 and Figure 6-4).

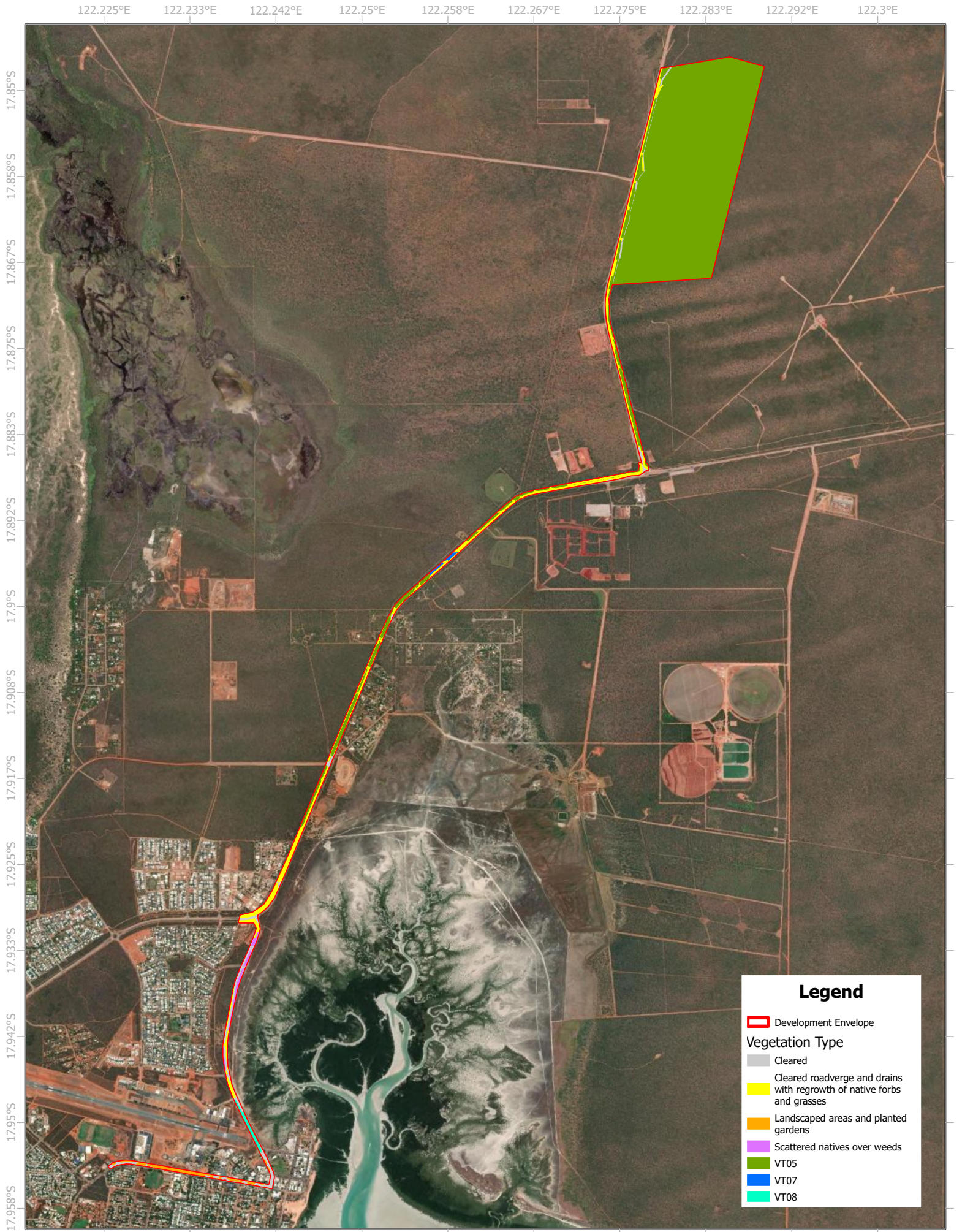


Figure 6-2 | Vegetation Types within the Development Envelope



0 0.75 1.5 3 Kilometers

Scale: 1:50,000



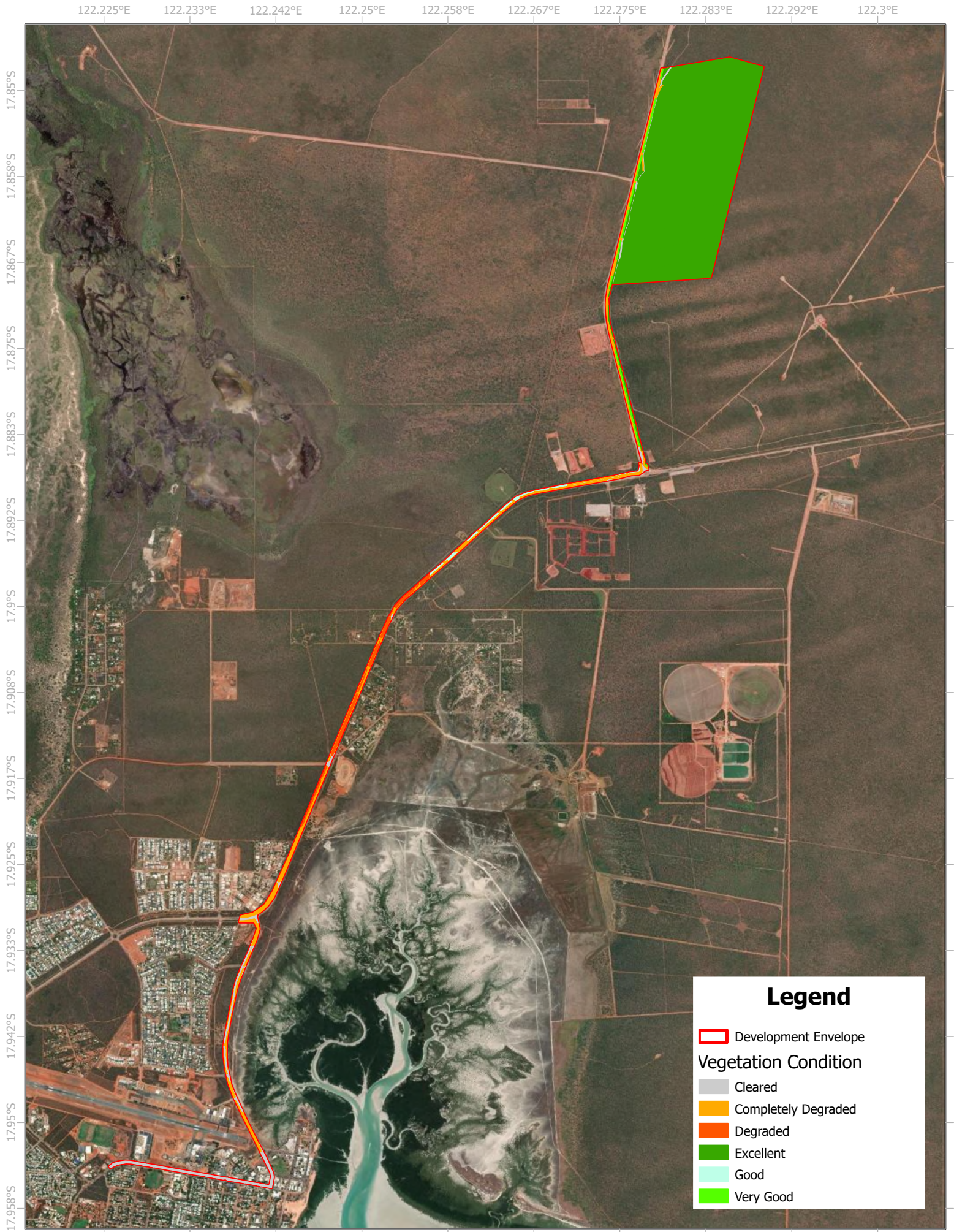


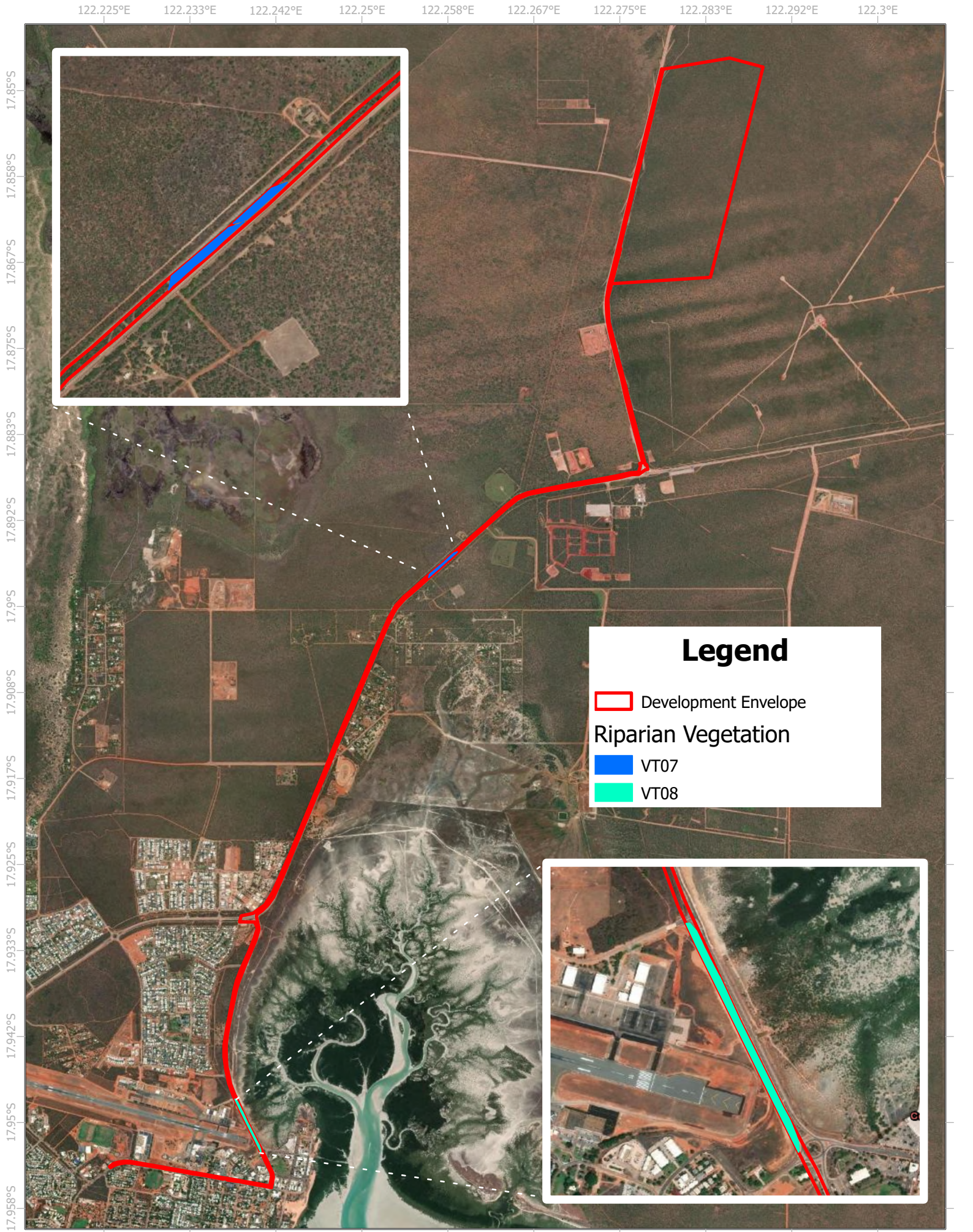
Figure 6-3 | Vegetation Condition within the Development Envelope



0 0.75 1.5 3 Kilometers

Scale: 1:50,000

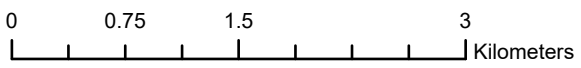




**Legend**

- Development Envelope
- Riparian Vegetation**
- VT07
- VT08

Figure 6-4 | Riparian Vegetation within the Development Envelope



Scale: 1:50,000



#### 6.1.2.4 Flora

##### *Flora diversity*

Across the wider Survey Area (defined in Section 6.1.2.1), a total of 174 vascular flora species from 48 families and 118 genera (including subspecies and variants) were recorded (GHD, 2024). The dominant plant families were Fabaceae, Poaceae and Malvaceae, with *Acacia*, *Corymbia* and *Aristida* the most frequently recorded genera. A total of 39 taxa were tentatively identified (nine to genus level, 30 to species level) due to insufficient material for identification (such as flowers/fruit, or due to insect damage). Of the flora species recorded, 92% were native taxa (GHD, 2024).

##### *Introduced flora*

A total of 14 introduced flora taxa were recorded in the Survey Area (GHD, 2024):

- *Azadirachta indica*
- *Calotropis gigantea*
- *Cenchrus biflorus*
- *Cenchrus ciliaris*
- *Cynodon ?dactylon*
- *Digitaria ciliaris*
- *Distimake dissectus* var. *dissectus*
- *Leucaena leucocephala*
- *Mesosphaerum suaveolens*
- *Ocimum basilicum*
- *Passiflora foetida* var. *hispida*
- *Stylosanthes hamata*
- *Stylosanthes scabra*
- *Urochloa trichopus*.

*Azadirachta indica* is a Declared Pest under the *Biosecurity and Agriculture Management Act 2007* (BAM Act) and was well established in vegetation along the network connection route section of the DE (GHD, 2024).

##### *Significant flora*

The EPBC Act Protected Matters Search Tool (PMST), NatureMap and DBCA Threatened and Priority flora databases identified the presence/potential presence of 11 significant flora taxa within a 20 km buffer of the Survey Area (GHD, 2024).

No EPBC Act or BC Act listed Threatened flora taxa were recorded within the DE during the GHD (2024) survey. Four DBCA-listed Priority species were recorded within the DE (Figure 6-5):

- *Glycine pindanica* (P3) – 11 known individuals within the DE, all of which are proposed to be cleared
- *Jacquemontia* sp. Broome (A.A. Mitchell 3028) (P1) – 25 known individuals within the DE. An avoidance area has been established around 21 of the individuals, therefore 4 individuals are proposed to be cleared

- *Polymeria* sp. *Broome* (K.F. Kenneally 9759) (P3) – 190 known individuals within the DE, all of which are proposed to be cleared
- *Corymbia* ?*paractia* (P2) – 33 known individuals within the DE, all of which are proposed to be cleared.

Three additional DBCA-listed Priority species were recorded within the Survey Area (Figure 2-4), and therefore may occur within the DE:

- *Terminalia kumpaja* (P3)
- *Bonamia oblongifolia* (P3)
- *Acacia monticola* x *tumida* var. *kulparn* (P3).

### ***Glycine pindanica* (Priority 3)**

*Glycine pindanica* is a prostrate creeper, with mauve, purplish-mauve or blue flowers that appear from February to April in the wet season, if rain persists flowers can occur until June (Tindale and Craven, 1993). The species has a restricted distribution around Broome and the Dampier Peninsula (Western Australian Herbarium, 2024). It is known to occur on the red-brown pindan soils, where it can be locally common (Tindale and Craven, 1993).

The total number of individuals of *Glycine pindanica* in WA is unknown. There are 78 records in WA on the Atlas of Living Australia (ALA) database. Additionally, DBCA Data (WA Herbarium and Threatened and Priority Flora data)<sup>2</sup> and GHD (2024) survey data have recorded 76 individuals. The LandCorp Broome Motorplex Project also undertook a flora survey in 2016 and recorded one individual of *Glycine pindanica* within 1 km east of the DE (GHD, 2016).

A total of 11 individuals were recorded along the Broome-Cape Leveque Road verge within the DE, all of which are proposed to be cleared. A further 2 individuals were recorded in the Survey Area.

### ***Jacquemontia* sp. *Broome* (A.A. Mitchell 3028) (Priority 1)**

*Jacquemontia* sp. *Broome* (A.A. Mitchell 3028) is a creeping herb to 0.3 m with light mauve flowers (Western Australian Herbarium, 2024). It has previously been recorded from pindan vegetation in the vicinity of Broome and north of Broome near the Quondong Point Road turn-off and near Beagle Bay (Western Australian Herbarium, 2024).

The total number of individuals of *Jacquemontia* sp. *Broome* (A.A. Mitchell 3028) in WA is unknown. There are 9 records in WA on the ALA database. Additionally, DBCA Data (WA Herbarium and Threatened and Priority Flora data)<sup>2</sup> and GHD (2024) survey data have recorded 52 individuals. Flora surveys conducted within the Broome region have also recorded *Jacquemontia* sp. *Broome* (A.A. Mitchell 3028) in high abundances, including:

- Aecom (2017) recorded 365 individuals approximately 13 km east of the DE

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<sup>2</sup> The DBCA data records often provide the count (frequency) in descriptors such as common, occasional and scattered without providing an actual number of plants. For the purposes of this assessment these records have been counted as one individual. As such the estimates are underrepresented with the actual number of individuals expected to be much higher. Therefore, the percent impact calculated is considered to be very conservative.

- Biota Environmental Sciences (2018) recorded 742 individuals, of which 730 are within 250 m of the DE, and the furthest record is approximately 15 km north of the DE
- GHD (2016) recorded 9,940 individuals within 1 km east of the DE
- Spectrum Ecology (2020a) recorded 715 individuals within 1 km east of the DE.

A total of 25 individuals were recorded from six locations within the VT05 vegetation type in the DE. An avoidance area has been established around 21 of the individuals within the DE, therefore only 4 are proposed to be cleared. One further individual was recorded in the Survey Area.

### ***Polymeria* sp. Broome (K.F. Kenneally 9759) (Priority 3)**

*Polymeria* sp. Broome (K.F. Kenneally 9759) has a scattered distribution from approximately 90 km south of Broome to North of Broome (Dampier Peninsula, 13 km west southwest of Beagle Bay) with disjunct occurrences between Derby and Fitzroy Crossing and 75 km east northeast of Sandfire (Western Australian Herbarium, 2024). It has trailing stems and occurs in pindan and on road verges in Broome, with flowering recorded in May (Kenneally et al. 1996). Similar in appearance to the common *Polymeria ambigua*, differing in having only two, rather than four to eight stigmatic branches (Kenneally et al. 1996).

The total number of individuals of *Polymeria* sp. Broome (K.F. Kenneally 9759) in WA is unknown. There are 16 records in WA on the ALA database. Additionally, DBCA Data (WA Herbarium and Threatened and Priority Flora data)<sup>2</sup> and GHD (2024) survey data have recorded 525 individuals. Biota Environmental Sciences (2018) also undertook a flora survey and recorded 368 individuals within 20 km of the DE, of which 93 were within 250 m of the DE.

A total of 190 individuals were recorded within the DE, all of which are proposed to be cleared. Additional individuals were tentatively identified as *Polymeria* ?sp. Broome (K.F. Kenneally 9759), as they were not flowering at the time of collection. A further 256 individuals were recorded in the Survey Area.

### ***Corymbia* ?*paractia* (Priority 1)**

*Corymbia paractia* is a tree or mallee that grows to 8 m, restricted to a narrow coastal zone in the Broome area where beach dunes merge into pindan soils, immediately behind the dunes (Kenneally et al. 1996; Centre for Australian National Biodiversity Research 2020). *Corymbia paractia* is considered to be a stabilised hybrid between *Corymbia dendromerinx* and *C. flavescens*, exhibiting intermediate features between these two species (Hill and Johnson 1995). Specimens collected from the vicinity of a known record of *Corymbia paractia* were tentatively identified as *Corymbia* ?*paractia* due to sterile material, with individuals recorded from the network connection route section of the DE.

The total number of individuals of *Corymbia paractia* in WA is unknown. There are 77 records in WA on the ALA database. Additionally, DBCA Data (WA Herbarium and Threatened and Priority Flora data)<sup>2</sup> and GHD (2024) survey data have recorded 63 individuals. Flora surveys conducted within the Broome region have also recorded *Corymbia paractia* in high abundances, including:

- Biota Environmental Sciences (2018) recorded 73 individuals within 250 m of the DE

- Spectrum Ecology (2020a) recorded 14 individuals within 1 km east of the DE.

A total of 33 individuals were recorded within the DE, all of which are proposed to be cleared. A further 3 individuals were recorded in the Survey Area.

### ***Terminalia kumpaja* (Priority 3)**

*Terminalia kumpaja* is restricted, with records on red pindan soils, known populations around the vicinity of Wallal Downs and Madora Station, and more scattered populations present on old-sand dune systems on the Dampier Peninsular around Broome (WA Herbarium, 2024).

The total number of individuals of *Terminalia kumpaja* in WA is unknown. There are 30 records in WA on the ALA database. Additionally, DBCA Data (WA Herbarium and Threatened and Priority Flora data)<sup>2</sup> and GHD (2024) survey data have recorded 44 individuals.

A total of 15 individuals were recorded from two locations within the Survey Area, with the closest being approximately 79 m from the DE. Consultation with DBCA did not identify this species as significant to the region (Godfrey, 2024).

### ***Bonamia oblongifolia* (Priority 3)**

*Bonamia oblongifolia* has a sparse distribution (WA Herbarium, 2024).

The total number of individuals of *Bonamia oblongifolia* in WA is unknown. There are 10 records in WA on ALA database. Additionally, DBCA Data (WA Herbarium and Threatened and Priority Flora data)<sup>2</sup> and GHD (2024) survey data have recorded 11 individuals.

A total of 5 individuals were recorded within the Survey Area, with the closest being approximately 360 m from the DE. Consultation with DBCA did not identify this species as significant to the region (Godfrey, 2024).

### ***Acacia monticola x tumida* var. *kulparn* (Priority 3)**

*Acacia monticola x tumida* var. *kulparn* has a distribution extending from Eighty-mile Beach, with records in the vicinity of Broome, along Cape Leveque to One Arm Point and east of Derby.

The total number of individuals of *Bonamia oblongifolia* in WA is unknown. There are 2 records in WA on the ALA database. Additionally, DBCA Data (WA Herbarium and Threatened and Priority Flora data)<sup>2</sup> and GHD (2024) survey data have recorded 31 individuals.

A total of 1 individual was recorded within the Survey Area, with the closest being approximately 5.5 km from the DE. Consultation with DBCA did not identify this species as significant to the region (Godfrey, 2024).

### *Range extensions*

A total of three species recorded within the Survey Area represent range extensions from the species current known range (GHD, 2024). These taxa include:

- *Neptunia ?major* (south-western most record, not previously recorded from the Dampier Peninsula)


- *Gyrocarpus americanus* subsp. *americanus* (south-westernmost record, not previously recorded from the Dampier Peninsula)
- *Melaleuca ?glomerata* (not previously recorded from the Dampier Peninsula).

#### 6.1.2.5 Conservation and Environmentally Sensitive Areas





There are no DBCA managed lands within the DE (DBCA, 2024a). However, approximately 310 m east and 705 m west of the DE, there is land protected under the CALM Act for the purpose of “conservation, recreation and traditional and customary Aboriginal use and enjoyment” for the Yawuru Native Title Holders Aboriginal Corporation RNTBC. The Yawuru Nagulagun / Roebuck Bay Marine Park is also approximately 140 m east of the DE.

The network connection route portion of the DE overlaps an ESA that is associated with the buffer of the Roebuck Bay mudflats TEC. This TEC is listed as Vulnerable under the BC Act and is not listed as Threatened under the EPBC Act. The DE only overlaps the buffered extent of this TEC, and does not overlap the mapped boundary of the TEC. This TEC was also not recorded in the DE during the GHD (2024) survey and will not be impacted by the Proposal and will therefore not be discussed further. The conservation areas within the vicinity of the DE are shown in Figure 2-6.

# Legend

 Development Envelope

## Significant Flora

-  *Corymbia ?paractia*
-  *Glycine pindanica*
-  *Jacquemontia* sp. Broome (A.A. Mitchell 3028)
-  *Polymeria* sp. Broome (K.F. Kenneally 9759)

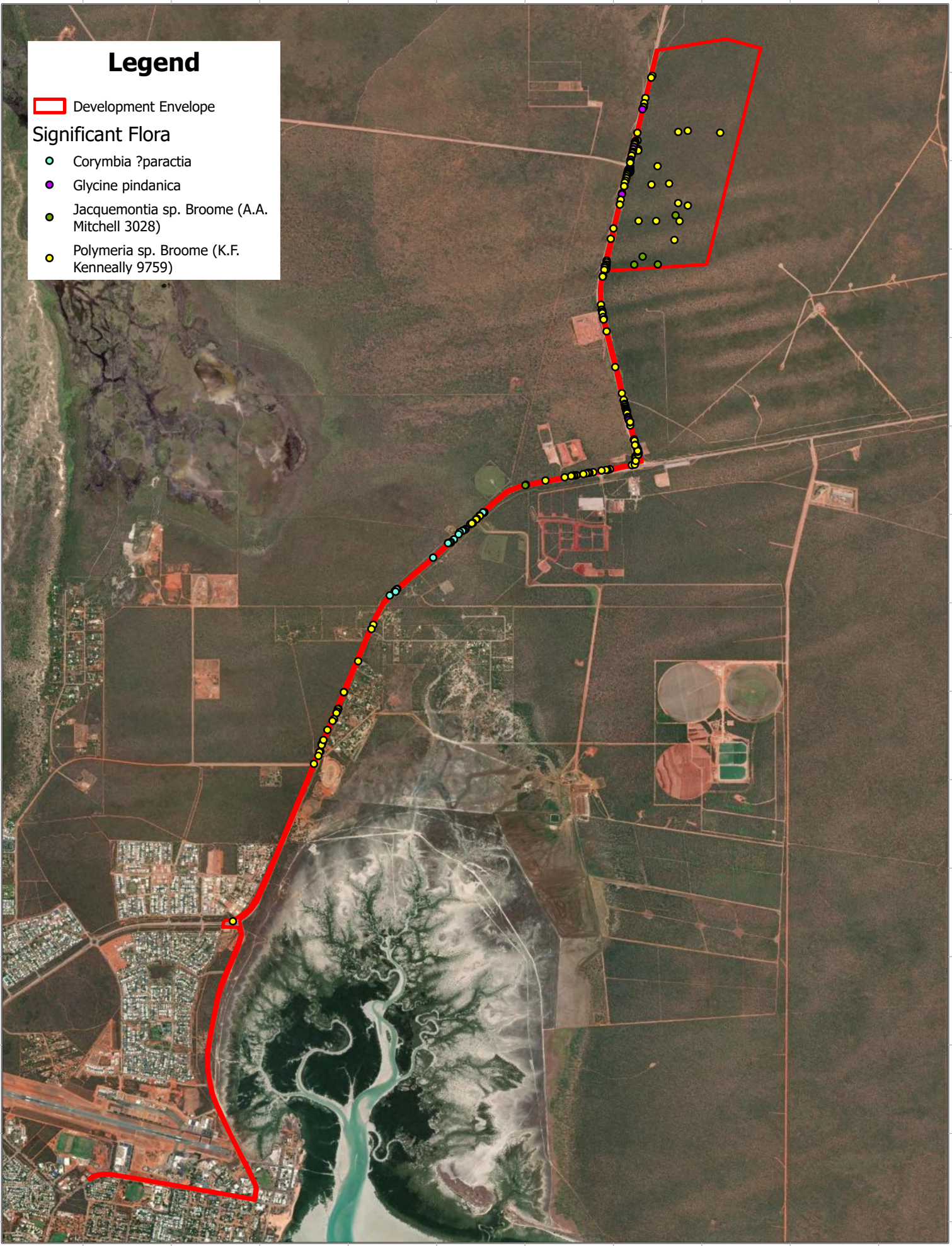


Figure 6-5 Significant Flora within the Development Envelope



0 0.75 1.5 3 Kilometers

Scale: 1:50,000



### 6.1.3 Potential impacts

#### 6.1.3.1 Direct impacts

The Proposal will result in the loss of flora and vegetation as a result of clearing required during construction. However, as the final design of the Proposal is not yet confirmed, this referral ensures a conservative approach by assessing the impact of clearing all of the vegetation within the DE (except for the avoidance areas).

Operation of the Proposal will not directly impact flora and vegetation as maintenance activities will use existing roads or access tracks established during construction.

Direct impacts to vegetation and flora during construction of the Proposal includes:

- Native vegetation:
  - Clearing of up to 241.0 ha of native vegetation including:
    - Native vegetation mapped across Vegetation Association 750
    - Native vegetation across three vegetation types
  - Clearing of up to 1.5 ha of riparian vegetation within VT07 and VT08.
- Significant flora:
  - Clearing of up to 11 known individuals of *Glycine pindanica* (Priority 3)
  - Clearing of up to 4 known individuals of *Jacquemontia* sp. Broome (A.A. Mitchell 3028) (Priority 1)
  - Clearing of up to 190 known individuals of *Polymeria* sp. Broome (K.F. Kenneally 9759) (Priority 3)
  - Clearing of up to 33 known individuals of *Corymbia ?paractia* (Priority 2)
- Flora that represent a range extension:
  - Clearing of individuals of *Neptunia ?major*
  - Clearing of individuals of *Gyrocarpus americanus* subsp. *Americanus*
  - Clearing of individuals of *Melaleuca ?glomerata*.

The Proposal will avoid impacts to the Relict dune system dominated by extensive stands of Minyjuru (Mangarr - *Sersalisia sericea*) PEC.

As the Priority flora species *Terminalia kumpaja*, *Bonamia oblongifolia*, and *Acacia monticola x tumida* var. *kulparn* were not recorded in the DE, there will be no direct impacts to these species as a result of the Proposal.

#### 6.1.3.2 Indirect impacts

Construction and operation of the Proposal may result in the following indirect impacts to vegetation and flora:

- Introduction and/or the spread of weeds
- Alteration of fire regimes
- Alteration to hydrological flows
- Generation of dust
- Spills or leaks of chemicals, hydrocarbon and/or hazardous materials.

#### 6.1.3.3 Cumulative impacts

Impacts to aspects of flora and vegetation in proximity to the Proposal were identified through the collation of information from NVCPs and environmental referrals for other Proposals within the Pindanland subregion (Table 6-8). Proposals used to inform cumulative

impacts to flora and vegetation include the Broome Regional Resource Recovery Park Landfill Development and NVCPs (refer to Section 9 for an overview of the cumulative impact assessment methodology).

Table 6-8 Cumulative impacts to flora and vegetation from other Proposals

Aspect / Project	Broome Future Energy System Current Proposal	Broome Regional Resource Recovery Park – Landfill Development	Native Vegetation Clearing Permits	Cumulative impact
<b>Proponent</b>	Horizon Power	Shire of Broome	Multiple	N/A
<b>Proposed Project commencement</b>	2029	2025	N/A	N/A
<b>Description</b>	Construct a FES in Broome.	Develop a Class III landfill, leachate management system and asbestos monocell at the Regional Resource Recovery Park.	Approved NVCPs.	N/A
<b>Location</b>	Shire of Broome Approximately 10 km northeast of Broome, with the network connection route following Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street to the existing substation in Broome.	Shire of Broome Lot 550 on the Broome-Cape Leveque Rd, 12 km northeast of the Broome town centre.	Within the Pindanland subregion of the Dampierland region.	N/A
<b>Proposed native vegetation clearing</b>	Up to 241.0 ha of native vegetation.	Up to 79.9 ha of native vegetation.	Up to 874.3 ha of native vegetation.	Combined removal of up to 1,195.2 ha native vegetation in varying condition (including 874.3 ha associated with approved NVCPs).

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Aspect / Project	Broome Future Energy System Current Proposal	Broome Regional Resource Recovery Park – Landfill Development	Native Vegetation Clearing Permits	Cumulative impact
<b>Vegetation associations affected</b>	Up to 241.0 ha of native vegetation associated with Vegetation association 750.	Up to 79.9 ha of native vegetation associated with Vegetation association 750.	Up to 152.5 ha of native vegetation associated with Vegetation association 750.	Combined removal of up to 473.4 ha of native vegetation associated with Vegetation association 750.
<b>Riparian vegetation affected</b>	Up to 1.5 ha of riparian vegetation	N/A	N/A	N/A
<b>Significant flora affected</b>	<ul style="list-style-type: none"> <li>Up to 11 known individuals of <i>Glycine pindanica</i></li> <li>Up to 4 known individuals of <i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028)</li> <li>Up to 190 known individuals of <i>Polymeria</i> sp. Broome (K.F. Kenneally 9759)</li> <li>Up to 33 known individuals of <i>Corymbia ?paractia</i>.</li> </ul>	<ul style="list-style-type: none"> <li>Up to 657 individuals of <i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028)</li> <li>Up to 6 individuals of <i>Corymbia paractia</i>.</li> </ul>	<ul style="list-style-type: none"> <li>Up to 1 individual of <i>Glycine pindanica</i>.</li> </ul>	<ul style="list-style-type: none"> <li>Combined removal of up to 12 individuals of <i>Glycine pindanica</i></li> <li>Combined removal of up to 661 individuals of <i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028)</li> <li>Combined removal of up to 39 individuals of <i>Corymbia paractia</i>.</li> </ul>
<b>Flora that represent a range extension</b>	<ul style="list-style-type: none"> <li>Clearing of individuals of <i>Neptunia ?major</i></li> <li>Clearing of individuals of <i>Gyrocarpus americanus</i> subsp. <i>Americanus</i></li> <li>Clearing of individuals of <i>Melaleuca ?glomerata</i>.</li> </ul>	N/A	N/A	No cumulative impacts to these flora that represent a range extension are expected.

## 6.1.4 Mitigation

### 6.1.4.1 Construction

The Proposal has been designed to avoid and/or mitigate impacts to flora and vegetation where possible. During the design phase, particular focus has been, and will be, placed on reducing the amount of clearing required for construction.

Avoidance measures considered and incorporated into Proposal planning to date include:

- The DE has been located to avoid impacts to 44.4 ha of the Relict dune system dominated by extensive stands of Minyjuru (Mangarr - *Sersalisia sericea*) PEC
- The DE has been located to avoid impacts to the following listed flora species:
  - Three known individuals of *Corymbia ?paractia*
  - Two known individuals of *Glycine pindanica*
  - 1 known individual of *Jacquemontia* sp. Broome (A.A. Mitchell 3028) is outside the DE and an additional avoidance area has been established around 21 individuals of *Jacquemontia* sp. Broome (A.A. Mitchell 3028). Therefore, 22 individuals will be avoided in total
  - 256 known individuals of *Polymeria* sp. Broome (K.F. Kenneally 9759)
  - 1 known individual of *Acacia monticola* x *tumida* var. *kulparn*
  - Five known individuals of *Bonamia oblongifolia*
  - Fifteen known individuals of *Terminalia kumpaja*.

Impacts to flora and vegetation will be minimised and reduced through the following mitigation measures:

- The network connection route follows an existing cleared corridor along Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street, reducing the amount of clearing required for access tracks and network connection.
- Clearing impacts will be further reduced through the detailed design process, including the positioning of solar and BESS facility infrastructure and network connection infrastructure to minimise impacts to vegetation and flora (including Priority flora where possible).
- Network connection infrastructure will avoid riparian vegetation where possible.
- Implementation of the management measures in the EMP (Appendix A) to minimise risks to vegetation and flora from the introduction and/or spread of weeds, alteration of fire regimes, alteration of hydrological flows, generation of dust, spills or leaks of chemicals, hydrocarbon or other hazardous materials, and to provide monitoring during construction.

### 6.1.4.2 Operation

Operational activities associated with the Proposal include operation of the solar and BESS facility and network connection, along with maintenance inspections and repairs. Operation of the Proposal will utilise existing roads and access tracks. The following management measures will be implemented during operation of the Proposal to minimise impacts to flora and vegetation:

- Maintenance and repair activities will be restricted to existing cleared areas where possible

- Access to infrastructure will be through existing access tracks.

6.1.5 Assessment and significance of residual impact

6.1.5.1 Direct impacts

6.1.5.1.1 Loss of native vegetation

**Vegetation associations**

The proposed clearing will not reduce the current extent of Vegetation Association 750 to less than 99.94% of its pre-European extent at a local scale (Shire of Broome) and 99.66% at a regional scale (Dampierland Bioregion) (Table 6-9). Therefore, the reduction in the extent of Vegetation Association 750 as a result of the Proposal is not considered significant at any scale.

*Table 6-9 Impacts to Vegetation Association 750 from the Proposal*

Scale	Pre-European extent (ha)	Current extent (ha)	% of pre-European extent Remaining	Current extent after clearing for the Proposal	% of pre-European extent remaining after clearing for the Proposal
State: WA	1,231,155.50	State: WA	99.56	1,225,446.52	99.54
IBRA Bioregion: Dampierland	1,229,182.16	IBRA Bioregion: Dampierland	99.68	1,225,039.52	99.66
IBRA Subregion: Pindanland	1,221,734.45	IBRA Subregion: Pindanland	99.68	1,217,602.72	99.66
LGA: Shire of Broome	1,110,599.36	LGA: Shire of Broome	99.96	1,109,890.18	99.94

**Vegetation types**

Assessment of the local scale impacts has been determined by using the Department of Primary Industries and Regional Development (DPIRD) Native Vegetation Extent data (DPIRD-005) (DPIRD, 2023) for a 20 km buffer surrounding the Proposal. Within a 20 km buffer excluding offshore areas (91,399.1 ha), there is approximately 88,299.2 ha of native vegetation. The Proposal will require permanent clearing of up to 241.0 ha of native vegetation, representing three vegetation types in Completely Degraded to Excellent condition. The clearing would result in an overall 0.3% reduction in the extent of native vegetation within a 20 km radius. The Proposal will reduce the extent of native vegetation within a 20 km radius to approximately 88,058.2 ha. Therefore, the proposed vegetation clearing is not considered significant within a local and regional context.

The vegetation present within the DE is not considered locally restricted and is well represented locally. The majority of the vegetation within the DE is within VT05.

### Significant vegetation

Overall, the Proposal will result in the permanent clearing of up to 241.0 ha of native vegetation, representing three vegetation types (Figure 6-2). Two vegetation types, VT07 and VT08 (totalling 1.5 ha) within the DE are considered to represent riparian vegetation (Figure 6-4). VT07 is in Good condition and is associated with a small patch of open *Eucalyptus tectifica* clay dampland with vines of *\*Passiflora foetida* over a tussock grassland of *Chrysopogon pallidus*, *Eragrostis speciosa* over a sparse sedgeland of *Cyperus conicus* (GHD, 2024). VT08 is in Completely Degraded condition and is associated with mangrove tidal mudflats with sparse trees of *Avicennia marina* subsp. *marina* and sparse samphire shrubland (GHD, 2024). The clearing of up to 1.5 ha of riparian vegetation is conservative (worst case to allow for currently unknown constraints). VT07 and VT08 are located alongside existing roads and in Degraded or worse condition (Figure 6-4), Horizon Power will locate infrastructure in already cleared areas where possible for the network connection route, therefore limiting clearing of riparian vegetation. The clearing of riparian vegetation required for the Proposal is not considered to be significant, nor will the clearing significantly impact the function of the dampland or mangrove tidal mudflats.

The Proposal will avoid impacts to the Relict dune system dominated by extensive stands of Minyjuru (Mangarr - *Sersalisia sericea*) PEC (Figure 2-3). No direct impacts to the Yawuru Native Title Holders Aboriginal Corporation RNTBC protected area and the Yawuru Nagulagun / Roebuck Bay Marine Park will occur as a result of the Proposal.

#### 6.1.5.1.2 Loss of significant flora

The Proposal will not impact any Threatened flora taxa listed under the EPBC Act or the BC Act. Implementation of the Proposal will result in impacts to the following four Priority flora species (Figure 6-5):

- Up to 11 known individuals of *Glycine pindanica* (Priority 3)
- Up to 4 known individuals of *Jacquemontia* sp. Broome (A.A. Mitchell 3028) (Priority 1)
- Up to 190 known individuals of *Polymeria* sp. Broome (K.F. Kenneally 9759) (Priority 3)
- Up to 33 known individuals of *Corymbia ?paractia* (Priority 2).

#### ***Glycine pindanica* (Priority 3)**

There are 78 records of *Glycine pindanica* in WA reported on the ALA database, 63 records reported in the DBCA database<sup>3</sup>, and the GHD (2024) survey recorded a further 13 individuals in the Survey Area, showing individuals to be occasional to common. Advice from DBCA noted that the species is restricted to the Dampier Peninsular and that effort should be made to avoid this species (Godfrey, 2024). The DE has been located to avoid two individuals recorded during the GHD (2024) survey, however up to 11 known individuals of *Glycine pindanica* will be cleared. These individuals are located in the narrow network

<sup>3</sup> The DBCA data records often provide the count (frequency) in descriptors such as common, occasional and scattered without providing an actual number of plants. For the purposes of this assessment these records have been counted as one individual. As such the estimates are underrepresented with the actual number of individuals expected to be much higher. Therefore, the percent impact calculated is considered to be very conservative.

connection route adjacent to the road and are unable to be avoided. The Proposal has been designed to minimise impacts to *Glycine pindanica* individuals as far as possible. As the design develops, impacts to the species will be further reduced and avoided where possible.

Clearing of *Glycine pindanica* individuals is not expected to significantly impact the population of the species at a local or regional scale, given the relative abundance of records of the species across WA and the likely underrepresentation of individual counts from DBCA data.

### ***Jacquemontia* sp. Broome (A.A. Mitchell 3028) (Priority 1)**

There are 9 records of *Jacquemontia* sp. Broome (A.A. Mitchell 3028) reported on the ALA database, 26 records reported in the DBCA database<sup>3</sup>, and the GHD (2024) survey recorded a further 26 individuals in the Survey Area. Additionally, Flora surveys conducted within the Broome region have recorded *Jacquemontia* sp. Broome (A.A. Mitchell 3028) in high abundances, including:

- Aecom (2017) recorded 365 individuals approximately 13 km east of the DE
- Biota Environmental Sciences (2018) recorded 742 individuals, of which 730 are within 250 m of the DE, and the furthest record is approximately 15 km north of the DE
- GHD (2016) recorded 9,940 individuals within 1 km east of the DE
- Spectrum Ecology (2020a) recorded 715 individuals within 1 km east of the DE.

The high abundances of the species recorded in the Broome region indicates that the species is common in the region. Advice from DBCA noted that the species is restricted to the Dampier Peninsular, and that effort should be made to avoid this species (Godfrey, 2024). The DE has been located to avoid individuals of *Jacquemontia* sp. Broome (A.A. Mitchell 3028) recorded during the GHD (2024) survey. This involved excluding one individual from the DE and establishing an avoidance area around an additional 21 individuals. Therefore, up to four known individuals within the solar and BESS facility portion of the DE will be cleared for the Proposal. The Proposal has been designed to minimise impacts to the species as far as possible. As the design develops, impacts to the species will be further reduced and avoided where possible.

Clearing of *Jacquemontia* sp. Broome (A.A. Mitchell 3028) individuals is not expected to significantly impact the population of the species at a local or regional scale, given the relative abundance of records of the species across WA and the likely underrepresentation of individual counts from DBCA data.

### ***Polymeria* sp. Broome (K.F. Kenneally 9759) (Priority 3)**

There are 16 records of *Polymeria* sp. Broome (K.F. Kenneally 9759) reported on the ALA database, 79 records reported in the DBCA database<sup>3</sup>, and the GHD (2024) survey recorded a further 446 individuals in the Survey Area. Additionally, the Biota Environmental Sciences (2018) survey recorded 368 individuals within 20 km of the DE, of which 93 were within 250 m of the DE.

The high abundances of the species recorded in the Broome region shows that the species is common. Advice from DBCA noted that *Polymeria* sp. Broome (K.F. Kenneally 9759) is

widely distributed in the West Kimberley and that the species is not at immediate risk from local limited development, such as the Proposal (Godfrey, 2024).

The DE has been located to avoid individuals of *Polymeria* sp. Broome (K.F. Kenneally 9759) recorded during the GHD (2024) survey. This involved excluding 256 individuals from the DE. Up to 190 known individuals will be cleared for the Proposal. The majority of these individuals are located in the narrow network connection route adjacent to the road and are unable to be avoided. The Proposal has been designed to minimise impacts to the species as far as possible. As the design develops, impacts to the species will be further reduced and avoided where possible.

Clearing of *Polymeria* sp. Broome (K.F. Kenneally 9759) individuals is not expected to significantly impact the population of the species at a local or regional scale, given the relative abundance of records of the species across WA and the likely underrepresentation of individual counts from DBCA data.

### ***Corymbia ?paractia* (Priority 1)**

There are 77 records of *Corymbia paractia* reported on the ALA database, 27 records reported in the DBCA database<sup>3</sup>, and the GHD (2024) survey recorded a further 36 individuals in the Survey Area. Additionally, flora surveys conducted within the Broome region have recorded *Corymbia paractia* in high abundances, including:

- Biota Environmental Sciences (2018) recorded 73 individuals within 250 m of the DE
- Spectrum Ecology (2020a) recorded 14 individuals within 1 km east of the DE.

The high abundances of the species recorded in the Broome region shows that the species is occasional to common. Advice from DBCA noted that *Corymbia paractia* is restricted to Broome and its immediate geographical vicinity, and the species is limited to approximately 1,000 known plants in the wild (Godfrey, 2024). Godfrey (2024) noted that effort should be made to avoid this species. The DE has been located to avoid individuals of *Corymbia ?paractia* recorded during the GHD (2024) survey. This involved excluding 3 individuals from the DE. Up to 33 known individuals will be cleared for the Proposal. These individuals are located in the narrow network connection route adjacent to the road and are unable to be avoided. The Proposal has been designed to minimise impacts to the species as far as possible. As the design develops, impacts to the species will be further reduced and avoided where possible.

Clearing of *Corymbia ?paractia* individuals is not expected to significantly impact the population of the species at a local or regional scale, given the relative abundance of records of the species across WA and the likely underrepresentation of individual counts from DBCA data.

#### 6.1.5.1.3 Loss of flora that represent a range extension

Implementation of the Proposal will result in impacts to the following three flora species that represent a range extension:

- *Neptunia ?major*
- *Gyrocarpus americanus* subsp. *Americanus*
- *Melaleuca ?glomerata*.

A search of Dandjoo biodiversity data platform (DBCA, 2024b) indicated the following:

- There are greater than 32 recorded locations of *Neptunia major* in the Kimberley, with the closest being approximately 140 km northeast of the DE
- There are greater than 218 recorded locations of *Gyrocarpus americanus* (it did not indicate locations of *Gyrocarpus americanus* subsp. *Americanus*) in the Kimberley, with the closest being within 500 m south of the DE
- There are greater than 36 recorded locations of *Melaleuca glomerata* in the Kimberley, with the closest being greater than 400 km east of the DE.

Based on the data available on Dandjoo biodiversity data platform, further surveys in the Kimberley would likely record additional locations of these species as they seem to be widespread throughout the region. Potential clearing of these species for the Proposal is not likely to result in the species becoming listed as Threatened or Priority species and would not impact biological diversity and ecological integrity of the region.

#### 6.1.5.2 Indirect impacts

##### 6.1.5.2.1 Introduction and/or the spread of weeds

The DE contains and lies adjacent to PECs and other significant vegetation, Priority flora and areas of conservation value that are vulnerable to weed invasion.

Clearing required for the Proposal and increased movement of vehicles, including earth moving machinery, may result in the establishment of new populations of weed species. *Azadirachta indica* is a Declared Pest under the BAM Act and was well established in vegetation along the network connection route section of the DE (GHD, 2024). While only one Declared Pest occurs within the DE, an additional 13 introduced flora species were recorded within the Survey Area. There is the potential for weed numbers to increase by the spread of windblown seeds from existing nearby populations, the spread of weed seeds from the movement of soil during earthworks, or weed seeds entering the DE through contaminated vehicles, earthmoving equipment or construction materials.

Weed impacts may be cumulative in response to other impacts to native vegetation, such that they may exacerbate the decline or change in native vegetation composition or disrupt ecological processes.

