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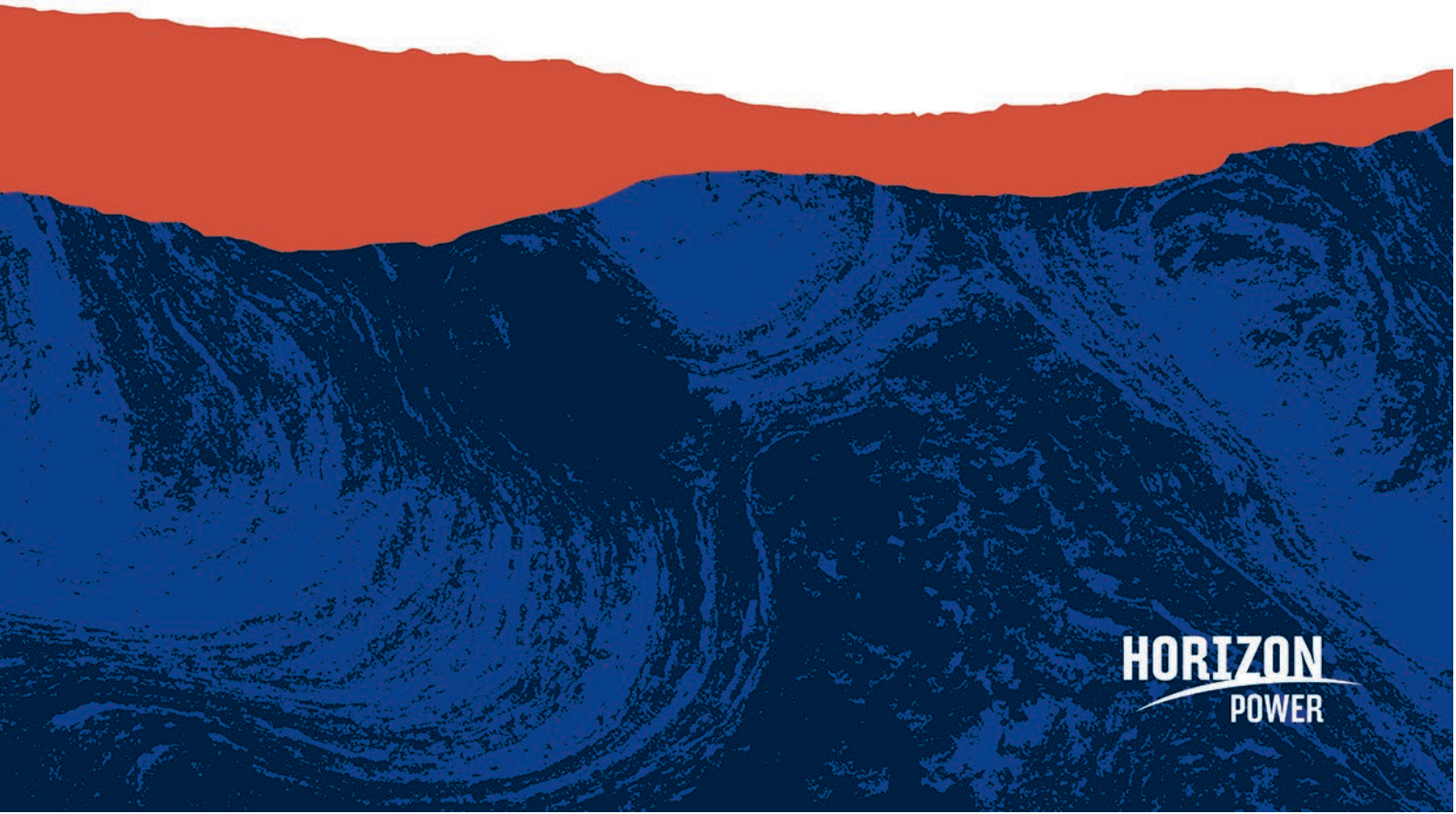
Derby Future Energy System Project - Native Vegetation Clearing Permit

Supporting Document

July 2025



Contents

Figures

1 Introduction

1.1 Project Context

Horizon Power is a Western Australian (WA) Government Trading Enterprise (GTE) and the state's regional and remote energy utility. 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 is committed to reduce carbon emissions by 80% of 2020 levels by 2030 and Horizon Power is supporting the Government to achieve this. In Derby, Horizon Power currently purchases power from an independent power producer. The power purchase agreement (PPA) is due to expire, proving 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 Derby in the Kimberley region of WA (the Project). The Project will ensure security of energy supply to Derby 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 Proposal has the potential to reduce emissions by up to 12,060 tonnes CO_2e per annum compared with the existing Derby power station. If the FES were to operate for 20 years, this would equate to a reduction of approximately 220,000 tonnes of CO_2e. The Derby FES project will consist of solar photovoltaic (PV) system (up to 21 megawatts alternating current (MWAC)), battery energy storage systems (BESS) (nominally up to 8 MW) / 55 megawatt-hour (MWh), a new thermal power station (nominally up to 8 MW) and a network connection route (up to 8.9 kilometres (km)).

The solar and BESS is proposed to be located at either Site A or Site B. Site A is located approximately 2.5 km south of Derby on Lot 31 on Deposited Plan 207640. Site B is located approximately 5 km south of Derby on Lots 5, 14 and 15 on Deposited Plan 230140. As Site A is smaller than Site B, if Site A is selected, a smaller solar farm will be constructed, subject to ongoing survey requirements and detailed design.

The network connection route corridor will follow Derby Highway, Wodehouse Street and Broome Street to connect the solar PV and BESS to a substation at the existing power station site on Broome Steet in Derby. The network connection will either be an overhead or underground electrical transmission line and will be up to 8.9 km long.

The thermal power station will be installed adjacent to the existing power station on Broome Street in Derby on Lot 648 on Deposited Plan 209773.

The DE has been utilised for the Project approvals, as the exact location of Project elements are unknown, and will be subject to detailed design in the future. The DE comprises the existing power station, network connection route and two sites where the solar facility and BESS could be located (Site A or Site B), which is shown in Figure 1.

The DE has a total extent of 307.4 hectares (ha) and represents the boundary surrounding the Project within which all development will be contained. Construction and operation of the Project will require permanent clearing of up to 73.5 ha of native vegetation within the DE. It should be noted that the 73.5 ha clearing extent within the DE represents the maximum area of disturbance required to construct and install the Project, where opportunities are available clearing will be minimised.

The Project was referred under Part IV of the Environmental Protection Act 1986 (EP Act) in April 2025, with the Environmental Protection Authority (EPA) determining the Project did not require assessment, in July 2025. Therefore, a Native Vegetation Clearing Permit (NVCP) will be required from the Department of Water and Environment Regulation (DWER) under Part V of the EP Act.

1.2 Scope and Purpose

This document has been prepared to support a NVCP application for the Project. Specifically, this document provides further detail regarding the proposed activities (Section 2) and related clearing.

To support environmental approvals for the Project, a biological survey was undertaken by GHD (2024). The results of this survey, as relevant to the proposed clearing, are summarised in Section 3 of this document and have been taken into account when avoiding and mitigating Project environmental impacts (Section 5).

An assessment of the 10 Clearing Principles as outlined in '*A guide to the assessment of applications to clear native vegetation*' (DER, 2014) has also been undertaken and is presented in Section 7.

An Environment Management Plan (EMP) was prepared in support of the EPA and DCCEEW referrals for this Project, and is provided in Appendix A in support of this clearing permit application.

2 Description of the Activity

2.1 Project Location

The Project is located in Derby, Western Australia. The solar and BESS is proposed to be located at either Site A or Site B. Site A is located approximately 2.5 km south of Derby on Lot 31 on Deposited Plan 207640. Site B is located approximately 5 km south of Derby on Lots 5, 14 and 15 on Deposited Plan 230140. The network connection route corridor will follow Derby Highway, Wodehouse Street and Broome Street to connect the solar PV and BESS to a substation at the existing power station site on Broome Steet in Derby. The network connection will either be an overhead or underground electrical transmission line and will be up to 8.9 km long. The thermal power station will be installed adjacent to the existing power station on Broome Street in Derby on Lot 648 on Deposited Plan 209773.

Land details of the DE are provided in Table 1 and the DE is shown in Figure 1.