Vehicle hygiene, weed control and ground disturbance procedures will be implemented for the Proposal. These mitigation measures include, but are not limited to, ensuring that vehicle access is restricted to designated access roads, and the implementation of a weed monitoring program to minimise the spread of existing weed populations. The implementation of these weed hygiene measures will be conducted in line with the EMP (Appendix A). The management measures included within the EMP are expected to reduce the introduction of weeds into new areas, and therefore, the introduction and/or spread of weeds resulting from the Proposal is not expected to be significant.

##### 6.1.5.2.2 Alteration of fire regimes

A change in fire regimes is often associated with increased human activity, leading to degradation of natural ecosystems. Fire is a major determining factor in affecting species composition. It can cause disturbance of vegetation condition but can also be required for regeneration of some species.

Given the size of the Proposal and its location adjacent to existing infrastructure and roads, the Proposal is not considered likely to alter existing fire regimes in the local area. While there is an increased risk of fire during the construction phase, appropriate management measures will be implemented through the EMP (Appendix A) to minimise this risk. This will include identifying potential ignition sources and/or activities with the potential to lead to fire, and preventative measures. Weed management and the construction of firebreaks will reduce the risk of fires (if caused by the Proposal) spreading to nearby vegetation. Fire is considered manageable and implementation of the Proposal is unlikely to significantly impact existing fire regimes.

#### 6.1.5.2.3 Alteration to hydrological flows

Vegetation communities within dampland (VT07) and mangrove tidal mudflats (VT08) may be partially reliant on the intermittent, ephemeral flows, which may recharge shallow aquifers and provide a water source to sustain deeper-rooted vegetation during the year. Disruption to environmental flows has potential to reduce the recharge to aquifers and result in impacts to condition or survival of deeper-rooted vegetation. Vegetation communities within dampland (VT07) and mangrove tidal mudflats (VT08) are also vulnerable to impacts from erosion and sediment deposition from the alteration to hydrological flows.

Due to the lack of drainage lines in the DE and the lack of substantial alteration to drainage patterns (as assessed in Section 6.3.5), the Proposal is not expected to reduce environmental flows in the DE. Additional management measures to reduce impacts to hydrological flows resulting from the Proposal are included within the EMP (Appendix A).

Overall construction and operational impacts to dampland (VT07) and mangrove tidal mudflats (VT08) from the alteration of hydrological flows are expected to be incidental and/or localised and not expected to result in significant impacts to flora and vegetation.

#### 6.1.5.2.4 Generation of dust

Fugitive dust may be generated from vehicle movements, clearing and construction activities. Dust deposition has the potential to smother and kill Priority flora identified within the DE and native vegetation, as well as lead to an increase in occurrence of plant pests and diseases. The majority of dust is expected to be generated during the construction phase. Operation of the Proposal will be restricted to cleared land and is not expected to produce significant dust emissions. Implementation of the EMP will ensure that potential dust sources are managed appropriately. Therefore, the Proposal will not cause significant impacts to flora and vegetation from dust emissions given the transient and localised nature of dust generation mostly limited to the construction phase.

#### 6.1.5.2.5 Spills or leaks of chemicals, hydrocarbon and/or hazardous materials

Spills or leaks of chemicals, hydrocarbons and/or hazardous materials have the potential to impact surrounding vegetation communities.

Only common substances listed below will be used during construction and operation of the Proposal:

- Diesel - construction machinery and vehicles, stored in bulk tanks or IBCs

- Lubricating oils and hydraulic fluids - construction machinery and vehicles, stored in drums or small tanks, includes engine oil and gear box oil.
- Coolants and antifreeze - for inverters/BESS, usually glycol-based, stored in sealed containers
- Fire suppression agents - for BESS units (typically pre-installed), clean agent gases or aerosol systems, not typically handled on-site but stored in sealed units within BESS units
- Cleaning agents and degreasers - low volumes, stored in original packaging
- Battery electrolytes - not handled on-site, sealed within containerised BESS systems.

There is the potential for waste to be generated during construction, however, this waste will be disposed of at an appropriately licenced landfill facility. Management measures that will be implemented during construction to minimise impacts resulting from spills or leaks of chemicals, hydrocarbon and/or hazardous materials are outlined within the EMP (Appendix A).

Overall, construction impacts to surrounding vegetation resulting from the spills or leaks of chemicals, hydrocarbon and/or hazardous materials are expected to be incidental and/or localised and not expected to result in significant impacts to flora and vegetation, including PECs or Priority flora species.

#### 6.1.5.3 Summary of significant residual impacts

Direct and indirect impacts to flora and vegetation associated with the Proposal are not expected to be significant. These impacts can be managed through Horizon Power's mitigation and management measures, and the implementation of the EMP (Appendix A).

#### 6.1.6 Environmental outcome

The Proposal is not expected to result in significant residual impacts to flora and vegetation.

The Proposal requires clearing of up to 241.0 ha of native vegetation, including up to 1.5 ha of riparian vegetation. The Proposal also requires the removal of Priority flora species, including up to 11 known individuals of *Glycine pindanica*, up to 4 known individuals of *Jacquemontia* sp. Broome (A.A. Mitchell 3028), up to 190 known individuals of *Polymeria* sp. Broome (K.F. Kenneally 9759) and up to 33 known individuals of *Corymbia ?paractia*. The Proposal may also clear individuals of *Neptunia ?major*, *Gyrocarpus americanus* subsp. *Americanus* and *Melaleuca ?glomerata*, which are flora species that represent a range extension.

Horizon Power considers that the potential direct and indirect impacts to flora and vegetation (with implementation of the avoidance and minimisation measures proposed) will meet the EPA's objective for flora and vegetation.

Table 6-10 provides a summary of the environmental outcomes of the Proposal relating to flora and vegetation. The clearing extent and impacts to flora and vegetation will be reduced further during the design phase, where possible.

Table 6-10 Environmental outcomes for flora and vegetation

Factor	Flora and vegetation environmental outcomes
Native vegetation	Permanent clearing of no more than 241.0 ha of native vegetation.
Vegetation Associations	Permanent clearing of no more than 241.0 ha of native vegetation within Vegetation Association 750.
Riparian vegetation	Clearing of no more than 1.5 ha of riparian vegetation.
Significant flora	Clearing of no more than: <ul style="list-style-type: none"> <li>• 11 known individuals of <i>Glycine pindanica</i> (Priority 3)</li> <li>• 4 known individuals of <i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028) (Priority 1)</li> <li>• 190 known individuals of <i>Polymeria</i> sp. Broome (K.F. Kenneally 9759) (Priority 3)</li> <li>• 33 known individuals of <i>Corymbia ?paractia</i> (Priority 2).</li> </ul>
Flora that represents a range extension	No clearing of flora that represent a range extension to an extent that the species become listed as Threatened or Priority species and no impact to biological diversity and ecological integrity of the region.
Weeds	No significant introduction or spread of weeds to areas adjacent to the Proposal.
Fire	No significant alteration to fire regimes as a result of the Proposal.
Hydrology	No significant impacts to surrounding vegetation due to alteration to hydrology as a result of the Proposal.
Chemicals, hydrocarbons and hazardous materials	No significant impacts to surrounding vegetation due to chemicals, hydrocarbons and/or hazardous materials spills.

## 6.2 Environmental Factor – Terrestrial Fauna

The EPA’s objective for terrestrial fauna is ‘*To protect terrestrial fauna so that biological diversity and ecological integrity are maintained*’ (EPA 2016c).

### 6.2.1 Relevant policy and guidance

Table 6-11 below provides consideration of how the relevant EPA policy and guidance, and additional State and Commonwealth guidance, has been applied to the assessment of impacts to terrestrial fauna.

*Table 6-11 Policy and guidance for environmental factor terrestrial fauna*

Relevant policy and guidance	Explain how the EPA policy and guidance has been considered
Environmental Factor Guideline: Terrestrial Fauna (EPA, 2016c).	The Proposal considers the mitigation hierarchy; direct and indirect impacts; implications of cumulative impacts; predicted residual impacts; feasibility of management approaches.
Technical Guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA, 2020a).	Surveys and assessments for the Proposal have been undertaken to a standard consistent with the guidance.
Conservation codes for Western Australia Flora and Fauna (DBCAs 2019)	Surveys and assessments for the Proposal have identified significant flora and fauna consistent with the WA conservation codes.
Relevant Commonwealth Recovery Plans, Conservation Advice and/or Threat Abatement Plans	The conservation/ recovery objectives outlined in the Recovery Plans, Conservation Advice and/or Threat Abatement Plans have been assessed.

### 6.2.2 Receiving environment

#### 6.2.2.1 Surveys and studies

Horizon Power commissioned a Targeted and Basic fauna survey to gain an understanding of the terrestrial fauna values within and surrounding the DE. The survey was undertaken in accordance with relevant EPA guidance.

The fauna survey within the DE is outlined in Table 6-12 with the extent of survey coverage shown on Figure 2-3. Three sites and two network connection route options were surveyed in Broome, referred to as the Survey Area. The Survey Area was 988.9 ha in total, as detailed in Section 6.1.2.1. The Survey Area covers a larger area than the DE as the DE was selected to avoid environmental constraints identified in the biological survey where possible (see Figure 2-3).

*Table 6-12 Summary of fauna surveys conducted within and surrounding the Proposal*

Survey/Report	Details
Kimberly IRP: Biological Survey (GHD, 2024) IBSA-2024-0323	<b>Scope:</b> Targeted and Basic fauna survey, including a desktop assessment and field survey. Three sites were surveyed in Broome, with Site F being relevant to the Proposal. This survey was undertaken in accordance with

Survey/Report	Details
	<p>EPA Technical Guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA, 2020a).</p> <p>The survey areas were traversed by foot to identify and describe dominant fauna habitat types present, and their condition, and to assess habitat for significant fauna. Targeted assessments specific for the Bilby (<i>Macrotis lagotis</i>), Northern Brush-tail Possum (<i>Trichosurus vulpecula arnhemensis</i>), Northern Blue tongue Skink (<i>Tiliqua scincoides</i>) and the Northern Coastal Free-Tailed Bat (<i>Ozimops cobourgianus</i>) were undertaken in the Survey Area. The Basic assessment also identified and recorded all fauna occurring in the area at the time of the survey.</p> <p>Remote motion sensitive cameras were deployed in areas of suitable habitat to target fauna of conservation significance including Bilby and Northern Brushtail Possum. SM4<sup>®</sup> and Anabat Swift bat call detectors were set for general bat activity and to target the Northern Coastal free-tailed bat (<i>Ozimops cobourgianus</i>).</p> <p><b>Survey dates:</b> 6 to 12 February and 6 to 12 March 2024.</p> <p><b>Survey Area:</b> The GHD (2024) Survey Area in Broome covered 988.9 ha.</p>

Horizon Power also reviewed a number of fauna surveys undertaken for other projects in the surrounding region, the key findings of survey effort relevant to the Proposal are detailed in Table 6-13.

*Table 6-13 Summary of relevant fauna surveys reviewed in vicinity of Proposal*

Survey/Report	Author	Date	Key findings relevant to Proposal
Broome Asparagus Biological Assessment	Aecom	2017	<ul style="list-style-type: none"> <li>Recorded Bilby evidence in the form of diggings, scats and old burrows and recorded 369.6 ha of potential Bilby habitat in their survey area, which is approximately 13 km east of the DE.</li> </ul>
Cape Leveque Road Upgrade Biological Survey	Biota Environmental Sciences	2018	<ul style="list-style-type: none"> <li>Recorded Bilby evidence in the form of tracks, diggings, active burrows and inactive burrows. There were 196 records of Bilby evidence in total, 11 of which were within 130 m of the DE. The closest active Bilby burrow was approximately 12.7 km north of the DE.</li> </ul>
LandCorp Report for Broome North Development Area Targeted Fauna Survey	GHD	2009	<ul style="list-style-type: none"> <li>Conducted a fauna survey approximately 1.2 km west of the DE and recorded the Northern Brushtail Possum on six occasions.</li> </ul>
Broome Regional Resource Recovery Park Terrestrial Fauna Assessment	Spectrum Ecology	2020	<ul style="list-style-type: none"> <li>Recorded the Northern Coastal Free-tailed Bat multiple times via ultrasonic recorder within 50 m west of the DE.</li> </ul>

Survey/Report	Author	Date	Key findings relevant to Proposal
Water Corporation Mamabulanjin Orchard Flora and Fauna Survey	GHD	2019	<ul style="list-style-type: none"> <li>Recorded Bilby evidence 11 times within 1 km of the DE, 7 of these records were burrows</li> </ul>

#### 6.2.2.2 Fauna habitat

Four fauna habitat types have been mapped across 251.1 ha of the DE, of which 244.9 ha is proposed to be cleared (GHD, 2024). A summary of fauna habitat types present within the DE is detailed in Table 6-14 and shown on Figure 6-6. Degraded and cleared areas cover 20.2 ha of the DE and are considered to be of minimal value to fauna.

Fauna habitats within the DE have low to high habitat value in the context of the surrounding environment. Overall, the habitats contain a diversity of fauna, and all provide habitat for significant fauna species that are present or likely to be present in the local area.

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Table 6-14 Fauna habitats recorded within the DE

Fauna habitat types	Fauna habitat value	Extent within the DE (ha)	Extent within the DE to be cleared (ha)
<p><b>Pindan shrubland</b></p> <p>Variable from low open forest to open woodland (<i>Corymbia greeniana</i>, <i>C. zygophylla</i> and/or <i>C. flavescens</i>) with <i>Acacia eriopoda</i> or <i>A. eriopoda</i> x <i>tumida</i> var. <i>tumida</i> (tree form or occasionally shrub form where more recently burnt) and scattered <i>Acacia colei</i> var. <i>colei</i> on pindan plains and dunes of very low relief.</p> <p>The pindan shrublands support all significant fauna likely to occur in the DE. The habitat was recorded in varying condition, with some areas long unburnt and other areas with a sparser understorey. The <i>Corymbia</i> in the pindan shrubland plain habitat provide significant habitat trees (<i>Corymbia</i>, Eucalyptus, and Boab) for breeding.</p>	<p>Habitat value: High</p> <ul style="list-style-type: none"> <li>• Bilby (critical habitat)</li> <li>• Northern Brush-tail Possum (critical habitat and supporting habitat)</li> <li>• Fork-tailed Swift (supporting habitat)</li> <li>• Yellow-lipped Cave Bat (supporting habitat)</li> <li>• Northern Coastal Free-tailed Bat (critical habitat and supporting habitat)</li> <li>• Bare-rumped Sheathtail Bat (critical habitat and supporting habitat)</li> <li>• Northern Short-tailed Mouse (supporting habitat)</li> <li>• Dampierland Burrowing Snake (supporting habitat)</li> <li>• Dampierland Plain Slider (supporting habitat)</li> <li>• Gouldian Finch (critical habitat)</li> <li>• Grey Falcon (supporting habitat)</li> <li>• Peregrine Falcon (supporting habitat)</li> <li>• Osprey (supporting habitat)</li> <li>• Barn Swallow (supporting habitat).</li> </ul>	<p>245.7</p>	<p>239.5</p>

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Fauna habitat types	Fauna habitat value	Extent within the DE (ha)	Extent within the DE to be cleared (ha)
<p><b>Open Eucalypt dampland</b></p> <p>Low open forest of <i>Eucalyptus tectifica</i> and *<i>Azadirachta indica</i> over <i>Melaleuca cajuputi</i> subsp. <i>cajuputi</i>, <i>Melaleuca glomerata</i>, <i>Lysiphyllum cunninghamii</i> and <i>Acacia colei</i> var. <i>colei</i> over a vineland of *<i>Passiflora foetida</i> over a tussock grassland <i>Chrysopogon pallidus</i>, <i>Eragrostis speciosa</i> over a sparse sedgeland of <i>Cyperus conicus</i> over a low open grassland of <i>Cynodon ?dactylon</i> on clay dampland.</p>	<p>Habitat value: Medium</p> <ul style="list-style-type: none"> <li>• Northern Brush-tail Possum (supporting habitat)</li> <li>• Fork-tailed Swift (supporting habitat)</li> <li>• Northern Coastal Free-tailed Bat (supporting habitat)</li> <li>• Dampierland Burrowing Snake (supporting habitat)</li> <li>• Dampierland Plain Slider (supporting habitat)</li> <li>• Gouldian Finch (supporting habitat)</li> <li>• Osprey (supporting habitat).</li> </ul>	0.6	0.6
<p><b>Sparse mangrove tidal mudflat</b></p> <p>Sparse trees of <i>Avicennia marina</i> subsp. <i>marina</i> and ?<i>Ceriops australis</i> over a sparse low samphire shrubland of <i>Tecticornia ?pergranulata</i> subsp. <i>elongata</i>, <i>Neobassia astrocarpa</i> and <i>Sesuvium portulacastrum</i> subsp. <i>portulacastrum</i> on tidal mudflats.</p>	<p>Habitat value: Low</p> <ul style="list-style-type: none"> <li>• Fork-tailed Swift (supporting habitat)</li> <li>• Northern Coastal Free-tailed Bat (supporting habitat)</li> <li>• Grey Falcon (supporting habitat)</li> <li>• Peregrine Falcon (supporting habitat)</li> <li>• Osprey (supporting habitat).</li> </ul>	0.9	0.9
<p><b>Scattered plantings and native trees</b></p> <p>Planted native <i>Corymbia</i>/<i>Eucalyptus</i> trees over weeds on maintained road verge.</p>	<p>Habitat value: Low</p> <ul style="list-style-type: none"> <li>• Northern Brush-tail Possum (supporting habitat)</li> <li>• Fork-tailed Swift (supporting habitat)</li> <li>• Northern Coastal Free-tailed Bat (supporting habitat)</li> <li>• Dampierland Burrowing Snake (supporting habitat)</li> <li>• Dampierland Plain Slider (supporting habitat)</li> <li>• Osprey (supporting habitat).</li> </ul>	3.9	3.9
<b>Total</b>		<b>251.1</b>	<b>244.9</b>

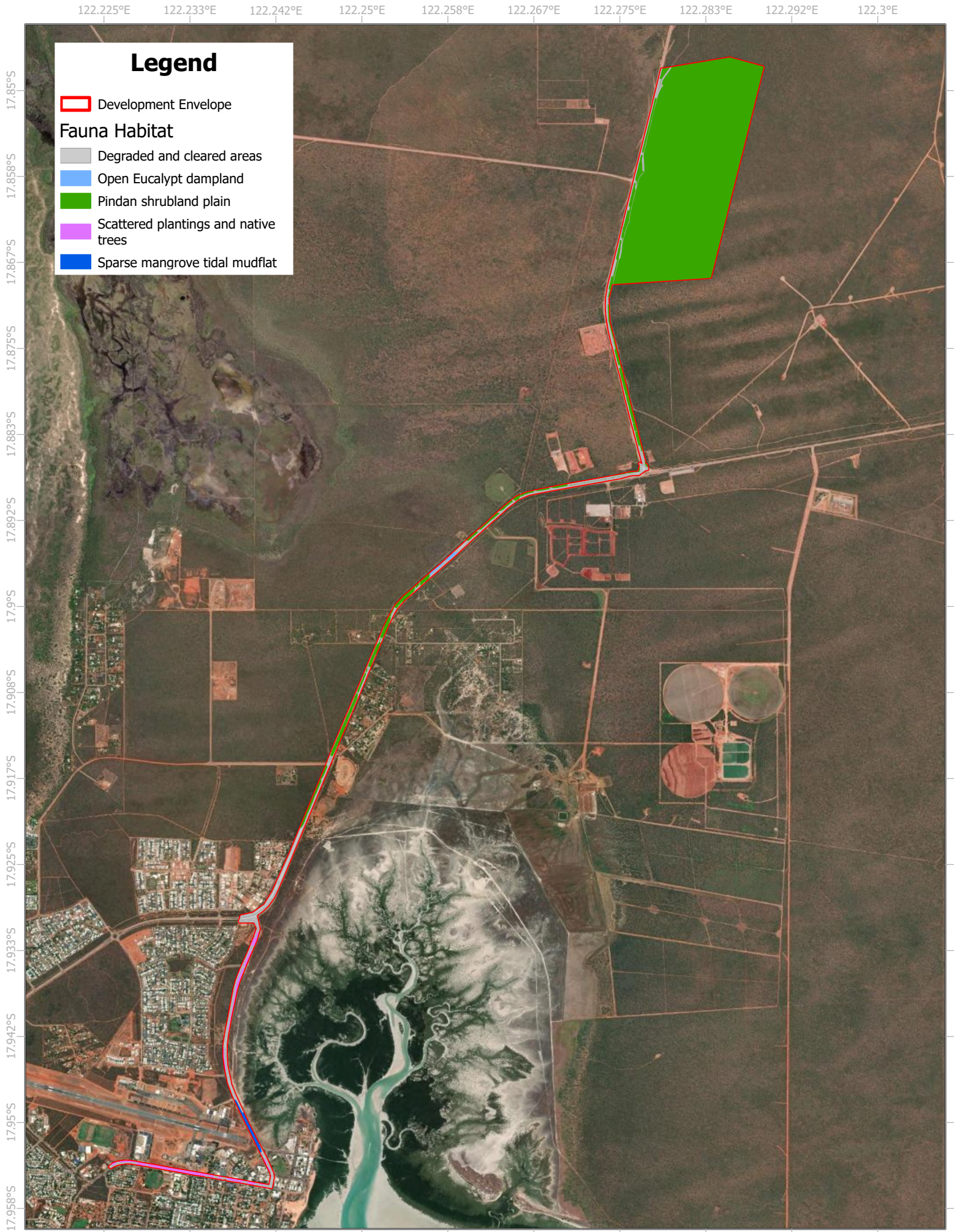


Figure 6-6 Fauna Habitat within the Development Envelope



0 0.75 1.5 3 Kilometers

Scale: 1:50,000



#### 6.2.2.2.1 Habitat linkages

The fauna habitats within the DE are part of a contiguous, largely intact area of remnant vegetation present in Broome. Land within the Broome township has been subject to clearing, but this clearing is minimal and much of the remnant vegetation intact in the local area. Overall, the habitats within the DE are largely contiguous through the local area.

#### 6.2.2.3 Fauna

##### 6.2.2.3.1 Fauna diversity

Across the wider Survey Area (defined in Section 6.2.2.1), a total of 115 fauna species, consisting of 73 birds, 30 reptiles, 3 amphibians and 9 mammals were recorded (GHD, 2024). Of these species recorded, three are introduced species, which included the Dingo (*Canis familiaris*), the Cat (*Felis catus*) and Cattle (*Bos taurus*).

##### 6.2.2.3.2 Significant fauna

Based on the database searches (NatureMap, DBCA database and PMST), GHD (2024) identified 102 significant terrestrial vertebrate taxa as likely to occur or known to be present within 20 km of the Survey Area. These species included:

- 82 bird species - 54 Migratory, 11 Endangered, 11 Vulnerable, two Critically Endangered, two Priority 4, one Priority 3, and one Other Specially Protected Species
- 4 freshwater fish species - one Priority 1, and three Vulnerable
- 9 mammal species – one Endangered, five Vulnerable, and one Priority 2
- 7 reptile species - two Critically Endangered, one Endangered, and one Migratory.

The GHD (2024) survey recorded three conservation significant fauna species within the DE or in close vicinity to the DE (the Bilby, Northern Brushtail Possum and Fork-tailed Swift; Figure 2-3), with an additional 11 species considered likely to occur. The species that are known to occur or are likely to occur in the DE are described in Table 6-15. The conservation significant species that were identified in the GHD (2024) desktop survey, but were deemed unlikely or highly unlikely to occur in the DE are provided in Appendix B. The likelihood of occurrence definitions are also provided in Appendix B.

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Table 6-15 Conservation significant fauna species that are known to occur or are considered likely to occur within the DE

Fauna species	EPBC Act status	BC Act/DBCA status	Likelihood of occurrence	Suitable habitat within the DE
Bilby ( <i>Macrotis lagotis</i> )	Vulnerable	Vulnerable	<p><b>Known to occur</b></p> <p>The Bilby is known to occur locally and evidence was recorded during the GHD (2024) survey within the DE (Figure 6-7). Evidence was recorded in the form of burrows, diggings and scat at nine sites within the DE. Five burrows were recorded within the DE. One of these burrows was active and the remaining were old and inactive. Two of these burrows also had evidence of diggings. There were an additional three sites with Bilby digging evidence (no burrow) within the DE and an additional one site where scat was recorded.</p> <p>Multiple other active and inactive burrows, evidence of diggings and records at camera sites were recorded outside of the DE in the larger Survey Area during the GHD (2024) survey. These records ranged from approximately 3 m to 5.3 km from the DE (Figure 2-3).</p>	<p><b>Critical habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging, breeding, shelter, dispersal (245.7 ha in DE, of which 239.5 ha is proposed to be cleared).</li> </ul>

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Fauna species	EPBC Act status	BC Act/DBCA status	Likelihood of occurrence	Suitable habitat within the DE
<p>Northern Brushtail Possum (<i>Trichosurus vulpecula arnhemensis</i>)</p>	<p>Vulnerable</p>	<p>Vulnerable</p>	<p><b>Known to occur</b></p> <p>The Northern Brushtail Possum was recorded in the Survey Area (GHD 2024) at seven locations outside of the DE (Figure 2-3). The closest records were approximately 15 m east and 315 m east of the DE. The remaining records were greater than 2.4 km from the DE. The evidence of the Northern Brushtail Possum was in the form of one camera siting, scat, claw marks and one dead possum next to the road.</p> <p>There were 694 habitat trees for the Northern Brushtail Possum recorded in the wider Survey Area. 43 of these trees are within the DE and of these, 11 had hollows.</p>	<p><b>Critical habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland (network connection route portion of DE) – foraging, breeding, shelter, dispersal (11.3 ha in DE, all of which is proposed to be cleared).</li> </ul> <p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland (solar and BESS facility portion of DE) – foraging, shelter, dispersal (234.4 ha in DE, of which 228.2 ha of proposed to be cleared)</li> <li>• Open Eucalypt dampland – foraging, shelter, dispersal (0.6 ha in DE, all of which is proposed to be cleared)</li> <li>• Scattered plantings and native trees – foraging, shelter, dispersal (3.9 ha in DE, all of which is proposed to be cleared).</li> </ul>

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Fauna species	EPBC Act status	BC Act/DBCA status	Likelihood of occurrence	Suitable habitat within the DE
Fork-tailed Swift ( <i>Apus pacificus</i> )	Migratory	Migratory	<p><b>Known to occur</b></p> <p>The Fork-tailed swift was recorded in large numbers (150 individuals) during the GHD (2024) survey within 30 m of the DE (Figure 2-3).</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging (245.7 ha in DE, of which 239.5 ha is proposed to be cleared)</li> <li>• Open Eucalypt dampland – foraging (0.6 ha in DE, all of which is proposed to be cleared)</li> <li>• Scattered plantings and native trees – foraging (3.9 ha in DE, all of which is proposed to be cleared)</li> <li>• Sparse mangrove tidal mudflat – foraging (0.9 ha in DE, all of which is proposed to be cleared).</li> </ul>
Yellow-lipped Cave Bat ( <i>Vespadelus douglasorum</i> )	-	Priority 2	<p><b>Likely to occur</b></p> <p>Yellow-lipped Cave Bat calls were recorded on bat-call device during the GHD (2024) survey at two locations within the Survey Area (Figure 2-3). These locations are approximately 2.2 km southeast and 5.3 km east of the DE.</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging, dispersal (245.7 ha in DE, of which 239.5 ha is proposed to be cleared).</li> </ul>

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Fauna species	EPBC Act status	BC Act/DBCA status	Likelihood of occurrence	Suitable habitat within the DE
Northern Coastal Free-tailed Bat ( <i>Ozimops cobourgianus</i> )	-	Priority 1	<p><b>Likely to occur</b></p> <p>Northern Coastal Free-tailed Bat calls were recorded on bat-call device during the GHD (2024) survey at 11 locations within the Survey Area (Figure 2-3). These locations range from approximately 30 m east to 6.2 km east of the DE.</p>	<p><b>Critical habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland (network connection route portion of DE) – foraging, breeding, roosting, dispersal (11.3 ha in DE, all of which is proposed to be cleared).</li> </ul> <p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland (solar and BESS facility portion of DE) – foraging, dispersal (234.4 ha in DE, of which 228.2 ha is proposed to be cleared)</li> <li>• Open Eucalypt dampland – foraging and dispersal (0.6 ha in DE, all of which is proposed to be cleared)</li> <li>• Scattered plantings and native trees – foraging and dispersal (3.9 ha in DE, all of which is proposed to be cleared)</li> <li>• Sparse mangrove tidal mudflat – foraging and dispersal (0.9 ha in DE, all of which is proposed to be cleared).</li> </ul>

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Fauna species	EPBC Act status	BC Act/DBCA status	Likelihood of occurrence	Suitable habitat within the DE
Bare-rumped Sheath-tailed Bat ( <i>Saccolaimus saccolaimus</i> )	Vulnerable	Priority 3	<p><b>Likely to occur</b></p> <p>The Bare-rumped Sheath-tailed Bat calls were recorded on bat-call device during the GHD (2024) survey at 3 locations within the Survey Area (Figure 2-3). These locations were approximately 550 m east, 5.4 km east and 6.3 km east of the DE.</p>	<p><b>Critical habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland (network connection route portion of DE) – foraging, breeding, roosting, dispersal (11.3 ha in DE, all of which is proposed to be cleared).</li> </ul> <p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland (solar and BESS facility portion of DE) – foraging, dispersal (234.4 ha in DE, of which, 228.2 ha is proposed to be cleared).</li> </ul>
Northern Short-tailed Mouse ( <i>Leggadina lakedownensis</i> )	-	Priority 4	<p><b>Likely to occur</b></p> <p>Suitable habitat within the DE in the form of sandplain with tussock and hummock grasses, and sparse shrubland on clayey soil.</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging, breeding, shelter, dispersal (245.7 ha in DE, of which 239.5 ha is proposed to be cleared).</li> </ul>

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Fauna species	EPBC Act status	BC Act/DBCA status	Likelihood of occurrence	Suitable habitat within the DE
Dampierland Burrowing Snake ( <i>Simoselaps minimus</i> )	-	Priority 2	<p><b>Likely to occur</b></p> <p>Suitable habitat within the DE, mainly the low elevation ancient dunes supporting shrubland.</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging, breeding, shelter, dispersal (245.7 ha in DE, of which 239.5 ha is proposed to be cleared)</li> <li>• Open Eucalypt dampland – foraging, breeding, shelter, dispersal (0.6 ha in DE, all of which is proposed to be cleared)</li> <li>• Scattered plantings and native trees – foraging, breeding, shelter, dispersal (3.9 ha in DE, all of which is proposed to be cleared).</li> </ul>
Dampierland Plain Slider ( <i>Lerista separanda</i> )	-	Priority 2	<p><b>Likely to occur</b></p> <p>Suitable habitat within DE, mainly the low elevation ancient dunes supporting shrubland.</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging, breeding, shelter, dispersal (245.7 ha in DE, of which 239.5 ha is proposed to be cleared)</li> <li>• Open Eucalypt dampland – foraging, breeding, shelter, dispersal (0.6 ha in DE, all of which is proposed to be cleared)</li> <li>• Scattered plantings and native trees – foraging, breeding, shelter, dispersal (3.9 ha in DE, all of which is proposed to be cleared).</li> </ul>

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Fauna species	EPBC Act status	BC Act/DFCA status	Likelihood of occurrence	Suitable habitat within the DE
Gouldian Finch ( <i>Chleobia gouldiae</i> )	Endangered	Priority 4	<p><b>Likely to occur</b></p> <p>Suitable habitat within the DE and the species is known to occur locally and may forage within DE on seed of grasses when seasonally available. The woodland habitat may be suitable nesting/breeding habitat, though lacks nearby water sources. Likely to only use the DE seasonally.</p>	<p><b>Critical habitat:</b></p> <ul style="list-style-type: none"> <li>Pindan shrubland – foraging, nesting/ breeding (245.7 ha in DE, of which 239.5 ha is proposed to be cleared).</li> </ul> <p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>Open Eucalypt dampland – foraging (0.6 ha in DE, all of which is proposed to be cleared).</li> </ul>
Grey Falcon ( <i>Falco hypoleucos</i> )	Vulnerable	Vulnerable	<p><b>Likely to occur</b></p> <p>Suitable habitat within the DE and there are records of the species within region, although they are not commonly observed.</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>Pindan shrubland – foraging (245.7 ha in DE, of which 239.5 ha is proposed to be cleared)</li> <li>Sparse mangrove tidal mudflat – foraging (0.9 ha in DE, all of which is proposed to be cleared).</li> </ul>
Peregrine Falcon ( <i>Falco peregrinus</i> )	-	Other Specially Protected Fauna	<p><b>Likely to occur</b></p> <p>Suitable habitat within the DE and the species is known to occur locally, with the pindan shrubland habitat (suitable foraging habitat), although the DE lacks suitable breeding habitat.</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>Pindan shrubland – foraging (245.7 ha in DE, of which 239.5 ha is proposed to be cleared)</li> <li>Sparse mangrove tidal mudflat – foraging (0.9 ha in DE, all of which is proposed to be cleared).</li> </ul>

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Fauna species	EPBC Act status	BC Act/DBCA status	Likelihood of occurrence	Suitable habitat within the DE
Osprey ( <i>Pandion haliaetus</i> )	Migratory	Migratory	<p><b>Likely to occur</b></p> <p>Suitable habitat within the DE and the species has previously been recorded in the nearby area occupying a nest. It would likely only be flying over the DE and accessing foraging sites nearby. There are no major water sources or wetlands available in the DE for this species to forage within. They may nest within tall trees in the DE or artificial platforms (satellite towers).</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging (245.7 ha in DE, of which 239.5 ha is proposed to be cleared)</li> <li>• Open Eucalypt dampland – foraging (0.6 ha in DE, all of which is proposed to be cleared)</li> <li>• Scattered plantings and native trees – foraging (3.9 ha in DE, all of which is proposed to be cleared)</li> <li>• Sparse mangrove tidal mudflat – foraging (0.9 ha in DE, all of which is proposed to be cleared).</li> </ul>
Barn Swallow ( <i>Hirundo rustica</i> )	Migratory	Migratory	<p><b>Likely to occur</b></p> <p>Suitable habitat within the DE and this species is known to occur locally. The shrubland plains within the DE represents suitable foraging habitat however the species is an opportunistic vagrant with use occasional or on a seasonal basis.</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging (245.7 ha in DE, of which 239.5 ha is proposed to be cleared).</li> </ul>

## Mammals

### Greater Bilby

The Bilby is listed as Vulnerable under the BC Act and EPBC Act. The Greater Bilby usually spends the daytime in burrows, often built against termite mounds, spinifex hummock or shrubs (Van Dyck and Strahan, 2008). The Bilby occupies three major habitats; open tussock grasslands on uplands and hills, mulga woodland/shrubland growing on ridges and rises and hummock grasslands in plains and alluvial areas. In WA there are disjunct populations in the Gibson Desert, south-western Kimberley, inland areas of the Pilbara and northern Great Sandy Desert. The current occurrence of this species is strongly associated with higher rainfall and temperatures, which promote areas of higher plant and food production (DCCEEW, 2023).

There are 1,835 records of the Bilby on DBCA data records within the Pindanland subregion with multiple records within the DE and within the immediate vicinity of the DE.

Additionally, fauna surveys conducted within the Broome region have recorded the Bilby in high abundances, including:

- Aecom (2017) recorded Bilby evidence in the form of diggings, scats and old burrows and recorded 369.6 ha of potential Bilby habitat in their survey area, which is approximately 13 km east of the DE.
- Biota Environmental Sciences (2018) recorded Bilby evidence in the form of tracks, diggings, active burrows and inactive burrows. There were 196 records of Bilby evidence in total, 11 of which were within 130 m of the DE. The closest active Bilby burrow was approximately 12.7 km north of the DE.
- GHD (2019) recorded Bilby evidence 11 times within 1 km of the DE, 7 of these records were burrows.

A targeted survey effort was undertaken by GHD (2024) for this species. Evidence was recorded in the form of burrows and diggings at nine sites within the DE (Figure 6-7). These records comprised:

- Five burrows were recorded within the DE. One of these burrows was active and an avoidance area has been established around this burrow. The remaining burrows were old and inactive. Two of these burrows also had evidence of diggings.
- Three sites had Bilby digging evidence (no burrow) within the DE.
- One site had Bilby scat evidence (no burrow) within the DE.

Multiple other active and inactive burrows, evidence of diggings and records at camera sites were recorded outside of the DE in the larger Survey Area during the GHD (2024) survey. These records ranged from approximately 3 m to 5.3 km from the DE (Figure 2-3).

Therefore, the Bilby is known to occur in the DE. The pindan shrubland habitat type in the DE is suitable habitat for the Bilby and may be used for foraging, breeding, shelter and/or dispersal.

The Recovery Plan for Bilby (DCCEEW, 2023) considers critical habitat to be:


- *any area where the species is known or likely to occur as shown on the distribution map*
- *any location outside the known or likely distribution where bilbies are found to occur*

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- *any area, between the areas noted above that may be periodically occupied*
- *any area which bilbies may naturally colonise or may be feasibly reintroduced.*

The pindan shrubland habitat is therefore considered habitat critical to the survival of the Bilby. Up to 239.5 ha of habitat critical to the survival of the Bilby may be cleared for the Proposal.

# Legend

 Development Envelope

## Bilby Records

-  Active burrow
-  Diggings
-  Old burrow
-  Old burrow with diggings
-  Scat

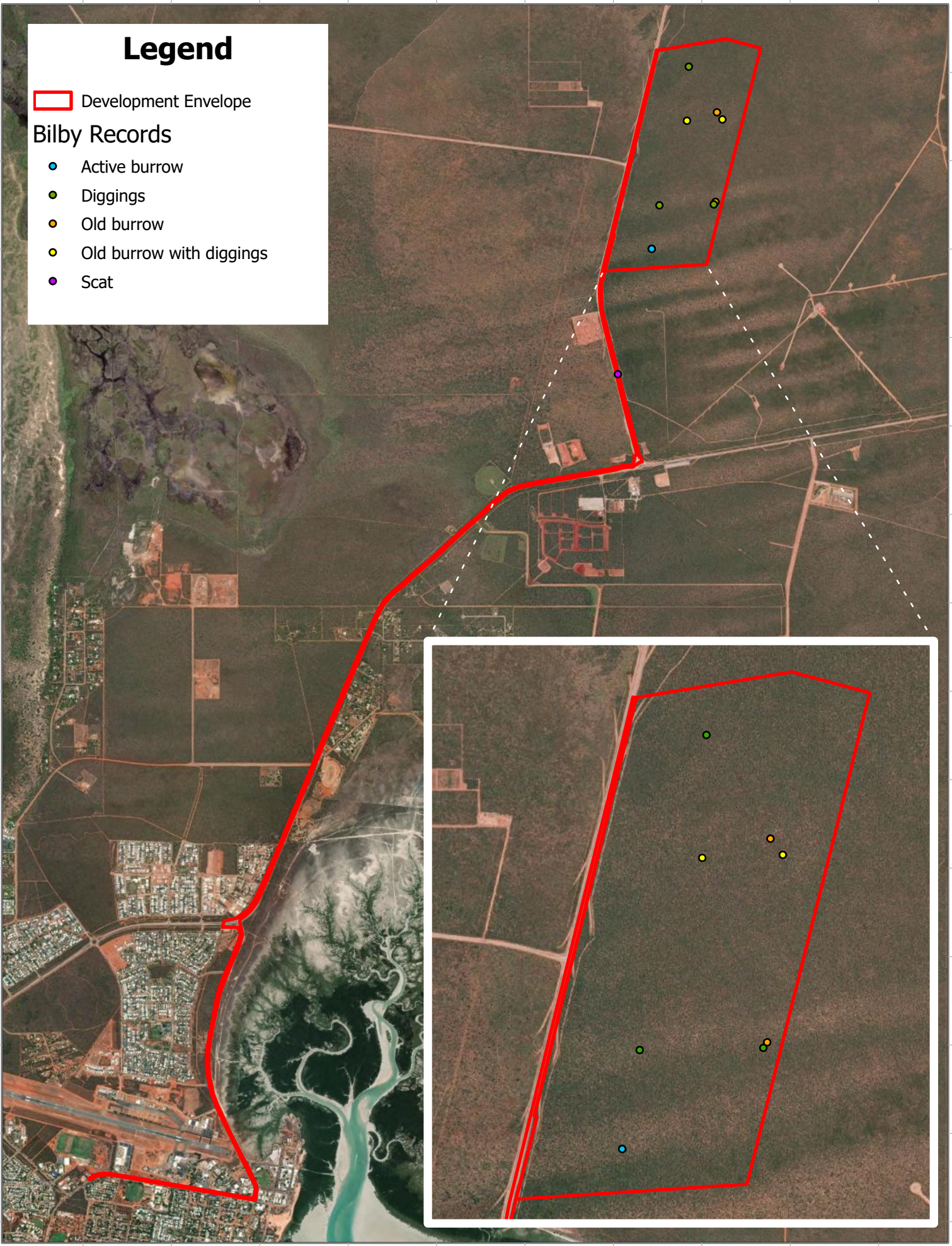


Figure 6-7 Bilby Recordings within the Development Envelope



0 0.75 1.5 3 Kilometers

Scale: 1:50,000



**Northern Brushtail Possum**

The Northern Brushtail Possum is listed as Vulnerable under the BC Act and EPBC Act. It is a nocturnal and arboreal species, that mainly inhabits tall eucalypt open forests with large hollow-bearing trees as they shelter in tree hollows (TSSC, 2021). The species typically occurs in areas with adequate dense canopy habitat connectivity, however it adapts well to rural and urban habitats (TSSC, 2021).

There are 15 records of the Northern Brushtail Possum on DBCA data records within the Pindanland subregion with the closest record being approximately 450 m south of the DE. Additionally, GHD (2009) conducted a fauna survey approximately 1.2 km west of the DE and recorded the Northern Brushtail Possum on six occasions.

A targeted survey was undertaken for this species by GHD (2024). The Northern Brushtail Possum was recorded in the Survey Area during the GHD (2024) survey at seven locations outside of the DE (Figure 2-3). The closest records were approximately 15 m east and 315 m east of the DE. The remaining records were greater than 2.4 km from the DE. The evidence of the Northern Brushtail Possum was in the form of one camera siting, scat, claw marks and one dead possum next to the road.

The GHD (2024) survey recorded suitable habitat trees for the Northern Brushtail Possum, of which some had suitable hollows for nesting. The habitat trees within the DE were within the pindan shrubland and open Eucalypt dampland habitat types. The DE was selected to avoid habitat trees where possible, and an avoidance area was established around four habitat trees, further reducing the number to be cleared (Figure 2-2). The counts of these trees within the Survey Area and DE are shown in Table 6-16, Figure 2-3 and Figure 6-8.

*Table 6-16 Counts of suitable habitat trees within the Survey Area, DE and IDF*

Habitat tree	Count in Survey Area	Count in DE	Count in to be cleared
Suitable habitat trees without hollows	372	34	32
Suitable habitat trees with hollows	322	14	12

Therefore, this species is known to occur in the DE. The following habitat types within the DE are suitable for the Northern Brushtail Possum:

- Pindan shrubland habitat may be used for foraging, breeding, shelter and/or dispersal
- Open Eucalypt dampland may be used for foraging, shelter, dispersal
- Scattered plantings and native trees may be used for foraging, shelter, dispersal.

Critical habitat for this species is not defined (TSSC, 2021). As the DE contains habitat trees with suitable hollows for nesting within the pindan shrubland habitat in the network




connection route portion of the DE (Figure 6-8), this is considered critical habitat for the species. The remaining pindan shrubland habitat in the solar and BESS facility portion of the DE is considered supporting habitat (the four habitat trees within this portion of the DE will not be cleared as shown in Figure 2-2).

The open Eucalypt dampland habitat and scattered plantings and native trees habitat is suitable foraging, shelter and dispersal habitat, and is considered supporting habitat.

Up to 11.3 ha of habitat critical to the survival of the Northern Brushtail Possum may be cleared for the Proposal. Up to 232.7 ha of supporting habitat (228.2 ha of pindan shrubland habitat within the solar and BESS facility portion of the DE, 0.6 ha of open Eucalypt dampland and 3.9 ha of scattered plantings and native trees) may be cleared for the Proposal.

122.225°E 122.233°E 122.242°E 122.25°E 122.258°E 122.267°E 122.275°E 122.283°E 122.292°E 122.3°E

# Legend

-  Development Envelope
-  Habitat tree with hollow
-  Habitat tree without hollow

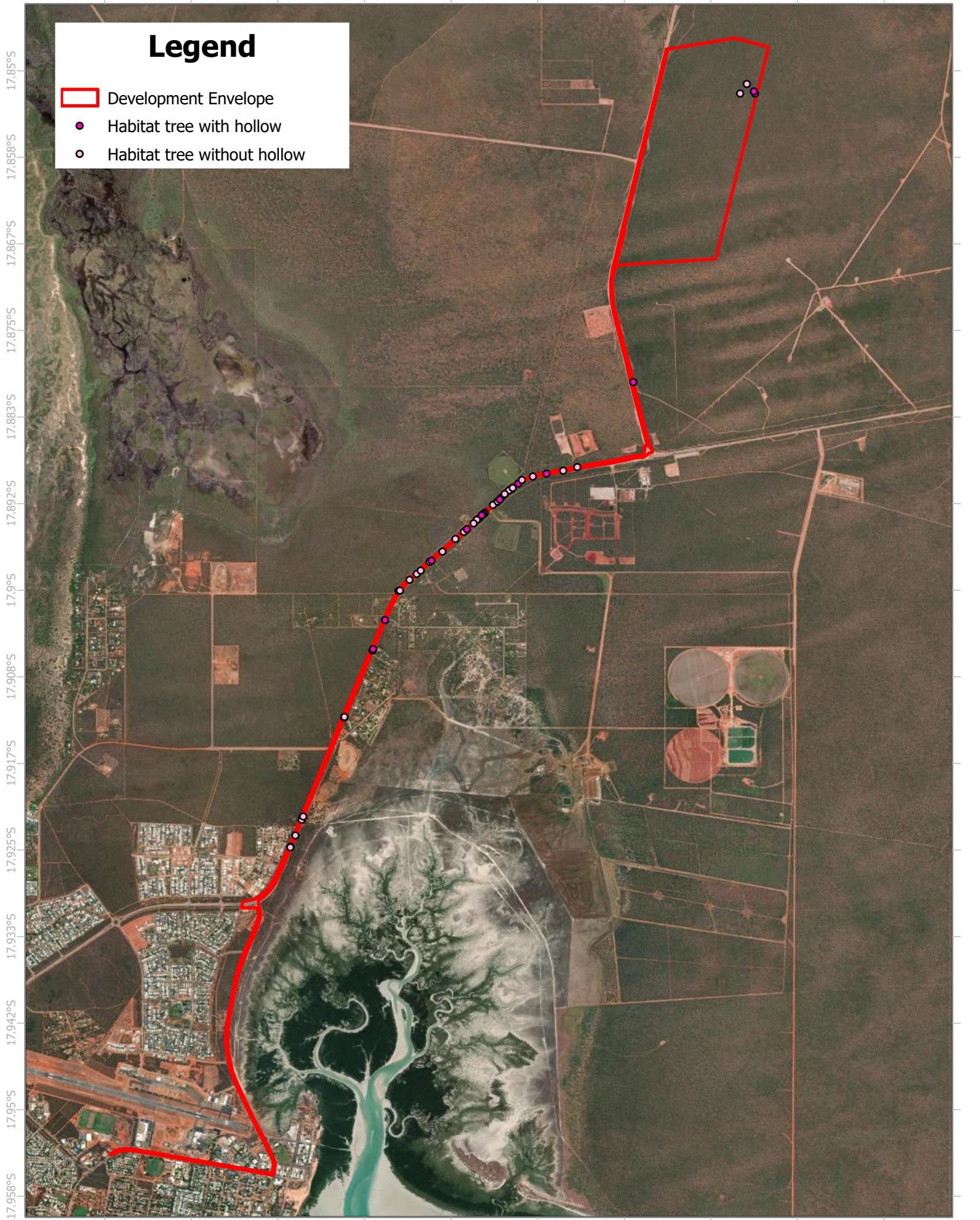
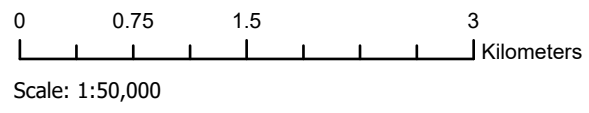


Figure 6-8 Fauna Habitat Trees within the Development Envelope



### **Yellow-lipped Cave Bat**

The Yellow-lipped Cave Bat is listed as Priority 2 by DBCA. This species forages in woodlands, particularly riparian vegetation in proximity to rocky habitat where it will roost in caves and crevices (GHD, 2024).

There are 2 records of the Yellow-lipped Cave Bat on DBCA data records within the Pindanland subregion with the closest record being approximately 96 km northeast of the DE.

Yellow-lipped Cave Bat calls were recorded on bat-call device during the GHD (2024) survey at two locations within the Survey Area (Figure 2-3). These locations are approximately 2.2 km southeast and 5.3 km east of the DE and were within the pindan shrubland habitat type.

Therefore, this species is likely to occur within the DE. Based on the limited ecological information provided it is assumed that this species would utilise the pindan shrubland for foraging and dispersal only, with no suitable roosting caves or crevices present within the DE. Critical habitat for the species is not defined, therefore the pindan shrubland habitat is considered supporting habitat. Up to 239.5 ha of supporting habitat may be cleared for the Proposal.

### **Northern Coastal Free-tailed Bat**

This species is listed as Priority 1 by DBCA. Ecology of this species is not well understood, but they are usually associated with mangroves and coastal woodlands where they roost in tree hollows (GHD, 2024). Several records are known from Dampierland bioregion.

There are 44 records of the Northern Coastal Free-tailed Bat on DBCA data records within the Pindanland subregion, with the closest record being approximately 130 m west of the DE. Additionally, Spectrum Ecology (2020b) conducted a fauna survey and recorded the Northern Coastal Free-tailed Bat multiple times via ultrasonic recorder within 50 m west of the DE.

Northern Coastal Free-tailed Bat calls were recorded on bat-call device during the GHD (2024) survey at 11 locations within the Survey Area in the pindan shrubland habitat (Figure 2-3). These locations range from approximately 30 m east to 6.2 km east of the DE.

Therefore, this species is likely to occur in the DE. The following habitat types within the DE are suitable for the Northern Coastal Free-tailed bat:

- Pindan shrubland habitat may be used for foraging, breeding, roosting and/or dispersal
- Open Eucalypt dampland may be used for foraging and dispersal
- Scattered plantings and native trees may be used for foraging and dispersal
- Sparse mangrove tidal mudflat may be used for foraging and dispersal

Critical habitat for this species is not defined. The GHD (2024) survey recorded habitat trees with suitable hollows for roosting within the pindan shrubland habitat in the DE. The DE was selected to avoid habitat trees where possible, and an avoidance area was established around additional habitat trees to reduce the number to be cleared (Figure 2-2). The counts of these trees within the Survey Area and DE are shown in Table 6-16, Figure 2-3 and Figure 6-8.

As the DE contains habitat trees with suitable hollows for roosting within the pindan shrubland habitat in the network connection route portion of the DE (Figure 6-8), this is considered critical habitat for the species. The remaining pindan shrubland habitat in the solar and BESS facility portion of the DE is considered supporting habitat (the four habitat trees within this portion of the DE will not be cleared as shown in Figure 2-2).

The open Eucalypt dampland habitat, scattered plantings and native trees habitat and sparse mangrove tidal mudflat habitat may be suitable foraging and dispersal habitat and is considered supporting habitat.

Up to 11.3 ha of habitat critical to the survival of the Northern Coastal Free-tailed Bat may be cleared for the Proposal. Up to 233.6 ha of supporting habitat (228.2 ha of pindan shrubland habitat within the solar and BESS facility portion of the DE, 0.6 ha of open Eucalypt dampland, 3.9 ha of scattered plantings and native trees and 0.9 ha of sparse mangrove tidal mudflat) may be cleared for the Proposal.

### **Bare-rumped Sheath-tailed Bat**

The Bare-rumped Sheath-tailed Bat is listed as Priority 3 by DBCA and is Vulnerable under the EPBC Act. The Bare-rumped Sheath-tail Bat occurs mostly in lowland areas, typically in a range of woodland, forest and open environments (TSSC, 2016a). The Bare-rumped Sheath-tail Bat has been suggested to forage over habitat edges such as the edge of rainforest and in forest clearings (Churchill, 1998). All confirmed roosts in Australia have been within tree hollows and no individuals have been found roosting in caves.

There are no records of the Bare-rumped Sheath-tailed Bat on DBCA data records within the Pindanland subregion.

The Bare-rumped Sheath-tailed Bat calls were recorded on bat-call device during the GHD (2024) survey at 3 locations within the Survey Area (Figure 2-3). These locations were approximately 550 m east, 5.4 km east and 6.3 km east of the DE.

Therefore, the Bare-rumped Sheath-tailed Bat is likely to occur in the DE. The pindan shrubland habitat type in the DE is suitable habitat for the species and may be used for foraging, breeding, roosting and/or dispersal.

The GHD (2024) survey recorded habitat trees with suitable hollows for roosting within the pindan shrubland habitat in the DE. The DE was selected to avoid habitat trees where possible, and an avoidance area was established around additional habitat trees to reduce the number to be cleared (Figure 2-2). The counts of these trees within the Survey Area and DE are shown in Table 6-16, Figure 2-3 and Figure 6-8.

As the DE contains habitat trees with suitable hollows for roosting within the pindan shrubland habitat in the network connection route portion of the DE (Figure 6-8), this is considered critical habitat for the species. The remaining pindan shrubland habitat in the solar and BESS facility portion of the DE is considered supporting habitat due to its foraging and dispersal values (the four habitat trees within this portion of the DE will not be cleared as shown in Figure 2-2).

Up to 11.3 ha of habitat critical to the survival of the Bare-rumped Sheath-tailed Bat may be cleared for the Proposal. Up to 228.2 ha of supporting habitat may be cleared for the Proposal (pindan shrubland habitat within the solar and BESS facility portion of the DE).

### **Northern Short-tailed Mouse**

The Northern Short-tailed Mouse is listed as Priority 4 by DBCA. This species has been recorded in a range of habitats such as tussock grasslands and stony clay hummock grasslands, the ecology of this species is poorly known.

There are 4 records of the Northern Short-tailed Mouse on DBCA data records within the Pindanland subregion with the closest record being approximately 70 km southwest of the DE.

The Northern Short-tailed Mouse was not recorded during the GHD (2024) survey. The DE contains suitable habitat within in the form of sandplain with tussock and hummock grasses, and sparse shrubland on clayey soil within the pindan shrubland habitat type. This habitat may be used for foraging, breeding, shelter and/or dispersal. Therefore, the species is considered likely to occur within the DE.

Critical habitat for the species is not defined, therefore the pindan shrubland habitat type is considered supporting habitat. Up to 239.5 ha of supporting habitat may be cleared for the Proposal.

### *Reptiles*

#### **Dampierland Burrowing Snake**

The Dampierland Burrowing Snake is listed as Priority 2 by DBCA. The species is a small burrowing (sand swimming) snake that prefers deep loose coastal sand dunes and adjacent shrubland areas (Wilson and Swan, 2010).

There are 9 records of the Dampierland Burrowing Snake on DBCA data records within the Pindanland subregion with the closest record being approximately 3.5 km south of the DE.

This species was not recorded during the GHD (2024) survey, however the DE contains suitable habitat, mainly the low elevation ancient dunes supporting shrubland.

Therefore, the species is considered likely to occur in the DE. The following habitat types within the DE are suitable for Dampierland Burrowing Snake:

- Pindan shrubland may be used for foraging, breeding, shelter, dispersal
- Open Eucalypt dampland may be used for foraging, breeding, shelter, dispersal
- Scattered plantings and native trees may be used for foraging, breeding, shelter, dispersal.

Critical habitat is not defined for this species, therefore the pindan shrubland, open Eucalypt dampland and scattered plantings and native trees habitat types are considered supporting habitat. Up to 244.0 ha of supporting habitat may be cleared for the Proposal (239.5 of pindan shrubland, 0.6 ha of open Eucalypt dampland and 3.9 ha of scattered plantings and native trees).

#### **Dampierland Plain Slider**

The Dampierland Plain Slider is listed as Priority 2 by DBCA. The species has four well-developed limbs and a preference for sandy substrates (Wilson and Swan, 2010). The records of this species represent a range extension on its previously known distribution, which was generally described as the southern Kimberley coast, between Kimbolton and

Nita Downs. The species prefers deep loose coastal sand dunes and adjacent shrubland areas (Wilson and Swan, 2010).

There are 11 records of the Dampierland Plain Slider on DBCA data records within the Pindanland subregion with the closest record being approximately 3.5 km south of the DE.

This species was not recorded during the GHD (2024) survey, however the DE contains suitable habitat, mainly the low elevation ancient dunes supporting shrubland.

Therefore, the species is considered likely to occur in the DE. The following habitat types within the DE are suitable for Dampierland Plain Slider:

- Pindan shrubland may be used for foraging, breeding, shelter, dispersal
- Open Eucalypt dampland may be used for foraging, breeding, shelter, dispersal
- Scattered plantings and native trees may be used for foraging, breeding, shelter, dispersal.

Critical habitat is not defined for this species, therefore the pindan shrubland, open Eucalypt dampland and scattered plantings and native trees habitat types are considered supporting habitat. Up to 244.0 ha of supporting habitat may be cleared for the Proposal (239.5 of pindan shrubland, 0.6 ha of open Eucalypt dampland and 3.9 ha of scattered plantings and native trees).

### *Migratory Birds*

#### **Fork-tailed Swift**

The Fork-tailed Swift is listed as Migratory under the BC Act and EPBC Act. The Fork-tailed Swift is common in coastal and sub coastal areas and are found across a range of habitats, from inland open plains to wooded areas. This species is almost exclusively aerial and does not breed in Australia (DoE, 2025a).

There are 117 records of the Fork-tailed Swift on DBCA data records within the Pindanland subregion with multiple records within the DE and within the vicinity of the DE.

The Fork-tailed swift was recorded in large numbers (150 individuals) during the GHD (2024) survey within 30 m of the DE (Figure 2-3). Therefore, the species is considered known to occur within the DE.

The species likely occurs aerially over the habitat during the seasonal non-breeding period, rarely landing. However, this species may potentially land across all habitats within the DE (pindan shrubland, open Eucalypt dampland, scattered plantings and native trees, sparse mangrove tidal mudflat) to forage. Critical habitat is not defined for the species, therefore this is considered supporting habitat. Up to 244.9 ha of supporting habitat may be cleared for the Proposal (239.5 of pindan shrubland, 0.6 ha of open Eucalypt dampland, 3.9 ha of scattered plantings and native trees and 0.9 ha of sparse mangrove tidal mudflat).

#### **Osprey**

The Osprey is listed as Migratory under the BC Act and EPBC Act. The breeding range of the Osprey extends around the coast of Australia (DoE, 2025b). Ospreys occur in littoral and coastal habitats and terrestrial wetlands of tropical and temperate Australia and offshore islands. They require extensive areas of open fresh, brackish or saline water for foraging (Marchant & Higgins, 1993). They may also occur over habitats such as heath, woodland,

forest, sandy shores and muddy shores when travelling to and from foraging sites (DoE, 2025b).

There are 450 records of the Osprey on DBCA data records within the Pindanland subregion with multiple records within the DE and within the vicinity of the DE.

The Osprey was not recorded during the GHD (2024) survey, however suitable habitat is present within the DE and the species has previously been recorded in the nearby area occupying a nest. They may nest within tall trees in the DE or artificial platforms (satellite towers), however the species would likely only be flying over the DE and accessing foraging sites nearby. There are no major water sources or wetlands available in the DE for this species to forage within. Therefore, the species is likely to occur within the DE.

The species may use all habitats within the DE for foraging. Critical habitat is not defined for the species, therefore this is considered supporting habitat. Up to 244.9 ha of supporting habitat may be cleared for the Proposal (239.5 of pindan shrubland, 0.6 ha of open Eucalypt dampland, 3.9 ha of scattered plantings and native trees and 0.9 ha of sparse mangrove tidal mudflat).

### **Barn Swallow**

The Barn Swallow is listed as Migratory under the BC Act and EPBC Act. In Australia, the Barn Swallow is recorded in open country in coastal lowlands, often near water, towns and cities. Birds are often sighted perched on overhead wires, and also in or over freshwater wetlands, paperbark *Melaleuca* woodland, mesophyll shrub thickets and tussock grassland (DoE, 2025c). The species does not breed in Australia.

There are 173 records of the Barn Swallow on DBCA data records within the Pindanland subregion with the closest record being approximately 260 m east of the DE.

The Barn Swallow was not recorded during the GHD (2024) survey, however, suitable habitat is present within the DE and this species is known to occur locally. The pindan shrubland within the DE represents suitable foraging habitat however the species is an opportunistic vagrant with use occasional or on a seasonal basis. Therefore, the species is considered likely to occur within the DE.

The species may use the pindan shrubland habitat within the DE for foraging. Critical habitat is not defined for the Barn Swallow, therefore this is considered supporting habitat. Up to 239.5 ha of supporting habitat may be cleared for the Proposal.

### *Other Bird Species*

#### **Gouldian Finch**

The Gouldian Finch is listed as Endangered under the EPBC Act and Priority 4 by DBCA. The Gouldian Finch inhabits open woodlands that are dominated by Eucalyptus trees and support a ground cover of Sorghum and other grasses (Boekel, 1980). The critical components of suitable core habitat for the Gouldian Finch appear to be the presence of favoured annual and perennial grasses (especially Sorghum), a nearby source of surface water and, in the breeding season, unburnt hollow-bearing Eucalyptus trees (especially *E. tintinnans*, *E. brevifolia* and *E. leucophloia*) (Higgins et al. 2006).

The National Recovery Plan for the Gouldian Finch defines habitat critical to the survival of the Gouldian Finch as (TSSC, 2016b):

- *Known breeding habitat characterised by rocky hills with hollow-bearing smooth-barked gums within two to four kilometres of small waterholes or springs that persist throughout the dry season*
- *Dry season feeding habitat is dominated by annual spear grasses or native sorghum, and in the wet season birds shift to feeding from scattered patches of cockatoo grass, golden beard grass or spinifex-dominated communities*
- *Other important wet season grasses include giant spear grass, white grass, ricegrass and kangaroo grass.*

There are 30 records of the Gouldian Finch on DBCA data records within the Pindanland subregion with the closest record being approximately 12 km east of the DE.

The Gouldian Finch was not recorded during the GHD (2024) survey, however suitable habitat is present within the DE and the species is known to occur locally and may forage within the DE on grass seeds when seasonally available. The open Eucalypt woodland habitat may be suitable nesting/breeding habitat, though lacks nearby water sources. The species is likely to only use the DE seasonally. Therefore, the Gouldian Finch is likely to occur in the DE.

The GHD (2024) survey recorded habitat trees with suitable hollows for nesting within the pindan shrubland habitat in the DE. The DE was selected to avoid habitat trees where possible, and an avoidance area was established around additional habitat trees to reduce the number to be cleared (Figure 2-2). The counts of these trees within the Survey Area and DE are shown in Table 6-16, Figure 2-3 and Figure 6-8. The pindan shrubland habitat is considered critical habitat for the species as the DE contains habitat trees with suitable hollows for nesting within this habitat type, and it may present suitable foraging habitat for the species. The open Eucalypt dampland habitat may also be suitable foraging. Up to 239.5 ha of critical habitat and up to 0.6 ha of supporting habitat may be cleared for the Proposal.

### **Grey Falcon**

The Grey Falcon is listed as Vulnerable under the EPBC Act and BC Act. The Grey Falcon is an Australian endemic, usually confined to the arid inland. It inhabits Triodia grassland, Acacia shrubland, and lightly timbered arid woodland (Morcombe, 2004).

There are 10 records of the Grey Falcon on DBCA data records within the Pindanland subregion with the closest record being approximately 530 m west of the DE.

The Grey Falcon was not recorded during the GHD (2024) survey, however there is suitable habitat within the DE and there are records of the species within region, although they are not commonly observed.

Therefore, the Grey Falcon is likely to occur within the DE. The pindan shrubland habitat and the sparse mangrove tidal mudflat both represent suitable foraging habitat for the species and are considered supporting habitat. Up to 240.4 ha of supporting habitat may be cleared for the Proposal (239.5 ha of pindan shrubland and 0.9 ha of sparse mangrove tidal mudflat).

## Peregrine Falcon

The Peregrine Falcon is listed as Other Specially Protected Fauna under the BC Act. The Peregrine Falcon is uncommon but wide ranging across Australia. Found everywhere from woodlands to open grasslands and coastal cliffs (Morcombe, 2004).

There are 61 records of the Peregrine Falcon on DBCA data records within the Pindanland subregion with the closest record being approximately 300 m southwest of the DE.

The Peregrine Falcon was not recorded during the GHD (2024) survey, however there is suitable habitat within the DE and the species is known to occur locally, with the pindan shrubland habitat (suitable foraging habitat), although the DE lacks suitable breeding habitat. The sparse mangrove tidal mudflat within the DE is also considered suitable foraging habitat for the species.

Therefore, the Peregrine Falcon is likely to occur within the DE. The pindan shrubland habitat and the sparse mangrove tidal mudflat habitat within the DE may be used for foraging and is considered supporting habitat. Up to 240.4 ha of supporting habitat may be cleared for the Proposal (239.5 ha of pindan shrubland and 0.9 ha of sparse mangrove tidal mudflat).

### 6.2.2.3.3 Short-range endemic fauna

Short-range endemic species likely to occur in the Kimberley are land and freshwater snails (EPA, 2016e). The habitats likely to contain short-range endemic species include vine thickets, boulder piles, isolated hills and other landforms, vegetated gullies and freshwater habitats (EPA, 2016e). These habitats are not present within the DE and therefore short-range endemic fauna are not expected to be relevant to the Proposal and are not discussed further.

## 6.2.3 Potential impacts

### 6.2.3.1 Direct impacts

Construction of the Proposal will result in the direct loss of fauna habitat, including habitat suitable for significant fauna species, through clearing. Operation of the Proposal will not directly impact terrestrial fauna as maintenance activities will utilise the existing roads and access tracks, hence impacts to fauna habitats will be short-term and partially recoverable.

Direct impacts to terrestrial fauna during construction of the Proposal includes:

- Clearing of 239.5 ha of pindan shrubland, which provides habitat for:
  - Bilby (critical habitat)
  - Northern Brushtail Possum (critical habitat and supporting habitat)
  - Fork-tailed Swift (supporting habitat)
  - Yellow-lipped Cave Bat (supporting habitat)
  - Northern Coastal Free-tailed Bat (critical habitat and supporting habitat)
  - Bare-rumped Sheath-tailed Bat (critical habitat and supporting habitat)
  - Northern Short-tailed Mouse (supporting habitat)

## PROTECTED

- Dampierland Burrowing Snake (supporting habitat)
  - Dampierland Plain slider (supporting habitat)
  - Gouldian Finch (critical habitat)
  - Grey Falcon (supporting habitat)
  - Peregrine Falcon (supporting habitat)
  - Osprey (supporting habitat)
  - Barn Swallow (supporting habitat).
- Clearing of up to 12 hollow containing trees identified in the GHD (2024) survey within the pindan shrubland habitat type in the network connection route portion of the DE, which could provide suitable important nesting/roosting/breeding habitat to the Northern Brush-tail Possum, Northern Coastal Free-tailed Bat, Bare-rumped Sheath-tailed Bat and the Gouldian Finch.
  - Clearing of 0.6 ha of open Eucalypt dampland, which provides habitat for:
    - Northern Brush-tail Possum (supporting habitat)
    - Fork-tailed Swift (supporting habitat)
    - Northern Coastal Free-tailed Bat (supporting habitat)
    - Dampierland Burrowing Snake (supporting habitat)
    - Dampierland Plain Slider (supporting habitat)
    - Gouldian Finch (supporting habitat)
    - Osprey (supporting habitat).
  - Clearing of 0.9 ha of sparse mangrove tidal mudflat, which provides habitat for:
    - Fork-tailed Swift (supporting habitat)
    - Northern Coastal Free-tailed Bat (supporting habitat)
    - Grey Falcon (supporting habitat)
    - Peregrine Falcon (supporting habitat)
    - Osprey (supporting habitat).
  - Clearing of 3.9 ha of scattered plantings and native trees, which provides habitat for:
    - Northern Brush-tail Possum (supporting habitat)
    - Fork-tailed Swift (supporting habitat)
    - Northern Coastal Free-tailed Bat (supporting habitat)
    - Dampierland Burrowing Snake (supporting habitat)
    - Dampierland Plain Slider (supporting habitat)
    - Osprey (supporting habitat).

### 6.2.3.2 Indirect impacts

Construction and operation of the Proposal may result in the following indirect impacts to terrestrial fauna:

- Fauna injury/death from vehicle strike, clearing activities or direct collision with infrastructure (particularly with solar and BESS facility infrastructure for bird and bat species).
- Fauna activity disturbance from temporary increase in noise/vibration/light, attraction of feral animals, alteration of fire regimes, and increased generation of dust during construction.

### 6.2.3.3 Cumulative impacts

Impacts to aspects of Fauna in proximity to the Proposal were identified through the collation of information from NVCPs and environmental referrals for other Proposals within the Pindanland subregion (Table 6-17). Proposals used to inform cumulative impacts to flora and vegetation include the Broome Regional Resource Recovery Park Landfill Development and NVCPs (refer to Section 9 for an overview of the cumulative impact assessment methodology).

Table 6-17 Cumulative impacts to terrestrial fauna from other Proposals

Aspect / Project	Broome Future Energy System Current Proposal	Broome Regional Resource Recovery Park – Landfill Development	Native Vegetation Clearing Permits	Cumulative impact
<b>Proponent</b>	Horizon Power	Shire of Broome	Multiple	N/A
<b>Proposed Project commencement</b>	2029	2025	N/A	N/A
<b>Description</b>	Construct a FES in Broome.	Develop a Class III landfill, leachate management system and asbestos monocell at the Regional Resource Recovery Park.	Approved NVCPs.	N/A
<b>Location</b>	Shire of Broome  Approximately 10 km northeast of Broome, with the network connection route following Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street to the existing substation in Broome.	Shire of Broome  Lot 550 on the Broome-Cape Leveque Rd, 12 km northeast of the Broome town centre.	Within the Pindanland subregion of the Dampierland region.	N/A
<b>Proposed fauna habitat clearing</b>	244.9 ha of fauna habitat in varying condition.	79.9 ha of fauna habitat in varying condition.	874.3 ha of fauna habitat in varying condition.	1,199.1 ha of fauna habitat in varying condition.

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Aspect / Project	Broome Future Energy System Current Proposal	Broome Regional Resource Recovery Park – Landfill Development	Native Vegetation Clearing Permits	Cumulative impact
<b>Significant fauna species and habitats affected</b>	<ul style="list-style-type: none"> <li>• Clearing of up to 239.5 ha of Bilby habitat</li> <li>• Clearing of up to 244.0 ha of Northern Brush-tail Possum habitat</li> <li>• Clearing of up to 244.9 ha of Fork-tailed Swift habitat</li> <li>• Clearing of up to 239.5 ha of Yellow-lipped Cave Bat habitat</li> <li>• Clearing of up to 244.9 ha of Northern Coastal Free-tailed Bat habitat</li> <li>• Clearing of up to 239.5 ha of Bare-rumped Sheathtail Bat habitat</li> <li>• Clearing of up to 239.5 ha of Northern Short-tailed Mouse habitat</li> <li>• Clearing of up to 244.0 ha of Dampierland Burrowing Snake habitat</li> <li>• Clearing of up to 244.0 ha of Dampierland Plain Slider habitat</li> <li>• Clearing of up to 240.1 ha of Goudlian Finch habitat</li> <li>• Clearing of up to 240.4 ha of Grey Falcon habitat</li> <li>• Clearing of up to 240.4 ha of Peregrine Falcon habitat</li> <li>• Clearing of up to 244.9 ha of Osprey habitat</li> <li>• Clearing of up to 239.5 ha of Barn Swallow habitat.</li> </ul>	<ul style="list-style-type: none"> <li>• Clearing of up to 79.9 ha of Bilby habitat</li> <li>• Clearing of up to 79.9 ha of Northern Brush-tail Possum habitat</li> <li>• Clearing of up to 79.9 ha of Fork-tailed Swift habitat</li> <li>• Clearing of up to 79.9 ha of Northern Coastal Free-tailed Bat habitat</li> <li>• Clearing of up to 79.9 ha of Bare-rumped Sheathtail Bat habitat</li> <li>• Clearing of up to 79.9 ha of Northern Short-tailed Mouse habitat</li> <li>• Clearing of up to 79.9 ha of Grey Falcon habitat</li> <li>• Clearing of up to 79.9 ha of Peregrine Falcon habitat</li> <li>• Clearing of up to 79.9 ha of Barn Swallow habitat.</li> </ul>	<ul style="list-style-type: none"> <li>• Clearing of up to 847.0 ha of Bilby habitat</li> <li>• Clearing of up to 357.3 ha of Northern Brush-tail Possum habitat</li> <li>• Clearing of up to 103.5 ha of Fork-tailed Swift habitat</li> <li>• Clearing of up to 5.5 ha of Northern Coastal Free-tailed Bat habitat</li> <li>• Clearing of up to 5.0 ha of Bare-rumped Sheathtail Bat habitat</li> <li>• Clearing of up to 103.5 ha of Northern Short-tailed Mouse habitat</li> <li>• Clearing of up to 9.5 ha of Dampierland Burrowing Snake habitat</li> <li>• Clearing of up to 357.2 ha of Dampierland Plain Slider habitat</li> <li>• Clearing of up to 19.1 ha of Goudlian Finch habitat</li> <li>• Clearing of up to 124.9 ha of Grey Falcon habitat</li> <li>• Clearing of up to 122.6 ha of Peregrine Falcon habitat</li> <li>• Clearing of up to 103.5 ha of Barn Swallow habitat.</li> </ul>	<ul style="list-style-type: none"> <li>• Clearing of up to 1,166.3 ha of Bilby habitat</li> <li>• Clearing of up to 681.2 ha of Northern Brush-tail Possum habitat</li> <li>• Clearing of up to 428.3 ha of Fork-tailed Swift habitat</li> <li>• Clearing of up to 330.3 ha of Northern Coastal Free-tailed Bat habitat</li> <li>• Clearing of up to 324.9 ha of Bare-rumped Sheathtail Bat habitat</li> <li>• Clearing of up to 422.9 ha of Northern Short-tailed Mouse habitat</li> <li>• Clearing of up to 253.5 ha of Dampierland Burrowing Snake habitat</li> <li>• Clearing of up to 601.2 ha of Dampierland Plain Slider habitat</li> <li>• Clearing of up to 259.4 ha of Goudlian Finch habitat</li> <li>• Clearing of up to 445.2 ha of Grey Falcon habitat</li> <li>• Clearing of up to 442.8 ha of Peregrine Falcon habitat</li> <li>• Clearing of up to 422.9 ha of Barn Swallow habitat.</li> </ul>

## 6.2.4 Mitigation

### 6.2.4.1 Construction

The Proposal has been designed to avoid and/or mitigate impacts to terrestrial fauna where possible. During the design phase, particular focus has been, and will be, placed on reducing the amount of fauna habitat clearing required for construction. Operation of the Proposal will utilise existing roads and access tracks.

Avoidance measures considered and incorporated into Proposal planning to date include (Figure 2-2):

- An avoidance area has been established around the active Bilby burrow within the DE
- An avoidance area has been established around four habitat trees within the DE (of which two had suitable nesting/roosting hollows)
- Presence of a licenced fauna specialist prior to the commencement of clearing activities to supervise avoidance, dispersal and relocation of any fauna.

Impacts to terrestrial fauna will be minimised and reduced through the following mitigation measures:

- Clearing impacts will be further reduced where possible through the detailed design process, including the positioning of solar and BESS facility infrastructure and network connection infrastructure to minimise impacts to fauna habitat
- Dust, noise, vibration and light management measures will be implemented during construction
- Implementation of the management measures in the EMP (Appendix A) to minimise risks to terrestrial fauna, and to provide monitoring during construction
- A pre-clearance survey will be undertaken within the DE for the Bilby and the Northern Brushtail Possum, as detailed in the EMP (Appendix A)
- Habitat trees suitable for the Northern Brush-tail Possum, Northern Coastal Free-tailed Bat, Bare-rumped Sheath-tailed Bat and the Gouldian Finch will be avoided where possible during site selection and design.

### 6.2.4.2 Operation

Operational activities associated with the Proposal include operation of the solar and BESS facility and network connection, along with maintenance inspections and repairs. Operation of the Proposal will utilise existing roads and access tracks. The following management measures will be implemented during operation of the Proposal to minimise impacts to flora and vegetation:

- Maintenance and repair activities will be restricted to existing cleared areas where possible
- Access to infrastructure will be through existing access tracks.

## 6.2.5 Assessment and significance of residual impact

### 6.2.5.1 Direct impacts

#### 6.2.5.1.1 Habitat loss

The Proposal will result in the loss of 244.9 ha of potential fauna habitat. The habitats present comprise a mixture of pindan shrubland, Eucalypt dampland, mangrove tidal mudflat and scattered plantings and native trees, and provides habitat for various significant fauna species that have the potential to occur within the DE.

Fauna habitats present within the DE are well represented outside of the DE within the surrounding area. The dominant vegetation, landform and habitat values (i.e. pindan shrubland) are typical of Vegetation Association 750. The structure description of Vegetation Association 750 is 'pindan woodland' and the flora description is *Acacia* thicket with eucalypt woodland over spinifex *Acacia tumida*, *Eucalyptus tectifica*, *Corymbia grandifolia*, *Triodia pungens*, *T. bitextura*. As identified in Section 6.1.5.1.1, the Proposal will result in the reduction of approximately 0.02% of the current mapped Vegetation Association 750 at a local scale (Shire of Broome) and a regional scale (Dampierland IBRA bioregion). The proposed clearing will not reduce the current extent of Vegetation Association 750 to less than 99.94% of its pre-European extent at a local scale and 99.66% at a regional scale and therefore will not significantly reduce the extent of Vegetation Association 750 at any scale. On this basis the pindan shrubland habitat will continue to be well represented outside the DE.

The design of the Proposal has, and will continue to be, refined to minimise the extent of fauna habitat clearing as much as possible. It is considered that the limited extent of clearing is unlikely to substantial impact fauna habitat.

The assessment of significant residual impacts as a result of clearing significant fauna species habitat is provided in Table 6-18.

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Table 6-18 Assessment of significant residual impacts as a result of clearing significant fauna species habitat

Fauna species	Habitat to be cleared for the Proposal	Assessment of significance
<p>Bilby (<i>Macrotis lagotis</i>)</p>	<p><b>Critical habitat:</b> Pindan shrubland – foraging, breeding, shelter, dispersal (239.5 ha).</p>	<p>There are 1,835 records of the Bilby on the DBCA database within the Pindanland subregion with multiple records within the DE and within the immediate vicinity of the DE. Additionally, recent fauna surveys within the Broome region by Aecom (2017), Biota Environmental Sciences (2018) and GHD (2019) have recorded the Bilby in high abundances (as described in Section 6.2.2.3.2). There were 61 records of Bilby evidence in the Survey Area by GHD (2024) in the form of burrows, diggings and scat (Figure 2-3). This shows that the Bilby is common within the region.</p> <p>Evidence of the Bilby was recorded within the DE in the form of burrows, diggings and scat (Figure 6-7). Four old and inactive Bilby burrows will be cleared for the Proposal and an avoidance area has been established around an active burrow within the DE (Figure 2-2). Up to 239.5 ha of pindan shrubland habitat will be cleared for the Proposal, which is considered critical habitat for the Bilby due to its potential foraging, breeding, shelter and/or dispersal values.</p> <p>Based on aerial imagery and the Native Vegetation Extent (spatial dataset DPIRD-005, DPIRD, 2023) and Pre-European Vegetation (spatial dataset DPIRD-006, DPIRD, 2019) datasets, clearing of 239.5 ha of potential Bilby habitat represents 0.27% of available habitat within 20 km of the DE.</p> <p>The Proposal has been designed to minimise impacts to potential Bilby habitat as far as possible. As the design develops, impacts to the species will be further reduced and avoided where possible. Clearing of potential Bilby habitat is not expected to result in a significant residual impact to the species at a local or regional scale, given the relative abundance of habitat available in the region.</p>
<p>Northern Brushtail Possum (<i>Trichosurus vulpecula arnhemensis</i>)</p>	<p><b>Critical habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland (network connection route portion of DE) – foraging, breeding, shelter, dispersal (11.3 ha).</li> </ul> <p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland (solar and BESS facility portion of</li> </ul>	<p>There are 15 records of the Northern Brushtail Possum on the DBCA database within the Pindanland subregion with the closest record being approximately 450 m south of the DE. Additionally, GHD (2009) conducted a fauna survey approximately 1.2 km west of the DE and recorded the Northern Brushtail Possum on six occasions. The Northern Brushtail Possum was recorded in the Survey Area during the GHD (2024) survey at seven locations outside of the DE (Figure 2-3). The closest records were approximately 15 m east and 315 m east of the DE. This shows that the Northern Brushtail Possum is common within the region.</p> <p>There are 44 suitable habitat trees for the Northern Brushtail Possum identified in the GHD (2024) survey that will be cleared for the Proposal, of which 12 have hollows suitable for nesting (Figure 6-8). Up to 11.3 ha of pindan shrubland habitat within the network connection route portion of the DE will be cleared for the Proposal, which is considered critical habitat for the Northern Brushtail Possum due to the presence of suitable habitat trees with hollows for breeding. An additional 232.7 ha of supporting habitat will be cleared for the Proposal in the form of pindan shrubland</p>

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Fauna species	Habitat to be cleared for the Proposal	Assessment of significance
	<p>DE) – foraging, shelter, dispersal (228.2 ha)</p> <ul style="list-style-type: none"> <li>• Open Eucalypt dampland – foraging, shelter, dispersal (0.6 ha)</li> <li>• Scattered plantings and native trees – foraging, shelter, dispersal (3.9).</li> </ul>	<p>(in the solar and BESS facility portion of the DE), open Eucalypt dampland habitat and scattered plantings and native trees habitat which have potential foraging, shelter and dispersal values.</p> <p>Based on aerial imagery and the Native Vegetation Extent (spatial dataset DPIRD-005, DPIRD, 2023) and Pre-European Vegetation (spatial dataset DPIRD-006, DPIRD, 2019) datasets, clearing of 244.0 ha of potential Northern Brushtail Possum habitat represents 0.32% of available habitat within 20 km of the DE.</p> <p>The Proposal has been designed to minimise impacts to potential Northern Brushtail Possum habitat as far as possible, including locating the DE to avoid habitat trees where possible, and establishing an avoidance area around four habitat trees as shown in Table 6-15, further reducing the number to be cleared (Figure 2-2). As the design develops, impacts to the species will be further reduced and avoided where possible. Clearing of potential Northern Brushtail Possum habitat is not expected to result in a significant residual impact to the species at a local or regional scale, given the relative abundance of habitat available in the region.</p>
<p>Fork-tailed Swift (<i>Apus pacificus</i>)</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging (239.5 ha)</li> <li>• Open Eucalypt dampland – foraging (0.6)</li> <li>• Scattered plantings and native trees – foraging (3.9 ha)</li> <li>• Sparse mangrove tidal mudflat – foraging (0.9 ha).</li> </ul>	<p>There are 117 records of the Fork-tailed Swift on the DBCA database within the Pindanland subregion with multiple record within the DE and within the immediate vicinity of the DE. The Fork-tailed swift was recorded in large numbers (150 individuals) during the GHD (2024) survey within 30 m of the DE (Figure 2-3). This shows that the Fork-tailed Swift is common within the region.</p> <p>Up to 244.9 ha of supporting habitat for the Fork-tailed Swift will be cleared for the Proposal in the form of pindan shrubland, open Eucalypt dampland, scattered plantings and native trees, and sparse mangrove tidal mudflat. These habitat types provide potential foraging habitat for the Fork-tailed Swift.</p> <p>Based on aerial imagery and the Native Vegetation Extent (spatial dataset DPIRD-005, DPIRD, 2023) and Pre-European Vegetation (spatial dataset DPIRD-006, DPIRD, 2019) datasets, clearing of 244.9 ha of potential Fork-tailed Swift habitat represents 0.27% of available habitat within 20 km of the DE.</p> <p>The Proposal has been designed to minimise impacts to potential Fork-tailed Swift habitat as far as possible. As the design develops, impacts to the species will be further reduced and avoided where possible. Clearing of potential Fork-tailed Swift habitat is not expected to result in a significant residual impact to the species at a local or regional scale, given the relative abundance of habitat available in the region.</p>
<p>Yellow-lipped Cave Bat (<i>Vespadelus douglasorum</i>)</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging,</li> </ul>	<p>There are 2 records of the Yellow-lipped Cave Bat on the DBCA database within the Pindanland subregion with the closest record being approximately 96 km northeast of the DE. Yellow-lipped Cave Bat calls were recorded on bat-call device during the GHD (2024) survey at two locations within the Survey Area (Figure 2-3). These locations are</p>

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Fauna species	Habitat to be cleared for the Proposal	Assessment of significance
	<p>dispersal (239.5 ha).</p>	<p>approximately 2.2 km southeast and 5.3 km east of the DE. This shows that the Yellow-lipped Cave Bat occurs occasionally in the region.</p> <p>There are no suitable roosting caves or crevices present within the DE. The pindan shrubland habitat may be used for foraging and dispersal by the Yellow-lipped Cave Bat and is considered supporting habitat. Therefore, up to 239.5 ha of potential supporting habitat will be cleared for the Proposal.</p> <p>Based on aerial imagery and the Native Vegetation Extent (spatial dataset DPIRD-005, DPIRD, 2023) and Pre-European Vegetation (spatial dataset DPIRD-006, DPIRD, 2019) datasets, clearing of 239.5 ha of potential Yellow-lipped Cave Bat habitat represents 0.32% of available habitat within 20 km of the DE.</p> <p>The Proposal has been designed to minimise impacts to potential Yellow-lipped Cave Bat habitat as far as possible. As the design develops, impacts to the species will be further reduced and avoided where possible. Clearing of potential Yellow-lipped Cave Bat habitat is not expected to result in a significant residual impact to the species at a local or regional scale, given the relative abundance of habitat available in the region.</p>
<p>Northern Coastal Free-tailed Bat (<i>Ozimops cobourgianus</i>)</p>	<p><b>Critical habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland (network connection route portion of DE) – foraging, breeding, roosting, dispersal (11.3 ha).</li> </ul> <p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland (solar and BESS facility portion of DE) – foraging, dispersal (228.2 ha)</li> <li>• Open Eucalypt dampland –</li> </ul>	<p>There are 44 records of the Northern Coastal Free-tailed Bat on the DBCA database within the Pindanland subregion with the closest record being approximately 130 m west of the DE. Additionally, Spectrum Ecology (2020b) recorded the Northern Coastal Free-tailed Bat multiple times via ultrasonic recorder within 50 m west of the DE. Northern Coastal Free-tailed Bat calls were recorded on bat-call device during the GHD (2024) survey at 11 locations within the Survey Area (Figure 2-3). These locations range from approximately 30 m east to 6.2 km east of the DE. This shows that the Northern Coastal Free-tailed Bat is common within the region.</p> <p>There are 12 trees with suitable hollows for roosting within the DE identified in the GHD (2024) survey that will be cleared for the Proposal (Figure 6-8). Up to 11.3 ha of pindan shrubland habitat within the connection corridor portion of the DE will be cleared for the Proposal, which is considered critical habitat for the Northern Coastal Free-tailed Bat due to the presence of habitat trees with suitable hollows for roosting. An additional 233.6 ha of supporting habitat will be cleared for the Proposal in the form of pindan shrubland (in the solar and BESS facility portion of the DE), open Eucalypt dampland habitat, scattered plantings and native trees and sparse mangrove tidal mudflat habitat, which have potential foraging and dispersal values.</p> <p>Based on aerial imagery and the Native Vegetation Extent (spatial dataset DPIRD-005, DPIRD, 2023) and Pre-European Vegetation (spatial dataset DPIRD-006, DPIRD, 2019) datasets, clearing of 244.9 ha of potential Northern Coastal Free-tailed Bat habitat represents 0.32% of available habitat within 20 km of the DE.</p> <p>The Proposal has been designed to minimise impacts to potential Northern Coastal Free-tailed Bat habitat as far as possible, including locating the DE to avoid trees with suitable hollows for roosting where possible, and establishing an</p>

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Fauna species	Habitat to be cleared for the Proposal	Assessment of significance
	<p>foraging and dispersal (0.6 ha)</p> <ul style="list-style-type: none"> <li>Scattered plantings and native trees – foraging and dispersal (3.9 ha)</li> <li>Sparse mangrove tidal mudflat – foraging and dispersal (0.9 ha).</li> </ul>	<p>avoidance area around two trees with suitable hollows as shown in Table 6-15, further reducing the number to be cleared (Figure 2-2). As the design develops, impacts to the species will be further reduced and avoided where possible. Clearing of potential Northern Coastal Free-tailed Bat habitat is not expected to result in a significant residual impact to the species at a local or regional scale, given the relative abundance of habitat available in the region.</p>
<p>Bare-rumped Sheath-tailed Bat (<i>Saccolaimus saccolaimus</i>)</p>	<p><b>Critical habitat:</b></p> <ul style="list-style-type: none"> <li>Pindan shrubland (network connection route portion of DE) – foraging, breeding, roosting, dispersal (11.3 ha).</li> </ul> <p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>Pindan shrubland (solar and BESS facility portion of DE) – foraging, dispersal (228.2 ha).</li> </ul>	<p>There are no records of the Bare-rumped Sheath-tailed Bat on the DBCA database within the Pindanland subregion. The Bare-rumped Sheath-tailed Bat calls were recorded on bat-call device during the GHD (2024) survey at 3 locations within the Survey Area (Figure 2-3). These locations were approximately 550 m east, 5.4 km east and 6.3 km east of the DE. This shows that the Bare-rumped Sheath-tailed Bat occurs occasionally within the region.</p> <p>There are 12 trees with suitable hollows for roosting within the DE identified in the GHD (2024) survey that will be cleared for the Proposal (Figure 6-8). Up to 11.3 ha of pindan shrubland habitat will be cleared for the Proposal, which is considered critical habitat for the Bare-rumped Sheath-tailed Bat due to the presence of trees with suitable hollows for roosting. An additional 228.2 of supporting habitat will be cleared for the Proposal in the form of pindan shrubland (in the solar and BESS facility portion of the DE), which has potential foraging, and dispersal values.</p> <p>Based on aerial imagery and the Native Vegetation Extent (spatial dataset DPIRD-005, DPIRD, 2023) and Pre-European Vegetation (spatial dataset DPIRD-006, DPIRD, 2019) datasets, clearing of 239.5 ha of potential Bare-rumped Sheath-tailed Bat habitat represents 0.27% of available habitat within 20 km of the DE.</p> <p>The Proposal has been designed to minimise impacts to potential Bare-rumped Sheath-tailed Bat habitat as far as possible, including locating the DE to avoid trees with suitable hollows for roosting, and establishing an avoidance area around two trees with suitable hollows as shown in Table 6-15, further reducing the number to be cleared (Figure 2-2). As the design develops, impacts to the species will be further reduced and avoided where possible. Clearing of potential Bare-rumped Sheath-tailed Bat habitat is not expected to result in a significant residual impact to the species at a local or regional scale, given the relative abundance of habitat available in the region.</p>

PROTECTED

Fauna species	Habitat to be cleared for the Proposal	Assessment of significance
<p>Northern Short-tailed Mouse (<i>Leggadina lakedownensis</i>)</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging, breeding, shelter, dispersal (239.5 ha).</li> </ul>	<p>There are 4 records of the Northern Short-tailed Mouse on DBCA data records within the Pindanland subregion with the closest record being approximately 70 km southwest of the DE. The Northern Short-tailed Mouse was not recorded in the Survey Area during the GHD (2024) survey. This shows that the Northern Short-tailed Mouse occurs occasionally within the region.</p> <p>Up to 239.5 ha of pindan shrubland habitat will be cleared for the Proposal, which is considered supporting habitat for the Northern Short-tailed Mouse due to its potential foraging, breeding, shelter, dispersal values.</p> <p>Based on aerial imagery and the Native Vegetation Extent (spatial dataset DPIRD-005, DPIRD, 2023) and Pre-European Vegetation (spatial dataset DPIRD-006, DPIRD, 2019) datasets, clearing of 239.5 ha of potential Northern Short-tailed Mouse habitat represents 0.32% of available habitat within 20 km of the DE.</p> <p>The Proposal has been designed to minimise impacts to potential Northern Short-tailed Mouse habitat as far as possible. As the design develops, impacts to the species will be further reduced and avoided where possible. Clearing of potential Northern Short-tailed Mouse habitat is not expected to result in a significant residual impact to the species at a local or regional scale, given the relative abundance of habitat available in the region.</p>
<p>Dampierland Burrowing Snake (<i>Simoselaps minimus</i>)</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging, breeding, shelter, dispersal (239.5 ha)</li> <li>• Open Eucalypt dampland – foraging, breeding, shelter, dispersal (0.6 ha)</li> <li>• Scattered plantings and native trees – foraging, breeding, shelter, dispersal (3.9 ha).</li> </ul>	<p>There are 9 records of the Dampierland Burrowing Snake on the DBCA database within the Pindanland subregion with the closest record being approximately 3.5 km south of the DE. The Dampierland Burrowing Snake was not recorded in the Survey Area during the GHD (2024) survey. This shows that the Dampierland Burrowing Snake occurs occasionally within the region.</p> <p>Up to 244.0 ha of potential supporting habitat for the Dampierland Burrowing Snake will be cleared for the Proposal. This is in the form of pindan shrubland, open Eucalypt dampland and scattered plantings and native trees, which have potential foraging, breeding, shelter, dispersal values.</p> <p>Based on aerial imagery and the Native Vegetation Extent (spatial dataset DPIRD-005, DPIRD, 2023) and Pre-European Vegetation (spatial dataset DPIRD-006, DPIRD, 2019) datasets, clearing of 244.0 ha of potential Dampierland Burrowing Snake habitat represents 0.32% of available habitat within 20 km of the DE.</p> <p>The Proposal has been designed to minimise impacts to potential Dampierland Burrowing Snake habitat as far as possible. As the design develops, impacts to the species will be further reduced and avoided where possible. Clearing of potential Dampierland Burrowing Snake habitat is not expected to result in a significant residual impact to the species at a local or regional scale, given the relative abundance of habitat available in the region.</p>