Table 1 Development Envelope Location

Size of Development Envelope (ha)	Development Envelope location	Shire	Neighbouring land uses
307.4	Lot 31 on Deposited Plan 207640	Shire of Derby	Local roads; primary distributor road; public open space; light industry; public purposes; mixed use; rural residential; residential.
	Lot 15 on Deposited Plan 230140		
	Lot 14 on Deposited Plan 230140		
	Lot 5 on Deposited Plan 230140		
	Lot 1409 on Deposited Plan 211020		
	Lot 1409 on Deposited Plan 211020		
	Lot 648 on Deposited Plan 209773		

Figure 2-1 Proposal Location and Development Envelope

N

0 0.5 1 2 Kilometers

Scale: 1:35,000

All figures have the projection GDA2020

2.2 Activity Overview and Timelines

A five-year clearing permit is requested to accommodate supplier readiness, procurement of batteries and renewables technology with clearing undertaken within 3 months of construction.

2.2.1 Pre-construction

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

- Solar and BESS facility, network connection route and thermal power station site surveying and marking - surveying personnel utilising 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 20 boreholes to a depth of 25 metres (m) and up to 15 test pits (5 m width by 5 m width) up to 3 m depth may be conducted to support the geotechnical investigations.
- 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 20 boreholes to a depth of 25 m and up to 15 tests pits (5 m width by 5 m width) up to 3 m depth may be conducted to support the geotechnical investigations.
- Thermal power station 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 10 boreholes to a depth of 25 m and up to 5 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 will be permitted per test location. Geotechnical investigations require driving on vegetation to access test locations.

2.2.2 Construction

The construction phase is expected to commence in 2027 for a duration of up to 24 months. Construction personnel will consist of a project workforce of up to 50 staff for the solar and BESS facility, up to 40 staff for the network connection route and up to 50 staff for the thermal power station. Construction works will consist of:

- Clearing of up to 73.5 ha of native vegetation, topsoil removal and stockpiling, grading and excavations.
- Weed control measures to manage the spread of invasive weeds.
- Supply of concrete will be via the establishment of a temporary on-site concrete batch plant or concrete truck deliveries.
- Supply of water for construction purposes will be via trucked water or construction of a bore in accordance with regulations.
- 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 and generators will be established onsite. All site works will operate under a safety management system.
- Installation of the solar PV and BESS consisting of ground mounted solar panels, inverters, transformers, cabling, battery containers, power station and other ancillary infrastructure:
    - Solar PV panels and frame will be up to 4 m tall from ground level. The battery containers, power station and office building will typically 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 10,000 steel piles (250 mm diameter) installed to a depth of up to 5 m.
    - Excavation works for footings for the power station, battery system, office building and other ancillary infrastructure may involve excavation of up to 1,200 m^3 of soil (footing depth typically up to 2 m deep).
    - Excavation works for internal electrical cabling may involve excavation of up to 5 km of trenching and up to 1.5 m deep, resulting in excavation of up to 11,000 m^3 of soil.

- Installation of a network connection route from the solar and BESS facility, following Derby Highway, Wodehouse Street and Broome Street to a substation at the existing power station in Derby. The network connection will either be an overhead or underground transmission line:
  - Underground – Trenching excavations of up to 8.9 km and up to 3 m wide and up to 2 m deep, total excavation of up to 60,000 m^3 of soil.
  - Overhead – Electrical poles of up to 20 m height installed at spans of up to 200 m. Total of up to 50 poles installed along the 8.9 km connection route, and excavation for each pole up to 2.5 m deep, total excavations of up to 900m^3 of soil.
- Installation of the thermal power station:
  - Excavation works for footings for the thermal power station may involve excavation of up to 1,000 m^3 of soil (footing depth typically up to 2.5 m deep).
  - Excavation works for internal electrical cabling and gas piping may involve excavation of up to 1km of trenching and up to 2.5 m deep, resulting in excavation of up to 2,500 m^3 of soil.
  - Installation of the power station including up to 10 engine generators, transformers, power station, cooling system, gas supply system, electrical and control cabling, gas pipelines and other auxiliary infrastructure. Engine generators, transformers and power station will be up to 5 m tall from ground level, while engine stacks may be up to 30 m tall.
- Construction of access tracks.

2.3 Proposed Clearing Method

Geotechnical survey works will consist of mainly incidental clearing (driving over and parking on native vegetation) for vehicle / machinery access to test sites. Geotechnical tests will require the mechanical removal of native vegetation. Topsoil and vegetation will be respread over each test location once complete.

Clearing for the solar arrays, network connection and associated infrastructure will be undertaken via mechanical removal.

2.4 Land Access

The solar and BESS facility is proposed to be located at either Site A or Site B. Land tenure will be arranged as required, including lease or purchase of relevant parcels prior to construction. The new thermal power station will be located adjacent to the existing power station, currently under Management Order to Regional Power Corporation for the purpose of "Powerhouse, Depot and Quarters".

As an ‘energy operator’, Horizon Power has certain rights under sections 46 and 49 of the *Energy Operators (Powers) Act 1979* 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 DE.

3 Biological Survey

To inform the Project, a detailed (single season) flora and vegetation survey and a basic and targeted fauna survey has been undertaken by GHD (2024) on 18 to 23 and 25 March 2024. The biological survey was undertaken in accordance with the Environmental Protection Authority (EPA) guidelines (EPA, 2016 and EPA, 2020) and is summarised in Table 2. The DE has been aligned with cadastral boundaries, which has resulted in small areas along the edges of the DE that have not been surveyed, totalling approximately 6.6 ha. Of the 6.6 ha, 3.3 ha is located at Site A. The vegetation type and vegetation condition mapping has been extrapolated using aerial imagery and the existing GHD (2024) survey data.

Table 2 Summary of Biological Surveys Relevant to the DE

Survey	Summary of Findings
Kimberley IRP Biological Survey (GHD, 2024) (IBSA Number: IBSA-2024-0323)	**Survey Dates:** 18 to 23 and 25 March 2024 **Survey Area:** The GHD (2024) Survey Area in Derby covers 655.7 ha **Flora / Vegetation Findings**: – 136 flora taxa from 39 families and 91 genera (including subspecies and variants) were recorded during the field survey. – No EPBC Act or BC Act listed Threatened or Priority flora taxa were recorded within the DE during the field survey. – One DBCA-listed Priority species, *Haemodorum capitatum* (P1) was recorded within the Survey Area and therefore may occur within the DE. – A total of two species recorded within the Survey Area represent range extensions from the species current known range (GHD, 2024). These taxa include: 1. *Haemodorum capitatum* (the record from the survey (GHD, 2024) is the first collection for the Derby region) 2. *Gyrocarpus americanus* subsp. (These records are approximately 160 km southwest from the nearest record). – Ten introduced flora taxa were recorded in the Survey Area. **Azadirachta indica* is listed as declared pest under the Biosecurity and Agriculture Management Act 2007 (BAM Act) and **Jatropha gossypiifolia* is listed declared pests under BAM act and as a Weed of National Significance (WoNS). – The vegetation types in the DE were (excluding cleared areas): 1. VT02 - Open woodland of *Corymbia dichromophloia*, *Adansonia gregorii* and *Lysiphyllum cunninghamii* over open shrubland (where more recently burnt) or tree form of *Acacia tumida* var. *kulparn* over open shrubland of *Alstonia linearis*, *Dodonaea hispidula* and *Brachychiton diversifolius* subsp. *diversifolius* over open tussock grassland of *Chrysopogon fallax*, *Eriachne obtusa* and *Aristida hygrometrica* over open forbland of *Trichodesma zeylanicum* var. *latisepaleum*, *Trianthema pilosum* and *Microstachys chamaelea* on light brown sandplain. 2. VT03 - Open woodland of *Adansonia gregorii, Corymbia zygophylla* and *Corymbia opaca* over open woodland of *Lysiphyllum unninghamii*, *Hakea arborescens* and *Melaleuca cajuputi* subsp. *cajuputi* over shrubland of *Flueggea virosa* subsp. *melanthesoides, Terminalia canescens* and *Calytrix exstipulata* over mixed open forbland of *Jasminum molle, Drosera derbyensis, Ptilotus polystachyus* and *Waltheria indica* on light brown sandy loam seasonal drainage flats. 3. VT04 - Open woodland of *Adansonia gregorii, Corymbia dichromophloia* and *Corymbia zygophylla* over open woodland of *Lysiphyllum cunninghamii, Gyrocarpus americanus* subsp. *americanus* and *Hakea arborescens* over mixed shrubland of *Acacia monticola, Acacia tumida* var. *kulparn*, *Calytrix exstipulata* and *Flueggea irosa* subsp. *elanthesoides* over open hummock grassland of *Triodia caelestialis* over open tussock grassland of *Eriachne obtusa* and *Chrysopogon fallax* over mixed open forbland of *Solanum cunninghamii, Melhania oblongifolia, Waltheria indica* and *Trichodesma zeylanicum* var. *latisepaleum* on light brown sandy loam plains. 4. Planted native trees over weeds. 5. Scattered natives over weeds. – VT03 is considered to be riparian vegetation, since it contains seasonal drainage flats. The vegetation unit also contains trees of *Adansonia gregorii, Corymbia zygophylla, Corymbia opaca and Lysiphyllum cunninghamii.* – No Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), *Biodiversity Conservation Act 2016* (BC Act) or DBCA listed were identified within the DE during the field survey. – The vegetation condition ranges from Very Good to Completely Degraded with the majority of the vegetation in Very Good condition. **Fauna / Fauna Habitat Findings**: – Three fauna habitats were identified: 1. Mixed tall closed woodland sandplain: Open woodland of *Adansonia gregorii, Corymbia dichromophloia* and *Corymbia zygophylla* over open woodland of *Lysiphyllum cunninghamii, Gyrocarpus americanus* subsp., *americanus* and *Hakea arborescens* on light brown sandy loam plains. 2. Mixed tall open woodland sandplain: Open woodland of *Adansonia gregorii, Corymbia zygophylla* and *Corymbia opaca* over open woodland of *Lysiphyllum cunninghamii, Hakea aborescens* and *Melaleuca cajupti* subsp. c*ajupti* on light brown sandy loam seasonal drainage flats.