PROTECTED

Fauna species	Habitat to be cleared for the Proposal	Assessment of significance
<p>Dampierland Plain Slider (<i>Lerista separanda</i>)</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging, breeding, shelter, dispersal (239.5 ha)</li> <li>• Open Eucalypt dampland – foraging, breeding, shelter, dispersal (0.6 ha)</li> <li>• Scattered plantings and native trees – foraging, breeding, shelter, dispersal (3.9 ha).</li> </ul>	<p>There are 11 records of the Dampierland Plain Slider on the DBCA database within the Pindanland subregion with the closest record being approximately 3.5 km south of the DE. The Dampierland Plain Slider was not recorded in the Survey Area during the GHD (2024) survey. This shows that the Dampierland Plain Slider occurs occasionally within the region.</p> <p>Up to 244.0 ha of potential supporting habitat for the Dampierland Plain Slider will be cleared for the Proposal. This is in the form of pindan shrubland, open Eucalypt dampland and scattered plantings and native trees, which have potential foraging, breeding, shelter, dispersal values.</p> <p>Based on aerial imagery and the Native Vegetation Extent (spatial dataset DPIRD-005, DPIRD, 2023) and Pre-European Vegetation (spatial dataset DPIRD-006, DPIRD, 2019) datasets, clearing of 244.0 ha of potential Dampierland Plain Slider habitat represents 0.32% of available habitat within 20 km of the DE.</p> <p>The Proposal has been designed to minimise impacts to potential Dampierland Plain Slider habitat as far as possible. As the design develops, impacts to the species will be further reduced and avoided where possible. Clearing of potential Dampierland Plain Slider habitat is not expected to result in a significant residual impact to the species at a local or regional scale, given the relative abundance of habitat available in the region.</p>
<p>Gouldian Finch (<i>Chleobia gouldiae</i>)</p>	<p><b>Critical habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging, nesting/ breeding (239.5 ha).</li> </ul> <p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Open Eucalypt dampland – foraging (0.6 ha).</li> </ul>	<p>There are 30 records of the Gouldian Finch on the DBCA data database within the Pindanland subregion, with the closest record being approximately 12 km east of the DE. The Gouldian Finch was not recorded in the Survey Area during the GHD (2024) survey. This shows that the Gouldian Finch occurs occasionally within the region.</p> <p>There are 12 trees with suitable hollows for nesting identified in the GHD (2024) survey that will be cleared for the Proposal (Figure 6-8). Up to 239.5 ha of pindan shrubland habitat will be cleared for the Proposal, which is considered critical habitat for the Gouldian Finch due to its potential foraging and nesting/breeding values. An additional 0.6 ha of supporting habitat will be cleared for the Proposal in the form of open Eucalypt dampland habitat which has potential foraging values.</p> <p>Based on aerial imagery and the Native Vegetation Extent (spatial dataset DPIRD-005, DPIRD, 2023) and Pre-European Vegetation (spatial dataset DPIRD-006, DPIRD, 2019) datasets, clearing of 240.1 ha of potential Gouldian Finch habitat represents 0.28% of available habitat within 20 km of the DE.</p> <p>The Proposal has been designed to minimise impacts to potential Gouldian Finch habitat as far as possible, including locating the DE to avoid trees with suitable hollows for nesting, and establishing an avoidance area around two trees</p>

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Fauna species	Habitat to be cleared for the Proposal	Assessment of significance
		<p>with suitable hollows as shown in Table 6-15, further reducing the number to be cleared (Figure 2-2). As the design develops, impacts to the species will be further reduced and avoided where possible. Clearing of potential Gouldian Finch habitat is not expected to result in a significant residual impact to the species at a local or regional scale, given the relative abundance of habitat available in the region.</p>
<p>Grey Falcon (<i>Falco hypoleucos</i>)</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging (239.5 ha)</li> <li>• Sparse mangrove tidal mudflat – foraging (0.9 ha).</li> </ul>	<p>There are 10 records of the Grey Falcon on DBCA data records within the Pindanland subregion with the closest record being approximately 530 m west of the DE. The Grey Falcon was not recorded in the Survey Area during the GHD (2024) survey. This shows that the Grey Falcon occurs occasionally within the region.</p> <p>Up to 240.4 ha of potential supporting habitat for the Grey Falcon will be cleared for the Proposal. This is in the form of pindan shrubland habitat and sparse mangrove and tidal mudflat habitat, which have potential foraging values.</p> <p>Based on aerial imagery and the Native Vegetation Extent (spatial dataset DPIRD-005, DPIRD, 2023) and Pre-European Vegetation (spatial dataset DPIRD-006, DPIRD, 2019) datasets, clearing of 240.4 ha of potential Grey Falcon habitat represents 0.27% of available habitat within 20 km of the DE.</p> <p>The Proposal has been designed to minimise impacts to potential Grey Falcon habitat as far as possible. As the design develops, impacts to the species will be further reduced and avoided where possible. Clearing of potential Grey Falcon habitat is not expected to result in a significant residual impact to the species at a local or regional scale, given the relative abundance of habitat available in the region.</p>
<p>Peregrine Falcon (<i>Falco peregrinus</i>)</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging (239.5 ha)</li> <li>• Sparse mangrove tidal mudflat – foraging (0.9 ha).</li> </ul>	<p>There are 61 records of the Peregrine Falcon on DBCA data records within the Pindanland subregion with the closest record being approximately 300 m southwest of the DE. The Peregrine Falcon was not recorded in the Survey Area during the GHD (2024) survey. This shows that the Peregrine Falcon occurs occasionally within the region.</p> <p>Up to 240.4 ha of potential supporting habitat for the Peregrine Falcon will be cleared for the Proposal. This is in the form of pindan shrubland habitat and sparse mangrove and tidal mudflat habitat, which have potential foraging values.</p> <p>Based on aerial imagery and the Native Vegetation Extent (spatial dataset DPIRD-005, DPIRD, 2023) and Pre-European Vegetation (spatial dataset DPIRD-006, DPIRD, 2019) datasets, clearing of 240.4 ha of potential Peregrine Falcon habitat represents 0.26% of available habitat within 20 km of the DE.</p> <p>The Proposal has been designed to minimise impacts to potential Peregrine Falcon habitat as far as possible. As the design develops, impacts to the species will be further reduced and avoided where possible. Clearing of potential Peregrine Falcon habitat is not expected to result in a significant residual impact to the species at a local or regional scale, given the relative abundance of habitat available in the region.</p>

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Fauna species	Habitat to be cleared for the Proposal	Assessment of significance
<p>Osprey (<i>Pandion haliaetus</i>)</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging (239.5 ha)</li> <li>• Open Eucalypt dampland – foraging (0.6 ha)</li> <li>• Scattered plantings and native trees – foraging (3.9 ha)</li> <li>• Sparse mangrove tidal mudflat – foraging (0.9 ha).</li> </ul>	<p>There are 450 records of the Osprey on DBCA data records within the Pindanland subregion with multiple record within the DE and within the vicinity of the DE. The Osprey was not recorded in the Survey Area during the GHD (2024) survey. This shows that the Osprey occurs occasionally within the region.</p> <p>Up to 244.9 ha of potential supporting habitat for the Osprey will be cleared for the Proposal. This is in the form of pindan shrubland habitat, open Eucalypt dampland habitat and sparse mangrove tidal mudflat habitat, which have potential foraging value.</p> <p>Based on aerial imagery and the Native Vegetation Extent (spatial dataset DPIRD-005, DPIRD, 2023) and Pre-European Vegetation (spatial dataset DPIRD-006, DPIRD, 2019) datasets, clearing of 244.9 ha of potential Osprey habitat represents 0.27% of available habitat within 20 km of the DE.</p> <p>The Proposal has been designed to minimise impacts to potential Osprey habitat as far as possible. As the design develops, impacts to the species will be further reduced and avoided where possible. Clearing of potential Osprey habitat is not expected to result in a significant residual impact to the species at a local or regional scale, given the relative abundance of habitat available in the region.</p>
<p>Barn Swallow (<i>Hirundo rustica</i>)</p>	<p><b>Supporting habitat:</b></p> <ul style="list-style-type: none"> <li>• Pindan shrubland – foraging (239.5 ha).</li> </ul>	<p>There are 173 records of the Barn Swallow on DBCA data records within the Pindanland subregion with the closest record being approximately 260 m east of the DE. The 241.96 was not recorded in the Survey Area during the GHD (2024) survey. This shows that the Barn Swallow occurs occasionally within the region.</p> <p>Up to 239.5 ha of potential supporting habitat for the Barn Swallow will be cleared for the Proposal. This is in the form of pindan shrubland habitat, which has potential foraging value.</p> <p>Based on aerial imagery and the Native Vegetation Extent (spatial dataset DPIRD-005, DPIRD, 2023) and Pre-European Vegetation (spatial dataset DPIRD-006, DPIRD, 2019) datasets, clearing of 239.5 ha of potential Barn Swallow habitat represents 0.30% of available habitat within 20 km of the DE.</p> <p>The Proposal has been designed to minimise impacts to potential Barn Swallow habitat as far as possible. As the design develops, impacts to the species will be further reduced and avoided where possible. Clearing of potential Barn Swallow habitat is not expected to result in a significant residual impact to the species at a local or regional scale, given the relative abundance of habitat available in the region.</p>

### 6.2.5.2 Indirect impacts

#### 6.2.5.2.1 Fauna injury/death from vehicle strike/clearing activities or direct collision with infrastructure

Construction of the Proposal and associated infrastructure will result in an increase in vehicle movements to and from the DE. Maintenance inspections of the Proposal during operation may also increase vehicle movements, however vehicles will be restricted to the cleared access tracks. Construction activities will be undertaken in accordance with measures identified in the EMP (Appendix A), including a requirement for licenced fauna specialist to be on site prior to the commencement of clearing, driving to conditions to prevent the likelihood of fauna road deaths, and minimising driving at dusk and dawn, will reduce the risk of fauna injury/death from vehicle strike during construction and operational activities. It is unlikely that any isolated deaths of individuals will affect the conservation status and distribution of any fauna species.

There may be risk associated with the construction of solar and BESS facility infrastructure on birds and bats as they may be attracted to 'false' waterbodies, prey attraction or provision of shade. This may increase risk of collision with solar and BESS facility infrastructure. The presence of waterbirds within the DE is expected to be low, as there are no waterbodies within the DE and birds are more likely to be attracted to the wetlands at Roebuck Bay, which is approximately 5 km south of the solar and BESS facility. Very little research evidence has been found on the effect of solar facilities on birds and bats (Taylor et al., 2019 and Yuzyk, 2024). Harrison et al. (2017) conducted a review of impacts of solar farms on birds and bats and found that collision risk with solar panels is very low. Another study estimated 2.49 bird mortalities per year per MW installed (Kosciuch et al. 2020), whereas Visser et al. (2019) concluded that there is no definitive evidence of bird collision mortality due to solar panels. Therefore, it is unlikely that any isolated deaths of individuals will affect the conservation status and distribution of any fauna species.

If an overhead network connection is required for the Proposal, the presence of the network connection could potentially result in fatalities of Migratory birds due to collision with the infrastructure. The Fork-tailed Swift, Osprey and Barn Swallow may forage within the DE, which is considered supporting habitat for these species, as described in Section 6.2.2.3.2. The risk of fatality to Migratory birds from collision with the network connection is considered to be low. While often flying at night during migration, migratory birds are primarily diurnal species; most active during daylight hours, and typically resting or engaging in less active behaviours at night. As a result, the combination of bird's natural behaviour patterns (Kruger & Garthe, 2001), the lack of attraction to network connection, and their ability to navigate safely during the night greatly minimises the risk of fatal collisions with these structures. The network connection would be located adjacent to existing infrastructure and roads with the majority within the Broome township. Therefore, the Proposal is not expected to result in significant impacts to Migratory birds as a result of collision with the network connection infrastructure.

#### 6.2.5.2.2 Fauna activity disturbance from temporary increase in noise/vibration/light attraction of feral animals, alteration of fire regimes, and increased generation of dust during construction

During construction, there will be noise, vibration and light emissions due to vehicles movements, as well as from operation of equipment and machinery associated with construction activity. Noise, vibration and light associated with construction of the Proposal have the potential to result in short-term disturbance to fauna on a local scale, however, impacts during construction will be managed in accordance with the EMP (Appendix A). It is unlikely that maintenance inspections during operation of the Proposal will increase the potential for noise, vibration and light, given the presence of existing roads in close proximity to the DE. Therefore, the Proposal is unlikely to result in significant impacts on terrestrial fauna from noise, vibration and light.

The construction of the Proposal is unlikely to pose an impact to fauna from attraction of feral animals as construction will be temporary and feral animals will be managed in accordance with the EMP (Appendix A). Therefore, the Proposal is unlikely to result in significant impacts on terrestrial fauna from attraction of feral animals.

As detailed in Section 6.1.5.2.2, given the size of the Proposal and its location adjacent to existing infrastructure and roads, the Proposal is not considered likely to alter existing fire regimes in the local area. While there is an increased risk of fire during the construction phase, appropriate management measures will be implemented through the EMP (Appendix A) to minimise this risk. This will include identifying potential ignition sources and/or activities with the potential to lead to fire, and preventative measures. Weed management and the construction of firebreaks will reduce the risk of fires (if caused by the Proposal) spreading to nearby vegetation. Therefore, the Proposal is unlikely to result in significant impacts on terrestrial fauna from altered fire regimes.

Fugitive dust may be generated from vehicle movements, clearing and construction activities, having a temporary and localised impact on air quality, which may indirectly impact fauna by causing heart and respiratory problems. The majority of dust is expected to be generated during the construction phase as operation of the Proposal will be restricted to cleared land and is not expected to produce significant dust emissions. Implementation of the EMP will ensure that potential dust sources are managed appropriately. Therefore, the Proposal will not cause significant impacts to fauna from dust emissions given the transient and localised nature of dust generation mostly limited to the construction phase.

#### 6.2.5.3 Summary of significant residual impacts

Direct and indirect impacts to terrestrial fauna associated with the Proposal are not expected to be significant. These impacts can be managed through Horizon Power's mitigation and management measures, and the implementation of the EMP (Appendix A).

#### 6.2.6 Environmental outcomes

The Proposal is not expected to result in significant residual impacts to terrestrial fauna.

The Proposal requires the permanent clearing of up to 244.9 ha of potential fauna habitat which includes four habitat types. The Proposal will require the removal of habitat that potentially provides foraging, breeding, roosting, shelter and dispersal value to conservation

significant fauna species, however this impact is not expected to be significant. Further refinement of the design of the Proposal will seek to minimise impacts to fauna habitats including potential habitat trees.

Horizon Power considers that the potential direct and indirect impacts to terrestrial fauna (with implementation of the avoidance and minimisation measures proposed) will meet the EPA’s objective for terrestrial fauna.

Table 6-19 provides a summary of the environmental outcomes of the Proposal relating to terrestrial fauna. The clearing extent and impacts to fauna and fauna habitats will be reduced further during the design phase, where possible.

*Table 6-19 Environmental outcomes for terrestrial fauna*

Factor	Flora and vegetation environmental outcomes
Fauna habitat	Permanent clearing of up to 244.9 ha of fauna habitat potentially suitable for 14 significant fauna species (6 birds, 6 mammals, 2 reptiles).
Fauna injury/mortality	No fauna injuries or mortalities as a result of the Proposal is expected.
Disturbance to fauna	No significant disturbance to fauna as a result of noise and/or vibration arising from the Proposal

### 6.3 Inland Waters

The WA EPA’s objective for the inland waters environmental factor is ‘To maintain the hydrological regimes and quality of groundwater and surface water so that environmental values are protected’ (EPA, 2018).

#### 6.3.1 Relevant policy and guidance

Table 6-20 below provides consideration of how the relevant EPA policy and guidance, and additional State and Commonwealth guidance, has been applied to the assessment of impacts to inland waters.

*Table 6-20 Policy and guidance for environmental factor inland waters*

Relevant policy and guidance	Explain how the EPA policy and guidance has been considered
Environmental Factor Guideline: Inland Waters (EPA, 2018)	The Proposal considers the mitigation hierarchy; direct and indirect impacts; implications of cumulative impacts; predicted residual impacts; feasibility of management approaches.
Water Quality Protection Note no.6. Vegetation Buffers to Sensitive Water Receptors (DoW, 2006)	A minimal amount of riparian vegetation will be cleared for the Proposal (1.5 ha).
Water Quality Protection Note no.25. Land use compatibility tables for public drinking water source areas (DoW, 2016)	Protection of drinking water quality and public health has been considered using this guidance around land uses and activities within PDWSAs.
Water Quality Protection Note no.56. Tanks for fuel and chemical storage near sensitive water resources (DWER, 2018)	Diesel storage will not exceed 5,000 litres within the PDWSA.
Water Quality Protection Note no.65. Toxic and hazardous substances (DoW, 2015)	The Proposal considers storage and management of toxic and hazardous substances for water quality protection.
Water Quality Protection Note no.84. Rehabilitation of disturbed land in public drinking water source areas (DoW, 2009)	The Proposal considers the minimisation of impacts from disturbed land on water resources.

#### 6.3.2 Receiving environment

##### 6.3.2.1 Surface water

No permanent water bodies or drainage lines are located within the DE. The DE is within the Cape Leveque Coast Basin (DWER, 2024) which contains no large rivers. Based on the topography of the DE and surrounding area, rainfall is expected to drain west towards the coast. The DE overlaps the Broome Water Reserve, which is a PDWSA.

The southern portion of the network connection route is located in close proximity to the Dampier Creek. This area is characterised by mangroves that experience tidal inundation.

The Roebuck Bay wetland is located less than 20 m east of the DE (DBCA, 2018). Roebuck Bay is also associated with a Ramsar wetland which is located approximately 7 km east of the DE (DBCA, 2017). Roebuck Bay wetland is an important site for shorebirds associated with the East-Asian Australasian Flyway and it is internationally important for many migratory shorebird species (Bennelongia, 2009). It also supports benthic invertebrates, Loggerhead Turtles and Green Turtles. It is of high social and cultural value as it provides a deep-water port, supports tourism, commercial fishing and pearling, and recreational activities. Roebuck Bay contains a substantial number of Aboriginal heritage sites, and remains a place of Aboriginal cultural, spiritual, social and economic significance (Bennelongia, 2009). The surface water features in the vicinity of the DE are shown in Figure 6-9.

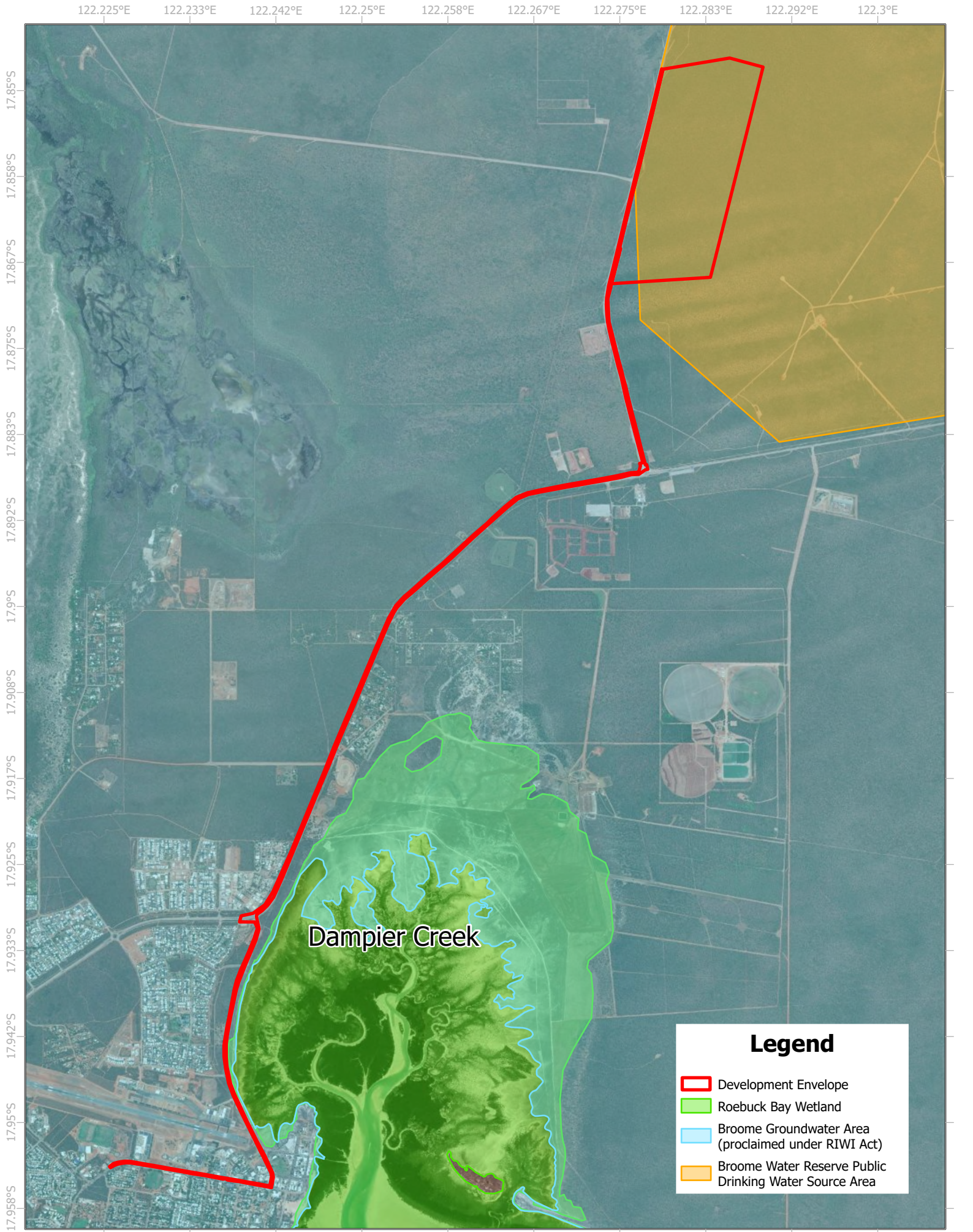
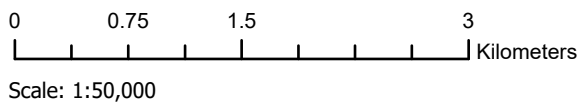


Figure 6-9 Surface Water and Groundwater Features within the Vicinity of the Development Envelope



**Legend**

- Development Envelope
- Roebuck Bay Wetland
- Broome Groundwater Area (proclaimed under RIWI Act)
- Broome Water Reserve Public Drinking Water Source Area



The solar infrastructure is within an area of extremely low probability of occurrence of ASS (1-5% chance of occurrence with any occurrences in small localised areas) (Fitzpatrick et al., 2011). Adjacent to the network connection route portion of the DE, there is a high probability of occurrence of ASS (>70% chance of occurrence) in intertidal and extratidal flats (Fitzpatrick et al., 2011).

#### 6.3.2.2 Groundwater

The DE overlaps the Broome Groundwater Area proclaimed under the RIWI Act (Figure 6-9). Based on publicly available data, the depth to groundwater in the area surrounding the DE is estimated to be between 2.1 m to 32 m below ground level (Landcorp, 2009 and Talis, 2023). The groundwater is expected to be shallow along the portion of the network connection route that is located in close proximity to the Dampier Creek.

#### 6.3.2.3 Water supply strategy

Supply of water for construction purposes will be either trucked water or construction of a bore in accordance with regulations.

### 6.3.3 Potential impacts

Activities associated with the construction of the Proposal and associated infrastructure have the potential to influence and/or alter existing hydrological processes within and surrounding the DE. This may include:

- A minor and temporary impact on the quality of inland waters as a result of sediments and/or contaminants being transported with stormwater runoff.
- Changes to surface water flows and increased risk of land erosion and sedimentation in nearby waterways due to clearing of native vegetation within the DE.
- Risk of contamination of soils and subsequent mobilisation to surface waters may result from accidental release of chemicals and/or hydrocarbons (i.e. leaks, spills).
- Exposure of ASS by ground disturbing associated with construction of the network connection route.
- If groundwater is encountered, short-term dewatering of potentially acidic groundwater may be required.
- Changes to groundwater infiltration from clearing of native vegetation within the DE
- Minor temporary drawdown of groundwater should dewatering be required to construct solar infrastructure and network connection infrastructure.

Operational activities associated with the Proposal include operation of the solar and BESS facility and network connection, along with maintenance inspections and repairs. Operation of the Proposal will be restricted to cleared access tracks and is not expected to impact drainage lines or other water features surrounding the DE.

As the Proposal's impact to inland waters is considered negligible, the Proposal is not expected to result in any cumulative impacts to hydrological regimes and quality of groundwater and surface water.

#### 6.3.4 Mitigation

The following measures will be implemented to mitigate impacts to inland waters:

- Implementation of EMP to prevent chemical/ hydrocarbon leaks and spills and prescribe corrective actions in the event of accidental releases

- Any water abstraction required for construction of the Proposal will be undertaken to minimise drawdown, and water allowed to infiltrate as close to the source as possible. If the groundwater is acidic, it would be treated and discharged in accordance with an ASS Management Plan.
- Weather will be monitored to avoid construction works during heavy rainfall to prevent runoff, erosion and mobilisation of sediment
- If ASS or any other contaminants are encountered, additional investigations will be undertaken. An ASS Management Plan will be developed if required.

### 6.3.5 Assessment and significance of residual impact

Due to the relatively small footprint of the DE, and as there are no drainage lines within the DE, it is unlikely that there will be significant changes to surface water flows. Additionally, erosion of the land, increased runoff due to changed land use, and increased sedimentation in run off to nearby waterways, are expected to be negligible and will not have a significant impact on nearby sensitivities such as Dampier Creek, Roebuck Bay wetland or Broome Water Reserve PDWSA. Since minor quantities of chemicals and hydrocarbons will be handled and/or temporarily stored through construction, impacts resulting in the event of accidental release are expected to be negligible. Therefore, the Proposal's impact on surface water within the DE would be localised with negligible impacts to surrounding areas. The Proposal is not anticipated to have significant impacts on surface water.

Digging for the Proposal is estimated to nominal depths of up to:

- 5 m for infrastructure footings
- 2.5 m for internal electrical cabling and gas piping
- 2 m for an underground network connection/2.5 m for poles for an overhead network connection
- 3 m for geotechnical pits
- 25 m for boreholes for soil and geotechnical investigations.

As the groundwater depth is variable in the surrounding area and the maximum probable groundwater level in the is 4.5 m (Landcorp, 2009), groundwater may be encountered during construction of the Proposal. If groundwater is encountered and dewatering is required, the risk of impacts from excessive drawdown related to the Proposal is low given the short-term nature of the construction period, and the negligible water requirements during the operational phase of the Proposal. Once dewatering activities have ceased groundwater is expected to recover to pre-impact level with no long-term effects on the environment. The release of potentially acidic groundwater is not anticipated, however, if dewatering of groundwater is required any potential short-term impacts can be adequately managed with the proposed controls. Therefore, the Proposal is not anticipated to have significant impacts on groundwater and will not have a significant impact on nearby sensitivities such as Dampier Creek, Roebuck Bay wetland, Broome Water Reserve PDWSA or Broome Groundwater Area.

The Proposal will not cause significant impacts to inland waters (surface and groundwater) given the mitigation approaches and short term, minor nature of construction and operational activities. Impacts can be managed through Horizon Power's mitigation and management measures, and the implementation of the EMP (Appendix A).

### 6.3.6 Environmental outcomes

Table 6-21 provides a summary of the environmental outcomes for the Proposal relating to relevant factors identified for EPA factor inland waters. The Proposal is expected to meet EPA's objective for Inland Waters.

*Table 6-21 Environmental outcomes for inland waters*

<b>Factor</b>	<b>Inland waters environmental outcomes</b>
Surface water	No significant alteration of surface water hydrological regimes or quality.
Groundwater	No significant alteration of groundwater hydrological regimes or quality.

## 6.4 Environmental Factor – Social Surroundings

The EPA’s objective for social surroundings is ‘*To protect social surroundings from significant harm*’ (EPA, 2023b).

### 6.4.1 Relevant policy and guidance

Table 6-22 below provides consideration of how the relevant EPA policy and guidance, and additional State and Commonwealth guidance, has been applied to the assessment of impacts to social surroundings.

The EP Act defines social surroundings as the ‘*aesthetic, cultural, economic and other social surroundings to the extent to which they directly affect or are affected by physical or biological surroundings*’.

**Table 6-22 Policy and guidance**

Policy and guidance	Explain how the EPA policy and guidance has been considered
Environmental Factor Guideline – Social Surroundings (EPA, 2023b)	The Proposal considers the mitigation hierarchy; direct and indirect impacts; implications of cumulative impacts; predicted residual impacts; feasibility of management approaches.
Technical Guidance: Environmental Impact Assessment of Social Surroundings – Aboriginal cultural heritage (EPA, 2023c)	The Proposal provides sufficient information regarding Aboriginal cultural heritage to ensure the EPA can formally assess the Proposal.
Aboriginal Heritage Due Diligence Guidelines (Version 3.0) (Department of Aboriginal Affairs and Department of the Premier and Cabinet, 2013)	The Proposal has been designed to avoid impacts to known heritage sites. The assessment applies the precautionary approach to assess the risk to Aboriginal cultural heritage.
The Western Australian Planning Commission State Planning Policy No. 2 – Environment and Natural Resource Policy for Western Australia (WAPC, 2003)	The Proposal has, and will, consider sustainability during implementation and construction.

### 6.4.2 Receiving environment

#### 6.4.2.1 Surveys and studies

Horizon Power will commission Aboriginal cultural heritage surveys of the DE to confirm Aboriginal cultural heritage values. These will be carried out with the support of Yawuru Traditional Owners.

#### 6.4.2.2 Economic and social surroundings

The Proposal lies within the Shire of Broome, with the southern portion of the DE associated with the network connection route being located in Broome township. Broome has a population of approximately 14,660 people (ABS, 2021). The largest sector of the economy in Broome is construction, followed by transport, tourism and retail activity (Development WA, 2025).

The DE is located on reserve land, freehold land, road, surveyed strata, easement and Crown land (Landgate, 2025a).

6.4.2.3 Amenity

6.4.2.3.1 Visual amenity

The solar and BESS facility will be located in a remote location, north of Broome townsite and will therefore have minimal impacts to visual amenity due to the lack of sensitive receptors. The Proposal will include a network connection which may include the establishment of an overhead network connection (rather than an underground network connection) which will be visible from Broome Cape Leveque Road, Broome Highway, Old Broome Road, Frederick Street and residential areas within Broome.

6.4.2.3.2 Noise, dust, vibration

Construction of the Proposal will generate noise, dust and vibration of short-term duration within the DE. There are no sensitive receptors near the location of the solar and BESS facility, however the network connection will be constructed adjacent to existing roads and a residential area.

6.4.2.4 Cultural heritage

6.4.2.4.1 World, Commonwealth and National Heritage Places

There are no World Heritage Properties or Commonwealth Heritage Places within the DE or within 20 km of the DE. The West Kimberley National Heritage Place is located approximately 950 m east of the network connection corridor section of the DE. All activities will be confined to the DE, therefore there will be no impacts to this National Heritage Place as a result of the Proposal and it is not discussed further.

6.4.2.4.2 Native Title

The Proposal is not located within an Indigenous Land Use Agreement area (Landgate, 2025b).

The DE is located within the Rubibi Community Native Title Determination Area (Federal Court file number: WAD6006/1998), which has the Yawuru Native Title Holders Aboriginal Corporation as the RNTBC.

6.4.2.4.3 Aboriginal cultural heritage features

A search of the Aboriginal Cultural Heritage Inquiry System (ACHIS) indicates that no Lodged sites intersect the DE and the buffers of 6 Registered sites intersect the DE (Table 6-23; Figure 6-10). Horizon Power will commission an Aboriginal cultural heritage survey within the DE to validate the locations of these sites and ensure all known Aboriginal cultural heritage intersecting the DE can be avoided.

Table 6-23 Registered Heritage Sites overlapping the DE

Name	ID	Place Type
Undanda	12793	Camp; Ritual / Ceremonial; Creation / Dreaming Narrative; Grinding areas / Grooves; Midden

Name	ID	Place Type
Wundorda	13320	Artefacts / Scatter; Ritual / Ceremonial; Midden
Ngilirirrbanjin	13351	Ritual / Ceremonial
Wullulong Ground	13463	Other
Titirkun/Kennedy Hill	14560	Artefacts / Scatter; Ritual / Ceremonial; Creation / Dreaming Narrative; Grinding areas / Grooves; Hunting Place; Midden; Other; Water Source
Broome Crocodile Farm	21408	Camp; Ritual / Ceremonial; Creation / Dreaming Narrative

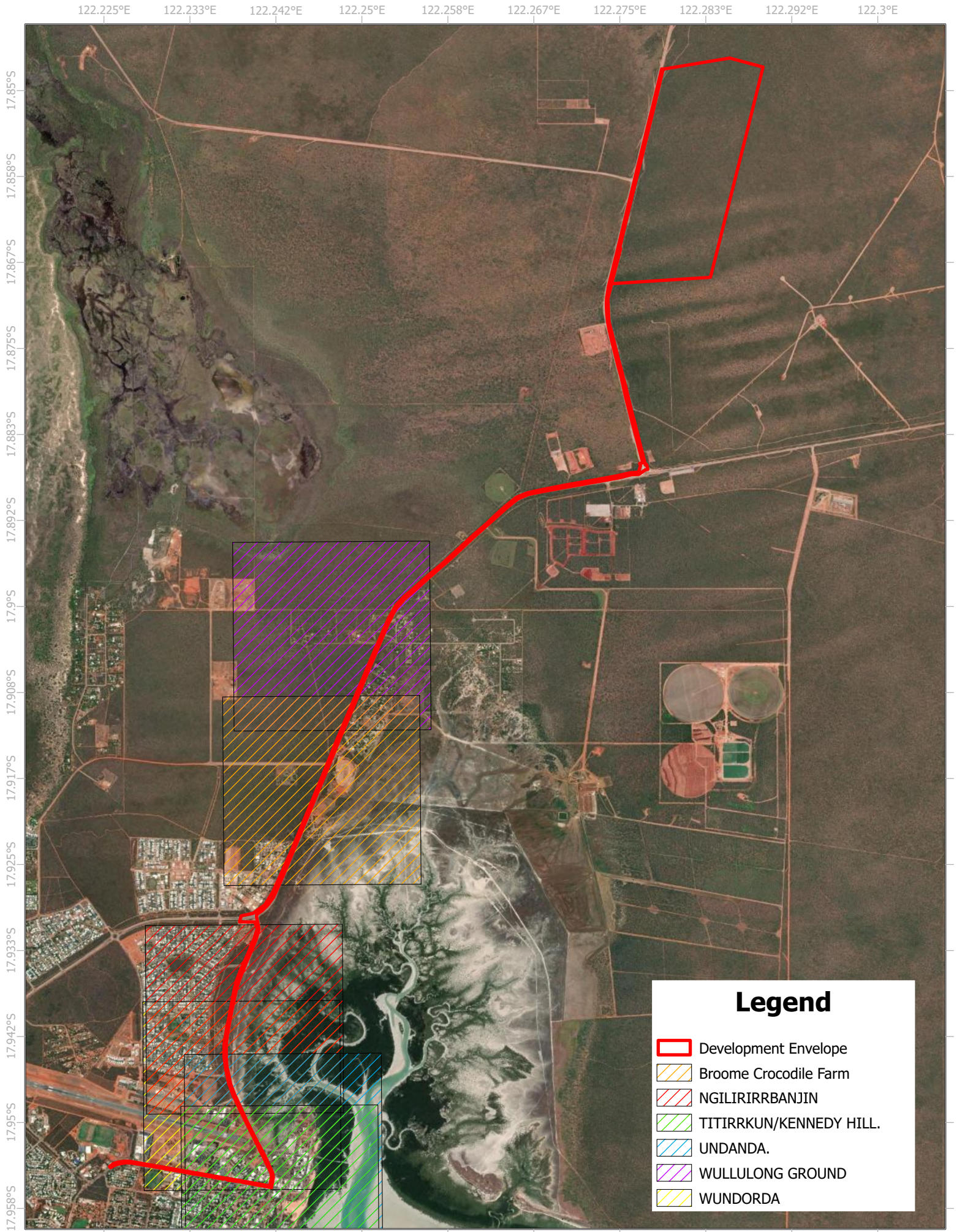
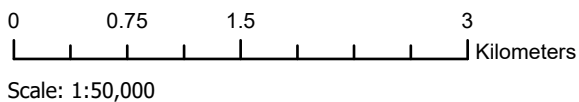


Figure 6-10 Registered Aboriginal Cultural Heritage Sites within the Development Envelope



#### 6.4.2.4.4 European heritage

A search of the Heritage Council WA inHerit database confirms no State Heritage sites occur within the DE (DPLH, 2025a).

One municipal heritage site, Tram Line (Place Number: 26423), intersects a portion of the network connection route section of the DE (DPLH, 2025b) (Figure 6-11).

#### 6.4.2.5 Nature reserves

There are no DBCA managed lands within the DE (DBCA, 2024a). However, approximately 310 m east and 705 m west of the DE, there is land protected under the CALM Act for the purpose of “conservation, recreation and traditional and customary Aboriginal use and enjoyment” for the Yawuru Native Title Holders Aboriginal Corporation RNTBC. The Yawuru Nagulagun / Roebuck Bay Marine Park is also approximately 140 m east of the DE. All Proposal activities will be confined to the DE and impacts to these protected lands is not expected to result from the Proposal. The protected lands are therefore not discussed further.

The network connection route portion of the DE overlaps an ESA that is associated with the buffer of the Roebuck Bay mudflats TEC. This TEC is listed as Vulnerable under the BC Act and is not listed as Threatened under the EPBC Act. The DE only overlaps the buffered extent of this TEC, and does not overlap the mapped boundary of the TEC. No vegetation commensurate with these ecological communities was identified in the DE. The TEC is therefore not discussed further.

Conservation areas within the vicinity of the DE are shown in Figure 2-6.

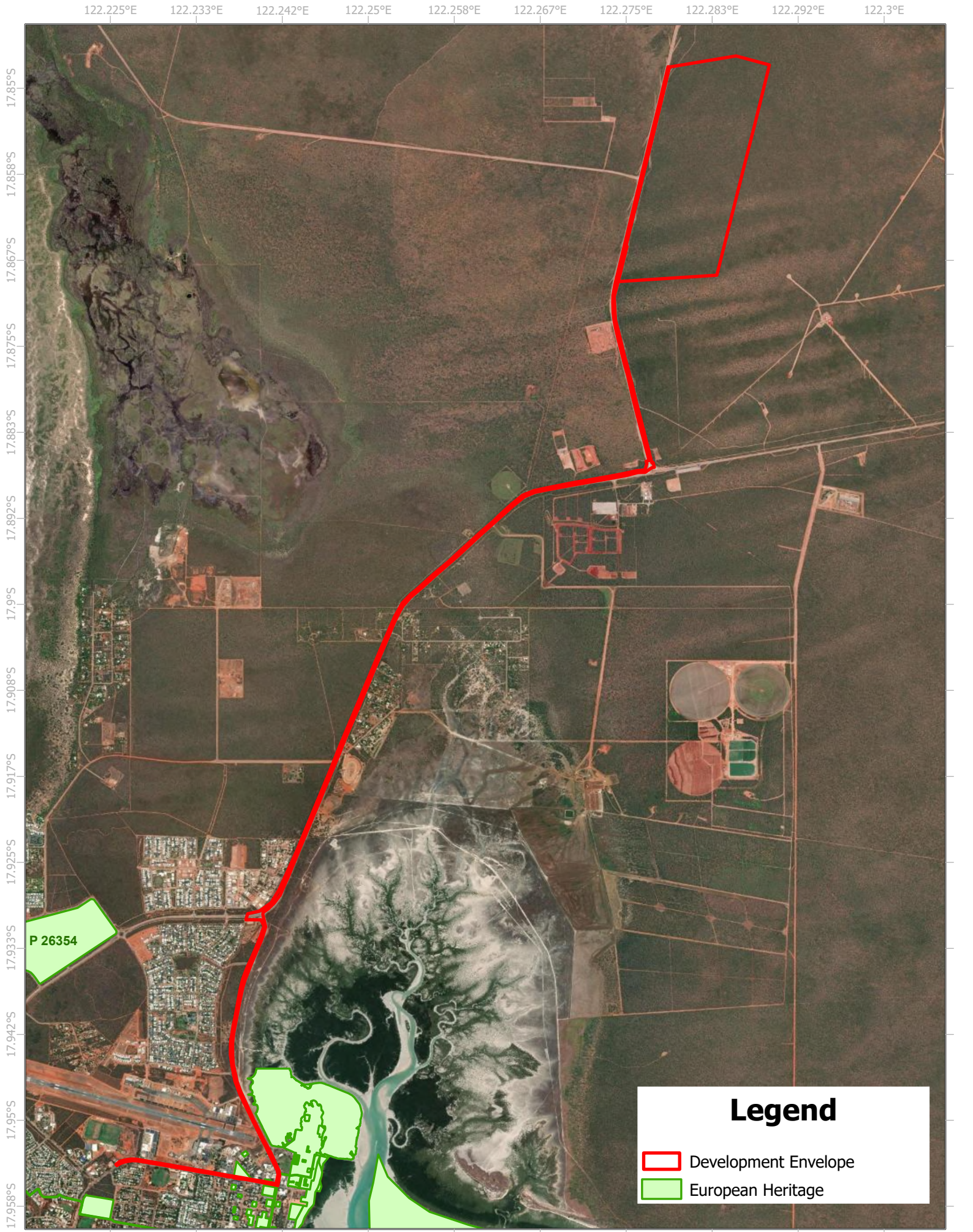


Figure 6-11 European Heritage within the Vicinity of the Development Envelope



0 0.75 1.5 3  
Kilometers  
Scale: 1:50,000



### 6.4.3 Potential impacts

#### 6.4.3.1 Amenity

##### 6.4.3.1.1 Direct impacts

The solar and BESS facility will be located in a remote location, north of Broome townsite and will therefore have minimal impacts to visual amenity due to the lack of sensitive receptors. The Proposal will include network connection which may involve the establishment of an overhead network connection (rather than an underground network connection) which would be visible from Broome Cape Leveque Road, Broome Highway, Old Broome Road, Frederick Street and residential areas within Broome. The network connection route has been positioned to follow existing roads to minimise the extent of visual amenity impacts. Therefore, the Proposal is not expected to cause significant impacts to visual amenity.

##### 6.4.3.1.2 Indirect impacts

The Proposal has the potential to indirectly impact amenity of areas surrounding the DE through dust, noise and vibration emissions generated during construction.

##### 6.4.3.1.3 Cumulative impacts

The Proposal, and other Proposals in the surrounding area, have the potential to result in cumulative impacts to visual amenity. As the Proposals are in line with existing infrastructure in the region, the Proposal is not expected to provide any additional impacts to visual amenity.

### 6.4.3.2 *Aboriginal cultural heritage*

#### 6.4.3.2.1 Direct impacts

The location and extent of Aboriginal cultural heritage values within the DE will be confirmed during an Aboriginal cultural heritage survey with the support of Yawuru Traditional Owners. Horizon Power is committed to avoiding direct impacts to all known Aboriginal cultural heritage.

#### 6.4.3.2.2 Indirect impacts

The Proposal has the potential to indirectly impact Aboriginal cultural heritage and values of the DE and surrounding areas through:

- Dust generation during construction has the potential to settle on Aboriginal cultural heritage within or adjacent to the DE
- Vibrations during construction has the potential to cause physical damage to Aboriginal cultural heritage within or adjacent to the DE
- Accidental fires during construction or operations, has the potential to cause physical damage to Aboriginal cultural heritage within or adjacent to the DE.

#### 6.4.3.2.3 Cumulative impacts

Cumulative impacts to Aboriginal cultural heritage, as it relates to registered sites and places are not anticipated given:

- Horizon Power is committed to avoiding direct impacts to known Aboriginal cultural heritage sites and places within the DE during construction and operations
- Potential indirect impacts to known Aboriginal cultural heritage sites and places (i.e. vibrations, dust generation and accidental fires during construction) would only occur for a short duration and only in the construction phase and is therefore not expected to have an adverse impact
- The potential for impact to unexpected finds (previously unrecorded Aboriginal cultural heritage sites and places) during construction can be adequately mitigated through the measures detailed in Section 6.4.4.

### 6.4.3.3 *European heritage*

#### 6.4.3.3.1 Direct impacts

Construction of the Proposal will directly disturb land within municipal heritage site, 'Tram Line' (Place Number: 26423) along the network connection route portion of the DE. This site overlaps Hamersley Street which has been previously disturbed for the existing road and therefore additional impacts from the Proposal are not expected. No other European Heritage sites are expected to be impacted by the Proposal.

#### 6.4.3.3.2 Indirect impacts

The Proposal has the potential to indirectly impact European heritage within the DE and surrounding areas through:

- Dust generation during construction has the potential to settle on heritage sites within or adjacent to the DE, as well as impacting amenity of the DE and surrounds

- Vibration during construction has the potential to cause physical damage to heritage sites within or adjacent to the DE, as well as impacting amenity of the DE and surrounds
- Accidental fires during construction, has the potential to cause physical damage to heritage sites within or adjacent to the DE, as well as impacting amenity of the DE and surrounds.

#### 6.4.3.3.3 Cumulative impacts

Cumulative impacts to European heritage are not anticipated given:

- The known municipal heritage site within the DE has been previously disturbed by the existing road and there is no evidence of the former tram line in the majority of its former route linking the two jetties (GoWA, 2021).
- Potential indirect impacts to European heritage sites and places (i.e. vibrations, dust generation and accidental fires during construction) would only occur for a short duration and only in the construction phase and is therefore not expected to have an adverse impact.

#### 6.4.4 Mitigation

##### 6.4.4.1 Amenity

Measures to mitigate impacts to visual amenity include:

- Alignment of network connection route with existing roads
- Use of existing disturbed areas to minimise clearing.

Measures to mitigate impacts to amenity from dust, noise, vibrations and fire risk include:

- Dust, noise, vibrations and fire risk will be managed in accordance with the Proposal EMP (Appendix A). EMP mitigation measures will include (but are not limited to):
  - Construction works will be undertaken in accordance with the Environmental Protection (Noise) Regulations 1997
  - Dust suppression controls (i.e. use of water carts) to be implemented.

##### 6.4.4.2 Aboriginal cultural heritage

Key measures to avoid impacts to Aboriginal heritage include:

- Execution of a Heritage Protection Agreement with Yawuru Traditional Owners to establish cultural heritage surveys and cultural heritage monitoring protocols
- The location and extent of Aboriginal cultural heritage values within the DE will be confirmed during an Aboriginal cultural heritage survey with the support of Yawuru Traditional Owners.
- Prior to conducting ground disturbing activities, known Aboriginal cultural heritage sites will be delineated using avoidance areas within the DE. The avoidance areas will be demarcated in a culturally appropriate manner to ensure a suitable buffer is maintained between avoidance areas and construction activities (where permitted by and with assistance of Yawuru Traditional Owners).
- Aboriginal cultural heritage monitors may be present during initial ground disturbing works as per Heritage Protection Agreement requirements.
- Dust, vibrations and fire risk will be managed in accordance with the Proposal EMP.

- Impact to all known Aboriginal cultural heritage sites (newly recorded and previously verified) will be avoided.
- Potential new finds (including human remains) uncovered during ground disturbing works are protected (i.e. cease work in the immediate area until assessed by Yawuru Traditional Owners and a consultant archaeologist/anthropologist as appropriate, and cleared by police if relating to human remains).

#### 6.4.4.3 European heritage

Construction of the Proposal will directly disturb land within municipal heritage site, 'Tram Line' (Place Number: 26423) along the network connection route portion of the DE. This site overlaps Hamersley Street which has been previously disturbed for the existing road and therefore additional impacts from the Proposal are not expected. Therefore, no mitigation measures are proposed.

### 6.4.5 Assessment and significance of residual impact

#### 6.4.5.1 Amenity

Due to the nature of the Proposal the majority of impacts to amenity (i.e. dust, noise, vibrations) will occur only during the construction phase. Impacts will be of a short-term duration and can be adequately managed through a EMP (Appendix A).

The Proposal will have a long-term impact on visual amenity from permanent infrastructure (network connection, solar and BESS facility and associated infrastructure within the solar and BESS facility site). The network connection design is consistent with existing infrastructure in the region, and the DE route has been selected to align with service corridors adjacent to existing roads and developed areas in order to limit environmental and social impacts (including impacts to visual amenity). The solar and BESS facility will be located in a remote location, north of Broome townsite and will therefore have minimal impacts to visual amenity due to the lack of sensitive receptors. Visual impacts from the Proposal are considered minor in the context of existing and proposed disturbances in Broome.

#### 6.4.5.2 Aboriginal cultural heritage

The DE overlaps registered Aboriginal heritage sites (shown in Table 6-23). The location and extent of Aboriginal cultural heritage values within the DE will be confirmed during an Aboriginal cultural heritage survey with the support of Yawuru Traditional Owners. Horizon Power is committed to avoiding direct impacts to all known Aboriginal cultural heritage. Prior to conducting ground disturbing activities, known Aboriginal cultural heritage sites will be delineated using avoidance areas within the DE. The avoidance areas will be demarcated in a culturally appropriate manner to ensure a suitable buffer is maintained between avoidance areas and construction activities (where permitted by and with assistance of Yawuru Traditional Owners). This will ensure inadvertent impacts are prevented.

Any residual risk associated with ground disturbing works will be managed in accordance with heritage monitoring protocols of the Heritage Protection Agreement to be executed with the Yawuru Traditional Owners.

No disturbance, damage, impact or removal of any Aboriginal Heritage sites is proposed as part of Proposed Action activities. If required, any disturbance to heritage features will be

undertaken in accordance with the AH Act and any other applicable legislation, aligned with the Horizon Power Aboriginal Cultural Heritage Management Policy and following consultation with the Yawuru Traditional Owners. Therefore, significant residual impacts to Aboriginal cultural heritage are not expected as a result of the Proposal.

6.4.5.3 European heritage

Construction of the Proposal will directly disturb land within municipal heritage site, ‘Tram Line’ (Place Number: 26423) along the network connection route portion of the DE. This site overlaps Hamersley Street which has been previously disturbed for the existing road and therefore additional impacts from the Proposal are not expected. No other European Heritage are expected to be impacted by the Proposal.

Therefore, significant residual impacts to European cultural heritage are not expected as a result of the Proposal.

6.4.5.4 Summary of significant residual impacts

Based on the impacts identified and the mitigation proposed, the Proposal is not expected to have a significant residual impact on social surroundings.

6.4.6 Environmental outcomes

Table 6-24 provides a summary of the environmental outcomes for the Proposal relating to relevant factors identified for EPA factor social surroundings. The Proposal is expected to meet EPA’s objective for social surroundings.

Table 6-24 Environmental outcomes for social surrounds

Factor	Outcomes
Aboriginal heritage	No direct impacts to known Aboriginal cultural heritage sites within or adjacent to the DE.  Works undertaken for the Proposal will comply with the AH Act.  Indirect impacts from dust and vibrations occur for a short duration (intermittent and only during the construction phase) with mitigation implemented in accordance with the EMP.
European heritage	Minor direct impact to ‘Tram Line’ (Place Number: 26423) municipal heritage site along the network connection route portion of the DE.
Amenity – visual	Long-term minor impacts to visual amenity. Impacts are adequately mitigated through Proposal design, and DE alignment with existing developed areas.
Amenity – noise, dust, vibrations	Short-term minor impacts to amenity from noise, dust and vibrations are adequately managed through the EMP.
Nature reserves	No direct impact to nature reserves.

## 6.5 Other environmental factors

The following additional environmental factors relevant to the Proposal have been identified and are discussed below:

- Terrestrial Environmental Quality
- Air Quality
- GHG Emissions.

Table 6-25 provides a summary of the impacts, mitigations and outcomes for these factors.

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Table 6-25 Other environmental factors relevant to the Proposal

Factor	Policy and Guidance	Receiving Environment	Potential Impacts	Mitigation	Outcomes
Terrestrial Environmental Quality	Environmental Factor Guideline – Terrestrial Environmental Quality (EPA, 2016d)	<p>The DE is within an area of extremely low probability of occurrence of ASS (1-5% chance of occurrence with any occurrences in small, localised areas) (Fitzpatrick et al., 2011).</p> <p>Adjacent to the network connection route portion of the DE, there is a high probability of occurrence of ASS (&gt;70% chance of occurrence) in intertidal and extratidal flats (Fitzpatrick et al., 2011).</p> <p>A search on the DWER Contaminated Sites Database (DWER, 2025) was conducted to identify the presence or absence of contaminated sites within the DE. The search identified that the network connection route portion of the DE overlaps (Figure 6-12):</p> <ul style="list-style-type: none"> <li>Site number 40342, classified as “Contamination –</li> </ul>	<p>Potential impacts to Terrestrial Environmental Quality from construction of the Proposal include:</p> <ul style="list-style-type: none"> <li>Exposure of ASS by ground disturbing associated with construction of the network connection</li> <li>If groundwater is encountered, short-term dewatering of potentially acidic groundwater could result</li> <li>Soil erosion from clearing, earthworks and vehicle/machinery movement</li> <li>Soil contamination from accidental release of chemicals and/or hydrocarbons (i.e. leaks, spills) particularly during the construction phase. Since minor quantities of chemicals and hydrocarbons will be handled and/or temporarily stored through construction, impacts resulting in the event of</li> </ul>	<p>The following measures will be implemented to mitigate impacts to Terrestrial Environmental Quality during construction:</p> <ul style="list-style-type: none"> <li>Any water abstraction required for construction of the Proposal will be undertaken to minimise drawdown, and water allowed to infiltrate as close to the source as possible. If the groundwater is acidic, it would be treated and discharged in accordance with an ASS Management Plan.</li> <li>Implementation of EMP controls to minimise erosion and potential mobilization of unstabilised sediments with stormwater runoff</li> <li>Implementation of EMP to prevent release of chemicals, hydrocarbons and waste, and prescribe corrective</li> </ul>	<p>The Proposal will not cause significant impacts to Terrestrial Environmental Quality given the flexibility to adjust Proposal design to minimise impacts, the short-term nature of construction activities, the limited quantities of contaminants handled on site, and the implementation of listed controls in accordance with the mitigation hierarchy.</p> <p>The release of potentially acidic groundwater is not anticipated, however, if dewatering of groundwater is required any potential short-term impacts can be adequately managed with the proposed controls.</p> <p>The contaminated sites that overlap the DE are on already cleared land use for road and residential purposes. Therefore, construction of the Proposal is not likely to disturb these sites, and no significant impact is expected.</p> <p>Therefore, the Proposal is expected to meet EPA’s objective.</p>

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Factor	Policy and Guidance	Receiving Environment	Potential Impacts	Mitigation	Outcomes
		<p>remediation required”: one metre of light non-aqueous phase liquid is present floating on the surface of groundwater in the southern portion of the site, extending from below the adjacent service station site.</p> <ul style="list-style-type: none"> <li>Site number 58930 classified as “Remediated for restricted use”: Hydrocarbons (such as from petrol or diesel) are present in groundwater beneath the site.</li> </ul> <p>Additional contaminated sites are located adjacent to the DE.</p>	<p>accidental release are expected to be negligible</p> <ul style="list-style-type: none"> <li>Soil contamination from accidental release of waste</li> <li>Disturbance to existing contaminated sites within DE.</li> </ul> <p>Operational activities associated with the Proposal include operation of the solar and BESS facility and network connection, along with maintenance inspections and repairs. Operation of the Proposal will be restricted to cleared land and is not expected to impact Terrestrial Environmental Quality.</p>	<p>actions in the event of accidental releases</p>	
Air Quality	Environmental Factor Guideline – Air Quality (EPA, 2020)	The network connection route portion of the DE intersects Broome town.	Fugitive dust may be generated from vehicle movements, clearing and construction activities, having a temporary and localised impact on air quality. The majority of dust is	<p>The following measures will be implemented to mitigate air quality impacts from dust generated during operation of the Proposal:</p> <ul style="list-style-type: none"> <li>Implementation of the EMP will ensure that</li> </ul>	The Proposal will not cause significant impacts to air quality given the transient and localised nature of dust generation mostly limited to the construction phase.

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Factor	Policy and Guidance	Receiving Environment	Potential Impacts	Mitigation	Outcomes
			<p>expected to be generated during the construction phase.</p> <p>Operational activities associated with the Proposal include operation of the solar and BESS facility and network connection, along with maintenance inspections and repairs. Operation of the Proposal will be restricted to cleared land and is not expected to produce significant dust emissions.</p>	<p>potential dust sources are managed appropriately and receptors (i.e. construction workforce) are adequately protected from short-term exposure.</p>	<p>Implementation of the EMP is considered adequate to manage any potential impacts to air quality from dust. Therefore, the Proposal is expected to meet EPA’s objective for Air Quality.</p>
GHG Emissions	Environmental Factor Guideline – Greenhouse Gas Emissions (EPA, 2024)	The network connection route portion of the DE intersects Broome town.	<p>An assessment of GHG emissions (scope 1, 2 and 3) generated during construction and operation of the Proposal was undertaken.</p> <p>The Proposal is unlikely to exceed the 100,000 tonnes CO<sub>2</sub> of Scope 1 or 2 greenhouse gas emissions per annum threshold defined in the Environmental Factor Guideline (EPA, 2024).</p>	<p>The following measures will be implemented to mitigate GHG emissions:</p> <ul style="list-style-type: none"> <li>• Local sourcing will be considered wherever possible</li> <li>• Vehicle selection will take into account fuel consumption efficiency, whilst allowing operational efficiency</li> <li>• Ongoing maintenance of vehicles to ensure efficient fuel use</li> </ul>	<p>The Proposal is unlikely to result in a significant residual impact on GHG emission factor and is not considered to require a GHG management plan given emissions are 62,334 t CO<sub>2</sub>-e for construction and 24,962 t CO<sub>2</sub>-e/yr<sup>4</sup> for operation.</p> <p>By using renewable energy instead of diesel and gas-fired power, the Proposal will result in a positive environmental impact, reducing the reliance on fossil fuels which lowers environmental pollution and</p>

<sup>4</sup> A greenhouse gas (GHG) assessment was undertaken for Broome as two one of Horizon Power’s larger GHG emitting towns. This assessment includes project elements that are subject to this referral, plus additional requirements that could be needed in the future such as new power station infrastructure. This approach was taken to demonstrate that both the towns would be well below the safeguard threshold (100,000 tonnes carbon dioxide equivalent (tCO<sub>2</sub>e) per year).

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Factor	Policy and Guidance	Receiving Environment	Potential Impacts	Mitigation	Outcomes
				<ul style="list-style-type: none"> <li>Minimise clearing of vegetation where possible.</li> </ul>	<p>mitigates climate change impacts. The Proposal may result in emissions reduction of up to 50,000 tonnes of CO<sub>2</sub>e per annum compared to the operation of the existing Broome power station. If the FES were to operate for 20 years, this would equate to a reduction of up to one million tonnes of CO<sub>2</sub>e.</p> <p>Therefore, the Proposal is expected to meet EPA's objective for GHG Emissions.</p>

# Legend

- Development Envelope
- Contaminated - remediation required
- Remediated for restricted use



Figure 6-12 Contaminated Sites within the Vicinity of the Development Envelope



0 0.75 1.5 3 Kilometers

Scale: 1:50,000



## 7 Offsets

The Proposal will not result in any significant residual impacts to environmental factors. An offset strategy is not proposed as management and mitigation measures developed are expected to adequately manage implementation of the Proposal.

## 8 Holistic impact assessment

The EIA process needs to consider the benefits and impacts of the Proposal in a holistic manner. Where the combination of two or more environmental factors has the potential to result in a significant impact, a holistic impact assessment should consider the interconnectedness of the assessed environmental factors through the application of the EPA's objectives for environmental factors.

The environmental surveys and studies undertaken for the Proposal have considered and assessed potential impacts at both a local and regional scale. The results of these surveys have informed the Proposal impact assessment and mitigation measures.

While the Proposal's predicted outcomes have been considered independently in relation to the environmental principles and the EPA's environmental objectives for each preliminary environmental factor, Horizon Power recognises the complex linkages between flora and vegetation, terrestrial fauna, inland waters and social surroundings. These complex linkages and connections between parts of the environment have been portrayed in Figure 8-1 to inform the Proposal's holistic impact assessment.

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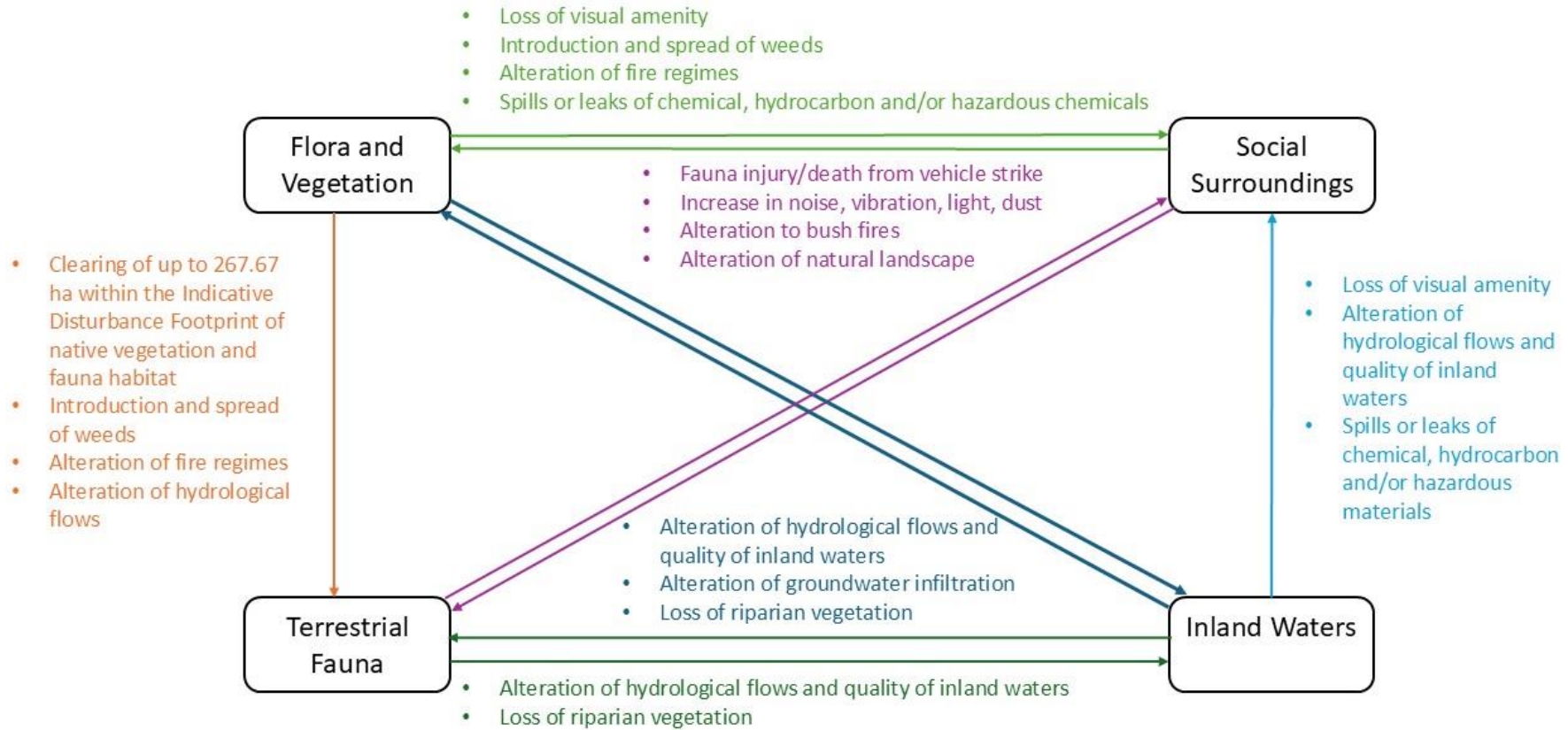


Figure 8-1 Intrinsic interactions between key environmental factors

## 8.1 Vegetation and flora

Potential impacts to terrestrial flora and vegetation will result primarily from permanent and temporary activities required to implement the Proposal.

There are areas of vegetation and flora within the DE that have been historically impacted by the existing roads and surrounding land uses. However, the majority of the DE is in Excellent condition.

The Proposal will utilise existing cleared areas and roads where possible. The Proposal requires the removal of up to 241.0 ha of native vegetation. The clearing of native vegetation required for the Proposal includes up to 1.5 ha of riparian vegetation. The Proposal also requires the removal of up to 11 known individuals of *Glycine pindanica*, up to known 4 individuals of *Jacquemontia* sp. Broome (A.A. Mitchell 3028), up to 190 known individuals of *Polymeria* sp. Broome (K.F. Kenneally 9759) and up to 33 known individuals of *Corymbia ?paractia*. The Proposal may also clear individuals of *Neptunia ?major*, *Gyrocarpus americanus* subsp. *Americanus* and *Melaleuca ?glomerata*, which are flora species that represent a range extension.

Through the clearing of native vegetation, the Proposal has the potential to impact on terrestrial fauna by removing and altering fauna habitats potentially suitable for significant fauna species, introducing or spreading weeds, alteration of fire regimes and alteration of hydrological flows.

Clearing of vegetation and alteration to the natural landscape (including the introduction and spread of weeds, alteration of fire regimes and spills or leaks of chemicals, hydrocarbon and/or hazardous chemicals) has the potential to reduce visual amenity and impact social surroundings.

Clearing of vegetation has the potential to alter hydrological flows and quality of inland waters, alter groundwater infiltration and impact inland waters.

By applying the proposed mitigation and management measures detailed throughout the referral and within the EMP, Horizon Power considers that the impacts to the health and integrity of other environmental factors including terrestrial fauna, inland waters and social surroundings are likely to be consistent with the EPA's environmental factor objectives.

## 8.2 Terrestrial fauna

Similar to flora and vegetation impacts, potential impacts to terrestrial fauna will result primarily from permanent and temporary activities required to implement the Proposal. Fauna habitats within the DE range from low to high value and are suitable for 14 fauna species with the potential to occur within the DE.

The Proposal will utilise existing cleared areas and roads to minimise impacts to fauna habitats where possible. The Proposal will impact on terrestrial fauna through clearing of up to 244.9 ha of fauna habitat. Clearing of vegetation required for the Proposal has the potential to impact terrestrial fauna, through the removal of fauna habitat.

Removal of fauna habitat does not introduce any additional impacts to flora and vegetation as impacts from clearing native vegetation have already been assessed within the flora and vegetation factor.

Removal of fauna habitat has the potential to impact social surroundings through alteration of the natural landscape.

Removal of fauna habitat has the potential to impact inland waters via alteration of hydrological flows and quality of inland waters.

Having considered the historical and cumulative impacts to fauna habitats in the vicinity of the Proposal, Horizon Power does not expect any significant residual impacts to result from the Proposal. By applying the proposed mitigation and management measures detailed throughout the referral and within the EMP, Horizon Power considers that the impacts to the health and integrity of other environmental factors including flora and vegetation, inland waters and social surroundings are likely to be consistent with the EPA's environmental factor objectives.

### 8.3 Inland waters

Potential impacts to inland waters will result primarily from permanent and temporary activities required to implement the Proposal. There are no permanent or temporary water bodies or drainage lines within the DE. However, the southern portion of the network connection route is located in close proximity to the Dampier Creek and the DE overlaps the Broome Water Reserve, which is a PDWSA.

Implementation of the EMP for the proposal is expected to mitigate impacts to inland water.

Alteration of groundwater levels may impact the riparian vegetation in the area and alteration of hydrological flows and quality of inland waters may impact vegetation and flora via erosion and water availability.

Alteration of groundwater levels and surface water flow may impact fauna habitats such as the open Eucalypt dampland and sparse mangrove tidal mudflat habitats.

Alteration of hydrological flows and quality of inland waters may cause alteration to the natural landscape (including spills or leaks of chemicals, hydrocarbon and/or hazardous chemicals), which has the potential to reduce visual amenity and impact social surroundings.

The Proposal will not cause significant impacts to inland waters (surface and groundwater) given the mitigation approaches and short term, minor nature of construction and operational activities. By applying the proposed mitigation and management measures detailed throughout the referral and within the EMP, Horizon Power considers that the impacts to the health and integrity of other environmental factors including flora and vegetation, terrestrial fauna and social surroundings are likely to be consistent with the EPA's environmental factor objectives.

### 8.4 Social surroundings

Implementation of the Proposal will not directly impact upon known Aboriginal cultural heritage.

Noise and vibration may be a nuisance during construction to nearby sensitive receivers, however these impacts will be of a short duration and temporary. Noise mitigation measures will be implemented for the construction of the Proposal, as outlined in the EMP (Appendix A). Operational noise is not expected to be significant.

The construction of the Proposal has the potential to cause fauna injury/death from vehicle strike, an increase in noise, vibration, light, dust and alteration to bush fires which may impact flora, vegetation, fauna and fauna habitat.

Impacts to social surroundings does not introduce any additional impacts to inland waters.

The Proposal will not cause significant impacts to social surroundings given the mitigation approaches and short term, minor nature of construction and operational activities. By applying the proposed mitigation and management measures detailed throughout the referral and within the EMP, Horizon Power considers that the impacts to the health and integrity of other environmental factors including flora and vegetation, terrestrial fauna and inland waters are likely to be consistent with the EPA's environmental factor objectives.

## 9 Cumulative environmental impact assessment

Cumulative effects to the environment result from multiple activities whose direct impacts may be relatively minor, but in combination with other activities can result in significant environmental and social effects. Cumulative impacts resulting from the Proposal for each preliminary key environmental factor are summarised in the following section.

The cumulative impact assessment presented considers other projects as identified in Section 2.4.6, which are approved in the Pindanland subregion. Horizon Power is also aware of a number of Proposals and developments that are currently in the design and/or planning phase, and that are located in proximity to this Proposal. However, as these Proposals have not yet been approved or submitted for approval, they are considered to be speculative and conceptual in nature and as such they have not been considered within the cumulative impact assessment.

These developments included in the cumulative impact assessment are:

- Shire of Broome - Broome Regional Resource Recovery Park Landfill Development: located immediately adjacent (west) of the DE. The project was referred to the EPA under Section 38 of the EP Act in 2023. The referral was examined and the proposal not to be assessed under Part IV of the EP Act.
- Ten active NVCPs within the Pindanland Subregion as detailed in Section 2.4.6.

### 9.1 Flora and vegetation

Cumulative impacts for environmental factor flora and vegetation, relevant to the Proposal, are listed in Table 9-1 and summarised as follows:

- Implementation of the current Proposal as well as other Proposals listed in Table 6-8 will result in the combined removal of up to 1,195.2 ha native vegetation in varying condition (including 874.3 ha associated with approved NVCPs). The vegetation types (and broad vegetation complexes) recorded within the Proposal DE are not restricted to the local area.
- Implementation of the current Proposal as well as other Proposals listed in Table 6-8 will result in the combined removal of up to 473.4 ha of native vegetation associated with Vegetation association 750. The current Proposal will result in the reduction of approximately 0.02% of the current mapped Vegetation Association 750 at a local scale (Shire of Broome) and a regional scale (Dampierland IBRA bioregion).
- The current Proposal will directly impact riparian vegetation resulting in a loss of up to 1.5 ha. The other Proposals listed in Table 6-8 will not impact riparian vegetation, therefore no additional foreseeable impacts on riparian vegetation are anticipated.
- Implementation of the current Proposal as well as other Proposals listed in Table 6-8 will result in the combined removal of up to 12 individuals of *Glycine pindanica*, 661 individuals of *Jacquemontia* sp. Broome (A.A. Mitchell 3028) and 39 individuals of *Corymbia paractia*. Clearing of these species is not expected to significantly impact the population of the species at a local or regional scale, given the relative abundance of records of the species across WA.
- The current Proposal may clear flora that represents a range extension (*Neptunia ?major*, *Gyrocarpus americanus* subsp. *Americanus* and *Melaleuca ?glomerata*). The other Proposals listed in Table 6-8 will not impact flora that represent a range

extension, therefore no additional foreseeable impacts on these species are anticipated.

Table 9-1 Flora and vegetation cumulative impacts relevant to Proposal

Aspect	Cumulative environmental impacts
<b>Environmental factor – flora and vegetation</b>	
Proposed vegetation clearing	Combined removal of up to 1,195.2 ha native vegetation in varying condition (including 874.3 ha associated with approved NVCPs).
Pre-European complexes affected	Combined removal of up to 473.4 ha of native vegetation associated with Vegetation association 750.
Riparian vegetation	Up to 1.54 ha of riparian vegetation will be cleared for the Proposal, however there will be no cumulative impacts from the other developments.
Significant flora affected	<ul style="list-style-type: none"> <li>• Combined removal of up to 12 individuals of <i>Glycine pindanica</i></li> <li>• Combined removal of up to 661 individuals of <i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028)</li> <li>• Combined removal of up to 39 individuals of <i>Corymbia paractia</i>.</li> </ul>
Flora that represent a range extension	Clearing of individuals of <i>Neptunia ?major</i> , <i>Gyrocarpus americanus</i> subsp. <i>Americanus</i> and <i>Melaleuca ?glomerata</i> may occur as a result of the Proposal, however there will be no cumulative impacts from the other developments

## 9.2 Terrestrial fauna

Cumulative impacts for environmental factor terrestrial fauna, relevant to the Proposal, are listed in Table 9-2. Implementation of the current Proposal as well as other Proposals listed in Table 6-17 will together:

- Result in the loss of up to 1,199.1 ha of fauna habitat in varying condition. The fauna habitat types recorded within the DE are not restricted to the local area.
- Clear habitat for 12 of the 14 conservation significant species that may be impacted by the Proposal.

Table 9-2 Terrestrial fauna cumulative impacts relevant to Proposal

Aspect	Cumulative environmental impacts
<b>Environmental factor – terrestrial fauna</b>	
Proposed fauna habitat clearing	Proposals combined clearing: 1,199.1 ha of fauna habitat in varying condition.
Significant fauna species and habitats affected	<ul style="list-style-type: none"> <li>• Clearing of up to 1,166.3 ha of Bilby habitat</li> <li>• Clearing of up to 681.2 ha of Northern Brush-tail Possum habitat</li> <li>• Clearing of up to 428.3 ha of Fork-tailed Swift habitat</li> <li>• Clearing of up to 330.3 ha of Northern Coastal Free-tailed Bat habitat</li> <li>• Clearing of up to 324.9 ha of Bare-rumped Sheath-tail Bat habitat</li> <li>• Clearing of up to 422.9 ha of Northern Short-tailed Mouse habitat</li> <li>• Clearing of up to 253.5 ha of Dampierland Burrowing Snake habitat</li> <li>• Clearing of up to 601.2 ha of Dampierland Plain Slider habitat</li> <li>• Clearing of up to 259.2 ha of Gouldian Finch habitat</li> </ul>

	<ul style="list-style-type: none"> <li>• Clearing of up to 445.2 ha of Grey Falcon habitat</li> <li>• Clearing of up to 442.8 ha of Peregrine Falcon habitat</li> <li>• Clearing of up to 422.9 ha of Barn Swallow habitat.</li> </ul>
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### 9.3 Inland waters

As the Proposal’s impact to inland waters is considered negligible, the Proposal is not expected to result in any cumulative impacts to hydrological regimes and quality of groundwater and surface water.

### 9.4 Social surroundings

The Proposal, and other Proposals in the surrounding area, have the potential to result in cumulative impacts to visual amenity. As the Proposals are in line with existing infrastructure in the region, the Proposal is not expected to provide any additional impacts to visual amenity.

Cumulative impacts to Aboriginal cultural heritage, as it relates to registered sites and places are not anticipated given:

- Horizon Power is committed to avoiding direct impacts to known Aboriginal cultural heritage sites and places within the DE during construction and operations.
- Potential indirect impacts to known Aboriginal cultural heritage sites and places (i.e. vibrations, dust generation and accidental fires during construction) would only occur for a short duration and only in the construction phase and is therefore not expected to have an adverse impact.
- The potential for impact to unexpected finds (previously unrecorded Aboriginal cultural heritage sites and places) during construction can be adequately mitigated through the measures detailed in Section 6.4.4.

Cumulative impacts to European heritage are not anticipated given:

- The known municipal heritage site within the DE has been previously disturbed by the existing road and there is no evidence of the former tram line in the majority of its former route linking the two jetties (GoWA, 2021).
- Potential indirect impacts to European heritage sites and places (i.e. vibrations, dust generation and accidental fires during construction) would only occur for a short duration and only in the construction phase and is therefore not expected to have an adverse impact.

## 10 References

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## 11 Appendices

### Appendix A – Environmental Management Plan

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# Broome Future Energy System Environmental Management Plan


April 2025



**HORIZON**  
POWER

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## Document Version Control

Version	Date	Description (reason for changes)	Authorised	Signature
0	16/04/2025	Submission.	D Kippin	

## Environmental Protection Authority

### Cover Page Table

<b>Proposal Name</b>	Broome Future Energy System
<b>Proponent Name</b>	Horizon Power
<b>Ministerial Statement Number/s (if applicable)</b>	Not applicable (yet to be assessed), will be added if applicable in later revisions.
<b>Purpose of the EMP</b>	To describe how the environmental impacts of the Proposal activities will be monitored, reported on and managed.
<b>Key Environmental Factor(s) and Objective(s)</b>	<ul style="list-style-type: none"> <li>– Flora and vegetation: to minimise impacts to flora and vegetation required for construction and operation of the Project as far as practicable</li> <li>– Terrestrial fauna: to minimise fauna habitat loss, and direct and indirect impacts to fauna as far as practicable</li> <li>– Inland waters: to minimise impacts to surface water and groundwater hydrological regimes or quality water quality</li> <li>– Social surroundings: to minimise impacts to heritage values and visual amenity</li> <li>– Terrestrial environmental quality: to minimise impacts from Acid Sulphate Soils (ASS) and site contamination as far as practicable</li> <li>– Air quality: to minimise impacts to air quality, resulting from the generation of gaseous and dust emissions during construction</li> </ul>
<b>Ministerial Statement Condition Clauses (if applicable)</b>	Not applicable (yet to be assessed), will be added if applicable in later revisions.
<b>Key Components or Legal Requirements of the Plan</b>	This EMP has been prepared in accordance with the WA EPA's (State) <i>Instructions: How to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans</i> (EPA, 2024) and DCCEEW's (Commonwealth) <i>Environmental Management Plan Guidelines</i> (DCCEEW, 2024).
<b>Proposed Construction and Operation Dates</b>	The construction phase of the Proposal is estimated to take three years (subject to approvals) from 2027 – 2029. Operation will commence in 2029.
<b>EMP Required Pre-Construction?</b>	Yes

## Department of Climate Change, Energy, the Environment and Water

### Cover Page Table

<b>EPBC Number</b>	Not applicable (yet to be submitted)
<b>Project Name</b>	Broome Future Energy System
<b>Proponent</b>	Horizon Power
<b>ACN or ABN</b>	ABN 57 955 011 697
<b>The Proposed Action</b>	Horizon Power is proposing to construct a future energy system in Broome in the Kimberly region of WA (the Project).
<b>Location of the Action</b>	The solar and BESS facility will be located approximately 10 km northeast of Broome, with the network connection route following Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street to the existing substation in Broome.

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## Commonwealth Declaration of accuracy

In making this declaration, I am aware that section 491 of the *Environment Protection and Biodiversity Conservation Act 1999* (Cth) (EPBC Act) makes it an offence in certain circumstances to knowingly provide false or misleading information or documents to specified persons who are known to be performing a duty or carrying out a function under the EPBC Act or the *Environment Protection and Biodiversity Conservation Regulations 2000* (Cth). The offence is punishable on conviction by imprisonment or a fine, or both. I am authorised to bind the approval holder to this declaration and that I have no knowledge of that authorisation being revoked at the time of making this declaration.

Signed:



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Full name (please print):

Daniel Kippin

Manager Sustainability

---

Organisation (please print):

Regional Power Corporation T/A Horizon Power

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Date: 16 / 04 / 2025

## Contents

1	Introduction .....	7
1.1	The Project .....	7
1.2	Project Location .....	7
1.3	Activity Overview and Timelines.....	10
1.4	Assessment Process and Condition Requirements.....	11
1.5	Document Purpose .....	12
1.6	Rational and Approach .....	12
2	Existing Environment.....	13
2.1	Survey and Study Findings .....	13
2.2	Relevant Environmental Factors and Matters of National Environmental Significance .....	13
2.3	Key Assumptions and Uncertainties .....	24
3	Roles and Responsibilities .....	25
4	Environmental Training .....	26
5	Communication .....	27
6	Reporting .....	28
6.1	State Reporting Requirements .....	28
6.2	Commonwealth Reporting Requirements.....	28
6.3	Environmental Incidents / Non-compliances .....	28
7	Rational and Choice of Provisions .....	30
8	State Environmental Management Measures .....	31
8.1	Environmental Management Objectives .....	31
8.2	Flora and Vegetation.....	32
8.3	Terrestrial Fauna .....	39
8.4	Inland Waters.....	44
8.5	Social Surroundings.....	46
8.6	Terrestrial Environmental Quality .....	51
8.7	Air Quality .....	56
9	Commonwealth Potential Environmental Impacts, Risks and Management Measures..	58
9.1	Threats to Matters Protected under the EPBC Act.....	58
9.2	Potential Impacts and Risks .....	58
9.3	Risk Assessment .....	59
9.4	Management Measures .....	61
9.4.1	Environmental Management Activities, Controls and Performance Targets .....	61
9.4.2	Environmental Management Actions .....	61

PROTECTED

9.5 Monitoring ..... 70

10 Adaptive Management and Review of the EMP ..... 80

10.1 Audit and Review ..... 80

10.2 Environmental Management Plan Review ..... 80

11 References ..... 82

12 Appendix A – Fauna Pe-clearance Survey and Relocation ..... 83

Table index

Table 2-1 Survey and Study Findings ..... 13

Table 2-2 Existing Environment ..... 15

Table 3-1 Project Board Roles and Responsibilities ..... 25

Table 5-1 Key Project stakeholders ..... 27

Table 6-1 Reporting Requirements ..... 28

Table 8-1 Flora and Vegetation – management components ..... 32

Table 8-2 Terrestrial Fauna – management components ..... 39

Table 8-3 Inland Waters – management components ..... 44

Table 8-4 Social Surroundings – management components ..... 46

Table 8-5 Terrestrial Environmental Quality – management components ..... 51

Table 8-6 Air Quality – management components ..... 56

Table 9-1 Likelihood ..... 59

Table 9-2 Qualitative Measure of Consequence ..... 59

Table 9-3. Risk Rating ..... 59

Table 9-4 Environmental Risk Assessment ..... 60

Table 10-1. Environmental audit schedule ..... 80

Figure index

Figure 1-1 Proposal Location and Development Envelope ..... 8

Figure 1-2 Development Envelope and Avoidance Areas ..... 9

## Glossary

Acronym / Abbreviation	Definition
ACHIS	Aboriginal Cultural Heritage Inquiry System
CLD	Customer-led Decarbonisation
DBCA	Department of Biodiversity, Conservation and Attractions
DCCEEW	Department of Climate Change, Energy, the Environment and Water
DE	Development Envelope
DWER	Department of Water and Environmental Regulation
EMP	Environmental Management Plan
EMS	Environmental Management System
EP Act	<i>Environmental Protection Act 1986</i>
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i>
GHG	Greenhouse Gas
GTE	Government Trading Enterprise
ha	Hectares
JHA	Job Hazard Analysis
m	Metres
MNES	Matters of National Environmental Significance
PPA	Power Purchase Agreement
RIWI Act	<i>Rights in Water and Irrigation Act 1914</i>
SDS	Safety Data Sheet
WA	Western Australia

# 1 Introduction

## 1.1 The Project

Regional Power Corporation, trading as (T/A) Horizon Power, is a Western Australia (WA) Government Trading Enterprise (GTE) and the state's regional and remote energy provider. Horizon Power operates under the *Electricity Corporations Act 2005* and is governed by a Board of Directors accountable to the Minister for Energy.

The WA State Government has committed to reducing government emissions by 80% below 2020 levels by 2030, and Horizon Power is supporting the Government achieve this. Many towns in the Kimberley are powered by high emission fossil fuels such as diesel and gas. In Broome, Horizon Power currently purchases power from an independent power producer. The power purchase agreement (PPA) is due to expire, providing Horizon Power with an opportunity to integrate grid-scale renewable electricity into the town supply.

Horizon Power is proposing to construct a Future Energy System (FES) in Broome in the Kimberley region of WA (the Proposal). The Proposal will ensure security of energy supply to Broome after the expiry of the PPA. As part of this future energy supply, Horizon Power is targeting higher renewables and a reduction in emissions as part of the decarbonisation strategy for the town.

The Broome FES project will nominally consist of a solar PV system (up to 90 megawatts alternating current (MWAC)), battery energy storage systems (BESS) (up to 42 megawatts MW / 239 megawatt-hour (MWh)), and a network connection route (up to 16 km).

## 1.2 Project Location

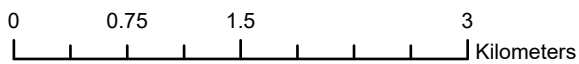
The solar PV and BESS will be installed at a site approximately 10 km north of Broome. The network connection route corridor will follow Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street to connect the solar PV and BESS to the existing substation on Fredrick Street in Broome. The network connection will either be an overhead or underground electrical distribution or transmission line and will be up to 16 km long.

A Development Envelope (DE) has been established which represents the boundary surrounding the Project within which all development will be contained. Construction and operation of the Project will require permanent clearing within the DE. Details of the DE and clearing area is provided in the EPA referral supporting document and the EPBC Act referral.

The DE is shown on Figure 1-1. Horizon Power will remain flexible with the Project design, therefore the area to be cleared is indicative only and subject to change as the design develops. To ensure the Project avoids impacts to significant environmental and heritage values identified within the DE, avoidance areas have been developed (Figure 1-2). The final design of the Project will accommodate these avoidance areas to minimise impacts to environmental and Aboriginal cultural heritage values as much as possible.



Figure 1-1 | Proposal Location and Development Envelope



Scale: 1:50,000



All figures have the projection GDA2020

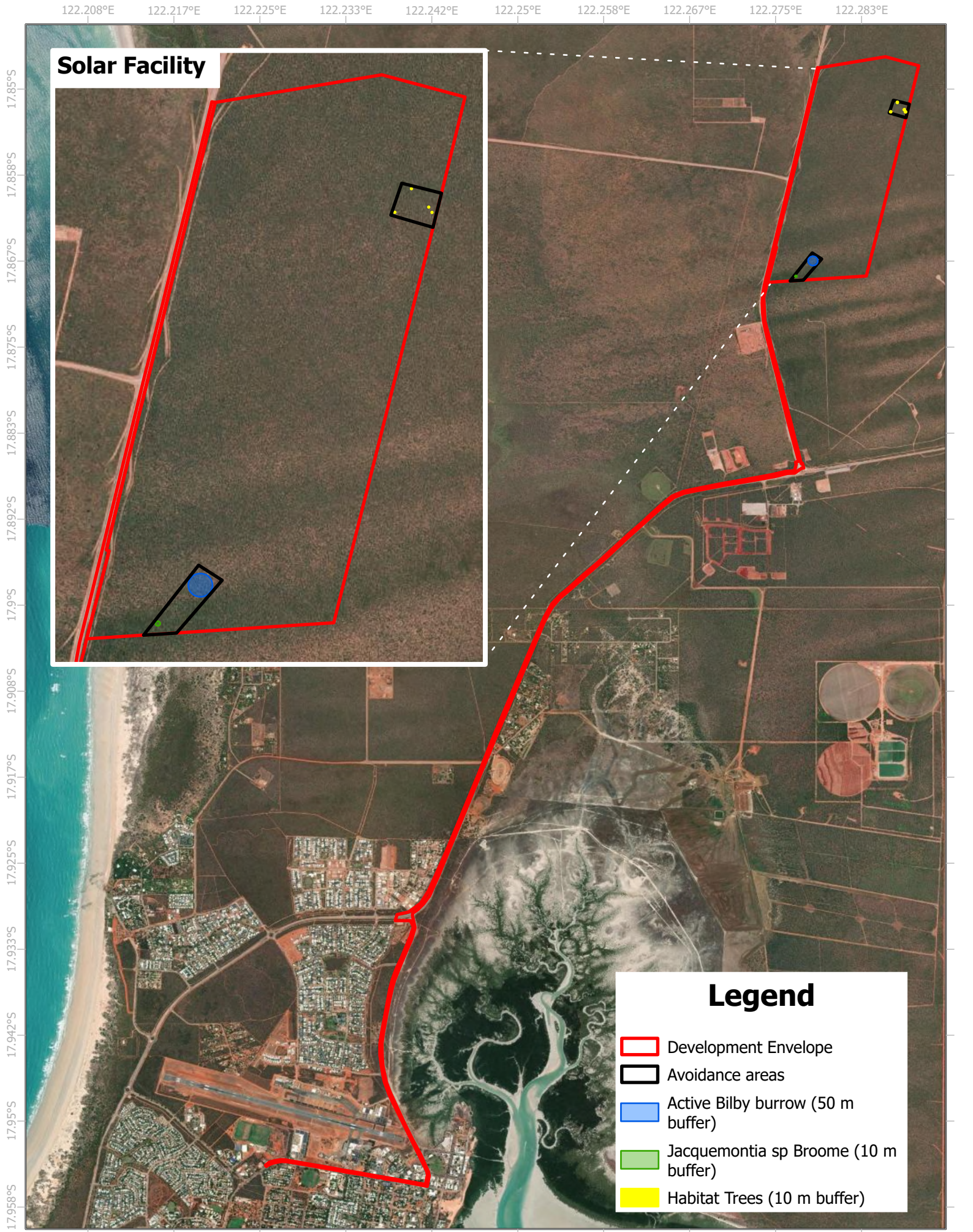
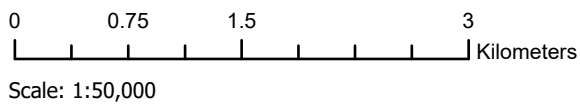


Figure 1-2 | Development Envelope and Avoidance Areas



### 1.3 Activity Overview and Timelines

Along with the solar and BESS facility and network connection, the additional construction and operational requirements for the Project are detailed in Section 1.3.1.1, Section 1.3.1.2 and Section 1.1.1.1.

#### 1.3.1.1 Pre-construction

Pre-construction activities will occur up to 12 months prior to construction and involve the following activities:

- Solar and BESS facility and network connection route site surveying and marking – surveying personnel utilising Global Positioning System (GPS) equipment to mark project boundaries and exclusion zones.
- Solar and BESS facility soil and geotechnical investigations – geotechnical engineering and crew utilising excavators and vehicle mounted drill rig will conduct borehole drilling, soil sampling, soil testing and compaction tests. Up to 80 boreholes to a depth of 25 metres (m) and up to 50 tests pits (5 m width by 5 m width) and up to 3 m depth may be conducted to support the geotechnical investigations. No more than 10 m x 10 m of clearing is permitted per test location. Geotechnical investigations require driving on vegetation to access test locations.
- Network connection route soil and geotechnical investigations – geotechnical engineering and crew utilising excavators and vehicle mounted drill rig to conduct borehole drilling, soil sampling, soil testing and compaction tests. Up to 30 boreholes to a depth of 25 m and up to 20 tests pits (5 m width by 5 m width) up to 3 m depth may be conducted to support the geotechnical investigations. No more than 10 m x 10 m of clearing is permitted per test location. Geotechnical investigations require driving on vegetation to access test locations.

#### 1.3.1.2 Construction

The construction phase is expected to commence in 2028 for a duration of up to 24 months. Construction personnel will consist of a project workforce of up to 200 staff for the solar and BESS facility and up to 60 staff for the network connection route. Construction works will consist of:

- Clearing of vegetation, topsoil removal and stockpiling, grading and excavations.
- Weed control measures to manage the spread of invasive weeds.
- Supply of concrete will be either through the establishment of a temporary on-site concrete batch plant or concrete truck deliveries.
- Supply of water for construction purposes will be either trucked water or construction of a bore in accordance with regulations.
- Supply of civil materials for ground levelling and fill will be trucked in from local sources.
- During construction, temporary laydown areas, ablutions, kitchen, offices, crib room, first aid, water supply, generators and other supporting facilities will be established onsite.
- Installation of the solar PV and BESS consisting of ground mounted solar panels, inverters, transformers, cabling, battery containers, substation and other ancillary infrastructure:
  - Solar PV panels and frame will be nominally up to 4 m tall from ground level. The battery containers, substation and office building will nominally be up to 5 m tall.
  - Footings of the solar system will involve either installed piles or concrete blocks. The piles solution may involve up to 40,000 steel piles (250 mm diameter) installed to a nominal depth of up to 5 m.
  - Excavation works for footings for the substation, battery system, office building and other ancillary infrastructure may involve excavation of up to 4,500 m<sup>3</sup> of soil (footing depth typically up to 2 m deep).

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- Excavation works for internal electrical cabling may involve excavation of up to 20 km of trenching and up to 1.5 m deep, resulting in excavation of up to 45,000 m<sup>3</sup> of soil.
- Installation of a network connection route from the solar and BESS facility, following Broome Cape Leveque Road, Broome Highway, Old Broome Road and Fredrick Street to the existing substation in Broome. The network connection will either be an overhead or underground distribution or transmission line:
  - Underground – Trenching excavations of up to 16 km and up to 3 m wide and up to 2 m deep, total excavation of up to 90,000 m<sup>3</sup> of soil.
  - Overhead – Electrical poles of up to 20 m height installed at spans of up to 200 m. Total of up to 75 poles installed along the 16 km connection route, and excavation for each pole up to 2.5 m deep, total excavations of up to 1,300 m<sup>3</sup> of soil.
- Construction of access tracks.

Typical heavy machinery and vehicles are proposed to be utilised onsite during the construction phase will include (not limited to):

- Bulldozer
- Excavator
- Grader
- Telehandler
- Trenching machines
- Horizontal directional driller
- Cable reel trailers
- Hydraulic pullers
- Water cart
- Loader
- Cranes
- Semi-trailer truck
- Light vehicles.

### 1.3.1.3 Operations

The operational phase is expected to commence in 2029, with operational personnel shifts conducted during daylight hours at the solar and BESS facility while the solar is producing energy. Operations personnel will consist of a local workforce of up to four personnel per shift for the solar and BESS facility. There will be no accommodation onsite, personnel will commute to site daily.

Activities associated with the operational phase will include:

- Operation and maintenance of the solar and BESS facility and network connection.
- Routine maintenance activities for the solar and BESS facility including visual inspections, solar panel cleaning (if required), solar panel replacement, electrical inspections and testing.
- Regular maintenance of the network connection. Activities will depend on whether it is an overhead or underground transmission line:
  - Overhead– visual inspections, thermal imaging, tower and pole maintenance, conductor and insulator cleaning, vegetation management and protection system testing.
  - Underground – visual inspections, thermal imaging and electrical testing.
- Routine maintenance activities including weed control.

Machinery and vehicles used onsite during operational phase will include light vehicles, semi-trailer truck, cranes and telehandler.

## 1.4 Assessment Process and Condition Requirements

The Project is being referred to the Environmental Protection Authority to determine if assessment is required under Part IV of the *Environmental Protection Act 1986* (EP Act). The Project is also being referred to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) due to potential impacts to habitats for listed Threatened and Migratory species.