Survey	Summary of Findings
	3. Open Eucalypt woodland: Open woodland of *Corymbia dichromophloia, Adansonia gregorii*, and *Lysiphyllum cunninghamii* over open shrubland (where more recently burnt) or tree form *of Acacia tumida* var. *kulpam* on light brown sandplain. – There are 19 habitat trees with hollows suitable for nesting/breeding/roosting for the Northern Brushtail Possum, Northern Coastal Free-tail Bat and Gouldian Finch. – The survey identified 90 species (61 birds, 13 mammals, 14 reptiles and 2 amphibians). Of these, four are introduced species (the Black Rat (*Rattus rattus*), the Dingo (*Canis familiaris*), the Cat (*Felis catus*) and the Cane Toad (*Rhinella marina*)). – Four significant fauna species were recorded: 1. Fork-tailed Swift (*Apus pacificus*) – Migratory under EPBC and BC Act 2. Oriental Cuckoo (*Cuculus opatus*) – Migratory under EPBC and BC Act 3. Northern Blue-tongue Skink (*Tiliqua scincoides intermedia)* – Critically Endangered under EPBC Act and Priority 4 under DBCA 4. Northern Coastal Free-tailed Bat (*Ozimops cobourgianus*) – Priority 1 under DBCA – Fauna species listed as Threatened under the BC Act or by the DBCA are considered likely to occur: 1. Gouldian Finch (*Chleobia gouldiae*) – Endangered under EPBC Act and Priority 4 under DBCA 2. Grey Falcon (*Falco hypoleucos*) – Vulnerable under EPBC and BC Act 3. Peregrine Falcon (*Falco peregrinus*) – Other Specially Protected under BC Act 4. Barn Swallow (*Hirundo rustica*) – Migratory under EPBC and BC Act 5. Yellow Wagtail (*Motacilla flava*) – Migratory under EPBC and BC Act 6. Northern Brushtail Possum (*Trichosurus vulpecula arnhemensis*) – Vulnerable under EPBC and BC Act – There are no conservation reserves within the DE. – The nearest Environmentally Sensitive Area (ESA) is located approximately 48 km north-east of the DE.

4 Existing Environment

The existing environment is summarised in Table 3.

Table 3 Existing environment

<table>
<tr><th>Environmental value</th><th>Assessment</th></tr>
<tr><td>Vegetation associations and condition</td><td>The Project is located within Pre-European Vegetation Associations 764 and 127. More than 95% of these vegetation associations remain at the state, bioregion, subregion and local government authority (LGA) scale.
<table>
<tr><th>Vegetation association</th><th>Scale</th><th>Pre-European extent (ha)</th><th>Current extent (ha)</th><th>% Remaining</th></tr>
<tr><td rowspan="4">764</td><td>State: WA</td><td>53,248.07</td><td>51,954.64</td><td>97.57</td></tr>
<tr><td>Interim Biogeographic Regionalisation for Australia (IBRA) Bioregion: Dampierland</td><td>53,248.07</td><td>51,954.64</td><td>97.57</td></tr>
<tr><td>IBRA Subregion: Fitzroy Trough</td><td>53,248.07</td><td>51,954.64</td><td>97.57</td></tr>
<tr><td>LGA: Shire of Derby-West Kimberley</td><td>53,248.07</td><td>51,954.64</td><td>97.57</td></tr>
<tr><td rowspan="4">127</td><td>State: WA</td><td>737,724.05</td><td>697,871.38</td><td>94.60</td></tr>
<tr><td>Interim Biogeographic Regionalisation for Australia (IBRA) Bioregion: Dampierland</td><td>165,317.62</td><td>162,996.35</td><td>98.60</td></tr>
<tr><td>IBRA Subregion: Fitzroy Trough</td><td>131,508.77</td><td>129,808.64</td><td>98.71</td></tr>
<tr><td>LGA: Shire of Derby-West Kimberley</td><td>172,426.38</td><td>164,456.92</td><td>95.38</td></tr>
</table>
The following vegetation types were identified in the DE, with the remainder of the DE recorded as cleared (GHD, 2024):
1. VT02 – 234.1 ha in DE
2. VT03 – 2.6 ha in DE
3. VT04 – 29.6 ha in DE
4. Planted native trees over weeds – 2.9 ha in DE
5. Scattered natives over weeds – 3.3 ha in DE
The majority of the vegetation within the DE is in Very Good condition. The vegetation condition with the DE included:
– Very Good – 233.8 ha
– Good – 15.8 ha
– Degraded – 15.5 ha
– Completely Degraded – 6.5 ha</td></tr>
<tr><td>Fauna habitat</td><td>GHD (2024) recorded the following fauna habitats within the DE (excluding cleared areas):
1. Mixed tall closed woodland sandplain – 29.6 ha
2. Mixed tall open shrubland sandplain – 2.6 ha
3. Open Eucalypt woodland – 234.1 ha
4. Scattered native trees – 6.2 ha
All of these fauna habitats are considered to be of ‘High’ value habitat for fauna, except for the scattered native trees which is considered to be of ‘Low’ value habitat for fauna (GHD, 2024).
Additionally, 19 habitat trees with suitable hollows were recorded within the Survey Area, 12 of which are located within the DE. Up to 4 of these will be cleared.</td></tr>
<tr><td>Significant fauna</td><td>Four significant fauna species were recorded:
1. Fork-tailed Swift (Apus pacificus) – Migratory under EPBC and BC Act
2. Oriental Cuckoo (Cuculus opatus) – Migratory under EPBC and BC Act
3. Northern Blue-tongue Skink (Tiliqua scincoides intermedia) – Critically Endangered under EPBC Act and Priority 4 under DBCA
4. Northern Coastal Free-tailed Bat (Ozimops cobourgianus) – Priority 1 under DBCA</td></tr>
</table>