As the Project is currently progressing through assessment under Part IV of the EP Act and under the EPBC Act, condition requirements are not applicable. If necessary, condition requirements will be added to this section of the EMP.

### 1.5 Document Purpose

The purpose of this Environmental Management Plan (EMP) is to support the referrals under the EP Act and EPBC Act and describe how the environmental impacts of the Project activities will be monitored, reported on and managed.

This document has been prepared in accordance with the WA Environmental Protection Authority (EPA) *'Instructions: How to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans'* (EPA, 2024) and the DCCEEW *'Environmental Management Plan Guidelines'* (DCCEEW, 2024). As this EMP will be attached to both the EP Act and EPBC Act referrals, the term the 'Project' is used and covers both the EP Act 'Proposal' and the EPBC Act 'Proposed Action'.

### 1.6 Rational and Approach

The objective of this EMP is to ensure that appropriate management measures will be in place during construction and operation of the Project to reduce potential impacts on the environment. This EMP adopts a management approach to achieve the environmental objectives for each key environmental factor and Matters of National Environmental Significance (MNES), based on consideration of:

- Survey and study findings
- Key assumptions and uncertainties
- Risks to environmental values, including EPA Environmental Factors and MNES
- Scientific information on the site and region
- Changes in the environment
- External issues to the Project
- Timeframe for mitigation.

## 2 Existing Environment

### 2.1 Survey and Study Findings

A detailed (single season) flora and vegetation survey and a Targeted and Basic fauna survey was undertaken within the DE by GHD (2024) to gain an understanding of the flora and vegetation values within and surrounding the DE. The relevant survey and study findings of the Project are summarised in Table 2-1.

Table 2-1 Survey and Study Findings

Report Title	Survey/Study Description
Kimberly IRP: Biological Survey (GHD, 2024)	<p><b>Survey dates:</b> 6 to 12 February and 6 to 12 March 2024.</p> <p><b>Survey Area:</b> The GHD (2024) Survey Area in Broome covered 988.9 total ha.</p> <p><b>Scope:</b></p> <p><i>Flora and Vegetation</i></p> <p>Detailed (single season) flora and vegetation survey, including a desktop assessment and field survey. Three sites were surveyed in Broome, with Site F being relevant to the Project. This survey was undertaken in accordance with EPA Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016).</p> <p>The survey mapped the vegetation types and condition and recorded the presence of Priority flora. Field survey methods involved a combination of high intensity quadrat sampling and traversing the Survey Area by foot. Quadrats were conducted within the Survey Area to describe the broad-scale vegetation and physical features. There were 18 quadrats and 5 relevés across the three Broome sites.</p> <p><i>Fauna</i></p> <p>Targeted and Basic fauna survey, including a desktop assessment and field survey. Three sites were surveyed in Broome, with Site F being relevant to the Project. This survey was undertaken in accordance with EPA Technical Guidance – Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA, 2020).</p> <p>The survey areas were traversed by foot to identify and describe dominant fauna habitat types present, and their condition, and to assess habitat for significant fauna. Targeted assessments specific for the Bilby, Northern Brush-tail Possum, Northern Blue tongue Skink and the Northern Coastal Free-Tailed Bat were undertaken in the Survey Area. The Basic assessment also identified and recorded all fauna occurring in the area at the time of the survey.</p> <p>Remote motion sensitive cameras were deployed in areas of suitable habitat to target fauna of conservation significance including Bilby and Northern Brushtail Possum. SM4<sup>®</sup> and Anabat Swift bat call detectors were set for general bat activity and to target the Northern Coastal free-tailed bat (<i>Ozimops cobourgianus</i>).</p>

### 2.2 Relevant Environmental Factors and Matters of National Environmental Significance

The WA EPA has 14 environmental factors, organised into five themes. Each of the 14 environmental factors has an associated objective which is used to determine whether the potential environmental impacts of a Project may be significant. An impact assessment was undertaken in the EPA referral supporting documentation (Horizon Power, 2025) with the following environmental factors identified as Key Environmental Factors:

- Flora and vegetation
- Terrestrial fauna
- Inland waters
- Social surroundings.

An additional three factors have been identified as ‘other environmental factors’ for the Project, including:

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- Terrestrial environmental quality
- Air quality
- Greenhouse gas (GHG) emissions.

A detailed GHG assessment for the Project indicated that construction of the Project is unlikely to result in a significant increase in GHG emissions. The Proposal is unlikely to result in a significant residual impact on GHG emission factor and is not considered to require a GHG management plan given emissions are 62,334 t CO<sub>2</sub>-e for construction and 24,962 t CO<sub>2</sub>-e/yr<sup>1</sup> for operation. Given the low emissions and other legislated mechanisms for reducing GHG emissions, this factor has not been included within this EMP.

The EPBC Act protects certain nationally significant (protected) animals, plants, habitats or places, referred to as MNES. An impact assessment was undertaken in the EPBC Act referral with the following MNES identified as potentially being impacted:

- Listed Threatened species and ecological communities
- Listed Migratory species (protected under international agreements).

The existing environment is summarised in Table 2-2.

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<sup>1</sup> A greenhouse gas (GHG) assessment was undertaken for Broome as two one of Horizon Power's larger GHG emitting towns. This assessment includes project elements that are subject to this referral, plus additional requirements that could be needed in the future such as new power station infrastructure. This approach was taken to demonstrate that both the towns would be well below the safeguard threshold (100,000 tonnes carbon dioxide equivalent (tCO<sub>2</sub>e) per year).

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Table 2-2 Existing Environment

Environmental Value	Assessment	Related Key Environmental Factor relevant to the Project	Related MNES relevant to the Project	Related Project Activities that would Affect this Environmental Value
Vegetation associations, types and condition	<p>The Project is located within Pre-European Vegetation Association 750. This Vegetation Association is characterised by Pindan woodland: Acacia thicket with Eucalypt woodland over spinifex <i>Acacia tumida</i>, <i>Eucalyptus tectifica</i>, <i>Corymbia grandifolia</i>, <i>Triodia pungens</i> and <i>T. bitextura</i>. More than 99% of this Vegetation Association remains in the State, Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (Dampierland), subregion (Pindanland) and within the Local Government Area (the Shire of Broome).</p> <p>The DE comprises native vegetation representing three vegetation types (GHD, 2024). Areas that are not considered native vegetation have been modified with significant changes to the vegetation structure, and no longer represent an intact vegetation type. The vegetation recorded in the DE were (GHD, 2024):</p> <ul style="list-style-type: none"> <li>– VT05: Variable from low open forest to open woodland (<i>Corymbia greeniana</i>, <i>C. zygophylla</i> and/or <i>C. flavescens</i>) with <i>Acacia eriopoda</i> or <i>A. eriopoda</i> x <i>tumida</i> var. <i>tumida</i> (tree form or occasionally shrub form where more recently burnt) and scattered <i>Acacia colei</i> var. <i>colei</i> on pindan plains and dunes of very low relief.</li> <li>– VT07: Low open forest of <i>Eucalyptus tectifica</i> and *<i>Azadirachta indica</i> over <i>Melaleuca cajuputi</i> subsp. <i>cajuputi</i>, <i>Melaleuca glomerata</i>, <i>Lysiphyllum cunninghamii</i> and <i>Acacia colei</i> var. <i>colei</i> on clay dampland.</li> <li>– VT08: Sparse trees of <i>Avicennia marina</i> subsp. <i>marina</i> and ?<i>Ceriops australis</i> over a sparse low samphire shrubland of <i>Tecticornia ?pergranulata</i> subsp. <i>elongata</i>, <i>Neobassia astrocarpa</i> and <i>Sesuvium portulacastrum</i> subsp. <i>portulacastrum</i> on tidal mudflats.</li> <li>– Scattered natives over weeds.</li> <li>– Landscaped areas and planted gardens.</li> <li>– Cleared road verge and drains with regrowth of native forbs.</li> <li>– Cleared.</li> </ul> <p>The area of these vegetation types within the DE is provided in the EPA referral supporting document and the EPBC Act referral.</p> <p>The vegetation condition ranges from Excellent to Completely Degraded with the majority of the vegetation in Excellent condition (GHD, 2024). Degraded or Completely Degraded vegetation is associated with areas of scattered natives over weeds, landscaped areas and planted gardens, cleared road verge and drains with</p>	Flora and vegetation	N/A	<ul style="list-style-type: none"> <li>– Loss of vegetation and flora through clearing, including significant and riparian vegetation, and flora</li> <li>– Introduction and/or the spread of weeds</li> <li>– Alteration of fire regimes</li> <li>– Alteration to hydrological flows</li> <li>– Generation of dust</li> <li>– Spills or leaks of chemical, hydrocarbon and/or hazardous materials.</li> </ul>

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Environmental Value	Assessment	Related Key Environmental Factor relevant to the Project	Related MNES relevant to the Project	Related Project Activities that would Affect this Environmental Value
	regrowth of native forbs and grasses. Areas of Excellent condition contained large continuous areas of pindan (GHD, 2024).			
Significant vegetation	<p>No State or Commonwealth listed Threatened Ecological Communities or Department of Biodiversity, Conservation and Attractions (DBCAs) listed Priority Ecological Communities were recorded within the DE (GHD, 2024).</p> <p>VT07 and VT08 are considered to be riparian vegetation and occur in small patches within the network connection route section of the DE.</p>	Flora and vegetation	N/A	<ul style="list-style-type: none"> <li>– Loss of vegetation and flora through clearing, including significant and riparian vegetation, and flora</li> <li>– Introduction and/or the spread of weeds</li> <li>– Alteration of fire regimes</li> <li>– Alteration to hydrological flows</li> <li>– Generation of dust</li> <li>– Spills or leaks of chemical, hydrocarbon and/or hazardous materials.</li> </ul>
Significant flora	<p>No State or Commonwealth listed Threatened flora taxa were recorded within the DE during the GHD (2024) survey. Four DBCA-listed Priority species were recorded within the DE:</p> <ul style="list-style-type: none"> <li>– <i>Glycine pindanica</i> (Priority 3)</li> <li>– <i>Jacquemontia</i> sp. Broome (A.A. Mitchell 3028) (Priority 1)</li> <li>– <i>Polymeria</i> sp. Broome (K.F. Kenneally 9759) (Priority 3)</li> <li>– <i>Corymbia ?paractia</i> (Priority 2).</li> </ul> <p>The counts of individuals of the Priority flora species within the DE are provided in the EPA referral supporting document and the EPBC Act referral.</p> <p>A total of three species recorded within the DE represent range extensions from the species current known range (GHD, 2024). These taxa include:</p> <ul style="list-style-type: none"> <li>– <i>Neptunia ?major</i> (south-western most record, not previously recorded from the Dampier Peninsula)</li> <li>– <i>Gyrocarpus americanus</i> subsp. <i>americanus</i> (south-westernmost record, not previously recorded from the Dampier Peninsula)</li> <li>– <i>Melaleuca ?glomerata</i> (not previously recorded from the Dampier Peninsula).</li> </ul>	Flora and vegetation	N/A	<ul style="list-style-type: none"> <li>– Loss of vegetation and flora through clearing, including significant and riparian vegetation, and flora</li> <li>– Introduction and/or the spread of weeds</li> <li>– Alteration of fire regimes</li> <li>– Alteration to hydrological flows</li> <li>– Generation of dust</li> <li>– Spills or leaks of chemical, hydrocarbon and/or hazardous materials.</li> </ul>

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Environmental Value	Assessment	Related Key Environmental Factor relevant to the Project	Related MNES relevant to the Project	Related Project Activities that would Affect this Environmental Value
Fauna habitat	<p>Four fauna habitat types have been mapped across the DE (GHD, 2024). These fauna habitats align with the vegetation types identified above.</p> <p>Fauna habitats within the DE have low to high habitat value in the context of the surrounding environment. Overall, the habitats contain a diversity of fauna, and all provide habitat for significant fauna species that are present or likely to be present in the local area.</p> <p>The fauna habitats within the DE are:</p> <ul style="list-style-type: none"> <li>– Pindan shrubland</li> <li>– Open Eucalypt dampland</li> <li>– Sparse mangrove tidal mudflat</li> <li>– Scattered plantings and native trees.</li> </ul> <p>The areas of these habitat types within the DE is provided in the EPA referral supporting document and the EPBC Act referral.</p> <p>The DE does not present a significant ecological linkage. The fauna habitats within the DE are part of a contiguous, largely intact area of remnant vegetation present in Broome. Land within the Broome township has been subject to clearing, but this clearing is minimal and much of the remnant vegetation intact in the local area. Overall, the habitats within the DE are largely contiguous through the local area.</p>	Terrestrial fauna	Listed Threatened species and ecological communities	<ul style="list-style-type: none"> <li>– Loss of fauna habitat through clearing, including habitat for significant fauna species.</li> </ul>
Significant fauna	<p>The GHD (2024) survey recorded four conservation significant fauna species within the DE or in close vicinity to the DE, with an additional 11 species considered likely to occur. The species that are known to occur or are likely to occur in the DE are:</p> <ul style="list-style-type: none"> <li>– The Northern Blue-tongued Skink (<i>Tiliqua scincoides intermedia</i>) is listed as Critically Endangered under the EPBC Act. Potential foraging, breeding, shelter and dispersal habitat (considered to be critical habitat) for this species will be cleared for the Project.</li> <li>– The Bilby (<i>Macrotis lagotis</i>) is listed as Vulnerable under the EPBC Act and BC Act. Potential foraging, breeding, shelter and dispersal habitat (considered to be critical habitat) for this species will be cleared for the Project.</li> <li>– The Northern Brushtail Possum (<i>Trichosurus vulpecula arnhemensis</i>) is listed as Vulnerable under the EPBC Act and BC Act. Potential foraging, breeding, shelter and dispersal habitat (considered to be critical habitat and supporting habitat) for this species will be cleared for the Project</li> </ul>	Terrestrial fauna	Listed Threatened species and ecological communities	<ul style="list-style-type: none"> <li>– Loss of fauna habitat through clearing, including habitat for significant fauna species</li> <li>– Fauna injury/death from vehicle strike, clearing activities or direct collision with infrastructure</li> <li>– Fauna activity disturbance from temporary increase in noise/vibration/light, attraction of feral animals, alteration of fire regimes, increased generation of dust during construction.</li> </ul>

## PROTECTED

Environmental Value	Assessment	Related Key Environmental Factor relevant to the Project	Related MNES relevant to the Project	Related Project Activities that would Affect this Environmental Value
	<ul style="list-style-type: none"> <li>– The Fork-tailed Swift (<i>Apus pacificus</i>) is listed as Migratory under the EPBC Act and BC Act. Potential foraging, habitat (considered to be supporting habitat) for this species will be cleared for the Project</li> <li>– The Yellow-lipped Cave Bat (<i>Vespadelus douglasorum</i>) is listed as DBCA listed Priority 2. Potential foraging and dispersal habitat (considered to be supporting habitat) for this species will be cleared for the Project.</li> <li>– The Northern Coastal Free-tailed Bat (<i>Ozimops cobourgianus</i>) is listed as DBCA listed Priority 1. Potential foraging, breeding, roosting and dispersal habitat (considered to be critical habitat and supporting habitat) for this species will be cleared for the Project.</li> <li>– The Bare-rumped Sheath-tailed Bat (<i>Saccolaimus saccolaimus</i>) is listed as Vulnerable under the EPBC Act, DBCA listed Priority 1. Potential foraging, breeding, roosting and dispersal habitat (considered to be critical habitat and supporting habitat) for this species will be cleared for the Project.</li> <li>– The Northern Short-tailed Mouse (<i>Leggadina lakedownensis</i>) is listed as DBCA listed Priority 4. Potential foraging, breeding, shelter and dispersal habitat (considered to be supporting habitat) for this species will be cleared for the Project.</li> <li>– The Dampierland Burrowing Snake (<i>Simoselaps minimus</i>) is listed as DBCA listed Priority 2. Potential foraging, breeding, shelter and dispersal habitat (considered to be supporting habitat) for this species will be cleared for the Project.</li> <li>– The Dampierland Plain Slider (<i>Lerista separanda</i>) is listed as DBCA listed Priority 2. Potential foraging, breeding, shelter and dispersal habitat (considered to be supporting habitat) for this species will be cleared for the Project.</li> <li>– The Gouldian Finch (<i>Chleobia gouldiae</i>) is listed as Endangered under the EPBC Act, DBCA listed Priority 4. Potential foraging and nesting/breeding habitat (considered to be critical habitat and supporting habitat) for this species will be cleared for the Project.</li> <li>– The Grey Falcon (<i>Falco hypoleucos</i>) is listed as Vulnerable under the EPBC Act and BC Act. Potential foraging habitat (considered to be supporting habitat) for this species will be cleared for the Project.</li> </ul>			

## PROTECTED

Environmental Value	Assessment	Related Key Environmental Factor relevant to the Project	Related MNES relevant to the Project	Related Project Activities that would Affect this Environmental Value
	<ul style="list-style-type: none"> <li>– The Peregrine Falcon (<i>Falco peregrinus</i>) is listed as Other Specially Protected Fauna under the BC Act. Potential foraging habitat (considered to be supporting habitat) for this species will be cleared for the Project.</li> <li>– The Osprey (<i>Pandion haliaetus</i>) is listed as Migratory under the EPBC Act and BC Act. Potential foraging habitat (considered to be supporting habitat) for this species will be cleared for the Project.</li> <li>– The Barn Swallow (<i>Hirundo rustica</i>) is listed as Migratory under the EPBC Act and BC Act. Potential foraging habitat (considered to be supporting habitat) for this species will be cleared for the Project.</li> </ul> <p>Suitable habitat for these species is discussed in detail in the EPA referral supporting document and the EPBC Act referral, including the extent of suitable habitat in the DE.</p> <p>Short-range endemic species likely to occur in the Kimberley are land and freshwater snails. The habitats likely to contain short-range endemic species include vine thickets, boulder piles, isolated hills and other landforms, vegetated gullies and freshwater habitats. These habitats are not present within the DE and therefore short-range endemic fauna are not expected to be relevant to the Project.</p>			
Surface water	<p>No permanent water bodies or drainage lines are located within the DE. The DE is within the Cape Leveque Coast Basin catchment (DWER, 2024) which contains no large rivers. Based on the topography of the DE and surrounding area, rainfall is expected to drain west towards the coast. The DE overlaps the Broome Water Reserve, which is a PDWSA.</p> <p>The southern portion of the network connection route is located in close proximity to the Dampier Creek. This area is characterised by mangroves that experience tidal inundation.</p> <p>The Roebuck Bay wetland is located less than 20 m east of the DE (DBCA, 2018). Roebuck Bay is also associated with a Ramsar wetland which is located approximately 7 km east of the DE (DBCA, 2017). Roebuck Bay wetland is an important site for shorebirds associated with the East-Asian Australasian Flyway and it is internationally important for many migratory shorebird species (Bennelongia, 2009). It also supports benthic invertebrates, Loggerhead Turtles and Green Turtles. It is of high social and cultural value as it provides a deep-water port, supports tourism, commercial fishing and pearling, and recreational activities. Roebuck Bay</p>	Inland waters	N/A	<ul style="list-style-type: none"> <li>– A minor and temporary impact on the quality of inland waters as a result of sediments and/or contaminants being transported with stormwater runoff</li> <li>– Changes to surface water flows and increased risk of land erosion and sedimentation in nearby waterways due to clearing of native vegetation within the DE</li> <li>– Risk of contamination of soils and subsequent mobilisation to surface waters may result from accidental release of chemicals and/or hydrocarbons (i.e. leaks, spills)</li> </ul>

## PROTECTED

Environmental Value	Assessment	Related Key Environmental Factor relevant to the Project	Related MNES relevant to the Project	Related Project Activities that would Affect this Environmental Value
	<p>contains a substantial number of Aboriginal heritage sites, and remains a place of Aboriginal cultural, spiritual, social and economic significance (Bennelongia, 2009).</p> <p>The DE is within an area of extremely low probability of occurrence of ASS (1-5% chance of occurrence with any occurrences in small localised areas) (Fitzpatrick et al., 2011). Adjacent to the network connection route, there is a high probability of occurrence of ASS (&gt;70% chance of occurrence) in intertidal and extratidal flats (Fitzpatrick et al., 2011).</p>			<ul style="list-style-type: none"> <li>– Exposure of ASS by ground disturbing associated with construction of the network connection.</li> </ul>
Groundwater	<p>The DE overlaps the Broome Groundwater Area proclaimed under the <i>Rights in Water and Irrigation Act 1914</i> (RIWI Act). Based on publicly available data, the depth to groundwater in the area surrounding the DE is estimated to be between 2.1 m to 32 m below ground level (Landcorp, 2009 and Talis, 2023). The groundwater is expected to be shallow along the portion of the network connection route that is located in close proximity to the Dampier Creek.</p>	Inland waters	N/A	<ul style="list-style-type: none"> <li>– If groundwater is encountered, short-term dewatering of potentially acidic groundwater may be required</li> <li>– Changes to groundwater infiltration from clearing of native vegetation within the DE</li> <li>– Minor temporary drawdown of groundwater should dewatering be required to construct solar infrastructure and network connection infrastructure (the network connection may be overhead or underground).</li> </ul>
Amenity	<p>The solar and BESS facility will be located in a remote location, north of Broome townsite and will therefore have minimal impacts to visual amenity due to the lack of sensitive receptors. The Project will include network connection which may include the establishment of an overhead network connection (rather than an underground network connection) which will be visible from Broome Cape Leveque Road, Broome Highway, Old Broome Road, Frederick Street and residential areas within Broome.</p> <p>Construction of the Project will generate noise, dust and vibration of short-term duration within the DE. There are no sensitive receptors near the location of the solar and BESS facility, however the network connection will be constructed adjacent to existing roads and a residential area.</p>	Social Surroundings	N/A	<ul style="list-style-type: none"> <li>– Potential to impact upon amenity (visual, noise and vibration).</li> </ul>
Cultural Heritage	<p>There are no World Heritage Properties or Commonwealth Heritage Places within the DE or within 20 km of the DE. The West Kimberley National Heritage Place is</p>	Social Surroundings	N/A	<p>The location and extent of Aboriginal cultural heritage values within the DE</p>

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Environmental Value	Assessment	Related Key Environmental Factor relevant to the Project	Related MNES relevant to the Project	Related Project Activities that would Affect this Environmental Value
	<p>located approximately 950 m east of the network connection route section of the DE. All activities will be confined to the DE, therefore there will be no impacts to this National Heritage Place as a result of the Project and it is not discussed further.</p> <p>The Project is not located within an Indigenous Land Use Agreement area (Landgate, 2025).</p> <p>The DE is located within the Rubibi Community Native Title Determination Area (Federal Court file number: WAD6006/1998), which has the Yawuru Native Title Holders Aboriginal Corporation as the registered native title bodies corporate.</p> <p>A search of the Aboriginal Cultural Heritage Inquiry System (ACHIS) indicates that no Lodged sites intersect the DE and the buffers of 6 Registered sites intersect the DE. Horizon Power will commission an Aboriginal cultural heritage survey within the DE to validate the locations of these sites and ensure all known Aboriginal cultural heritage intersecting the DE can be avoided.</p> <p>A search of the Heritage Council WA inHerit database confirms no State Heritage sites occur within the DE (DPLH, 2025a).</p> <p>One municipal heritage site, Tram Line (Place Number: 26423), intersects a portion of the network connection route section of the DE (DPLH, 2025b).</p>			<p>will be confirmed during an Aboriginal cultural heritage survey with the support of Yawuru Traditional Owners. Horizon Power is committed to avoiding direct impacts to all known Aboriginal cultural heritage.</p> <p>The Project has the potential to indirectly impact Aboriginal cultural heritage and values of the DE and surrounding areas through:</p> <ul style="list-style-type: none"> <li>– Dust generation during construction has the potential to settle on Aboriginal cultural heritage within or adjacent to the DE</li> <li>– Vibrations during construction has the potential to cause physical damage to Aboriginal cultural heritage within or adjacent to the DE</li> <li>– Accidental fires during construction or operations, has the potential to cause physical damage to Aboriginal cultural heritage within or adjacent to the DE.</li> </ul>
<p>Conservation Reserves and Environmentally Sensitive Areas</p>	<p>There are no DBCA managed lands within the DE (DBCA, 2024a). However, approximately 310 m east and 705 m west of the DE, there is land protected under the CALM Act for the purpose of “conservation, recreation and traditional and customary Aboriginal use and enjoyment” for the Yawuru Native Title Holders Aboriginal Corporation registered native title bodies corporate. The Yawuru Nagulagun / Roebuck Bay Marine Park is also approximately 140 m east of the DE.</p> <p>The network connection route portion of the DE overlaps an ESA that is associated with the buffer of the Roebuck Bay mudflats TEC. This TEC is listed as Vulnerable</p>	<p>Flora and vegetation Social surroundings</p>	<p>N/A</p>	<p>N/A</p>

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Environmental Value	Assessment	Related Key Environmental Factor relevant to the Project	Related MNES relevant to the Project	Related Project Activities that would Affect this Environmental Value
	<p>under the BC Act and is not listed as Threatened under the EPBC Act. The DE only overlaps the buffered extent of this TEC, and does not overlap the mapped boundary of the TEC. This TEC was also not recorded in the DE during the GHD (2024) survey and will not be impacted by the Project and will therefore not be discussed further.</p>			
<p>Land and soil quality</p>	<p>The DE is within an area of extremely low probability of occurrence of ASS (Fitzpatrick et al., 2011).</p> <p>Adjacent to the network connection route portion of the DE, there is a high probability of occurrence of ASS (&gt;70% chance of occurrence) in intertidal and extratidal flats (Fitzpatrick et al., 2011).</p> <p>A search on the DWER Contaminated Sites Database (DWER, 2025) was conducted to identify the presence or absence of contaminated sites within the DE. The search identified that the network connection route portion of the DE overlaps:</p> <ul style="list-style-type: none"> <li>– Site number 40342, classified as “Contamination – remediation required”: one metre of light non-aqueous phase liquid is present floating on the surface of groundwater in the southern portion of the site, extending from below the adjacent service station site.</li> <li>– Site number 58930 classified as “Remediated for restricted use”: Hydrocarbons (such as from petrol or diesel) are present in groundwater beneath the site.</li> </ul> <p>Additional contaminated sites are located adjacent to the DE.</p>	<p>Terrestrial environmental quality</p>	<p>N/A</p>	<ul style="list-style-type: none"> <li>– Exposure of ASS by ground disturbing associated with construction of the network connection</li> <li>– If groundwater is encountered, short-term dewatering of potentially acidic groundwater may be required</li> <li>– Soil erosion from clearing, earthworks and vehicle/machinery movement</li> <li>– Soil contamination from accidental release of chemicals and/or hydrocarbons (i.e. leaks, spills) particularly during the construction phase. Since minor quantities of chemicals and hydrocarbons will be handled and/or temporarily stored through construction, impacts resulting in the event of accidental release are expected to be negligible</li> <li>– Soil contamination from accidental release of waste</li> <li>– Disturbance to existing contaminated sites within DE.</li> </ul>

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Environmental Value	Assessment	Related Key Environmental Factor relevant to the Project	Related MNES relevant to the Project	Related Project Activities that would Affect this Environmental Value
Air quality	The network connection route portion of the DE intersects Broome town.	Air quality	N/A	– Fugitive dust may be generated from vehicle movements, clearing and construction activities, having a temporary and localised impact on air quality. The majority of dust is expected to be generated during the construction phase.

### 2.3 Key Assumptions and Uncertainties

The GHD (2024) survey reported no limitations in either the desktop or field components, and therefore, do not pose any substantial uncertainty with respect to this EMP.

Horizon Power will commission Aboriginal cultural heritage surveys of the DE to confirm Aboriginal cultural heritage values. These will be carried out with the support of Yawuru Traditional Owners. Additional avoidance areas within the DE will be considered during the detailed design phase and construction methods will consider the location of the DE to ensure a suitable clearance area can be maintained around any potential Aboriginal cultural heritage.

### 3 Roles and Responsibilities

Horizon Power has a standard project management methodology that will be applied to this Project and is applied to projects of this nature. A project board is established as a governing committee, which comprises executive and senior managers from Horizon Power.

The role of the project board is to support the project sponsor with the management of the Project by providing a decision-making and governance framework that is logical, robust and repeatable.

The project team roles and responsibilities are provided in Table 3-1.

*Table 3-1 Project Board Roles and Responsibilities*

Role	Responsibility
Project Sponsor (Executive member)	<ul style="list-style-type: none"> <li>– Oversee the overall delivery of the Project to ensure good governance is achieved and Project objectives are met.</li> </ul>
Project Director (Senior Manager)	<ul style="list-style-type: none"> <li>– Establish the project team to deliver the Project.</li> <li>– Ensure plans, systems and processes are established, implemented and maintained by the project team to ensure good governance is achieved on the project.</li> <li>– Ensure the Project objectives are visible to the project team and delivery of the objectives are met by the project.</li> <li>– Monitor performance of the Project.</li> </ul>
Horizon Power Manager Sustainability	<ul style="list-style-type: none"> <li>– Oversee specific onsite compliance obligations for the Project.</li> <li>– Ensure appropriate investigation, reporting and remediation if an environmental incident occurs and provide approval for works to recommence on site when appropriate to do so.</li> </ul>
Project Manager	<ul style="list-style-type: none"> <li>– Establish project plans to manage the Project.</li> <li>– Manage project team activities to deliver the project.</li> <li>– Implement systems and processes to ensure good governance is achieved on the project.</li> <li>– Manage scope, cost, time, quality, resourcing and compliance obligations for the Project.</li> <li>– Report performance of the Project.</li> </ul>
Site Representative	<ul style="list-style-type: none"> <li>– Oversee activities onsite to deliver the Project.</li> <li>– Ensure works cease where required if an environmental incident occurs and escalation of incident.</li> <li>– Monitor systems and processes being implemented onsite to ensure good governance is achieved on the project.</li> <li>– Manage specific onsite compliance obligations for the Project.</li> <li>– Report onsite performance of the Project.</li> </ul>
Environmental Officer	<ul style="list-style-type: none"> <li>– Oversee activities onsite to deliver the Project.</li> <li>– Monitor systems and processes being implemented onsite to ensure good governance is achieved on the project.</li> <li>– Manage specific onsite compliance obligations for the Project.</li> <li>– Report onsite performance of the Project.</li> </ul>

This EMP outlines the environmental management activities for the implementation of the Project. Horizon Power and their appointed contractor will undertake these activities and acknowledges they are legal requirements to be met.

The responsibilities for the implementation of the management actions outlined in this document are detailed in Table 3-1. The actions may be undertaken by employees and/or contractors of Horizon Power when communicated and documented to relevant personnel through environmental training.

## 4 Environmental Training

All construction personnel and sub-contractors will undergo a project induction, which includes information on the importance of the environmental approvals conditions and the requirements to enable environmental outcomes to be achieved. They will be advised of their responsibilities with regard to the EPBC Act, EP Act, BC Act, and other relevant legislation, in addition to ministerial and contractual requirements (if applicable).

Toolbox meetings will be used to reinforce messages on environmental protection, to relay new information and to encourage and celebrate positive outcomes. Key personnel working on the Project will undertake cultural awareness training to ensure an appropriate level of understanding is maintained on heritage and related matters for the duration of construction activities.

Records of all training and inductions conducted will be maintained and include:

- the person receiving the training
- the date the training was received
- the name of the person conducting the training
- a summary of the training.

## 5 Communication

Horizon Power undertakes ongoing engagement with key stakeholders. These stakeholders include State Government Agencies and Ministers, Local Government, Traditional Owners, Local Community and Corporate companies.

Horizon Power’s ongoing consultation will continue throughout the construction phase and beyond, to ensure transparent and clear engagement informs our progress and that all concerns are addressed. Critically, Horizon Power have, and will, engage extensively with the Traditional Owners and will continue to work with them throughout the Project process.

Communication during the construction phase of the Project will occur on a daily, weekly or as needed basis with relevant staff, project managers or external stakeholders. Communication will be subject to the requirements of the construction contract, as determined by Horizon Power. Horizon Power has identified key external stakeholders and will ensure information is communicated as appropriate and as required. A log of communications with external stakeholders and the public will be maintained.

Key external stakeholders are provided in Table 5-1.

*Table 5-1 Key Project stakeholders*

Role	Responsibility
Agencies acting on behalf of the Commonwealth Government	<ul style="list-style-type: none"> <li>– Regional Development Australia Kimberley</li> <li>– DCCEEW</li> </ul>
State Government – Ministers	<ul style="list-style-type: none"> <li>– Hon Divina D’Anna – Member for Kimberley</li> <li>– Hon Amber-Jade Sanderson – Minister for Energy and Decarbonisation</li> </ul>
State Government - Agencies	<ul style="list-style-type: none"> <li>– Department Planning, Lands and Heritage</li> <li>– Kimberley Development Commission</li> <li>– Water Corporation</li> <li>– Department of Communities</li> <li>– DBCA</li> </ul>
Local Government	<ul style="list-style-type: none"> <li>– Shire of Broome</li> </ul>
Traditional owners	<ul style="list-style-type: none"> <li>– Yawuru Prescribed Body Corporate</li> </ul>
Corporate	<ul style="list-style-type: none"> <li>– Nyamba Buru Yawuru Limited</li> <li>– Major Account Holders</li> <li>– Broome Chamber of Commerce and Industry</li> <li>– Clean Energy Council</li> <li>– First Nations Clean Energy Network</li> </ul>
Broome Community	<ul style="list-style-type: none"> <li>– Customer and community members</li> </ul>
Community-led environmental organisations	<ul style="list-style-type: none"> <li>– Environs Kimberley</li> </ul>

All external communication will be managed by Horizon Power. Construction Contractors will not engage with external stakeholders unless otherwise instructed by Horizon Power or as per contract terms.

## 6 Reporting

Horizon Power has well established management measures that will be implemented during construction of the Project. In addition, Horizon Power maintains an Environmental Management System (EMS). Works conducted as a part of this Project will be compliant with both Horizon Power’s Environmental Policy and EMS.

### 6.1 State Reporting Requirements

Horizon Power will report to Department of Water and Environmental Regulation (DWER) on the implementation of this EMP as part of annual compliance reporting required under the conditions of approval for the Project (if applicable).

### 6.2 Commonwealth Reporting Requirements

Horizon Power will report to DCCEEW on the implementation of this EMP as part of annual compliance reporting required under the conditions of approval for the Project (if applicable).

Where compliance audits undertaken by Horizon Power identify that the environmental management actions and/or the environmental objectives are not being achieved (i.e. non-compliance or an environmental incident), Horizon Power will notify DCCEEW. Consistent with standard document control procedures, Horizon Power will maintain copies of all reports submitted to DCCEEW and advertise these on the Horizon Power website as required under the conditions of approval. The reporting requirements for this EMP are identified in Table 6-1.

*Table 6-1 Reporting Requirements*

Aspect	Report from	Report to	Reporting Frequency
Annual Compliance Report	Environmental Officer	DCCEEW	Annually (as part of annual compliance reporting)
Non-compliance with EMP or Environmental Incident	Environmental Officer	DCCEEW	Reporting frequency will be defined once approval conditions are obtained.
Independent audit of commitments made in EMP	Environmental Officer	DCCEEW	Reporting frequency will be defined once approval conditions are obtained.

The format and content of annual reporting will be in accordance with the requirements of the annual reporting conditions. The format and content of reporting of a non-compliance event or an environmental incident will be subject to the nature of the non-compliance/incident and will include all requested information from DCCEEW and in accordance with the approval conditions.

### 6.3 Environmental Incidents / Non-compliances

Internal monitoring of the environmental aspects outlined in this Plan will occur throughout the construction phase of the Project. Any non-conformances or incidents within this EMP will be investigated, rectified or mitigated as soon as possible to ensure minimal ongoing environmental harm. Relevant procedures will be amended/updated as necessary and inductions and other workforce communication will be undertaken in a timely manner to minimise the risk of re-occurrences.

Environmental incidents and non-compliances will be identified and recorded as soon as possible by the relevant responsible persons within the contractor organisation or Horizon Power. Incidents will be mitigated or rectified where possible within 24 hours of being identified. Incidents and non-conformances will be reported to the Horizon Power representative within 24 hours of identification or as soon as reasonably practicable.

Any non-conformance to this EMP is to be investigated to determine:

- why the non-conformance occurred

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- what was the environmental harm or alteration of the environment that resulted from the non-conformance
- what changes to Project activities and/or management plans is required
- measures to prevent, control or abate the environmental harm that may have occurred.

A log of incidents and non-conformances is to be maintained.

In the event of an environmental incident, the priority is to ensure the safety of all site personnel and the neighbouring community. All practical steps shall then be taken to minimise further environmental damage through the implementation of the appropriate contingency and corrective actions, as outlined in the environmental management measures in Section 9.3 and Section 9.3.

## 7 Rational and Choice of Provisions

This EMP adopts provisions based on industry standard practices for avoidance, minimisation and rehabilitation of environmental impacts during construction.

The provisions reflect the temporary duration of construction activities, and the intermittent, episodic and acute nature of impacts posed by construction activities, such as un-authorized clearing, dust emissions during high winds, or accidental spills of hazardous materials or wastes.

The provisions have also reflected the potential for chronic impacts to occur post construction, such as the spread of introduced weeds or ongoing erosion of areas disturbed during construction, as well as impacts relating to maintenance and operating activities.

The majority of provisions address episodic and acute impacts and provide short term mitigation. Provisions also address the longer-term timeframes to demonstrate weed control success.

## 8 State Environmental Management Measures

As per the EP Act referral documentation, the Environmental Factors that have the potential to be present in the DE and/or immediate surrounds are:

- Flora and vegetation
- Terrestrial fauna
- Inland waters
- Social surroundings.
- Terrestrial environmental quality
- Air quality
- Greenhouse gas (GHG) emissions.

A description of the Environmental Factors relevant to the Project is provided in Table 2-2.

### 8.1 Environmental Management Objectives

This EMP utilises objective-based components. The selection of objective-based components rather than outcome-based components is due to the Project construction activities posing environmental risks that are generally intermittent, episodic or acute impact events that are less applicable to long term objective measurement and reporting.

The management-based components provided within this EMP seek to align with established industry practises to avoid and minimise potential environmental and heritage impacts. This EMP has the following objectives for the preliminary key environmental factors and other environmental factors identified in the referral of the Project:

- Flora and Vegetation: to minimise impacts to flora and vegetation required for construction and operation of the Project as far as practicable
- Terrestrial Fauna: to minimise fauna habitat loss and minimise direct and indirect impacts to fauna as far as practicable
- Inland Waters: to minimise impacts to surface water and groundwater hydrological regimes or quality water quality
- Social Surroundings: to minimise impacts to heritage values and visual amenity
- Terrestrial Environmental Quality: to minimise impacts from Acid Sulphate Soils (ASS) and site contamination as far as practicable
- Air Quality: to minimise impacts to air quality, resulting from the generation of gaseous and dust emissions during construction.

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## 8.2 Flora and Vegetation

The management components for flora and vegetation are outlined in Table 8-1.

*Table 8-1 Flora and Vegetation – management components*

<p><b>EPA Factor:</b> Flora and Vegetation</p> <p><b>EPA Objective:</b> <i>“To protect flora and vegetation so that biological diversity and ecological integrity are maintained.”</i></p> <p><b>EMP Objective:</b></p> <ul style="list-style-type: none"> <li>– To minimise impacts to flora and vegetation required for construction and operation of the Project as far as practicable</li> </ul> <p><b>Key Environmental Values:</b></p> <ul style="list-style-type: none"> <li>– Native vegetation including significant flora and riparian vegetation</li> </ul> <p><b>Key Impact and Risks:</b></p> <ul style="list-style-type: none"> <li>– Loss of vegetation and flora through clearing, including significant and riparian vegetation, and flora</li> <li>– Introduction and/or the spread of weeds</li> <li>– Alteration of fire regimes</li> <li>– Alteration to hydrological flows</li> <li>– Generation of dust</li> <li>– Spills or leaks of chemical, hydrocarbon and/or hazardous materials.</li> </ul>				
Management Targets	Management Actions	Monitoring	Timing / Frequency of Monitoring	Reporting
<b>Vegetation clearing</b>				
<p>No clearing of vegetation to occur outside of the predefined clearing limits and boundaries described within approval documents, during or attributable to construction.</p> <p>No impacts to significant flora and significant vegetation outside of the predefined clearing limits and boundaries described within approval documents.</p>	<p>Clearing and ground disturbing activities (including soil and geotechnical investigations) limited to the defined clearing limits and boundaries described within the approval document.</p> <p>Driving for geotechnical investigations will be in convoy and no more than 10 m x 10 m of clearing is permitted per test location.</p> <p>The extent of the approved clearing will be clearly</p>	<p>Drawings, inductions and shape/CAD files showing approved clearing areas provided to Construction Contractor Representative.</p> <p>Job Hazard Analysis (JHA) or equivalent to include the risks and mitigation actions to be understood and adhered to as they pertain to the contractor and scope of work on the JHA.</p> <p>Track logs from soil and geotechnical investigations of</p>	<p>Prior to construction.</p>	<p>Project Environmental Officer to check that drawings, inductions and shape/CAD files show correct approved clearing areas.</p> <p>Record of provision of drawings and shape/CAD files showing approved clearing areas.</p> <p>All relevant contractors to sign onto JHA or equivalent.</p> <p>Pre-clearing photos to be documented and daily inspection of clearing extents during clearing activities and weekly inspections</p>

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Management Targets	Management Actions	Monitoring	Timing / Frequency of Monitoring	Reporting
	communicated in documentation and inductions.	where vehicles have driven within the predefined clearing limits. Inspection of clearing extents during clearing activities to confirm no over clearing (including soil and geotechnical investigations).		<p>during the remainder of construction to confirm no over clearing.</p> <p>Visual inspection and record of cleared areas to be undertaken post-clearing to confirm no over clearing and relevant shapefiles provided to Horizon Power.</p> <p>Track logs from soil and geotechnical investigations to show no vehicle movement outside of predefined clearing limits.</p> <p>Clearing area shapefiles from soil and geotechnical investigations to show no clearing outside of predefined clearing limits.</p> <p>Report unauthorised clearing as soon as practicable after identified.</p>
	At risk 'avoidance areas' will be demarcated on Project drawings and physically on site prior to clearing activities.	<p>At risk 'avoidance areas' clearly marked out on all relevant Project drawings and demarcated on site with shapefiles provided.</p> <p>JHA or equivalent to include the risks and mitigation actions to be understood and adhered to as they pertain to the contractor and scope of work on the JHA.</p> <p>Daily inspections during clearing and weekly inspections during the remainder of construction within the work area of at risk 'avoidance area' demarcation will be undertaken to confirm</p>	During construction.	<p>Contractor to check that drawings and shape/CAD files show correct approved clearing areas.</p> <p>Record of provision of drawings and shape/CAD files showing approved clearing areas.</p> <p>Daily site inspections during clearing and weekly inspections during the remainder of construction to confirm appropriate demarcations of at risk avoidance areas are maintained.</p>

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Management Targets	Management Actions	Monitoring	Timing / Frequency of Monitoring	Reporting
		markings remain in place and are accurate.		Construction reports which will include clearing extents and shapefiles. Vegetation clearing records and annual environmental reporting.
	Personnel access routes and parking will be restricted and clearly demarcated on site.	Approved clearing areas including designated access routes and parking areas to be clearly demarcated on site and communicated appropriately. Routine inspection of Project defined clearing limits and Boundaries demarcation during clearing activities. Daily inspection of clearing extents during clearing activities and weekly inspections during the remainder of construction to confirm no over clearing.	During construction and operation.	Vegetation clearing records and annual environmental reporting. Report unauthorized clearing as soon as practicable after identified. Construction site plan showing all approved access areas. Daily site inspections during and weekly inspections during the remainder of construction.
	Review environmental constraints that are outlined in approval documents during detailed design and avoid sensitivities where possible.	Pre-construction reviews of the construction plan shows that infrastructure is placed in cleared areas where practicable.	During construction.	Construction site plan showing all approved access areas.
	Areas required for temporary construction purposes and areas required for operational maintenance and repair activities, will be located within existing cleared areas, or areas required for permanent infrastructure, where possible.	Drawings, inductions and shape/CAD files showing approved clearing areas provided to Construction Contractor Representative. Job Hazard Analysis (JHA) or equivalent to include the risks and mitigation actions to be understood and adhered to as	Prior to and during construction and operation.	Daily inspection of Project defined clearing limits and boundaries demarcation during clearing activities and weekly inspections during the remainder of construction. Vegetation clearing records and annual environmental reporting

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Management Targets	Management Actions	Monitoring	Timing / Frequency of Monitoring	Reporting
		they pertain to the contractor and scope of work on the JHA.		Report unauthorized clearing as soon as practicable after identified.
	Minimise clearing to the extent required during construction, and the ongoing maintenance and operation of the assets.	Routine inspection of Project defined clearing limits and boundaries demarcation during clearing activities.  Daily inspection of clearing extents during clearing activities and weekly inspections during the remainder of construction to confirm no over clearing.	During construction and operation.	Vegetation clearing records and annual environmental reporting.  Report unauthorized clearing as soon as practicable after identified.
	Visual inspection and record of cleared areas to be undertaken post-clearing to confirm no over clearing.	N/A.	Post construction.	Annual Compliance Reporting.
<b>Weeds</b>				
Minimise the spread and/or introduction of weeds.	All site personnel to be inducted on environmental responsibilities including hygiene management.	Record of all site personnel that have undertaken the induction.	Prior to construction.	Induction records.
	A weed register will be developed and maintained for declared weeds, WONS or serious environmental weed species. The register will contain relevant information such as species, distribution, abundance and history of control method.	Record of weed register.	Prior to and during construction.	Weed register.
	Develop and implement vehicle and equipment clean on entry/exit procedures; Any machinery used to remove weed-infested topsoil will be cleaned down before entering or leaving	Routine spot checks of vehicles and equipment compliance with cleaning.	During construction.	Results of spot checks of vehicle and equipment cleaning compliance.

## PROTECTED

Management Targets	Management Actions	Monitoring	Timing / Frequency of Monitoring	Reporting
	the work site to prevent the introduction and spread of weeds into new areas.			
	Vehicles and machinery to remain on designated roads/access tracks areas where possible.	Routine spot checks of vehicles and equipment compliance with cleaning.	During construction.	Results of spot checks of vehicle and equipment cleaning compliance.
	<ul style="list-style-type: none"> <li>– Implement a yearly weed monitoring and management program for the first year following completion of ground disturbance activities.</li> <li>– Ad-hoc weed checks during operational maintenance activities in accordance with standard Horizon Power network weed control.</li> </ul>	Yearly weed inspection and management program.	Post construction.	Annual Compliance Reporting.
<b>Hydrological flows</b>				
Minimise indirect impacts to surrounding/adjacent areas from altered surface water drainage and flows.	Refer to Table 8-3 for management targets, actions, monitoring, timing and reporting of management measures in relation to hydrological flows.			
<b>Fire regimes</b>				
No unplanned fires as a result of Project activities.	All site personnel to be inducted on environmental responsibilities including fire prevention.	Record of all site personnel that have undertaken the induction.	Prior to construction.	Induction records.
	All non-essential work is to be stopped or postponed in the event that a Total Fire Ban with Catastrophic fire danger ratings or Emergency Warning is issued for the area. Works to be conducted in accordance with all	N/A.	At all times.	Incident reporting system. Weekly site inspection report.

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Management Targets	Management Actions	Monitoring	Timing / Frequency of Monitoring	Reporting
	local fire control laws and regulations.			
	Where increased risk of fire is identified, fire-resistant barriers like screens will be employed to confine sparks generated by welders and other hot work activities.	N/A.	At all times.	Incident reporting system. Weekly site inspection report.
	Fire extinguishers will be strategically positioned in locations with a higher risk of fire.	N/A.	At all times.	Incident reporting system. Weekly site inspection report.
	Hot work permits will be mandatory before commencing any hot work.	Compliance with hot work permits.	At all times.	Hot work permit record system. Weekly site inspection report.
	Vehicles and equipment access limited to designated roads/access tracks and cleared areas where possible.	N/A.	At all times.	Incident reporting system. Weekly site inspection report
	Smoking will be confined to designated smoking area only.	N/A.	At all times.	Incident reporting system. Weekly site inspection report.
	Identify potential ignition sources and/or activities with the potential to lead to fire.	N/A.	At all times.	Incident reporting system. Weekly site inspection report.
<b>Dust emissions</b>				
Minimise impacts to flora and vegetation from increased generation of dust emissions during construction.	Refer to Table 8-6 for management targets, actions, monitoring, timing and reporting of management measures in relation to dust emissions.			

# PROTECTED

Management Targets	Management Actions	Monitoring	Timing / Frequency of Monitoring	Reporting
<b>Spills or leaks of chemical, hydrocarbon and/or hazardous materials</b>				
Minimise impacts to flora and vegetation from spills or leaks of chemical, hydrocarbon and/or hazardous materials.	Refer to Table 8-5 for management targets, actions, monitoring, timing and reporting of management measures in relation to spills or leaks of chemical, hydrocarbon and/or hazardous materials.			

# PROTECTED

## 8.3 Terrestrial Fauna

The management components for fauna are outlined in Table 8-2.

*Table 8-2 Terrestrial Fauna – management components*

<b>EPA Factor:</b> Terrestrial Fauna <b>EPA Objective:</b> "To protect terrestrial fauna so that biological diversity and ecological integrity are maintained." <b>EMP Objective:</b> to minimise fauna habitat loss and minimise direct and indirect impacts to fauna as far as practicable <b>Key Environmental Values:</b> Significant fauna species and habitats <b>Key Impact and Risks:</b> – Loss of fauna habitat through clearing, including habitat for significance fauna species – Fauna injury/death from vehicle strike, clearing activities or direct collision with infrastructure – Fauna activity disturbance from temporary increase in noise/vibration/light, attraction of feral animals, alteration of fire regimes, increased generation of dust during construction.				
Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
<b>Clearing and ground disturbance</b>				
Minimise fauna habitat loss.	Refer to Table 8-1 for management targets, actions, monitoring, timing and reporting of management measures in relation to vegetation clearing in the DE, which directly relates to habitat clearing within the DE.			
<b>Fauna injury/death</b>				
– No deaths of significant fauna during vegetation clearing for construction. – Minimise fauna injury/death during Project construction and operation.	Personnel induction regarding threatened fauna and direct and indirect impacts (e.g., risk of vehicle strike, interaction with construction activities, waste management).	Record of all site personnel that have undertaken the induction.	Prior to construction.	Induction records.
	Speed limits between 40-80 km/hr in order to avoid fauna strikes during clearing and construction.	Visual monitoring by all construction personnel.	During construction.	Incident reporting.
	Clearing to be undertaken progressively in one direction to allow fauna dispersal.	N/A.	During construction.	Clearing records. Record known injuries to, or deaths of conservation significant fauna species in a Conservation Significant Fauna Interaction

## PROTECTED

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
				Register as soon as possible as the injury or death is identified. Annual Compliance Reporting.
	<p>Prior to the commencement of clearing, a licenced fauna specialist will be present for a pre-clearance survey to oversee the works (See Appendix A for pre-clearance fauna survey requirements).</p> <p>If any listed fauna is identified during the pre-clearance survey, clearing will stop until the listed fauna has moved out of the clearing area or has been relocated by the licenced fauna specialist.</p>	N/A.	Prior to clearing.	<p>Internal Project clearing permit, signed by Supervisor</p> <p>Licenced fauna specialist to report on areas they inspected (e.g. where the Bilby burrows were that they inspected), the species found and the location of where any fauna were released to.</p>
	<p>Management of excavations including:</p> <ul style="list-style-type: none"> <li>– Excavations shall remain open for the minimal required time to facilitate the ongoing construction.</li> <li>– Excavations will be done in sections.</li> <li>– Fauna escape batters, ramps or egress ladders will be implemented in excavated areas where required to be left open overnight.</li> <li>– Posts shall be raised as soon as practical after the holes are excavated, and holes will not be left open overnight where possible. Where excavations required to be left open</li> </ul>	Daily inspections of non-battered excavations during construction to identify trapped fauna and to enable capture and relocation.	During construction.	<p>Daily monitoring for trapped fauna during construction in non-battered excavations.</p> <p>Record known injuries to, or deaths of conservation significant fauna species in a Conservation Significant Fauna Interaction Register as soon as possible as the injury or death is identified.</p> <p>Annual Compliance Reporting.</p>

## PROTECTED

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	<p>overnight, fauna egress points will be made.</p> <ul style="list-style-type: none"> <li>– Any excavations required will generally not be left open and an inspection will be undertaken at the commencement of each workday, to identify and address any potential instances of trapped animals.</li> <li>– Temporary fencing or coverings will be implemented around excavated areas.</li> </ul>			
	<p>In the event of listed threatened fauna injury, advice shall be sought from local qualified wildlife organisations/persons.</p> <p>Sick or injured wildlife will be allocated to an appropriate specialist organisation for care.</p> <p>Fauna fatality and injury will be recorded as an environmental incident.</p>	<p>In case of fauna injury, advice undertaken and, if necessary, relocation of rescue animals to an appropriate specialised organisation.</p> <p>Daily inspections of non-battered excavations during construction to identify trapped fauna and to enable capture and relocation and/or treatment.</p>	<p>During construction.</p>	<p>Animal injury or fatalities reported as an incident in the incident records system.</p> <p>Record known injuries to, or deaths of conservation significant fauna species in a Conservation Significant Fauna Interaction Register as soon as possible as the injury or death is identified.</p> <p>Annual Compliance Reporting.</p> <p>Licensed fauna handler to report on areas they inspected (e.g. where the Bilby burrows were that they inspected), the species found and the location of where any fauna were released to.</p>
	<p>Night-time vehicle movements during construction will be limited where possible to minimise the potential for vehicle strikes. Working hours will</p>	<p>In case of fauna injury, advice undertaken and, if necessary, relocation of rescue animals to an appropriate specialised organisation.</p>	<p>During construction.</p>	<p>Animal injury or fatalities reported as an incident in the incident records system.</p> <p>Record known injuries to, or deaths of conservation significant fauna species in a Conservation</p>

## PROTECTED

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	generally take place between daylight hours.			Significant Fauna Interaction Register as soon as possible as the injury or death is identified. Annual Compliance Reporting.
	Fauna identified within the demarcated clearing areas unable to move away from the clearing areas without intervention are to be moved to a location deemed appropriate for the safety and survival of the fauna individual/s.	Daily visual inspections for native fauna within non-battered excavations during construction.	During construction.	Record known injuries to, or deaths of conservation significant fauna species in a Conservation Significant Fauna Interaction Register as soon as possible as the injury or death is identified. Annual Compliance Reporting. Licenced fauna handler to report on areas they inspected (e.g. where the Bilby burrows were that they inspected), the species found and the location of where any fauna were released to.
	Pre-clearance surveys and fauna relocation for the Bilby, Northern Brushtail Possum and Northern Blue-tongue Skink as detailed in Appendix A.	As detailed in Appendix A.	Prior to construction.	A report of the fauna identification work undertaken must be provided to Horizon Power by the contractor, as detailed in Appendix A.
<b>Disturbance to native fauna</b>				
Minimise disturbance to native fauna from noise, light and vibration during Project construction.	Construction works will generally occur during the daylight hours.	Noise emissions will be kept at a minimum during daylight hours. No increase in noise will occur during night-time hours.	During construction.	Noise complaints will be recorded. Compliance with implementation of noise and vibration minimisation strategies will be developed and implemented during construction of the Project.
	Light emissions from on-site construction lighting towers will occur transiently, not remaining	No light emission from on-site construction lighting towers will in the same location for longer than six months.	During construction.	Incident reports.

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Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	in the same location unnecessarily.			
Refer to Table 8-4 for management targets, actions, monitoring, timing and reporting of management measures in relation to noise and vibration.				
Minimise disturbance to native fauna from feral animals during Project construction	Personnel induction to include introduction of feral animals, requirement to report sightings of feral animals, no feeding of native and/or feral animals and no pets allowed on site.	Record of all site personnel that have undertaken the induction.	Prior to construction.	Induction records.
	General construction waste material and food waste to be appropriately managed and disposed of off-site at an appropriate facility.	Routine inspections of waste storage and handling areas. Waste stored in fauna-proof containers and disposed of appropriately.	During construction.	Weekly inspection. Waste disposal records.
No standing water across the DE during operations that Cane Toads could potentially breed in	Drainage control will be established during detailed design and may include: <ul style="list-style-type: none"> <li>– Ground under and between ground mounted solar arrays may be covered with bluestone.</li> <li>– Design the site to drain water or sloped so the water runs off site.</li> </ul>	Pre-construction reviews of the construction site plan shows that there will be minimal alteration to surface water drainage flows.	During operations.	Report any standing water as soon as practicable after identified and modification to remove standing water.
<b>Dust emissions</b>				
Minimise disturbance to native fauna from increased generation of dust during construction.	Refer to Table 8-6 for management targets, actions, monitoring, timing and reporting of management measures in relation to dust emissions.			
<b>Fire regimes</b>				
Prevent indirect impacts on fauna habitats due to accidental fires	Refer to Table 8-1 for management targets, actions, monitoring, timing and reporting of management measures in relation to no unplanned fires.			

## 8.4 Inland Waters

The management components for inland waters are outlined in Table 8-3.

Table 8-3 Inland Waters – management components

EPA Factor: Inland Waters				
EPA Objective: “To maintain the hydrological regimes and quality of groundwater and surface water so that environmental values are protected.”				
EMP Objective: To minimise impacts to surface water and groundwater hydrological regimes or quality water quality				
Key Environmental Values: Riparian vegetation within the DE, the DE is within the Broome Water Reserve PDWSA, Roebuck Bay Wetland is located less than 20 m east of the DE				
Key Impact and Risks:				
<ul style="list-style-type: none"> <li>– Excavation of ASS</li> <li>– Changes to surface water flows</li> <li>– Soil erosion and sediment discharge</li> <li>– Accidental spills or leaks of hazardous materials or wastes</li> <li>– Changes to groundwater infiltration</li> <li>– Minor temporary drawdown of groundwater should dewatering be required</li> </ul>				
Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
<b>Acid sulfate soils</b>				
Minimise the risk of ASS mobilization and leaching into groundwater/surface water.	Refer to Table 8-5 for management targets, actions, monitoring, timing and reporting of management measures for the excavation of ASS.			
<b>Hydrological flows</b>				
Minimise indirect impacts to surrounding/adjacent areas from altered surface water drainage and flows.	Local drainage to be considered during site design and layout.	Pre-construction reviews of the construction site plan shows that there will be minimal alteration to surface water drainage flows.	Prior to construction.	Construction site plan.
<b>Soil erosion and sediment discharge</b>				
Minimise the risk of soil erosion and sedimentation of surface water.	Refer to Table 8-5 for management targets, actions, monitoring, timing and reporting of management measures in relation to soil erosion and sediment discharge.			
<b>Spills or leaks of chemical, hydrocarbon and/or hazardous materials</b>				

## PROTECTED

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
Minimise the risk of hazardous material and waste leaching into groundwater/surface water.	Refer to Table 8-5 for management targets, actions, monitoring, timing and reporting of management measures in relation to spills or leaks of chemical, hydrocarbon and/or hazardous materials.			
<b>Groundwater</b>				
Minimise the risk of changes to groundwater infiltration and groundwater drawdown.	Any water abstraction required for construction of the Project will be undertaken to minimise drawdown, and water allowed to infiltrate as close to the source as possible. If the groundwater is acidic, it would be treated and discharged in accordance with an ASS Management Plan.	Routine inspection of Project to monitor groundwater levels.	During construction.	Groundwater monitoring records.
	Compliance with conditions administered under Section 5C and 26D Licences under the RIWI Act.	As per requirements of works approvals and/or licencing under Part V of the EP Act.	At all times.	Annual Compliance Reporting.
<b>Riparian vegetation</b>				
No clearing of riparian vegetation outside of the predefined clearing limits and boundaries described within approval documents.	Refer to Table 8-1 for management targets, actions, monitoring, timing and reporting of management measures in relation to vegetation clearing in the DE, which directly relates to clearing of riparian vegetation within the DE.			
<b>Roebuck Bay Wetland</b>				
No direct impacts to Roebuck Bay Wetland.	Refer to Table 8-1 for management targets, actions, monitoring, timing and reporting of management measures in relation to vegetation clearing in the DE, which directly relates to avoiding clearing impacts to Roebuck Bay Wetland.			

## 8.5 Social Surroundings

The management components for social surroundings are outlined in Table 8-4.

Table 8-4 Social Surroundings – management components

<b>EPA Factor:</b> Social Surroundings <b>EPA Objective:</b> “To protect social surroundings from significant harm.” <b>EMP Objective:</b> To minimise impacts to heritage values and visual amenity <b>Key Environmental Values:</b> Sites of Heritage significance and visual amenity <b>Key Impact and Risks:</b> – Potential indirect impacts to known Aboriginal cultural heritage sites and areas as a result of vibration and dust deposition, vibration and fires during construction – Potential to impact upon amenity (visual, noise and vibration) – Potential for accidental direct impact to previously unrecorded Aboriginal cultural heritage Sites (that have the potential to be uncovered during ground disturbing activities).				
Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
<b>Heritage sites</b>				
No disturbance of known Aboriginal cultural heritage sites.	All site personnel to be inducted on Aboriginal cultural heritage.	Record of all site personnel that have undertaken the induction.	Prior to construction.	Induction records.
	Horizon Power will commission an Aboriginal cultural heritage survey with the support of Yawuru Traditional Owners to identify heritage sites and areas.	Aboriginal cultural heritage survey report.	Prior to construction.	N/A.
	At risk avoidance areas within the DE will be clearly established through consultation with Yawuru Traditional Owners and demarcated in a culturally appropriate manner prior to ground disturbing activities to prevent damage to Aboriginal cultural heritage sites outside of the approved disturbance area.	Place boundary to verify buffer and/or demarcation in a culturally appropriate manner.	Prior to construction.	Incident reports. Induction records. Annual Compliance Reporting.
	Engagement of Aboriginal cultural heritage monitors as per Heritage	Visual inspections of heritage sites during ground disturbance.	During construction.	Incident reports.

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Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	Protection Agreement requirements to monitor initial ground disturbing earthworks and to manage Aboriginal cultural heritage values of the site and the adjacent areas.	Regular engagement with Yawuru Traditional Owners.		Induction records. Annual Compliance Reporting.
	Any potential Aboriginal materials or other unexpected finds found on site during excavation, such as Aboriginal burials, will be subject to an immediate shutdown of nearby activities and a suitable exclusion zone.  The Manager Sustainability will be immediately notified.  Horizon Power will consult with Yawuru Traditional Owners and an archaeologist will be engaged to assess the archaeological material and provide a report to Horizon Power.  Horizon Power will work with Yawuru Traditional Owners and the archaeologist to implement an appropriate course of action.	Visual inspections of heritage sites during ground disturbance and flagging/fencing as applied  Regular engagement with Yawuru Traditional Owners	During construction.	Incident reports. Induction records. Annual Compliance Reporting.
	Enable Yawuru Traditional Owners to monitor the heritage places to enable knowledge transfer to occur and ensure the heritage values are protected for future generations.	Visual inspections of heritage sites during ground disturbance.  Regular engagement with Yawuru Traditional Owners.	At all times.	Incident reports. Induction records. Annual Compliance Reporting.
	Continue to engage and consult with Yawuru Traditional Owners to ensure heritage values are managed.	Visual inspections of heritage sites during ground disturbance.  Regular engagement with Yawuru Traditional Owners.	At all times.	Incident reports. Induction records. Annual Compliance Reporting.

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Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	Regularly liaise with Yawuru Traditional Owners to establish and maintain processes and accountability between the parties.			
	If required, any disturbance to heritage features will be undertaken in accordance with the <i>Aboriginal Heritage Act 1972</i> and any other applicable legislation, aligned with the Horizon Power Aboriginal Cultural Heritage Management Policy and following consultation with the Yawuru Traditional Owners.  Compliance with conditions administered under the <i>Aboriginal Heritage Act 1972</i> as required.	As per requirements under the <i>Aboriginal Heritage Act 1972</i> .	At all times.	Annual Compliance Reporting.
<b>Dust</b>				
Minimise dust deposition on Aboriginal cultural heritage sites	Dust suppression, including use of water carts to be implemented where required during construction activities in proximity to Aboriginal cultural heritage sites as required.	Visual inspections of heritage sites (by heritage monitors) during ground disturbance.  Ad hoc inspections of heritage sites (by heritage monitors) during Project construction.	During construction.	Incident reports.  Annual Compliance Reporting.
Refer to Table 8-6 for additional management targets, actions, monitoring, timing and reporting of management measures in relation to dust emissions.				
<b>Noise and vibration</b>				
Minimise construction noise and vibration	All site personnel to be inducted on Aboriginal cultural heritage.	Record of all site personnel that have undertaken the induction.	Prior to construction.	Induction records.
	Construction works will be undertaken in accordance with the Environmental Protection (Noise) Regulations 1997.	Compliance with Environmental Protection (Noise) Regulations 1997 and/or approved Noise Management Plan.	During construction.	Incident reports. Complaint closeout. Annual Compliance Reporting.

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Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
		Investigation and reporting of all complaints.		
	Comply with local government noise management requirements.	Compliance with Environmental Protection (Noise) Regulations 1997 and/or approved Noise Management Plan. Investigation and reporting of all complaints.	During construction.	Incident reports. Complaint closeout. Annual Compliance Reporting.
	Establish complaints register.	Compliance with Environmental Protection (Noise) Regulations 1997 and/or approved Noise Management Plan. Investigation and reporting of all complaints.	During construction.	Incident reports. Complaint closeout. Annual Compliance Reporting.
	Reduce noise emissions as much as practicable.	Compliance with Environmental Protection (Noise) Regulations 1997 and/or approved Noise Management Plan. Investigation and reporting of all complaints.	During construction.	Incident reports. Complaint closeout. Annual Compliance Reporting.
	Heavy vehicle movements minimised as far as practicable.	Compliance with Environmental Protection (Noise) Regulations 1997 and/or approved Noise Management Plan. Investigation and reporting of all complaints.	During construction.	Incident reports. Complaint closeout. Annual Compliance Reporting.
	In the event of significant noise activities noise and vibration minimisation strategies (e.g. soft start) will be developed and implemented during Project construction.	Compliance with implementation of noise and vibration minimisation strategies.	During construction.	Annual Compliance Reporting.

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Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
<b>Fire regimes</b>				
Refer to Table 8-1 for management targets, actions, monitoring, timing and reporting of management measures in relation to fire regimes.				
<b>Visual amenity</b>				
Minimise adverse visual amenity.	Maximise visual amenity through site layout design and construction materials, where possible.	Investigation and reporting of all complaints.	Prior to construction.	Annual Compliance Reporting Complaint closeout.
	Establish complaints register.	Investigation and reporting of all complaints.	During construction.	Annual Compliance Reporting Complaint closeout.

## 8.6 Terrestrial Environmental Quality

The management components for terrestrial environmental quality are outlined in Table 8-5.

Table 8-5 Terrestrial Environmental Quality – management components

<b>EPA Factor:</b> Terrestrial Environmental Quality <b>EPA Objective:</b> To maintain the quality of land and soils so that environmental values are protected <b>EMP Objective:</b> To minimise impacts from Acid Sulphate Soils (ASS) and site contamination as far as practicable <b>Key Environmental Values:</b> Adjacent to the network connection route portion of the DE, there is a high probability of occurrence of ASS, the DE overlaps two contaminated sites <b>Key Impact and Risks:</b> <ul style="list-style-type: none"> <li>– Exposure of ASS</li> <li>– Soil erosion and sediment discharge</li> <li>– Disturbance to existing contaminated sites</li> <li>– Accidental release of chemicals and/or hydrocarbons (i.e. leaks, spills) or waste</li> </ul>				
Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
<b>Acid sulfate soils</b>				
No mobilization of ASS during construction.	All site personnel to be inducted on environmental responsibilities including area of ASS risk.	Record of all site personnel that have undertaken the induction.	Prior to construction.	Induction records.
	If ASS is encountered, an ASS investigation will be undertaken in the area that the ASS was encountered.  If the investigation identifies ASS within excavation areas, the Contractor will develop and implement an ASS Management Plan (ASSMP) as required.	As per the ASS management plan.	Prior to and during construction.	Inspection report. ASS investigation survey report ASSMP approved by DWER (if required).
	Construction activities will be undertaken in accordance with the recommendations provided in the ASS investigation and/or ASS management plan.	As per the ASS management plan.	During construction.	ASSMP approved by DWER (if required).

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Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	Any water abstraction required for construction of the Proposal will be undertaken to minimise drawdown, and water allowed to infiltrate as close to the source as possible. If the groundwater is acidic, it would be treated and discharged in accordance with an ASSMP.	As per the ASS management plan.	During construction.	ASSMP approved by DWER (if required).
<b>Soil erosion and sediment discharge</b>				
No noticeable change in sediment discharge. No noticeable increase in soil erosion.	Establishment of designated access roads to prevent unauthorised disturbance.	Routine inspections of erosion and sediment discharge.	At all times.	Inspection Report. Incident Report.
	Erosion and sediment control measures will be applied to prevent erosion of exposed areas and sediment discharge to adjacent areas, where practicable.	Routine inspections of erosion and sediment discharge.	During construction.	Inspection Report. Incident Report.
	Laydown areas will be rehabilitated or otherwise stabilised as early as practicable to minimise the potential for erosion.	Routine inspections of erosion and sediment discharge.	Post construction.	Inspection Report. Incident Report.
	Extreme weather will be monitored by the construction contractor and if a cyclone warning is issued, a site inspection and clean-up will be undertaken prior to the cyclone. This will include filling in any holes, as well as stabilisation or dispersal of piles of dirt and removal of rubbish.	Monitoring of weather.	During construction.	Inspection Report. Incident Report. Cyclone Management Plan.

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Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	A cyclone management plan will be developed by the contractor prior to construction.			
<b>Groundwater</b>				
Minimise the risk of changes to groundwater infiltration and groundwater drawdown.	Refer to Table 8-3 for management targets, actions, monitoring, timing and reporting of management measures in relation to spills or leaks of chemical, hydrocarbon and/or hazardous materials.			
<b>Contamination</b>				
All suspected contamination is characterised and appropriately managed.	All site personnel to be inducted on environmental responsibilities.	Record of all site personnel that have undertaken the induction.	Prior to construction.	Induction records.
	In the event of excavation encountering suspected contaminated materials, the excavation works are to be stopped, and advice sought from a qualified environmental professional.  If required, the suspected contamination will be sampled and analysed to determine the appropriate remediation and disposal.	Visual monitoring during excavation.	During construction.	Reporting of all suspected contamination.  Contamination report from environmental professional
	If dewatering is required in areas of known contaminated sites, the construction contractor will develop a dewatering contamination plan or similar.	Dewatering contamination plan or similar.	Prior to construction.	Dewatering contamination plan or similar.
<b>Spills or leaks of chemical, hydrocarbon and/or hazardous materials</b>				
All accidental spills or leaks of hazardous materials or waste is appropriately managed.  Minimise the risk of spills or leaks of hazardous materials or waste.	All site personnel to be inducted on environmental responsibilities including storage of hydrocarbons and chemicals, bunding requirements, refuelling requirements and incident	Record of all site personnel that have undertaken the induction.	Prior to construction.	Induction records.

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Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	response measures in the event of a spill.			
	Spill management procedures to be developed prior to construction.	Record of storage and spill management procedures.	Prior to construction.	Inspection Report. Incident Report.
	Hazardous materials used during construction will be stored in compliance with relevant Australian Standards and Regulations.	Record of storage and spill management procedures.	At all times.	Inspection Report. Incident Report.
	On-site refuelling of machinery and plant to occur on designated areas, subject to appropriate spill controls and at least 50 m away from all surface water features and drainage areas.	Weekly site inspections of hazardous materials and waste storage and handling areas to identify spills / leaks and discharges, and check that storage, handling and signage is appropriate.	At all times.	Inspection Report. Incident Report.
	Scheduled / major maintenance of vehicles / plant to be undertaken off-site.	Record of maintenance of vehicles.	At all times.	Inspection Report. Incident Report.
	Provision of spill response kits at refuelling locations and any locations where hydrocarbons or chemicals are stored.	Record of storage and spill management procedures.	At all times.	Inspection Report. Incident Report.
	Safety Data Sheets (SDSs) and hazardous materials inventory to be retained on site.	Record of storage and spill management procedures.	At all times.	Inspection Report. Incident Report.
	During construction, temporary ablution facilities to be self-contained.  Sewage to be collected by a licensed contractor and disposed at an appropriately licensed waste facility.	Record of storage and spill management procedures.	At all times.	Inspection Report. Incident Report.

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Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	General construction waste material to be appropriately managed and disposed of off-site at an appropriate facility.	Record of storage and spill management procedures.	At all times.	Inspection Report. Incident Report.
	Diesel storage will not exceed 5000 litres within the Broome Water Reserve Public Drinking Water Source Area.	Record of diesel storage.	At all times	Inspection Report. Incident Report.
<b>Construction and operation of prescribed activities and premises</b>				
Achieve all management targets in relation to terrestrial environmental quality.	Compliance with conditions administered under the works approvals and/or licencing under Part V of the EP Act as required.	As per requirements of works approvals and/or licencing under Part V of the EP Act.	At all times.	As per requirements of works approvals and/or licencing under Part V of the EP Act.
<b>Dangerous goods</b>				
Achieve all management targets in relation to terrestrial environmental quality.	Compliance with conditions administered under a Dangerous Goods Site Licence as required.	As per requirements of Dangerous Goods Site Licence.	At all times.	As per requirements of Dangerous Goods Site Licence.

## 8.7 Air Quality

The management components for air quality are outlined in Table 8-6.

Table 8-6 Air Quality – management components

<b>EPA Factor:</b> Air Quality <b>EPA Objective:</b> “To maintain air quality and minimise emissions so that environmental values are protected.” <b>EMP Objective:</b> To minimise impacts to air quality, resulting from the generation of gaseous and dust emissions during construction <b>Key Environmental Values:</b> Broome township, located approximately 10 km southwest of the solar and BESS facility <b>Key Impact and Risks:</b> – Gaseous emissions generated during construction – Dust emissions generated during construction				
Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
<b>Gaseous emissions</b>				
Minimise gaseous emissions resulting from construction of the Project.	Machinery and vehicles are regularly serviced and operated/maintained in accordance with the manufacturer’s specifications.	Record of maintenance of vehicles.	At all times.	Inspection Report. Incident Report.
	Vehicles on site will be switched off and not left idling when not in use.	N/A.	At all times.	N/A.
	Source construction materials locally and with a lower emissions footprint where available, suitable and practicable.	N/A.	Prior to construction.	N/A.
	Vehicle selection will take into account fuel consumption efficiency, whilst allowing operational efficiency.	N/A.	At all times.	N/A.
	Ongoing maintenance of vehicles to ensure efficient fuel use.	N/A.	At all times.	N/A.

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Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
<b>Dust emissions</b>				
Minimise visible dust emissions resulting from construction of the Project.	All site personnel to be inducted on minimisation of dust emissions.	Record of all site personnel that have undertaken the induction.	Prior to construction.	Site induction records.
	Use of water carts as needed to wet down dust generating surfaces such as roads, earthworks areas.	N/A.	During construction.	N/A.
	Ground disturbance and/or clearing of vegetation will be restricted during high winds if dust cannot be adequately controlled.	Routine monitoring of wind conditions.	During construction.	N/A.
	Review of weather forecasts will be undertaken prior to native vegetation clearing to identify periods of extreme weather conditions likely to result in increased dust emissions so that additional mitigation measures can be implemented; or ground disturbance and/or clearing of native vegetation will be halted.	Routine monitoring of wind conditions.	During construction.	N/A.
	Use of defined haul routes for machinery/vehicles travelling on unsealed surfaces or roads, and reduced vehicle speed in areas of unconsolidated soil.	N/A.	During construction.	N/A.
	Any complaints relating to dust emissions will be recorded and investigated as per Horizon Power's incident management procedure.	N/A.	During construction.	Complaints record.

## 9 Commonwealth Potential Environmental Impacts, Risks and Management Measures

### 9.1 Threats to Matters Protected under the EPBC Act

As per the EPBC Act referral documentation, the MNES that have the potential to be present in the DE and/or immediate surrounds are Listed Threatened species and ecological communities. A description of Listed Threatened species and ecological communities relevant to the Project is provided in Table 2-2.

### 9.2 Potential Impacts and Risks

Clearing for construction of the Project will directly impact Threatened and Migratory fauna habitat as detailed in Table 2-2.

Other aspects of the construction and operation phase of the Project that have the potential to result in impacts to Threatened and/or Migratory fauna include:

- Fauna injury/death from vehicle strike, clearing activities or direct collision with infrastructure
- Fauna activity disturbance from temporary increase in noise/vibration/light, attraction of feral animals, alteration of fire regimes, increased generation of dust during construction.

### 9.3 Risk Assessment

An environmental risk assessment is required as part of the DCCEEW *'Environmental Management Plan Guidelines'* (DCCEEW, 2024). Each environmental risk for MNES related to the Project has been given a rating in terms of likelihood and consequence using the criteria outlined in Table 9-1 and Table 9-2 below. These ratings are then combined using Table 9-3 to generate a risk rating of low, medium, high or severe.

Table 9-1 Likelihood

Qualitative Measure of Likelihood	How Likely is it that this event
Highly Likely	Is expected to occur in most circumstances
Likely	Will probably occur during the life of the Project
Possible	Might occur during the life of the Project
Unlikely	Could occur but considered unlikely or doubtful
Rare	May occur in exceptional circumstances

Table 9-2 Qualitative Measure of Consequence

Descriptor	Qualitative Measure of Consequence
Minor	Minor incident of environmental damage that can be reversed
Moderate	Isolated but substantial instances of environmental damage that could be reversed with intensive efforts
High	Substantial instances of environmental damage that could be reversed with intensive efforts
Major	Major loss of environmental amenity and real danger of continuing
Critical	Severe widespread loss of environmental amenity and irrecoverable environmental damage

Table 9-3. Risk Rating

	Consequence				
	Minor	Moderate	High	Major	Critical
Highly Likely	Medium	High	High	Severe	Severe
Likely	Low	Medium	High	High	Severe
Possible	Low	Medium	Medium	High	Severe
Unlikely	Low	Low	Medium	High	High
Rare	Low	Low	Low	Medium	High

The risk rating for each environmental risk has been assessed and is outlined in Table 9-4.

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Table 9-4 Environmental Risk Assessment

Development Phase	Potential Impact	Likelihood	Consequence	Inherent Risk	Planned Mitigation	Likelihood	Consequence	Residual Risk
Pre-construction / construction phase	Loss of fauna habitat through clearing, including habitat for significance fauna species in excess of the approved extent.	Possible	Moderate	Medium	As detailed in Section 9.	Unlikely	Moderate	Low
	Fauna injury/death from vehicle strike, clearing activities or direct collision with infrastructure.	Possible	Moderate	Medium		Rare	Moderate	Low
	Fauna activity disturbance from temporary increase in noise/vibration/light.	Possible	Minor	Low		Rare	Minor	Low
	Fauna activity disturbance from attraction of feral animals (including Cane Toads).	Possible	Moderate	Medium		Rare	Moderate	Low
	Fauna activity disturbance from alteration of fire regimes.	Possible	Moderate	Medium		Rare	Moderate	Low
	Fauna activity disturbance from increased generation of dust during construction.	Unlikely	Minor	Low		Rare	Minor	Low
Operation	Fauna injury/death from direct collision with infrastructure.	Possible	Moderate	Medium		Unlikely	Moderate	Low

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### 9.4 Management Measures

Mitigation and management of the potential direct and indirect impacts on MNES associated with the Project will be implemented in accordance with standard construction industry environmental practices, as well as relevant Horizon Power standards and procedures.

An overview of the mitigation and management measures proposed is provided in the following sections. This includes identification of each impact/risk, a description of each measure proposed, the location and timing for each measure, monitoring and reporting requirements, and performance and completion criteria. Measures have been developed to be consistent with the layout as contained within the DCCEEW Environmental Management Plan Guidelines (DCCEEW, 2024).

#### 9.4.1 Environmental Management Activities, Controls and Performance Targets

The Project will minimise fauna habitat loss and minimise direct and indirect impacts to fauna as far as practicable. The following management objectives for EPBC Act listed Threatened and Migratory fauna have been identified:

- Minimise EPBC Act listed Threatened and Migratory fauna habitat loss.
- No deaths of EPBC Act listed Threatened or Migratory fauna during vegetation clearing for construction
- Minimise EPBC Act listed Threatened or Migratory fauna injury/death during Project construction and operation
- Minimise disturbance to EPBC Act listed Threatened or Migratory fauna from noise, light and vibration during Project construction
- Minimise disturbance to EPBC Act listed Threatened or Migratory fauna from feral animals (including Cane Toads) during Project construction
- Minimise disturbance to EPBC Act listed Threatened or Migratory fauna from increased generation of dust during construction
- Prevent indirect impacts on fauna habitats due to accidental fires.

Additional general management objectives for the Project include:

- No mobilization of ASS during construction
- All suspected contamination is characterised and appropriately managed
- All accidental spills or leaks of hazardous materials or waste is appropriately managed and minimise the risk of spills or leaks of hazardous materials or waste
- Minimise indirect impacts to surrounding/adjacent areas from altered surface water drainage and flows
- No noticeable increase in sediment discharge or soil erosion
- Minimise the spread and/or introduction of weeds.

#### 9.4.2 Environmental Management Actions

In order to comply with relevant environmental legislation and manage the impacts to the local environment, Horizon Power has defined objective, outcomes and management-based provisions to ensure that impacts to the noted MNES are avoided and minimised as far as practicable during implementation of the Project (Table 10-5).

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Table 10-5 Environmental Management Measures to Mitigate Impacts to MNES

Management Objective / Desired Outcome	Management Measure	Performance Target / Completion Criteria	Timing	Monitoring / Reporting Activity	Corrective Action Trigger(s)	Corrective Action	Corrective Action Responsibility
<b>Construction – Fauna habitat Management</b>							
Minimise EPBC Act listed Threatened and Migratory fauna habitat loss.	<p>Clearing and ground disturbing activities (including soil and geotechnical investigations) limited to the defined clearing limits and boundaries described within the approval document.</p> <p>Driving for geotechnical investigations will be in convoy and no more than 10 m x 10 m of clearing is permitted per test location.</p> <p>The extent of the approved clearing will be clearly communicated in documentation and inductions.</p>	<p>Drawings, inductions and shape/CAD files showing approved clearing areas provided to Construction Contractor Representative.</p> <p>Job Hazard Analysis (JHA) or equivalent to include the risks and mitigation actions to be understood and adhered to as they pertain to the contractor and scope of work on the JHA.</p> <p>Track logs from soil and geotechnical investigations of where vehicles have driven within the predefined clearing limits.</p> <p>Inspection of clearing extents during clearing activities to confirm no over clearing (including soil and geotechnical investigations).</p>	Prior to commencement of clearing.	<p>Project Environmental Officer to check that drawings, inductions and shape/CAD files show correct approved clearing areas.</p> <p>Record of provision of drawings and shape/CAD files showing approved clearing areas.</p> <p>All relevant contractors to sign onto JHA or equivalent.</p> <p>Pre-clearing photos to be documented and daily inspection of clearing extents during clearing activities and weekly inspections during the remainder of construction to confirm no over clearing.</p> <p>Visual inspection and record of cleared areas to be undertaken post-clearing to confirm no over clearing and relevant shapefiles provided to Horizon Power.</p> <p>Track logs from soil and geotechnical investigations to show no vehicle movement outside of predefined clearing limits.</p> <p>Clearing area shapefiles from soil and geotechnical investigations to show no clearing outside of predefined clearing limits.</p> <p>Report unauthorised clearing as soon as practicable after identified.</p>	<p>Drawings and inductions do not show correct approved clearing areas.</p> <p>Shape/CAD files not provided.</p> <p>JHA does not include risk of clearing outside approved area.</p>	<p>All clearing activities will cease immediately. Clearing will not recommence until at risk ‘avoidance areas’ and clearing boundaries have been checked and confirmed to be accurately maintained.</p> <p>In the event of an incident, recommencement will only occur once approval is granted by the Horizon Power Manager Sustainability.</p> <p>In the event of an environmental incident, a thorough record will be maintained, and an investigation into its causes will be initiated. In cases of unauthorized clearance of vegetation containing habitats for MNES, an assessment for potential rehabilitation will be conducted.</p>	<p>Construction Contractor Environmental Officer.</p> <p>Horizon Power Project manager.</p> <p>Horizon Power Manager Sustainability.</p>
	At risk ‘avoidance areas’ will be demarcated on Project drawings and physically on site prior to clearing activities.	<p>At risk ‘avoidance areas’ clearly marked out on all relevant Project drawings and demarcated on site with shapefiles provided.</p> <p>JHA or equivalent to include the risks and mitigation actions to be understood and adhered to as they pertain to the contractor and scope of work on the JHA.</p> <p>Daily inspections during clearing and weekly inspections during the remainder of construction within the work area of at risk ‘avoidance area’ demarcation will be undertaken to confirm markings remain in place and are accurate.</p>	<p>Prior to commencement of clearing.</p>	<p>Contractor to check that drawings and shape/CAD files show correct approved clearing areas.</p> <p>Record of provision of drawings and shape/CAD files showing approved clearing areas.</p> <p>Daily site inspections during clearing and weekly inspections during the remainder of construction to confirm appropriate demarcations of at risk avoidance areas are maintained.</p> <p>Construction reports which will include clearing extents and shapefiles.</p> <p>Vegetation clearing records and annual environmental reporting.</p>	<p>Drawings do not show correct approved clearing areas.</p> <p>Shape/CAD files not provided.</p> <p>Site inspections show at risk ‘avoidance areas’ not properly demarcated on site.</p> <p>Clearing more than that described in 9.3 JHA does not include risk of clearing within at risk avoidance areas.</p>	<p>Rehabilitation efforts will commence within a timeframe of 6 to 12 months following the incident. If deemed appropriate, refresher or updated training sessions will be organized.</p> <p>Notification will be provided to DCCEEW along with the investigation report as part of any annual compliance reporting, should any specified triggers be met or exceeded.</p>	<p>Construction Contractor Environmental Officer.</p> <p>Horizon Power Project manager.</p> <p>Horizon Power Manager Sustainability.</p>

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Management Objective / Desired Outcome	Management Measure	Performance Target / Completion Criteria	Timing	Monitoring / Reporting Activity	Corrective Action Trigger(s)	Corrective Action	Corrective Action Responsibility
	Personnel access routes and parking will be restricted and clearly demarcated on site.	Approved clearing areas including designated access routes and parking areas to be clearly demarcated on site and communicated appropriately. Routine inspection of Project defined clearing limits and boundaries demarcation during clearing activities Daily inspection of clearing extents during clearing activities and weekly inspections during the remainder of construction to confirm no over clearing.	Prior to commencement of clearing. During construction.	Vegetation clearing records and annual environmental reporting. Report unauthorized clearing as soon as practicable after identified. Construction site plan showing all approved access areas. Daily site inspections during clearing and weekly inspections during the remainder of construction.	Construction site plan does not show correct approved access areas. Site inspections show access. Routes and parking areas not clearly demarcated.	Review and amend construction site plan and physically demarcate the areas on site.	Construction Contractor Environmental Officer.
	Review environmental constraints that are outlined in approval documents during detailed design and avoid sensitivities where possible.	Pre-construction reviews of the construction plan shows that infrastructure is placed in cleared areas where practicable.	During construction.	Construction site plan showing all approved access areas.	Preconstruction review does not show that infrastructure is placed in cleared areas where practicable.	Review and amend construction site plan.	Construction Contractor Environmental Officer.
	Areas required for temporary construction purposes and areas required for operational maintenance and repair activities, will be located within existing cleared areas, or areas required for permanent infrastructure, where possible.	Drawings, inductions and shape/CAD files showing approved clearing areas provided to Construction Contractor Representative. Job Hazard Analysis (JHA) or equivalent to include the risks and mitigation actions to be understood and adhered to as they pertain to the contractor and scope of work on the JHA.	Prior to and during construction and operation.	Daily inspection of Project defined clearing limits and boundaries demarcation during clearing activities and weekly inspections during the remainder of construction. Vegetation clearing records and annual environmental reporting. Report unauthorized clearing as soon as practicable after identified.	Drawings and inductions do not show correct approved clearing areas. Shape/CAD files not provided. JHA does not include risk of clearing outside approved area.	Review and amend construction site plan and physically demarcate the areas on site.	Construction Contractor Environmental Officer. Horizon Power Project Manager.
	Minimise clearing to the extent required during construction, and the ongoing maintenance and operation of the assets.	Routine inspection of Project defined clearing limits and boundaries demarcation during clearing activities. Daily inspection of clearing extents during clearing activities and weekly inspections during the remainder of construction to confirm no over clearing.	During construction. During operation.	Vegetation clearing records and annual environmental reporting. Report unauthorized clearing as soon as practicable after identification.	Drawings and inductions do not show correct approved clearing areas. Shape/CAD files not provided. JHA does not include risk of clearing outside approved area.	Review and amend construction site plan and physically demarcate the areas on site.	Construction Contractor Environmental Officer. Horizon Power Project Manager.
No mobilization of ASS during construction.	If ASS is encountered, an ASS investigation will be undertaken in the area that the ASS was encountered. If the investigation identifies ASS within excavation areas, the Contractor will develop and implement an ASS ASSMP as required. Construction activities will be undertaken in accordance with the recommendations provided in the ASS investigation and/or ASS management plan. Any water abstraction required for construction of the Proposal will be undertaken to minimise drawdown, and water allowed to infiltrate as close to the source as possible. If the groundwater is acidic, it would be treated and discharged in accordance with an ASSMP. All site personnel to be inducted on environmental responsibilities including area of ASS risk.	Record of all site personnel that have undertaken the induction. As per the ASS management plan.	Prior to commencement of construction activities. During construction.	Induction records. Inspection report. ASS investigation survey report. ASSMP approved by DWER (if required).	Construction activities undertaken without ASS management plan or ASS survey report which confirms low risk of ASS mobilisation. ASSMP not approved by DWER (if required). Site induction doesn't include risk of ASS.	Construction activities will cease within high-risk areas and recommence once investigations or ASS management activities have been carried out. ASSMP to be submitted for approval (if required) before construction can commence in Moderate or higher risk ASS areas. ASS risk added to site induction.	Horizon Power Project Manager.

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Management Objective / Desired Outcome	Management Measure	Performance Target / Completion Criteria	Timing	Monitoring / Reporting Activity	Corrective Action Trigger(s)	Corrective Action	Corrective Action Responsibility
Prevent indirect impacts on fauna habitats due to accidental fires.	<p>All site personnel to be inducted on environmental responsibilities including fire prevention.</p> <p>All non-essential work is to be stopped or postponed in the event that a Total Fire Ban with Catastrophic fire danger ratings or Emergency Warning is issued for the area. Works to be conducted in accordance with all local fire control laws and regulations.</p> <p>Where increased risk of fire is identified, fire-resistant barriers like screens will be employed to confine sparks generated by welders and other hot work activities.</p> <p>Fire extinguishers will be strategically positioned in locations with a higher risk of fire.</p> <p>Hot work permits will be mandatory before commencing any hot work.</p> <p>Vehicles and equipment access limited to designated roads/access tracks and cleared areas where possible.</p> <p>Smoking will be confined to designated smoking area only.</p> <p>Identify potential ignition sources and/or activities with the potential to lead to fire.</p>	No accidental fires as a result of construction activities.	During construction and operation.	<p>Record of all site personnel that have undertaken the induction.</p> <p>Weekly site inspection report.</p> <p>Compliance with hot work permits.</p>	<p>Site inspections show that management measures not implemented.</p> <p>Inductions are not made prior to construction activities, or personnel do not demonstrate the correct knowledge.</p> <p>Any incidents of fires occurring within or outside the DE, resulting from construction works.</p>	<p>No hot work until management measures implemented.</p> <p>Refresher training will be undertaken.</p> <p>The incident will be reported, and the cause investigated.</p> <p>Extinguish the fire, if safe to do so.</p> <p>If the fire is uncontrolled, notify emergency services and the Local Government Authority.</p>	Construction Contractor Environmental Officer.
Minimise indirect impacts to surrounding/adjacent areas from altered surface water drainage and flows.	Local drainage to be considered during site design and layout.	Pre-construction reviews of the construction site plan shows that there will be minimal alteration to surface water drainage flows.	Prior to commencement of Construction activities.	Construction site plan.	Pre-construction review does not show consideration of surface water drainage flows.	Review and amend Construction Site plan.	Construction Contractor Environmental Officer.
Minimise the spread and/or introduction of weeds.	<p>A weed register will be developed and maintained for declared weeds, WONS or serious environmental weed species.</p> <p>The register will contain relevant information such as species, distribution, abundance and history of control method.</p>	Avoid the introduction and spread of weeds species and maintain weeds register with relevant information.	During construction.	<p>Record of weed register.</p> <p>Implement a yearly weed monitoring and management program for the first year following completion of ground disturbance activities.</p>	<p>Site inspection shows requirements not met.</p> <p>New significant weed infestation (WONS/Declared Plant) (i.e. above existing background levels) identified.</p>	<p>Where new weed infestation is evident, appropriate controls shall be deployed.</p> <p>Education on clean on entry requirements.</p>	Construction Contractor Environmental Officer.
	Develop and implement vehicle and equipment clean on entry/exit procedures; Any machinery used to remove weed-infested topsoil will be cleaned down before entering or leaving the work site to prevent the introduction and spread of weeds into new areas.	All vehicles and equipment verified and cleaned on arrival site.	All construction activities.	Routine spot checks of vehicles and equipment compliance with cleaning.	Non-compliance with clean on entry.	Ensure non-compliance issues identified in site inspections are resolved.	Construction Contractor Environmental Officer.
	Vehicles and machinery to remain on designated compliance roads/access tracks areas where possible.	Approved clearing areas including designated access routes and parking areas to be clearly demarcated on site and communicated appropriately.	During construction.	Routine spot checks of vehicles and equipment compliance with cleaning.	Non-compliance with clean on entry.	Ensure non-compliance issues identified in site inspections are resolved.	Construction Contractor Environmental Officer.
	All site personnel to be inducted on environmental responsibilities including hygiene management.	Correct knowledge about weed species and hygiene protocol importance.	Prior to their commencement onsite.	Induction records.	<p>Site inspection shows requirements not met.</p> <p>New significant weed infestation (WONS/Declared Plant) (i.e. above</p>	<p>Where new weed infestation is evident, appropriate controls shall be deployed.</p> <p>Education on clean on entry requirements.</p>	Construction Contractor Environmental Officer.