Environmental value	Assessment
	The Fork-tailed Swift, Oriental Cuckoo and Northern Blue-tongue Skink would likely utilise all three fauna habitats within the DE. The Northern Coastal Free-tailed Bat would likely utilise the tree hollows within the DE, up to 4 of these may be cleared for the Project. A likelihood of occurrence assessment by GHD (2024) identified the following conservation significant (state) species as likely to occur within the DE: – Gouldian Finch (*Chleobia gouldiae*) – Endangered under EPBC Act and Priority 4 under DBCA – all three habitats, including up to 4 hollow bearing trees. – Grey Falcon (*Falco hypoleucos*) – Vulnerable under EPBC and BC Act – mixed tall closed sandplain and open Eucalypt woodland habitats – Peregrine Falcon (*Falco peregrinus*) – Other Specially Protected under BC Act - mixed tall closed sandplain and open Eucalypt woodland habitats – Barn Swallow (*Hirundo rustica*) – Migratory under EPBC and BC Act - mixed tall closed sandplain and open Eucalypt woodland habitats – Yellow Wagtail (*Motacilla flava*) – Migratory under EPBC and BC Act - mixed tall closed sandplain and open Eucalypt woodland habitats – Northern Brushtail Possum (*Trichosurus vulpecula arnhemensis*) – Vulnerable under EPBC and BC Act - mixed tall closed sandplain and open Eucalypt woodland habitats.
Significant ecological linkage	The proposed area is not part of a significant ecological linkage.
Ecological communities	No State or Commonwealth listed Threatened Ecological Communities or Department of Biodiversity, Conservation and Attractions (DBCA) listed Priority Ecological Communities were recorded within the DE (GHD, 2024). VT03 is considered to be riparian vegetation, since it contains seasonal drainage flats. There is up to 2.6 ha of riparian vegetation within the DE to be cleared.
Significant flora	No State or Commonwealth listed Threatened flora taxa were recorded within the DE during the GHD (2024) survey. No priority flora species were recorded within the DE. A total of two species recorded within the Survey Area represent range extensions from the species current known range (GHD, 2024). These taxa include: – *Haemodorum capitatum* (the record from the survey (GHD, 2024) is the first collection for the Derby region) – *Gyrocarpus americanus* subsp. *americanus* (These records are approximately 160 km southwest from the nearest record). The conservation significant flora species and range extension species, *Haemodorum capitatum*, was not recorded within the DE, therefore, it will not be directly impacts. Individuals of range extension species *Gyrocarpus americanus* subsp. *americanus* may be impacted by the Project.
Wetlands and/or waterways	No permanent water bodies or drainage lines are located within the DE. The DE is within the Fitzroy River Basin (DWER, 2024). No permanent water bodies or drainage lines are located within the DE. The DE is located 1.8 km from the closest watercourse, a minor perineal watercourse, tributary of Airport Creek. There are no significant or nationally important wetlands, rivers or watercourses identified within the DE (GHD, 2024). There are no Ramsar wetlands in close proximity to the DE, the closest important wetland is approximately 50 km north of the DE (Big Springs).
Water resources	The DE overlaps the Derby Water Reserve, which is a Public Drinking Water Source Area (PDWSA), and it also overlaps the Derby and Canning – Kimberley Groundwater Areas proclaimed under *the Rights in Water and Irrigation Act 1914* (RIWI Act). Standard mitigation measures are outlined in the EMP and are expected to make any impacts to water resources negligible. The DE overlaps Derby Groundwater Area proclaimed under the RIWI Act. Based on publicly available data, the depth to groundwater in the area surrounding the DE is estimated to be between <5 m to 48 m below ground level (DWER, 2020). The Project may include groundwater abstraction for dewatering during construction and operation of a bore to supply water for construction purposes. These activities may require approval from DWER through a Section 5C and 26D licence under the RIWI Act.
Conservation Reserves	There are no DBCA managed lands within the DE (DBCA, 2024a). The closest ESA is 48 km northeast of the DE.

Environmental value	Assessment
Environmentally Sensitive Areas (ESAs)	
Land and soil quality	The DE is within the following land systems, described as (Payne & Schoknecht, 2011): – 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: Bare coastal mudflats, minor sandy margins and seaward margins, little vegetation except for mangrove fringing thickets. The vast majority of the DE (92.51%) is described as having an extremely low probability of occurrence of Acid Sulfate Soils (ASS). However, this classification has a confidence level 4, which means that this is a provisional classification inferred from surrogate data with no on-ground verification (Fitzpatrick *et al.*, 2011)., there is a high probability of occurrence of ASS along the network connection route and existing power station portion of the DE. 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 existing power station portion of the DE overlaps: – Site number 793 classified as, "remediated for restricted use": Hydrocarbons (such as from diesel or oil) are present in soil and groundwater at the site. Additional contaminated sites are located approximately 2 km from the DE. The Waganut land system is generally not prone to degradation or erosion (Payne & Schoknecht, 2011). The Carpentaria land system is susceptible to erosion. Mitigation measures for erosion are outlined in the EMP.
Environmental heritage	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 4 km west of the existing power station. 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.
Air quality	The proposed works are unlikely to contribute significantly to dust. Dust will be managed during construction in accordance with the EMP. No significant receptors are directly adjacent to the Project and no significant air emissions are expected that would impact the airshed.
Amenity values	The Project 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). Construction of the Project will generate noise, dust and vibration of short-term duration within the DE. Noise and vibration may cause nuisance during construction to nearby sensitive receptors, however these impacts will be of a short duration and temporary. The network connection will be constructed adjacent to existing roads and a residential area.

5 Avoidance, Mitigation and Management Measures

5.1 Avoidance

Initial avoidance and minimisation was undertaken during site selection, including:

– The network connection route follows an existing cleared corridor along Derby highway, Wodehouse Street, Broome Street, reducing the amount of clearing required for access tracks.
– Locating the thermal power station adjacent to the existing power station on Broome Street.
– The DE was developed to avoid environmental constraints including Priority flora records and riparian vegetation.

Sensitive environmental features will be considered prior to construction, in accordance with the EMP to prevent impacts.

5.2 Mitigation and Management

A EMP has been developed for the Project which lists the specific mitigation and management measures to be applied during construction of the Project (see Appendix A). Key management measures for the geotechnical works and Project infrastructure include:

- No clearing is permitted outside the DE.
- Clearing will be minimised where possible through placement of assets and access tracks in existing cleared locations where possible.
- Works will be undertaken systematically to minimise re-run and compaction of access tracks.
- Areas of degraded, sparsely vegetated and/or previously cleared areas will be preferentially selected for the location of test pits and laydown areas.
- The clearing locations are to be demarcated with flagging tape, GPS or similar prior to clearing activities.
- Clearing areas are to be checked by an Environmental Specialist or Site Supervisor prior to clearing to ensure no more than 73.5 ha of clearing is undertaken for the Project.
- A pre-clearing environmental toolbox will be held so all staff are aware of their responsibilities under the permit.
- Clearing of native vegetation will be undertaken in a slow, progressive manner in one direction to allow fauna to move away from the clearing area.
- Movement of vehicles and machinery will be in convoy along access tracks/ routes and will not go into adjacent vegetation.
- Vehicles and machinery will arrive clean, and weed control will be undertaken at the site post-construction as required.
- A pre-clearance survey will be undertaken within the DE for the Northern Brushtail Possum and Northern Blue-tongue Skink.
- Habitat trees suitable for the Northern Brushtail Possum, Northern Coastal Free-tailed Bat and the Gouldian Finch will be avoided where possible during site selection and design.

6 Stakeholder Engagement

Horizon Power has established a dedicated project website with FAQs, 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 regional Horizon Power depot in Broome.

On 19 September 2023, a face-to-face community information session was held in Derby. The session was attended by representatives from Horizon Power's various divisions, including Customer and Community and Future Energy Systems. The session saw a good turnout with 25 RSVPs and 19 attendees representing a diverse group of Derby residents. As a key local stakeholder, Derby Landcare Group were invited to the event and members encouraged to attend.

Shire of Derby/West Kimberley Councillors were invited to attend and subsequently requested a copy of the presentation which was provided.

The Project was presented to the Regional Development Australia Kimberley Committee, in Derby on 7 September 2023. Horizon Power met with the Shire of Derby/West Kimberley on 26 June 2024 and further communications remain ongoing. Horizon Power engaged with 300 key Kimberley stakeholders in attendance at the Kimberley Economic Forum in Kununurra and Broome, August 2024 and May 2025 respectively. Project information was disseminated via a presentation and print information and delegates were able to access Horizon Power staff in attendance for more questions.

Two electronic mail direct campaigns have been issued to Derby 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 Derby audience. The insights outlined below informed the content. The current database for the Derby community members requesting information about Kimberley FES totals 56 people.

The decarbonisation@horizonpower.com.au and broome@horizonpower.com.au email addresses have been utilised by community and stakeholders to register for project updates, ask questions and provide feedback.

Aboriginal and Torres Strait Islander stakeholder engagement has been occurring in two streams. Broad town-by-town community engagement planned through the Community Engagement and Communications Plan and regionally through dedicated Customer and Community staff to engage with residents.

The Traditional Owner Relationships & Reconciliation (TORR) team have provided back-up support where needed. The TORR team reviewed and adapted communication materials for Traditional Owners and Aboriginal community engagement.