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Management Objective / Desired Outcome	Management Measure	Performance Target / Completion Criteria	Timing	Monitoring / Reporting Activity	Corrective Action Trigger(s)	Corrective Action	Corrective Action Responsibility
					existing background levels) identified.		
<b>Construction – General EPBC Act listed Threatened and/or Migratory species management</b>							
No deaths of EPBC Act listed Threatened or Migratory fauna during vegetation clearing for construction Minimise EPBC Act listed Threatened or Migratory fauna injury/death during Project construction and operation	Personnel induction regarding threatened fauna and direct and indirect impacts (e.g., risk of vehicle strike, interaction with construction activities, waste management, introduction of feral animals, requirement to report sightings of feral animals, no feeding of native and/or feral animals and no pets, traps or firearms allowed on site).	Record of all site personnel that have undertaken the induction.	Prior to construction.	Induction records.	Quarterly inspection finds personnel working on site not correctly inducted. Personnel not complying with requirement.	Personnel not correctly inducted will cease work and recommence after the induction. Refresher training will be conducted within 1 week of determining that requirement is not being met.	Construction Contractor Environmental Officer.
	Speed limits between 40-80km/hr in order to avoid fauna strikes during clearing and construction.	No incidents of speeding within the construction site boundary (defined as the area of works within the DE).	During construction.	Visual monitoring by all construction personnel. Incident reporting.	Any incident of speeding within the construction boundary.	Refresher training will be conducted within 1 week.	Construction Contractor Environmental Officer.
	General construction waste material and food waste to be appropriately managed and disposed of off-site at an appropriate facility.	Routine inspections of waste storage and handling areas. Waste stored in fauna-proof containers and disposed of appropriately.	During construction.	Weekly inspection. Waste disposal records.	Weekly inspection finds waste not being disposed of appropriately.	Review and update waste management and increase frequency of inspections or collections as required.	Construction Contractor Environmental Officer.
	Clearing will be undertaken progressively in one direction, to allow fauna dispersal.	Clearing is undertaken progressively in the same direction, reducing probability of fauna injury or mortality.	During construction.	Clearing records. Record known injuries to, or deaths of conservation significant fauna species in a Conservation Significant Fauna Interaction Register as soon as possible as the injury or death is identified. Annual Compliance Reporting.	Clearing is not undertaken progressively in one direction.	Refresher training conducted within 1 week of determining that requirement is not being met.	Construction Contractor Environmental Officer.
	Prior to the commencement of clearing, a licenced fauna specialist will be present for a pre-clearance survey to oversee the works (see Appendix A for pre-clearance survey requirements). If any listed fauna is identified during the pre-clearance survey, clearing will stop until the listed fauna has moved out of the clearing area or has been relocated by the licenced fauna specialist.	Commencement of mechanical clearing of vegetation occurs with a licenced fauna specialist in attendance.	Prior to clearing.	Internal Project clearing permit, signed by Supervisor. Licenced fauna specialist to report on areas they inspected (e.g. where the Bilby burrows were that they inspected), the species found and the location of where any fauna were released to.	Commencement of clearing occurs without a licenced fauna specialist.	Clearing will cease immediately until a licenced fauna specialist is present. Incident will be recorded, and the cause investigated.	Construction Contractor Environmental Officer.
	Management of excavations such as: – Excavations shall remain open for the minimal required time to facilitate the ongoing construction. – Excavations will be done in sections. – Fauna escape batters, ramps or egress ladders will be implemented in excavated areas where required to be left open overnight. – Posts shall be raised as soon as practical after the holes are excavated, and holes will not be left open overnight where possible. Where excavations required to be left open overnight, fauna egress points will be made.	No incidents to MNES species due to excavations remaining open. Daily inspections of non-battered excavations during construction to identify trapped fauna and to enable capture and relocation.	During construction.	Daily monitoring for trapped fauna during construction in non-battered excavations. Record known injuries to, or deaths of conservation significant fauna species in a Conservation Significant Fauna Interaction Register as soon as possible as the injury or death is identified. Annual Compliance Reporting.	Fencing, fauna egress within excavations sites has not been installed. Dead or injured fauna as a result of interaction with trenches on site.	Refresher training will be conducted within 1 week of determining that requirement is not being met. Inspection will be undertaken daily to ensure fauna egress is installed correctly.	Construction Contractor Environmental Officer.

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Management Objective / Desired Outcome	Management Measure	Performance Target / Completion Criteria	Timing	Monitoring / Reporting Activity	Corrective Action Trigger(s)	Corrective Action	Corrective Action Responsibility
	<ul style="list-style-type: none"> <li>Any excavations required will generally not be left open and an inspection will be undertaken at the commencement of each workday, to identify and address any potential instances of trapped animals.</li> <li>Temporary fencing or coverings will be implemented around excavated areas.</li> </ul>						
	<p>In the event of EPBC Act listed threatened fauna injury, advice shall be sought from local qualified wildlife organisations/persons.</p> <p>Sick or injured wildlife will be allocated to an appropriate specialist organisation for care. Fauna fatality and injury will be recorded as an environmental incident.</p>	<p>In case of fauna injury, advice undertaken and, if necessary, relocation of rescue animals to an appropriate specialised organisation.</p> <p>Daily inspections of non-battered excavations during construction to identify trapped fauna and to enable capture and relocation and/or treatment.</p>	During construction.	<p>Animal injury or fatalities reported as an incident in the incident records system.</p> <p>Record known injuries to, or deaths of conservation significant fauna species in a Conservation Significant Fauna Interaction Register as soon as possible as the injury or death is identified.</p> <p>Annual Compliance Reporting.</p>	Fauna injured without proper rescue undertaken.	<p>The appropriate specialised organisation will be contacted to assist with rescue/movement of fauna if possible.</p> <p>Refresher training will be conducted.</p> <p>The incident will be reported, and the cause investigated.</p>	Construction Contractor Environmental Officer.
	Night-time vehicle movements during construction will be limited where possible to minimise the potential for vehicle strikes. Working hours will generally take place between during daylight hours.	In case of fauna injury, advice undertaken and, if necessary, relocation of rescue animals to an appropriate specialised organisation.	During construction.	<p>Animal injury or fatalities reported as an incident in the incident records system.</p> <p>Record known injuries to, or deaths of conservation significant fauna species in a Conservation Significant Fauna Interaction Register as soon as possible as the injury or death is identified.</p> <p>Annual Compliance Reporting.</p>	Fauna injured without proper rescue undertaken.	<p>The appropriate specialised organisation will be contacted to assist with rescue/movement of fauna if possible.</p> <p>Refresher training will be conducted.</p> <p>The incident will be reported, and the cause investigated.</p>	Construction Contractor Environmental Officer.
	Fauna identified within the demarcated clearing areas unable to move away from the clearing areas without intervention are to be moved to a location deemed appropriate for the safety and survival of the fauna individual/s.	Daily visual inspections for native fauna within non-battered excavations during construction.	During construction.	<p>Record known injuries to, or deaths of conservation significant fauna species in a Conservation Significant Fauna Interaction Register as soon as possible as the injury or death is identified.</p> <p>Annual Compliance Reporting.</p> <p>Licensed fauna handler to report on areas they inspected (e.g. where the Bilby burrows were that they inspected), the species found and the location of where any fauna were released to.</p>	Fauna not identified within Project area.	Refresher training will be conducted.	Construction Contractor Environmental Officer.
	Pre-clearance surveys and fauna relocation for the Bilby, Northern Brushtail Possum and Northern Blue-tongue Skink as detailed in Appendix A.	No physical harm to Bilbies, Northern Brushtail Possums and Northern Blue-tongue Skinks during construction or geotechnical investigations.	Prior to construction.	A report of the fauna identification work undertaken must be provided to Horizon Power by the contractor, as detailed in Appendix A.	Physical harm to Bilbies, Northern Brushtail Possums and Northern Blue-tongue Skinks during construction or geotechnical investigations.	The appropriate specialised organisation will be contacted to assist with rescue/movement of fauna if possible. Refresher training will be conducted.	Construction Contractor Environmental Officer.

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Management Objective / Desired Outcome	Management Measure	Performance Target / Completion Criteria	Timing	Monitoring / Reporting Activity	Corrective Action Trigger(s)	Corrective Action	Corrective Action Responsibility
						The incident will be reported, and the cause investigated.	
	Drainage control will be established during detailed design and may include: <ul style="list-style-type: none"> <li>Ground under and between ground mounted solar arrays may be covered with bluestone</li> <li>Design the site to drain water or sloped so the water runs off site.</li> </ul>	No Cane Toad reproduction at the site.	During operations.	Report any standing water as soon as practicable after identified and modification to remove standing water.	Standing water identified on site.	Implement additional drainage controls.	Construction Contractor Environmental Officer.
Minimise disturbance to EPBC Act listed Threatened or Migratory fauna from noise, light and vibration during Project construction.	Standard construction noise and vibration management measures will be implemented as per Table 8-4. Construction works will generally occur during the daylight hours.	Noise emissions will be kept at a minimum during daylight hours. No increase in noise will occur during night-time hours.	During construction.	Noise complaints will be recorded. Compliance with implementation of noise and vibration minimisation strategies will be developed and implemented during construction of the Project.	Complaints of excessive noise.	Complaints regarding noise will be recorded and investigated by Horizon Power or the Contractor, and the procedures will be revised.	Construction Contractor Environmental Officer.
	Light emissions from on-site construction lighting towers will occur transiently, not remaining in the same location unnecessarily.	No light emission from on-site construction lighting towers will in the same location for longer than six months.	During construction.	Incident reports.	Light emissions from towers remaining in the same location without construction activities occurring in the area within a month.	The incident will be reported, and the cause investigated.	Construction Contractor Environmental Officer.
Minimise disturbance to EPBC Act listed Threatened or Migratory fauna from increased generation of dust during construction.	All site personnel to be inducted on minimisation of dust emissions. Use of water carts as needed to wet down dust generating surfaces such as roads, earthworks areas. Ground disturbance and/or clearing of vegetation will be restricted during high winds if dust cannot be adequately controlled. Review of weather forecasts will be undertaken prior to native vegetation clearing to identify periods of extreme weather conditions likely to result in increased dust emissions so that additional mitigation measures can be implemented; or ground disturbance and/or clearing of native vegetation will be halted. Use of defined haul routes for machinery/vehicles travelling on unsealed surfaces or roads, and reduced vehicle speed in areas of unconsolidated soil. Machinery and vehicles are regularly serviced and operated/maintained in accordance with the manufacturer's specifications. Vehicles on site will be switched off and not left idling when not in use. Any complaints relating to dust emissions will be recorded and investigated as per Horizon Power's incident management procedure.	No excessive dust nuisance events recorded. Gaseous Air Quality emissions will be kept to a minimum.	During construction.	Site induction records. Incident reports. Complaints record.	Public complaints of excessive dust pollution. Excessive dust reported by personnel or contractors.	The incident will be reported, and the cause investigated. Any complaints relating to dust emissions will be recorded and investigated as per Horizon Power's incident management procedure. Refresher training will be conducted.	Construction Contractor Environmental Officer.
<b>Construction – General management measures</b>							
No noticeable increase in sediment discharge or soil erosion.	Establishment of designated access roads to prevent unauthorised disturbance.	No excessive sedimentation events recorded.	During construction.	Routine inspections of erosion and sediment discharge. Monitoring of weather.	Inspection of clearing areas shows	Review and amend construction site plan to ensure appropriate	Construction Contractor Project Manager.

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Management Objective / Desired Outcome	Management Measure	Performance Target / Completion Criteria	Timing	Monitoring / Reporting Activity	Corrective Action Trigger(s)	Corrective Action	Corrective Action Responsibility
	<p>Erosion and sediment control measures will be applied to prevent erosion of exposed areas and sediment discharge to adjacent areas, where practicable.</p> <p>Laydown areas will be rehabilitated or otherwise stabilised as early as practicable to minimise the potential for erosion.</p> <p>Extreme weather will be monitored by the construction contractor and if a cyclone warning is issued, a site inspection and clean-up will be undertaken prior to the cyclone. This will include filling in any holes, as well as stabilisation or dispersal of piles of dirt and removal of rubbish.</p> <p>A cyclone management plan will be developed by the contractor prior to construction.</p>	No injury, harm or damage to the site as a result of extreme weather events.		<p>Site inspection reports.</p> <p>Cyclone Management Plan.</p>	<p>disturbance outside of the approved areas.</p> <p>Extreme weather warning issued.</p> <p>Cyclone Management Plan not developed.</p>	<p>sediment controls are in place.</p> <p>A site inspection and clean-up will be undertaken prior to the cyclone.</p> <p>Development of Cyclone Management Plan.</p>	
Minimise indirect impacts to surrounding/adjacent areas from altered surface water drainage and flows.	Local drainage to be considered during site design and layout.	Pre-construction reviews of the construction site plan shows that there will be minimal alteration to surface water drainage flows.	Prior to construction.	<p>Construction site plan.</p> <p>Routine inspections of surface water drainage and flows.</p>	Inspection of clearing areas shows disturbance outside of the approved areas.	Review and amend construction site plan to ensure appropriate surface water drainage and flows controls are in place.	Construction Contractor Project Manager.
All suspected contamination is characterised and appropriately managed.	<p>All site personnel to be inducted on environmental responsibilities.</p> <p>In the event of excavation encountering suspected contaminated materials, the excavation works are to be stopped, and advice sought from a qualified environmental professional.</p> <p>If required, the suspected contamination will be sampled and analysed to determine the appropriate remediation and disposal.</p> <p>If dewatering is required in areas of known contaminated sites, the construction contractor will develop a dewatering contamination plan or similar.</p>	<p>No new areas of contamination identified.</p> <p>No dewatering in areas of known contamination.</p>	During construction.	<p>Induction records.</p> <p>Visual monitoring during excavation.</p> <p>Dewatering contamination plan or similar.</p>	<p>Monitoring during excavation identifies areas of previously unknown contamination.</p> <p>Dewatering encounters contamination.</p>	<p>Works will cease in that area until samples of the material have been tested and confirmed to be inert. If found to be contaminated, the material will be removed following relevant contaminated waste guidance and protocols and treated or appropriately disposed of to a licenced facility.</p>	Construction Contractor Project Manager.
All accidental spills or leaks of hazardous materials or waste is appropriately managed and minimise the risk of spills or leaks of hazardous materials or waste.	<p>All site personnel to be inducted on environmental responsibilities including storage of hydrocarbons and chemicals, bunding requirements, refuelling requirements and incident response measures in the event of a spill.</p> <p>Spill management procedures to be developed prior to construction.</p> <p>Hazardous materials used during construction will be stored in compliance with relevant Australian Standards and Regulations.</p> <p>On-site refuelling of machinery and plant to occur on designated areas, subject to appropriate spill controls and at least 50 m away from all surface water features and drainage areas.</p> <p>Scheduled / major maintenance of vehicles / plant to be undertaken offsite.</p> <p>Provision of spill response kits at refuelling locations and any locations where hydrocarbons or chemicals are stored.</p>	No new uncontrolled pollution incidents recorded.	During construction.	<p>Site induction records.</p> <p>Record of storage and spill management procedures.</p> <p>Weekly site inspections of hazardous materials and waste storage and handling areas to identify spills / leaks and discharges, and check that storage, handling and signage is appropriate.</p> <p>Record of diesel storage.</p>	Site inspections identify uncontrolled pollution incidents.	<p>Spill response protocols will be implemented including containing the pollution incident as quickly as possible.</p> <p>The incident will be reported, and the cause investigated.</p> <p>Refresher training will be conducted as appropriate.</p>	Construction Contractor Environmental Officer.

Management Objective / Desired Outcome	Management Measure	Performance Target / Completion Criteria	Timing	Monitoring / Reporting Activity	Corrective Action Trigger(s)	Corrective Action	Corrective Action Responsibility
	<p>SDSs and hazardous materials inventory to be retained on site.</p> <p>During construction, temporary ablution facilities to be self-contained. Sewage to be collected by a licensed contractor and disposed at an appropriately licensed waste facility.</p> <p>General construction waste material to be appropriately managed and disposed of off-site at an appropriate facility.</p> <p>Diesel storage will not exceed 5000 litres within the Broome Water Reserve Public Drinking Water Source Area.</p>						
Achieve all management targets in relation to terrestrial environmental quality.	<p>Compliance with conditions administered under the works approvals and/or licencing under Part V of the EP Act as required.</p> <p>Compliance with conditions administered under a Dangerous Goods Site Licence as required.</p>	<p>As per requirements of works approvals and/or licencing under Part V of the EP Act.</p> <p>As per requirements of Dangerous Goods Site Licence.</p>	At all times	<p>As per requirements of works approvals and/or licencing under Part V of the EP Act.</p> <p>As per requirements of Dangerous Goods Site Licence.</p>	Requirements of works approvals and/or licencing under Part V of the EP Act or of Dangerous Goods Site Licence are not followed.	Review construction site plan to ensure all requirements are being met.	Horizon Power.
<b>Operation – General EPBC Act listed Threatened and/or Migratory species management</b>							
Minimise the spread and/or introduction of weeds.	<p>Implement a quarterly weed monitoring and management program for the first year following completion of ground disturbance activities.</p> <p>Ad-hoc weed checks during operational maintenance activities.</p>	Avoid the introduction and spread of weeds species and maintain weeds register with relevant information.	Post construction.	Quarterly weed inspection and management program for the first year following completion of ground disturbance activities. Ad hoc weed checks during operational maintenance activities...	New significant weed infestation (e.g., above existing background levels) occurred.	Where new weed infestation is evident, relevant treatments will be applied.	Horizon Power Operations Manager.

## 9.5 Monitoring

Frequent observations of the construction site will be conducted to ensure the objectives of this EMP are implemented and that the required management actions are in place.

Key monitoring measures have been established to assess the potential effects of the Project on MNES and their habitats, both during and after construction. This monitoring encompasses the evaluation of both immediate and secondary consequences resulting from the Project. Qualified individuals with expertise in the specified methodology will conduct the monitoring activities. The outlined monitoring plan for the Project can be found in Table 10-6.

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Table 10-6 Environmental monitoring

Management Objective / Desired Outcome	Performance Target/Completion Criteria	Monitoring/Reporting Activity	Monitoring Method	Monitoring Area	Frequency
<b>Construction – Fauna Habitat Management</b>					
Minimise EPBC Act listed Threatened and Migratory fauna habitat loss.	<p>Drawings, inductions and shape/CAD files showing approved clearing areas provided to Construction Contractor Representative.</p> <p>Job Hazard Analysis (JHA) or equivalent to include the risks and mitigation actions to be understood and adhered to as they pertain to the contractor and scope of work on the JHA.</p> <p>Track logs from soil and geotechnical investigations of where vehicles have driven within the predefined clearing limits.</p> <p>Inspection of clearing extents during clearing activities to confirm no over clearing (including soil and geotechnical investigations).</p>	<p>Project Environmental Officer to check that drawings, inductions and shape/CAD files show correct approved clearing areas.</p> <p>Record of provision of drawings and shape/CAD files showing approved clearing areas.</p> <p>All relevant contractors to sign onto JHA or equivalent.</p> <p>Pre-clearing photos to be documented and daily inspection of clearing extents during clearing activities and weekly inspections during the remainder of construction to confirm no over clearing.</p> <p>Visual inspection and record of cleared areas to be undertaken post-clearing to confirm no over clearing and relevant shapefiles provided to Horizon Power.</p> <p>Track logs from soil and geotechnical investigations to show no vehicle movement outside of predefined clearing limits.</p> <p>Clearing area shapefiles from soil and geotechnical investigations to show no</p>	<p>Inspection of drawings and shape/CAD files.</p> <p>Inspection of photos.</p> <p>Visual inspection records.</p>	N/A.	Prior to and during clearing

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Management Objective / Desired Outcome	Performance Target/Completion Criteria	Monitoring/Reporting Activity	Monitoring Method	Monitoring Area	Frequency
		clearing outside of predefined clearing limits. Report unauthorised clearing as soon as practicable after identified.			
	At risk 'avoidance areas' clearly marked out on all relevant Project drawings and demarcated on site with shapefiles provided. JHA or equivalent to include the risks and mitigation actions to be understood and adhered to as they pertain to the contractor and scope of work on the JHA. Daily inspections during clearing and weekly inspections during the remainder of construction within the work area of at risk 'avoidance area' demarcation will be undertaken to confirm markings remain in place and are accurate.as	Contractor to check that drawings and shape/CAD files show correct approved clearing areas. Record of provision of drawings and shape/CAD files showing approved clearing areas. Daily site inspections during clearing and weekly inspections during the remainder of construction to confirm appropriate demarcations of at risk avoidance areas are maintained. Construction reports which will include clearing extents and shapefiles. Vegetation clearing records and annual environmental reporting.	Inspection of drawings and shape/CAD files. Clearing areas visual assessment to confirm at risk 'avoidance areas' are appropriately marked out on site.	5m around at risk 'avoidance areas' within the DE.	Prior to and during clearing
	Approved clearing areas including designated access routes and parking areas to be clearly demarcated on site and communicated appropriately. Routine inspection of Project defined clearing limits and	Vegetation clearing records and annual environmental reporting. Report unauthorized clearing as soon as practicable after identified.	Clearing areas visual assessment. Incident records. Vegetation clearing records. Annual Compliance Reporting.	Clearing areas.	Prior to and during construction.

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Management Objective / Desired Outcome	Performance Target/Completion Criteria	Monitoring/Reporting Activity	Monitoring Method	Monitoring Area	Frequency
	boundaries demarcation during clearing activities. Daily inspection of clearing extents during clearing activities to confirm no over clearing and weekly inspections during the remainder of construction.	Construction site plan showing all approved access areas. Daily site inspections during clearing and weekly inspections during the remainder of construction.			
	Pre-construction reviews of the construction plan shows that infrastructure is placed in cleared areas where practicable.	Construction site plan showing all approved access areas.	Pre-construction reviews of Construction Site plan.	Clearing areas.	Prior to and during construction.
No mobilization of ASS during construction.	No mobilization of ASS during construction.	Inspection report. ASS investigation survey. ASSMP approved by DWER (if required). Site induction records.	Written records. Pre-construction review. ASSMP if required.	N/A.	Prior to commencement of construction activities. During construction.
Prevent indirect impacts on fauna habitats due to accidental fires.	No accidental fires as a result of construction activities.	Record of all site personnel that have undertaken the induction. Weekly site inspection report. Compliance with hot work permits.	Written records.	N/A.	Weekly.
Minimise indirect impacts to surrounding/adjacent areas from altered surface water drainage and flows.	Pre-construction reviews of the construction site plan shows that there will be minimal alteration to surface water drainage flows.	Construction Site plan.	Written records. Pre-construction review.	N/A.	Prior to construction.
Minimise the spread and/or introduction of weeds.	Avoid the introduction and spread of weeds species and maintain weeds register with relevant information.	Record of weed register. Implement a yearly weed monitoring and management program for the first year	Written records. Visual inspection. Weed monitoring reports.	Clearing areas.	Quarterly.

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Management Objective / Desired Outcome	Performance Target/Completion Criteria	Monitoring/Reporting Activity	Monitoring Method	Monitoring Area	Frequency
		following completion of ground disturbance activities.			
	All vehicles and equipment verified and cleaned on arrival site.	Routine spot checks of vehicles and equipment compliance with cleaning.	Photographic record, GPS of non-conformance. Records of waste disposal Records verifying plant and machinery arriving on site is clean.	N/A.	Weekly.
	Approved clearing areas including designated access routes and parking areas to be clearly demarcated on site and communicated appropriately.	Routine spot checks of vehicles and equipment compliance with cleaning.	Photographic record, GPS of non-conformance. Records of waste disposal Records verifying plant and machinery arriving on site is clean.	Clearing areas.	Weekly.
	Correct knowledge about weed species and hygiene protocol importance.	Induction records.	Written records. Visual inspection. Weed monitoring reports.	N/A.	Weekly.
<b>Construction – General EPBC Act listed threatened and/or migratory species management</b>					
No deaths of EPBC Act listed Threatened or Migratory fauna during vegetation clearing for construction.  Minimise EPBC Act listed Threatened or Migratory fauna injury/death during Project construction.	Record of all site personnel that have undertaken the induction.	Inductions records.	Written records.	N/A.	Prior to personnel commencing work on site.  Quarterly during the construction phase.
	No incidents of speeding within the construction site boundary (defined as the area of works within the DE).	Visual monitoring by all construction personnel. Incident reporting.	Visual Inspection. Written records.	Construction site boundary.	Incidental.
	Routine inspections of waste storage and handling areas.  Waste stored in fauna-proof containers and disposed of appropriately.	Weekly inspection. Waste disposal records.	Visual inspection. Review of disposal records.	N/A.	Weekly.

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Management Objective / Desired Outcome	Performance Target/Completion Criteria	Monitoring/Reporting Activity	Monitoring Method	Monitoring Area	Frequency
	Clearing is undertaken progressively in the same direction, reducing probability of fauna injury or mortality.	Clearing records. Record known injuries to, or deaths of conservation significant fauna species in a Conservation Significant Fauna Interaction Register as soon as possible as the injury or death is identified. Annual Compliance Reporting.	Visual inspection. Written records.	Construction site boundary.	Weekly.
	No commencement of mechanical clearing of vegetation occurs without a licenced fauna specialist in attendance.	Internal Project clearing permit, signed by Supervisor. Licenced fauna specialist to report on areas they inspected (e.g. where the Bilby burrows were that they inspected), the species found and the location of where any fauna were released to.	Visual inspection. Review of written records.	Clearing areas.	Prior to clearing.
	No incidents to MNES species due to excavations remaining open. Daily inspections of non-battered excavations during construction to identify trapped fauna and to enable capture and relocation.	Daily monitoring for trapped fauna during construction in non-battered excavations. Record known injuries to, or deaths of conservation significant fauna species in a Conservation Significant Fauna Interaction Register as soon as possible as the injury or death is identified. Annual Compliance Reporting.	Visual inspection. Written records.	Construction site boundary (non-battered excavation areas).	Daily. Annually for compliance report.
	In case of fauna injury, advice undertaken and, if necessary, relocation of rescue animals	Animal injury or fatalities reported as an incident in the incident records system.	Visual inspection. Written records.	N/A.	Opportunistic.

## PROTECTED

Management Objective / Desired Outcome	Performance Target/Completion Criteria	Monitoring/Reporting Activity	Monitoring Method	Monitoring Area	Frequency
	to an appropriate specialised organisation. Daily inspections of non-battered excavations during construction to identify trapped fauna and to enable capture and relocation and/or treatment.	Record known injuries to, or deaths of conservation significant fauna species in a Conservation Significant Fauna Interaction Register as soon as possible as the injury or death is identified. Annual Compliance Reporting.			
	In case of fauna injury, advice undertaken and, if necessary, relocation of rescue animals to an appropriate specialised organisation.	Animal injury or fatalities reported as an incident in the incident records system. Record known injuries to, or deaths of conservation significant fauna species in a Conservation Significant Fauna Interaction Register as soon as possible as the injury or death is identified Annual Compliance Reporting.	Visual inspection. Written records.	N/A.	Opportunistic.
	Daily visual inspections for native fauna within non-battered excavations during construction.	Record known injuries to, or deaths of conservation significant fauna species in a Conservation Significant Fauna Interaction Register as soon as possible as the injury or death is identified. Annual Compliance Reporting. Licenced fauna handler to report on areas they inspected (e.g. where the Bilby burrows were that they inspected), the species found	Visual inspection. Written records.	N/A.	Opportunistic.

PROTECTED

Management Objective / Desired Outcome	Performance Target/Completion Criteria	Monitoring/Reporting Activity	Monitoring Method	Monitoring Area	Frequency
		and the location of where any fauna were released to.			
	No physical harm to Bilbies, Northern Brushtail Possums and Northern Blue-tongue Skinks during construction or geotechnical investigations, as per Appendix A.	A report of the fauna identification work undertaken must be provided to Horizon Power by the contractor, as detailed in Appendix A.	Written records, as per Appendix A	Development Envelope.	Prior to construction and geotechnical investigations.
	No Cane Toad reproduction at the site.	Report any standing water as soon as practicable after identified and modification to remove standing water.	Visual inspection. Written records.	N/A.	Opportunistic.
Minimise disturbance to EPBC Act listed Threatened or Migratory fauna from noise, light and vibration during Project construction.	Noise emissions will be kept at a minimum during daylight hours. No increase in noise will occur during night-time hours.	Noise complaints will be recorded.  Compliance with implementation of noise and vibration minimisation strategies will be developed and implemented during construction of the Project.	Review of written records.	Construction site boundary.	Weekly.
	No light emission from on-site construction lighting towers will remain in the same location for a long period.	Incident reports.	Review of written records. Visual inspection.	Construction site boundary.	Weekly.
Minimise disturbance to EPBC Act listed Threatened or Migratory fauna from increased generation of dust during construction.	No excessive dust nuisance events recorded.  Gaseous Air Quality emissions will be kept to a minimum.	Incident reports.	Review of written records. Visual inspection.	Construction site boundary.	Weekly.
<b>Construction – General management measures</b>					
No noticeable increase in sediment discharge or soil erosion.	No excessive sedimentation events recorded.	Routine inspections of erosion and sediment discharge.	Review of written records. Visual inspection.	Construction site boundary.	Weekly.

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Management Objective / Desired Outcome	Performance Target/Completion Criteria	Monitoring/Reporting Activity	Monitoring Method	Monitoring Area	Frequency
	No injury, harm or damage to the site as a result of extreme weather events.	Monitoring of weather. Site inspection reports.			
Minimise indirect impacts to surrounding/adjacent areas from altered surface water drainage and flows.	Pre-construction reviews of the construction site plan shows that there will be minimal alteration to surface water drainage flows.	Construction site plan. Routine inspections of surface water drainage and flows.	Review of written records. Visual inspection.	Construction site boundary.	Weekly.
All suspected contamination is characterised and appropriately managed.	No new areas of contamination identified.	Induction records. Visual monitoring during excavation.	Review of written records. Visual inspection.	Construction site boundary.	Weekly.
All accidental spills or leaks of hazardous materials or waste is appropriately managed and minimise the risk of spills or leaks of hazardous materials or waste.	No new uncontrolled pollution incidents recorded.	Site induction records. Record of storage and spill management procedures. Weekly site inspections of hazardous materials and waste storage and handling areas to identify spills / leaks and discharges, and check that storage, handling and signage is appropriate. Record of diesel storage.	Review of written records. Visual inspection.	Construction site boundary.	Opportunistically.
Achieve all management targets in relation to terrestrial environmental quality.	As per requirements of works approvals and/or licencing under Part V of the EP Act. As per requirements of Dangerous Goods Site Licence.	As per requirements of works approvals and/or licencing under Part V of the EP Act. As per requirements of Dangerous Goods Site Licence.	As per requirements of works approvals and/or licencing under Part V of the EP Act. As per requirements of Dangerous Goods Site Licence.	Construction site boundary.	At all times.
<b>Operation – General EPBC Act listed Threatened and/or Migratory species management</b>					
Minimise the spread and/or introduction of weeds.	Avoid the introduction and spread of weeds species and maintain weeds register with relevant information.	Quarterly weed inspection and management program for the first year following completion of ground	Visual inspection. Review of written records.	Operational area.	Quarterly.

PROTECTED

Management Objective / Desired Outcome	Performance Target/Completion Criteria	Monitoring/Reporting Activity	Monitoring Method	Monitoring Area	Frequency
		disturbance activities. Ad hoc weed checks during operational maintenance activities.			

## 10 Adaptive Management and Review of the EMP

### 10.1 Audit and Review

Internal monitoring will be conducted throughout the construction phase of the Project to assess the environmental aspects outlined in this EMP. Any instances of non-conformance or incidents associated with measures set out in this EMP will be investigated and addressed to minimise potential environmental impacts. Appropriate procedures will be implemented as needed, and refresher training will be conducted to reduce the likelihood of future occurrences.

Horizon Power will conduct annual audits lead by the Horizon Power Project Manager and Manager Sustainability during the construction phase of the Project to verify the implementation of management and monitoring measures and to ensure that the required management measures are successfully implemented and delivering the intended outcomes.

The proposed auditing schedule for this EMP is identified in Table 10-1.

*Table 10-1. Environmental audit schedule*

Timing	Action	Schedule
Pre-construction	Review of construction procedures to ensure EMP management/monitoring actions are incorporated within works procedures.	Prior to construction (single event)
Construction	Inspections by site environmental personnel to identify compliance with EMP.	Periodic (Weekly)
	Internal audit for assessment of compliance with EMP.	Annually (once per calendar year)
Post construction	Internal audit for assessment of compliance with EMP.	Annually (once per calendar year for up to three years)
Decommissioning	To be determined as part of any future decommissioning plan, which will be in accordance with Horizon Power's standard operating procedures and will be approved by Horizon Power's Manager Sustainability.	To be determined as part of any future decommissioning plan.

### 10.2 Environmental Management Plan Review

This EMP is intended to be dynamic and may be updated to reflect changes in management practices and the natural environment with time. This will also allow flexibility to adopt new technologies/management measures. Amendments to management actions and targets will be completed on an as needs basis. This will include revision/amendment of management actions that are not achieving the desired outcomes, monitoring identifying additional impacts and management actions, changes to relevant legislation or improvements to practices to achieve a greater environmental outcome.

The EMP will be reviewed by the Project Manager and Manager Sustainability annually during construction to:

- consider the effectiveness / appropriateness of management and monitoring actions
- consider opportunities for improvement in environmental performance (for example, changes to construction methodology or timing)

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- identify any general need to update this EMP (for example, to capture new information on relevant environmental factor or MNES knowledge or management, or updates to the EP Act, BC Act, EPBC Act or Policy Statements).

Horizon Power acknowledges that a revision to this EMP may trigger a need for additional approval by DCCEEW or the EPA prior to implementing any changes to the specified management or monitoring actions.

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### 12 Appendix A – Fauna Pre-clearance Survey and Relocation

A pre-clearance fauna survey will be undertaken within 14 days prior to clearing for construction to identify Bilby and Northern Brushtail Possum habitat. This includes the identification and inspection of Bilby burrows and Northern Brushtail Possum hollows and determination of whether the Bilby burrows or the Northern Brushtail Possum hollows are being utilised. This will be undertaken by a licenced fauna specialist.

Transects will be completed within the Development Envelope for this inspection as follows:

- Transects spaced at 100 metres on average, to identify evidence of use by the Bilby, and Northern Brushtail Possum; and
- Where evidence of Bilby or Northern Brushtail Possum use is identified, transects spaced at 20 metres on average will be undertaken, to identify evidence of Bilby burrows and Northern Brushtail Possum hollows that may be in use.

If a Bilby burrow or Northern Brushtail Possum hollow is identified:

- Burrows/hollows showing signs of recent use will be flagged by the fauna specialist and a 20 m avoidance area will be established around the burrow/hollow so they will not be impacted by the Project.
- If a burrow/hollow is in use and cannot be avoided for the Project, activities may not proceed without approval from the Horizon Power Manager Sustainability and additional controls will be implemented, including:
  - Engaging a licenced fauna specialist to install fauna monitoring cameras to confirm presence of Bilby or Northern Brushtail Possum in burrows and hollows
  - Remove and relocate the identified Bilby or Northern Brushtail Possum to an area of suitable habitat in accordance with a section 40 authorisation under the *Biodiversity Conservation Act 2016*.
  - Relocation will be undertaken within 48 hours of commencement of clearing to reduce the risk of animals returning to the work area prior to clearing.

Burrows will be collapsed after inspection to prevent fauna from returning to the work area during clearing.

Within 48 hours of clearing commencement, the proposed impact area will be surveyed for Northern Blue-tongue Skink. If a Northern Blue-tongued Skink is identified, the fauna specialist will remove and relocate the Northern Blue-tongued Skink to an area of suitable habitat in accordance with a section 40 authorisation under the *Biodiversity Conservation Act 2016*. Relocation will be undertaken within 48 hours of commencement of clearing to reduce the risk of animals returning to the work area prior to clearing.

During geotechnical investigations, a fauna specialist will attend site and identify if any hollows or burrows suitable for use are present in the proposed testing location. If any hollows or burrows suitable for use are identified, these will be avoided with a 20 m buffer, and an alternative location will be selected for the proposed tests.

Any Northern Blue-tongued Skink identified during geotechnical investigations will be avoided or relocated from the test area.

A report of the fauna identification work undertaken must be provided to Horizon Power including:

- The location of the Bilby burrows and Northern Brushtail Possum hollows

## PROTECTED

- The location of Bilby, Northern Brushtail Possum or Northern Blue-tongued Skink sighting
- Date and time the fauna was recorded
- The gender of the fauna
- The vegetation type and weather conditions it was recorded in
- The name and copy of fauna licence of the fauna specialist that relocated fauna.

Appendix B – Likelihood of occurrence definitions and significant fauna species considered unlikely or highly unlikely to occur within the Development Envelope

*Likelihood of occurrence definitions*

Assessment outcome	Description
Known	Species recorded during the field survey or from recent, reliable records from within or close proximity to the DE.
Likely	Species are likely to occur in the DE where there is suitable habitat within the DE and there are recent records of occurrence of the species in close proximity to the DE  OR  Species known distribution overlaps with the DE and there is suitable habitat within the DE.
Unlikely	Species assessed as may occur include those species previously recorded within 40 km of the DE however:  There is limited (i.e. the type, quality and quantity of the habitat is generally poor or restricted) habitat in DE  The suitable habitat within the DE is isolated from other areas of suitable habitat and the species has no capacity to migrate into the DE  OR  Those species that have a known distribution overlapping with the DE however:  There is limited habitat in the DE (i.e. the type, quality and quantity of the habitat is generally poor or restricted).  The suitable habitat within the DE is isolated from other areas of suitable habitat and the species has no capacity to migrate into the DE.
Highly unlikely	Species that are considered highly unlikely in the DE include:  Those species that have no suitable habitat within the DE.  Those species that have become locally extinct or are not known to have ever been present in the region of the DE.

*Significant fauna species considered unlikely or highly unlikely to occur within the DE*

Fauna species	Status	Likelihood of occurrence
Common Sandpiper ( <i>Actitis hypoleucos</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Garganey ( <i>Anas querquedula</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).

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Fauna species	Status	Likelihood of occurrence
Common Noddy ( <i>Anous stolidus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Australian Lesser Noddy ( <i>Anous tenuirostris melanops</i> )	Vulnerable under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Wedge-tailed Shearwater ( <i>Ardenna pacifica</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Short-tailed Shearwater ( <i>Ardenna tenuirostris</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat.
Ruddy Turnstone ( <i>Arenaria interpres</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Bulwer's Petrel ( <i>Bulweria bulwerii</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Sharp-tailed Sandpiper ( <i>Calidris acuminata</i> )	Migratory under BC Act and Vulnerable under EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Sanderling ( <i>Calidris alba</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Red Knot ( <i>Calidris canutus</i> )	Vulnerable under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Curlew Sandpiper ( <i>Calidris ferruginea</i> )	Critically Endangered under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Pectoral Sandpiper ( <i>Calidris melanotos</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Red-necked stint ( <i>Calidris ruficollis</i> )	Migratory under BC Act and Migratory under EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Long-toed Stint ( <i>Calidris subminuta</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).

PROTECTED

Fauna species	Status	Likelihood of occurrence
Great Knot ( <i>Calidris tenuirostris</i> )	Migratory under BC Act and Vulnerable under EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Streaked Shearwater ( <i>Calonectris leucomelas</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Red-rumped Swallow ( <i>Cecropis daurica</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Double-banded Plover ( <i>Charadrius bicinctus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Little Ringed Plover ( <i>Charadrius dubius</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Greater Sand Plover ( <i>Charadrius leschenaultia</i> )	Vulnerable under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Lesser Sand Plover ( <i>Charadrius mongolus</i> )	Endangered under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Oriental Plover ( <i>Charadrius veredus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
White-winged Tern ( <i>Chlidonias leucopterus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Oriental Cuckoo ( <i>Cuculus optatus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Letter-winged Kite ( <i>Elenus scriptus</i> )	Priority 4 under DBCA	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Red Goshawk ( <i>Erythrotriorchis radiatus</i> )	Endangered under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Lesser Frigatebird ( <i>Fregata ariel</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is considered to be mainly pelagic and near-coastal. The Survey Area lacks suitable habitat (GHD, 2024).

PROTECTED

Fauna species	Status	Likelihood of occurrence
Great Frigatebird ( <i>Fregata minor</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is considered to be mainly pelagic and near-coastal. The Survey Area lacks suitable habitat (GHD, 2024).
Swinhoe’s Snipe ( <i>Gallinago megala</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Pin-tailed Snipe ( <i>Gallinago sternura</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Gull-billed Tern ( <i>Gelochelidon nilotica</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally. The Survey Area lacks suitable coastal habitat.
Oriental Pratincole ( <i>Glareola maldivarum</i> )	Migratory under BC Act and EPBC Act	<b>Unlikely to occur</b> This species is known to occur locally, however the Survey Area lacks suitable habitat.
White-throated Needletail ( <i>Hirundapus canudacutus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams, shorelines).
Caspian Tern ( <i>Hydroprogne caspia</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally. The Survey Area lacks suitable coastal habitat (GHD, 2024).
Black-backed Bittern ( <i>Ixobrychus dubius</i> )	Priority 4 under DBCA	<b>Highly unlikely to occur</b> This species is not known to occur locally. The Survey Area lacks suitable coastal habitat (GHD, 2024).
Broad-billed Sandpiper ( <i>Limicola falcinellus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally. The Survey Area lacks suitable coastal habitat (GHD, 2024).
Asian Dowitcher ( <i>Limnodromus semipalmatus</i> )	Migratory under BC Act and Vulnerable under EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Bar-tailed Godwit ( <i>Limosa lapponica</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Northern Siberian Bar-tailed Godwit ( <i>Limosa lapponica menzbieri</i> )	Critically Endangered under BC Act and Endangered under EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Black-tailed Godwit ( <i>Limosa limosa</i> )	Migratory under BC Act and Endangered under EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).

Fauna species	Status	Likelihood of occurrence
Northern Giant Petrel ( <i>Macronectes hali</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Grey Wagtail ( <i>Motacilla cinerea</i> )	Migratory under BC Act and EPBC Act	<b>Unlikely to occur</b> The Survey Area is located beyond the known distribution of this species, although it may occur as a vagrant occasionally.
Yellow Wagtail ( <i>Motacilla flava</i> )	Migratory under BC Act and EPBC Act	<b>Unlikely to occur</b> The Survey Area is located beyond the known distribution of this species, although it may occur as a vagrant occasionally
Barking Owl ( <i>Ninox connivens</i> subsp. <i>connivens</i> )	Priority 3 under BC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Eastern Curlew ( <i>Numenius madagascariensis</i> )	Critically Endangered under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Little Curlew ( <i>Numenius minutus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Whimbrel ( <i>Numenius phaeopus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Wilson’s Storm Petrel ( <i>Oceanites oceanicus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Bridled Tern ( <i>Onychoprion anaethetus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Abbot’s Booby ( <i>Papasula abbotti</i> )	Endangered under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally. The Survey Area lacks suitable coastal habitat (GHD, 2024).
Night Parrot ( <i>Pezoporus occidentalis</i> )	Endangered under BC Act and EPBC Act	<b>Highly unlikely to occur</b> There have been few records of the species in the region, and the Survey Area habitat is not suitable (GHD, 2024).
White-tailed Tropicbird ( <i>Phaethon lepturus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally. The Survey Area lacks suitable coastal habitat (GHD, 2024).
Red-tailed Tropicbird ( <i>Phaethon rubricauda wetralis</i> )	Endangered under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally. The Survey Area lacks suitable coastal habitat (GHD, 2024).

Fauna species	Status	Likelihood of occurrence
Red-necked Phalarope ( <i>Phalaropus lobatus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally. The Survey Area lacks suitable coastal habitat (GHD, 2024).
Ruff ( <i>Philomachus pugnax</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally. The Survey Area lacks suitable coastal habitat (GHD, 2024).
Glossy Ibis ( <i>Plegadis falcinellus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Pacific Golden Plover ( <i>Pluvialis fulva</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Grey Plover ( <i>Pluvialis squatarola</i> )	Migratory under BC Act and Vulnerable under EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Princess Parrot ( <i>Polytelis alexandrae</i> )	Priority 4 under BC Act and Vulnerable under EPBC	<b>Unlikely to occur</b> The Survey Area is located beyond the known distribution of this species, although it may occur as a vagrant occasionally.
Hutton's Shearwater ( <i>Puffinus huttoni</i> )	Endangered under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally. The Survey Area lacks suitable coastal habitat (GHD, 2024).
Australian Painted Snipe ( <i>Rostratula australis</i> )	Endangered under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Arctic Skua ( <i>Stercorarius parasiticus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally. The Survey Area lacks suitable coastal habitat (GHD, 2024).
Roseate Tern ( <i>Sterna dougalii</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally. The Survey Area lacks suitable coastal habitat (GHD, 2024).
Common Tern ( <i>Sterna hirundo</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Little Tern ( <i>Sternula albifrons</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Brown Bobby ( <i>Sula leucogaster</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> The Survey Area lacks suitable deep-water habitat (GHD, 2024).
Greater Crested Tern ( <i>Thalasseus bergii</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).

PROTECTED

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Grey-tailed Tattler ( <i>Tringa brevipes</i> )	Priority 4 under DBCA and Migratory under EPBC	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Wood Sandpiper ( <i>Tringa glareola</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Common Greenshank ( <i>Tringa nebularia</i> )	Migratory under BC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Marsh Sandpiper ( <i>Tringa stagnatilis</i> )	Migratory under BC Act and Endangered under EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Common Redshank ( <i>Tringa tetanus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> This species is not known to occur locally within tidal coastline areas, however the Survey Area lacks suitable habitat (wetlands, dams and shorelines) (GHD, 2024).
Masked Owl ( <i>Tyto novaehollandiae kimberli</i> )	Priority 3 under DBCA and Vulnerable under EPBC	<b>Unlikely to occur</b> This species prefers heavily timbered forests and tall woodlands for nesting. The Survey Area does not support suitable habitat. However, it may hunt over the Survey Area on an occasional basis (GHD, 2024).
Terek Sandpiper ( <i>Xenus cinereus</i> )	Migratory under BC Act and Vulnerable under EPBC	<b>Highly unlikely to occur</b> This species is not known to occur locally. The Survey Area lacks suitable coastal habitat (GHD, 2024).
Northern Quoll ( <i>Dasyurus hallucatus</i> )	Endangered under BC Act and EPBC	<b>Highly unlikely to occur</b> Not known to occur within the location of the Survey Area or wider region (GHD, 2024).
Water Rat ( <i>Hydromys chrysogaster</i> )	Priority 4 under DBCA	<b>Highly unlikely to occur</b> Not known to occur within the location of the Survey Area or wider region and no suitable habitat present (GHD, 2024).
Ghost Bat ( <i>Macroderma gigas</i> )	Vulnerable under BC Act and EPBC Act	<b>Highly unlikely to occur</b> Not known to occur within the location of the Survey Area or wider region and no suitable habitat present (GHD, 2024).
Golden-backed Tree-rat ( <i>Mesembriomys macrurus</i> )	Priority 4 under DBCA	<b>Unlikely to occur</b> Not known to occur within the location of the Survey Area or wider region, however woodland habitat is present in the Survey Area (GHD, 2024).
Scaly-tailed Possum ( <i>Wyulda squamicaudata</i> )	Priority 4 under DBCA	<b>Highly unlikely to occur</b> Not known to occur within the location of the Survey Area or wider region and no suitable habitat present (GHD, 2024).
Water Mouse ( <i>Xeromys myoides</i> )	Vulnerable under BC Act and EPBC Act	<b>Highly unlikely to occur</b> Not known to occur within the location of the Survey Area or wider region and no suitable habitat present (GHD, 2024).

PROTECTED

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Saltwater Crocodile ( <i>Crocodylus porosus</i> )	Migratory under BC Act and EPBC Act	<b>Highly unlikely to occur</b> While records of the species have been made in the wider region, no habitat is present for the species (GHD, 2024).
Airlie Island Ctenotus ( <i>Ctenotus angusticeps</i> )	Priority 3 under DBCA	<b>Highly unlikely to occur</b> No suitable habitat is present for the species (GHD, 2024).