The TORR team continue to coordinate the engagement with Traditional Owners (TO's) through the Kimberley Land Council and Native Title claim determinates. This engagement has occurred separate to community engagement due to determination timelines, governance models and annual calendar of meeting dates. There are two claimant groups with interest in Native Title across the Derby townsite.

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

Table 4 Stakeholder consultation register

Stakeholder	Date	Type of consultation	Stakeholder comments/issue/topic raised	Response
Resident & Horizon Power customer	19 September 2023	Community Information Session	Query as to where EV Charger locations for Derby will be located, need to communicate this to the community	Information provided to stakeholder.
	19 September 2023	Community Information Session	Stakeholder informed Horizon Power of aa potential land parcel	Project team follow-up on land parcel
	19 September 2023	Community Information Session	Query around geothermal as an option for the project.	Exploration licences can take several years, capital investment is very high, Government Trading Enterprises do not have capital to fund this new technology
	19 September 2023	Community Information Session	Query around tidal and hydrogen as project options	Horizon Power is interested in potential trials of emerging generation technologies (such as wave or tidal), but our expectation for the foreseeable future is that these technologies will not be commercially competitive with solar and onshore wind. FAQ's - https://www.horizonpower.com.au/your-community/getting-future-ready/kimberley-future-energy-system/
	19 September 2023	Community Information Session	Query around potential locations for the development.	Project stage was too early to identify exact examples.
	11 May 2024	Email correspondence	Stakeholder expressed concern regarding ability to install solar power at private residence.	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. Distributed Energy Resources Management System has since enabled Smart Connect Solar and there are now zero-refusals.
	29 May 2024	Email correspondence	Query about tidal power and potential for other renewable energy sources as an alternative to the current power station.	Horizon Power are interested in potential trials of emerging generation technologies (such as wave or tidal), but our expectation for the foreseeable future

Stakeholder	Date	Type of consultation	Stakeholder comments/issue/topic raised	Response
				is that these technologies will not be commercially competitive with solar and onshore wind.
Shire of Derby/West Kimberley	19 September 2023	Community Information Session	Query around fire risks for the project. Indicative support for various land parcels. Ancillary thermals are included in the 'Renewables' zoning for the local planning scheme.	Horizon Power has noted this comment.
EDL Energy	19 September 2023	Community Information Session	Query around the cost of overhauling power assets to maintain reliability.	Further follow-up undertaken by project assets team.
Hon Robbin Chapel & Chappel Research	11 May 2024	Letter and email	Several queries regarding: • The location of proposed sites and whether they were presented to the Shire of Derby-West Kimberley. • Alternate locations considered by Horizon Power. • Horizon Power's knowledge of the Shire of Derby-West Kimberley's zoning conditions (TPS 5 and 7, and draft TPS 9) and land systems (i.e. the Wanganut Land System) prior to site selection. Horizon Power's knowledge of the prevailing wind-blown salt laden dust on chosen and alternate sites. • Request for a map of Derby showing transmission lines above 110 kV and lower voltage lines such as 66 kV and 33 kV. • The KV line required to transmit power from the Renewable Energy Facility to current	The project team have been looking at multiple sites in Derby and are currently working on due diligence to ascertain their viability. We will compare environmental survey results supplied with the field survey report undertaken by external environmental consultants. Confirmed that a current Power Purchase Agreement timeline with EDL is a key driver for the project. Acknowledged and thanked for additional information.

Stakeholder	Date	Type of consultation	Stakeholder comments/issue/topic raised	Response
			distribution hub at the existing LNG 14 MW Derby power station. • The 2004 LNG contract with Horizon Power, a state-owned corporation in Western Australia, Santos (45%) and Apache Northwest Pty Ltd (55% and Operator) suppling EDL LNG (WA) Pty Ltd, a subsidiary of Energy Developments Limited (EDL). • Details regarding details of the survey sites, timing of the survey and qualifications of the staff that undertook the survey. • Availability of the survey data.	
Exurban	27 May 2024	Email correspondence	Query around whether Horizon Power is aware of relevant land approval processes and new scheme.	Affirmative response provided.
Derby Landcare Group	6 February 2024	Email correspondence	Query around whether Horizon Power would consider placing wind and tidal turbines in King Sound. Concern indicated about the impact wind turbines would have on migratory birds.	This project does not consider offshore wind. Horizon Power are interested in trials of emerging generation technologies (such as wave or tidal), but our expectation for the foreseeable future is that these technologies will not be commercially competitive with solar and onshore wind.
Kimberley Stakeholders	29 August 2024	Presentation and brochure	The project was a key message communicated by Horizon Power as presenters at the 2024 Kimberley Economic Forum in Kununurra.	For noting and contact details for more information.
Shire of Derby/West Kimberley	11 April 2025	Email	Notified the group that the Project will be referred under the *Environmental Protection Act 1986* (EP Act) and EPBC Act.	Project information provided.

Stakeholder	Date	Type of consultation	Stakeholder comments/issue/topic raised	Response
Derby Landcare Group Robin Chapple and Chappel Research				
Kimberley Stakeholders	29 May 2025	Presentation and brochure	The project was a key message communicated by Horizon Power as presenters at the 2025 Kimberley Economic Forum in Broome.	For noting and contact details for more information.
Commissioner of Shire of Derby/West Kimberley	6 June 2025	Email	Notified the group that the Project will be referred under the EP Act and EPBC Act.	Taken on notice.
Environs Kimberley Derby Landcare Shire of Broome Shire of Derby West Kimberley	5 June 2025	Email correspondence	Provision of the Biological Survey undertaken for the Project by GHD (2024).	N/A.
Traditional Owners	3 November 2023	Meeting	Meeting with Warrwa to give a general update on Project and noted that Heritage Protection Agreement will be established.	Project information provided.
	29 September 2023	Meeting	Meeting with Borrooloola Moorool Moorool to give a general update on Project and noted that Heritage Protection Agreement will be established.	Project information provided.
	Borrooloola Moorool Moorool: throughout April and May 2025.	Email correspondence Video and phone calls	Consultation with the Heritage Advisor and lawyers at Borrooloola Moorool Moorool and Madanaa Nada Aboriginal Corporation	Project information provided.

Stakeholder	Date	Type of consultation	Stakeholder comments/issue/topic raised	Response
	Madanaa Nada Aboriginal Corporation: throughout April, May and June 2025		as part of preparing the heritage protection agreement.	
	17 April 2025	Email correspondence	General update to Boorroola Moorrool Moorrool Claim Group via Arma Legal about the Project and notified the group that the Project will be referred under the EP Act and EPBC Act.	Project information provided.
	09 July 2025	Meeting	Meeting with Emama Nguda Aboriginal Corporation to discuss impact on tourism and commercial proposal on nearby property.	Project information provided and concerns addressed.

7 Assessment Against the 10 Clearing Principles

An assessment against the 10 Clearing Principles has been undertaken to support the NVCP application for the Project, as presented in Table 5. The assessment found that the proposed clearing of native vegetation for the Project may be at variance with the 10 Clearing Principles.

Table 5 Assessment Against the 10 Clearing Principles

Principle	Assessment	Outcome
(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.	Up to 73.5 ha of native vegetation is proposed to be cleared for the Project within the DE. **Vegetation** The DE is located in the Dampierland bioregion and the Fitzroy Trough sub-region as described by IBRA. Three vegetation types were identified in the DE during the GHD (2024) survey: 1. VT02 - Open woodland of *Corymbia dichromophloia*, *Adansonia gregorii* and *Lysiphyllum cunninghamii* over open shrubland (where more recently burnt) or tree form *of Acacia tumida* var. *kulparn* over open shrubland of *Alstonia linearis*, *Dodonaea hispidula* and *Brachychiton diversifolius* subsp. *diversifolius* over open tussock grassland of *Chrysopogon fallax*, *Eriachne obtusa* and *Aristida hygrometrica* over open forbland of *Trichodesma zeylanicum* var. *latisepaleum*, *Trianthema pilosum* and *Microstachys chamaelea* on light brown sandplain. 2. VT03 - Open woodland of *Adansonia gregorii*, *Corymbia zygophylla* and *Corymbia opac*a over open woodland of *Lysiphyllum unninghamii*, *Hakea arborescens* and *Melaleuca cajuputi* subsp. *cajuputi* over shrubland of *Flueggea virosa* subsp. *melanthesoides*, *Terminalia canescens* and *Calytrix exstipulata* over mixed open forbland of *Jasminum molle*, *Drosera derbyensis*, *Ptilotus polystachyus* and *Waltheria indica* on light brown sandy loam seasonal drainage flats. 3. VT04 - Open woodland of *Adansonia gregorii*, *Corymbia dichromophloia* and *Corymbia zygophylla* over open woodland of *Lysiphyllum cunninghamii*, *Gyrocarpus americanus* subsp. *americanus* and *Hakea arborescens* over mixed shrubland of *Acacia monticola*, *Acacia tumida* var. *kulparn*, *Calytrix exstipulata* and *Flueggea irosa* subsp. *elanthesoides* over open hummock grassland of *Triodia caelestialis* over open tussock grassland of *Eriachne obtusa* and *Chrysopogon fallax* over mixed open forbland of *Solanum cunninghamii*, *Melhania oblongifolia*, *Waltheria indica* and *Trichodesma zeylanicum* var. *latisepaleum* on light brown sandy loam plains. VT03 is considered to be riparian vegetation, since it contains seasonal drainage flats. The vegetation unit also contains trees of *Adansonia gregorii*, *Corymbia zygophylla*, *Corymbia opaca* and *Lysiphyllum cunninghamii*. There is 2.6 ha of riparian vegetation within the DE. No TECs or PECs listed under the EPBC Act or BC Act were identified within the DE. These vegetation types are representative of the vegetation associations in the region, with over 95% of pre-European extent remaining. Vegetation condition within the DE ranged from Very Good to Completely Degraded, with majority of the DE (233.80 ha) reported as Very Good. **Flora** 136 flora taxa from 39 families and 91 genera (including subspecies and variants) were recorded during the field survey. No EPBC Act or BC Act listed flora were recorded. One DBCA-listed Priority species, *Haemodorum capitatum* (P1), was recorded within the Survey Area and therefore may occur within the DE. Two species recorded within the Survey Area represent range extensions from the species current known range (GHD, 2024). The new record of *Haemodorum capitatum* within the Survey Area is the first collection from Derby region and represents a range extension for the species, given it is approximately 100 km northeast of the closest known distribution. *Gyrocarpus americanus* subsp.	May be at variance.

Principle	Assessment	Outcome
	americanus also represents a range extension of the species. These records are located southwest, approximately 160 km, from the nearest record. Ten of the 136 flora taxa were introduced flora taxa. **Azadirachta indica* is listed as declared pest under the Biosecurity and Agriculture Management Act 2007 (BAM Act) and **Jatropha gossypiifolia* is listed declared pests under BAM act and as a Weed of National Significance (WoNS). **Fauna and fauna habitat** Three fauna habitats within the DE (excluding cleared areas): 1. Mixed tall closed woodland sandplain – up to 29.6 ha 2. Mixed tall open shrubland sandplain – up to 2.6 ha 3. Open Eucalypt woodland – up to 66.4 ha 4. Scattered native trees – 6.2 ha All of these fauna habitats are considered to be of 'High' value habitat for fauna, except for the scattered native trees which is considered to be of 'Low' value habitat for fauna (GHD, 2024). Additionally, 19 habitat trees with suitable hollows were recorded within the Survey Area, 12 of which are located within the DE. Up to 4 of these will be cleared. All of these fauna habitats are considered to be of 'High' value habitat for fauna (GHD, 2024). The survey identified 90 species (61 birds, 13 mammals, 14 reptiles and 2 amphibians). Of these, four are introduced species (the Black Rat (Rattus rattus), the Dingo (Canis familiaris), the Cat (Felis catus) and the Cane Toad (Rhinella marina)). Up to 73.5 ha of native vegetation is proposed to be cleared for the Project. This vegetation is considered to be well represented locally and regionally. However, based on the occurrence of high value fauna habitats, diversity of fauna species recorded, and the potential presence of priority flora species, it is considered the Project may be at variance to this Principle.	
(b) Native vegetation should not be cleared if it comprises the whole or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous Western Australia.	Three fauna habitats within the DE (excluding cleared areas): 1. Mixed tall closed woodland sandplain – up to 29.6 ha 2. Mixed tall open shrubland sandplain – up to 2.6 ha 3. Open Eucalypt woodland – up to 66.4 ha 4. Scattered native trees – 6.2 ha A total of 90 species (61 birds, 13 mammals, 14 reptiles and 2 amphibians) were identified within the Survey Area. Four conservation significant species were recorded: 5. Fork-tailed Swift (*Apus pacificus*) – Migratory under EPBC and BC Act 6. Oriental Cuckoo (*Cuculus opatus*) – Migratory under EPBC and BC Act 7. Northern Blue-tongue Skink (*Tiliqua scincoides intermedia)* – Priority 4 under DBCA 8. Northern Coastal Free-tailed Bat (*Ozimops cobourgianus*) – Priority 1 under DBCA Fauna species listed as Threatened under the BC Act or by the DBCA that are considered likely to occur are: 1. Gouldian Finch (*Chleobia gouldiae*) – Endangered under EPBC Act and Priority 4 under DBCA	At variance.

Principle	Assessment	Outcome
	2. Grey Falcon (*Falco hypoleucos*) – Vulnerable under EPBC and BC Act 3. Peregrine Falcon (*Falco peregrinus*) – Other Specially Protected under BC Act 4. Barn Swallow (*Hirundo rustica*) – Migratory under EPBC and BC Act 5. Yellow Wagtail (*Motacilla flava*) – Migratory under EPBC and BC Act 6. Northern Brushtail Possum (*Trichosurus vulpecula arnhemensis*) – Vulnerable under EPBC and BC Act The conservation significant species including habitat preferences are described below. **Fork-tailed Swift** The Fork-tailed Swift is widespread in coastal and sub coastal areas and are found in a variety of habitats, from inland open plains to wooded areas. The species does not breed in Australia and is almost exclusively aerial (DoE, 2025a). There are 10 records of the Fork-tailed Swift on the DBCA database within the Fitzroy Trough subregion. The Fork-tailed Swift was recorded at one location flying low above the DE, above the existing power station (GHD, 2024). 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 (mixed tall closed woodland sandplain, mixed tall open shrubland sandplain and open Eucalypt woodland) to forage. Critical habitat is not defined for the species, therefore, this is considered supporting habitat. Up to 73.5 ha of supporting habitat may be cleared for the Project. **Oriental Cuckoo** Within Australia this species inhabits the canopy or shrub layer of monsoon rainforest, vine thickets, wet sclerophyll forest or open casuarina, Acacia or Eucalypt forest or woodland (BirdLife Australia, 2023b). There are 4 records of the Oriental Cuckoo on the DBCA database within the Fitzroy Trough subregion. This species was recorded from one location during the GHD (2024) survey, approximately 900 m from the DE within the mixed tall closed woodland sandplain habitat type. The mixed tall woodland sandplain, mixed tall open shrubland sandplain and Open Eucalypt woodland habitats all provide suitable supporting foraging habitat for the Oriental Cuckoo. **Northern Blue-tongue Skink** This species occurs across Northern Australia (DCCEEW, 2023). They move widely across the savannah landscape but spend most of their time in small, fragmented patches of habitat that offer cooler moister conditions. Individuals spend long periods within small and distinctive habitat patches, interspersed with longer directional relocations from one patch to the next. There are no records of this species on the DBCA database within the Fitzroy Trough subregion. A targeted survey by GHD (2024) recorded this species approximately 1 km east of the DE within the Survey Area. There was an additional three records from the targeted search, of which one was within the DE at Site B, and the two remaining two were approximately 0.15 km west and 0.9 km east of the DE. The mixed tall closed woodland sandplain, mixed tall open shrubland sandplain and open Eucalypt woodland provide potential foraging, breeding, shelter and/or dispersal habitat for this species and are considered critical habitat. Up to 73.5 ha of critical habitat may be cleared for the Project. **Northern Coastal Free-tailed Bat**	

Principle	Assessment	Outcome
	Ecology of this species is poorly known, but they are usually associated with mangroves and coastal woodlands where they roost in tree hollows (GHD, 2024). There is one record of this species on the DBCA database within the Fitzroy Trough subregion. Northern Coastal Free-tailed Bat calls were recorded on a bat-call device during the GHD (2024) survey at 18 locations within the Survey Area within all three habitats present. The species was recorded twice within the DE during the GHD (2024) survey in the open Eucalypt woodland and mixed tall closed woodland sandplain (GHD, 2024). Further, there are habitat trees with hollows that are suitable for roosting for the species. Critical habitat for this species is not defined, however, all three habitats within the DE are considered critical habitat for the species for foraging, breeding, roosting and dispersal. Up to 73.5 ha of critical habitat may be cleared for the Project. **Gouldian Finch** The Gouldian Finch is primarily found in 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 this species appears to be the presence of favored annual and perennial grass (especially Sorghum), a nearby source of water and, in the breeding season, unburnt hollow-bearing Eucalyptus trees (Higgins *et al*., 2006). There are 76 records of this species on the DBCA database within the Fitzroy Trough database. This species was not recorded during the GHD (2024) survey, however, suitable foraging habitat is present within the DE and the species is known to occur locally and may forage within the DE on seed grasses when seasonally available. Further, the DE contains suitable habitat trees for nesting/breeding for this species. All three habitats are suitable for the species and are considered critical habitat due to their potential foraging, nesting and breeding values. Up to 73.5 ha of critical habitat may be cleared for the Project. **Grey Falcon** 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 9 records of the Grey Falcon on the DBCA database within the Fitzroy Trough subregion. This species was not recorded during the GHD (2024) survey, however there is suitable habitat within the DE and there are records of the species within this region, although they are not commonly observed. The mixed tall woodland sandplain and open *Eucalypt* habitats represent suitable foraging habitat for this species. These habitats are considered supporting habitat. **Peregrine Falcon** The Peregrine Falcon has a wide range across Australia, inhabiting a wide variety of habitats from woodlands to open grasslands and coastal cliffs (Morcombe, 2004). There are 34 records of this species on the DBCA database from within the Fitzroy Trough subregion. This species was not recorded during the GHD (2024) survey, however there is suitable habitat and the species is known to occur locally. The mixed tall woodland sandplain and open *Eucalypt* habitats represent suitable foraging habitat for this species. These habitats are considered supporting habitat. **Barn Swallow**	

Principle	Assessment	Outcome
	This species is found in open country in coastal lowlands, often found near water, towns and cities. The species inhabits freshwater wetlands, paperbark Melaleuca woodlands, mesophyll shrub thickets and tussock grasslands (DoE, 2025b). This species does not breed in Australia. There are 14 records of the Barn Swallow on the DBCA database within the Fitzroy Trough subregion. This species 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 mixed tall closed woodland sandplain and open Eucalypt woodland habitats are considered suitable supporting foraging habitat for this species. **Yellow Wagtail** This species predominately inhabits open areas with low vegetation, especially short grass. The species is often recorded near water or in damp areas such as muddy or grassy edges of wetlands, including lakes, swamps and lagoons (Birdlife, 2023a). There are no records of this species on the DBCA database within the Fitzroy Trough subregion. This species was not recorded during the field survey (GHD, 2024), however it is considered likely to occur based on database records and that the species occurs locally and within the wider region. The mixed tall closed woodland sandplain and open Eucalypt woodland habitats are likely to provide supporting foraging habitat for this species. **Northern Brushtail Possum** The Northern Brushtail Possum predominately inhabits tall Eucalypt open forests with large hollow-bearing trees that provide shelter for the species (TSSC, 2021). There are 4 records of this species on the DBCA database within the Fitzroy Trough subregion. As discussed, there are habitat trees with hollows that are suitable for nesting for this species. The following habitat types within the DE are suitable for the Northern Brushtail Possum: – Open Eucalypt woodland may be used for foraging, breeding, shelter and/or dispersal. – Mixed tall closed woodland sandplain may be used for foraging, breeding, shelter and/or dispersal. As the DE contains 12 recorded habitat trees with suitable hollows for nesting within the open Eucalypt woodland and mixed tall closed woodland sandplain habitat types, these are considered critical habitat for the species. As the Project involves clearing of critical habitat for the Northern Blue-tongue Skink, Northern Coastal Free-tail Bat, Gouldian Finch and the Northern Brushtail Possum, the Project is considered to be at variance with this principle.	
(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.	GHD (2024) undertook a detailed assessment for flora and vegetation in March 2024. The survey timing (March) is appropriate for the Northern botanical province (January to March) due to adequate rainfall in the region. No flora species listed under the EPBC Act or BC Act were recorded during the survey. Native vegetation necessary for the continued existence of rare flora is not considered to occur within the DE. The proposed clearing of native vegetation for the Project is therefore not considered to be at variance with this principle.	Unlikely to be at variance.
(d) Native vegetation should not be cleared if it comprises the whole or a part of, or	The survey by GHD (2024) did not record any threatened ecological communities listed under the EPBC Act, BC Act or by DBCA, nor were any considered likely to occur. Therefore, the proposed clearing of native vegetation for the Project is not considered to be at variance with this principle.	Not at variance.

Principle	Assessment	Outcome
is necessary for the maintenance of, a threatened ecological community.		
(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.	The two vegetation associations within the DE have more than 95% pre-European extent remaining. The DE is not considered to be within an area that has been extensively cleared given they have more than 95% of pre-European extent. The vegetation type identified during the survey is not confined to the DE and is considered well represented in the local and regional area. Therefore, it is considered that the native vegetation proposed to be cleared for the Project is not significant as a remnant of native vegetation within an area that has been extensively cleared.	Unlikely to be at variance.
(f) Native vegetation should not be cleared if it is growing in or in association with a watercourse or wetland.	There are no wetland features overlapping the DE. No significant or nationally important wetlands, rivers or watercourses were identified, and no RAMSAR-listed wetland ecosystems or communities were found in the survey area (GHD, 2024). VT03 is considered to be riparian vegetation, since it contains seasonal drainage flats. The vegetation unit also contains trees of *Adansonia gregorii, Corymbia zygophylla, Corymbia opaca and Lysiphyllum cunninghamii.* There is 2.6 ha of riparian vegetation within the DE.This vegetation type may be partially reliant on the sandplains and drainage lines. Disruption to hydrological flows has the potential to reduce the seasonal drainage which will impact this vegetation. However, due to lack of drainage lines in the DE and the lack of substantial alteration to drainage patterns, the Project is not considered to be at variance with this principle.	Unlikely to be at variance.
(g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.	The DE intersects the following land systems: – 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. The Waganut land system is generally not prone to degradation or erosion (Payne & Schoknecht, 2011). – Carpentaria System: Bare coastal mudflats, minor sandy margins and seaward margins, little vegetation except for mangrove fringing thickets. The Carpentaria land system is susceptible to erosion (Payne & Schoknecht, 2011). The DE does contain soils which may be susceptible to erosion. However, standard management practices will be implemented to prevent erosion / sedimentation. Additionally, the DE is located in an area which has previous disturbance, next to and within the existing power station and access tracks. The Project will incorporate standard construction management measures to reduce the risk of soil erosion and sedimentation as a result of ground disturbance and clearing (Appendix A). Any dust produced during construction will also be managed through the implementation of a EMP. Given the small area to be cleared for the solar farm and the linear nature of the connection corridor, it is not likely that the clearing will cause appreciable land degradation that will affect the present or future use of the land. Based on the above, the proposed clearing of native vegetation for the Project is not considered to be at variance with this principle.	Unlikely to be at variance.
(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to	There are no conservation areas overlapping the DE. The closest ESA is 48 km northeast of the DE. No impacts to conservation areas are anticipated in association with the Project.	Unlikely to be at variance.

Principle	Assessment	Outcome
have an impact on the environmental values of any adjacent or nearby conservation area.	No off-site impacts are anticipated as a result of the proposed clearing of native vegetation within the DE. It is noted that management measures regarding weeds and disease will be implemented to ensure that weeds are not spread as a result of clearing activities (Appendix A). The proposed clearing is not expected to impact any adjacent conservation areas.	
(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.	No permanent water bodies or drainage lines are located within the DE. The DE is within the Fitzroy River Basin (DWER, 2024). No permanent water bodies or drainage lines are located within the DE. The DE overlaps the Derby Water Reserve, which is a Public Drinking Water Source Area (PDWSA), and it also overlaps the Derby and Canning – Kimberley Groundwater Areas proclaimed under the RIWI Act. The DE is located 1.8 km from the closest watercourse, a minor perineal watercourse, tributary of Airport Creek. There are no significant or nationally important wetlands, rivers or watercourses identified within the DE (GHD, 2024). There are no Ramsar wetlands in close proximity to the DE, the closest important wetland is approximately 50 km north of the DE (Big Springs). The DE overlaps Derby Groundwater Area proclaimed under the RIWI Act. Based on publicly available data, the depth to groundwater in the area surrounding the DE is estimated to be between <5 m to 48 m below ground level (DWER, 2020). The Project may include groundwater abstraction for dewatering during construction and operation of a bore to supply water for construction purposes. These activities may require approval from DWER through a Section 5C and 26D licence under the RIWI Act. Potential impacts to surface water quality from erosion / sedimentation / hydrocarbons will be managed. Clearing within the DE is unlikely to cause deterioration in the quality of surface or underground water, therefore the Project is unlikely to be at variance to this principle.	Unlikely to be at variance.
(j) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the intensity of flooding.	Standard management measures for construction will be in place to mitigate against / manage erosion and associated environmental aspects. Therefore, the proposed clearing of native vegetation for the Project is not considered to be at variance with this principle.	Unlikely to be at variance.

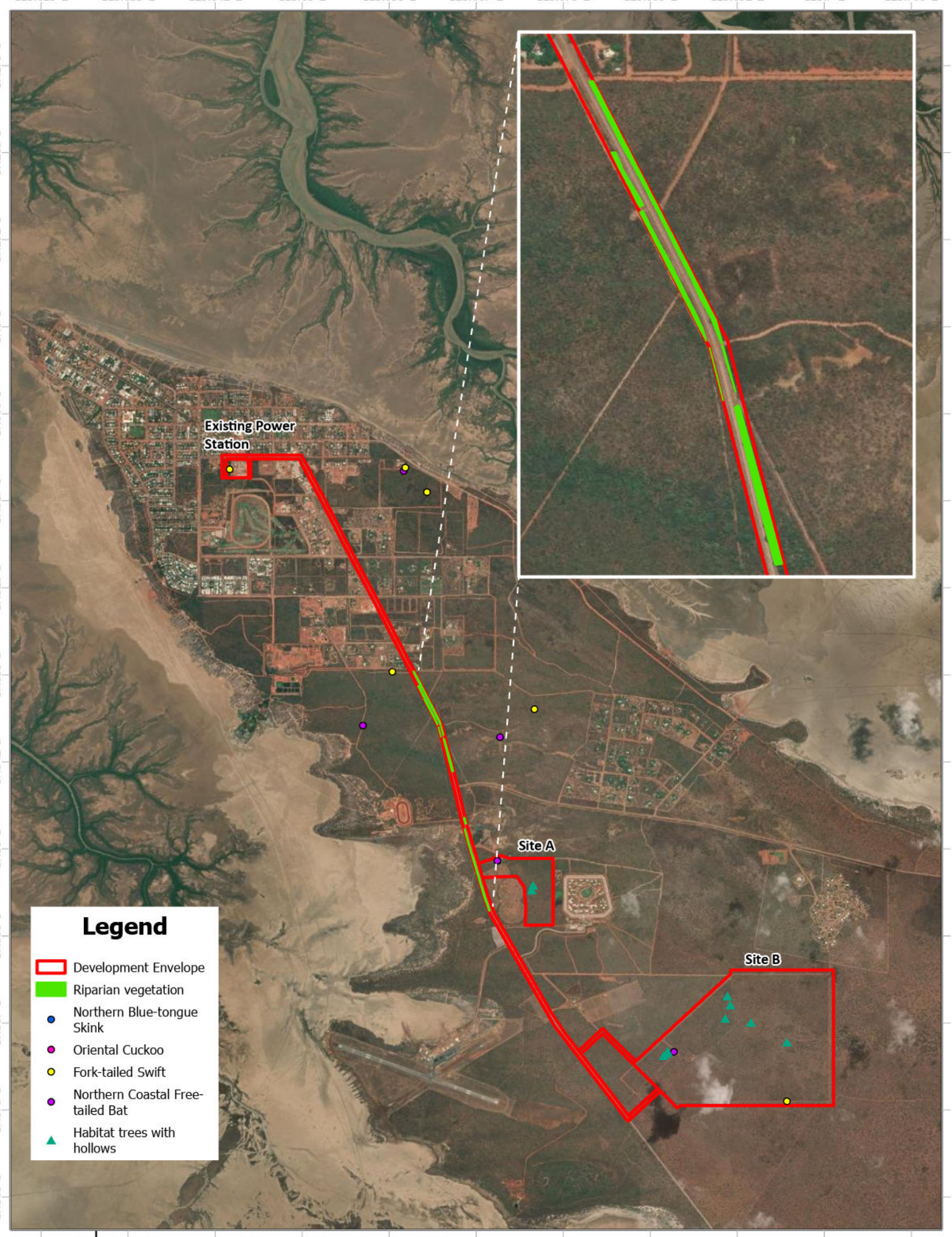


Figure 2 | Environmental Constraints in the DE

N

0 500 1,000 2,000 Meters

Scale: 1:50,000

HORIZON POWER

8 Other matters

8.1 Land Planning

The Project will be considered Public Works and is expected to be exempt from development approval under Section 6 of the *Planning and Development Act 2005*, however, due regard is required with respect to:

- The purpose and intent of any planning scheme that has effect in the locality where, and at the time when, the right is exercised.
- The orderly and proper planning, and the preservation of the amenity, of that locality at that time; and
- Any advice provided by the responsible authority in the course of the consultation required.

Horizon Power has engaged with the Local Government Authority in the selection of the DE.

8.2 Other Approvals

In considering a clearing matter under section 51O of the *Environmental Protection Act 1986* (EP Act), the Department of Water and Environmental Regulation (DWER) CEO shall have regard to any planning instrument and other relevant matters when making decisions as to clearing permits. 'Other matters' are not defined in the *Environmental Protection Act 1986* (EP Act), and consequently are any matters the CEO considers relevant. Other matters are generally environmental issues not directly within the scope of the clearing principles, but within the object and principles of the Act. Other approvals that may apply to this Project are detailed Table 6. Land access is detailed in Section 2.4.

Table 6 Other approvals

Other approvals	Assessment
Referral to Environmental Protection Authority	The Project was referred to the EPA in April 2025 and on the 2 of July 2025, the EPA reported that the Project did not require assessment.
Referral to Department of Climate Change, Energy, the Environment and Water (DCCEEW)	The Project has been referred to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) (Reference: 2025/10215) on the 5th June 2025 under the EPBC Act due to the potential impacts to impacts for listed Threatened and Migratory species. The Project has been determined a Controlled Action.
Works Approval or Licence under EP Act	The Project 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 application under Part V of the EP Act. This will be obtained by the contractor prior to delivery as required.
Groundwater or surface water licence under the *Rights in Water and Irrigation Act 1914*	The Project 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 though Section 5C and 26D Licences under the Rights in Water and Irrigation Act 1914 (RIWI Act).
Notice of Intent to Clear system under the *Soil and Land Conservation Act 1945*	Not Applicable.
State and municipal heritage	A search of the Heritage Council WA inherit database confirms two State Heritage sites within the DE: Frosty Pool and Holman House (DPLH, 2025a), which are also municipal inventory (DPLH, 2025b). Construction of the Project will not directly disturb the state heritage sites within the DE. Potential indirect impacts will be managed in accordance with the Projects EMP (Appendix A). Therefore, no significant residual impacts to European cultural heritage are expected as a result of the Project.
Native title	There are currently two registered native title claims within the DE: Booroola Moorrool Morrool (WC2016/005, WAD598/2016) and Warrwa Combined (WC2014/004, WAD33/2019) (NNTT, 2025). Whilst there is no native title determination yet, where the Project would impact native title rights and interests due to the need for formal land tenure, the current land tenure is freehold, which is inconsistent with native title rights and interests. The proposed network

Other approvals	Assessment
	connection route will occur in the road corridor which makes it highly likely for native title to exist.
Aboriginal Sites of Significance under the *Aboriginal Heritage Act 1972*	A search of the Aboriginal Cultural Heritage Inquiry System (ACHIS) shows that the following Aboriginal Heritage sites overlap the DE: – Registered site (ID 12392); Ritual / Ceremonial. – Registered site (ID 12393); Ritual / Ceremonial; Creation / Dreaming Narrative. – Lodged site (ID 14617); Artefacts / Scatter; Repository / Storage Place. 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. Horizon Power has an external Aboriginal Cultural Heritage Management Policy, that details our commitment to *avoid impacting on Aboriginal Cultural Heritage whenever and wherever possible*. A Heritage Protection Plan will be developed based on the outcomes of the heritage survey to ensure impact on heritage values is avoided. As appropriate, management measures will be implemented during activities, such as the engagement of cultural heritage monitors during ground disturbing works.

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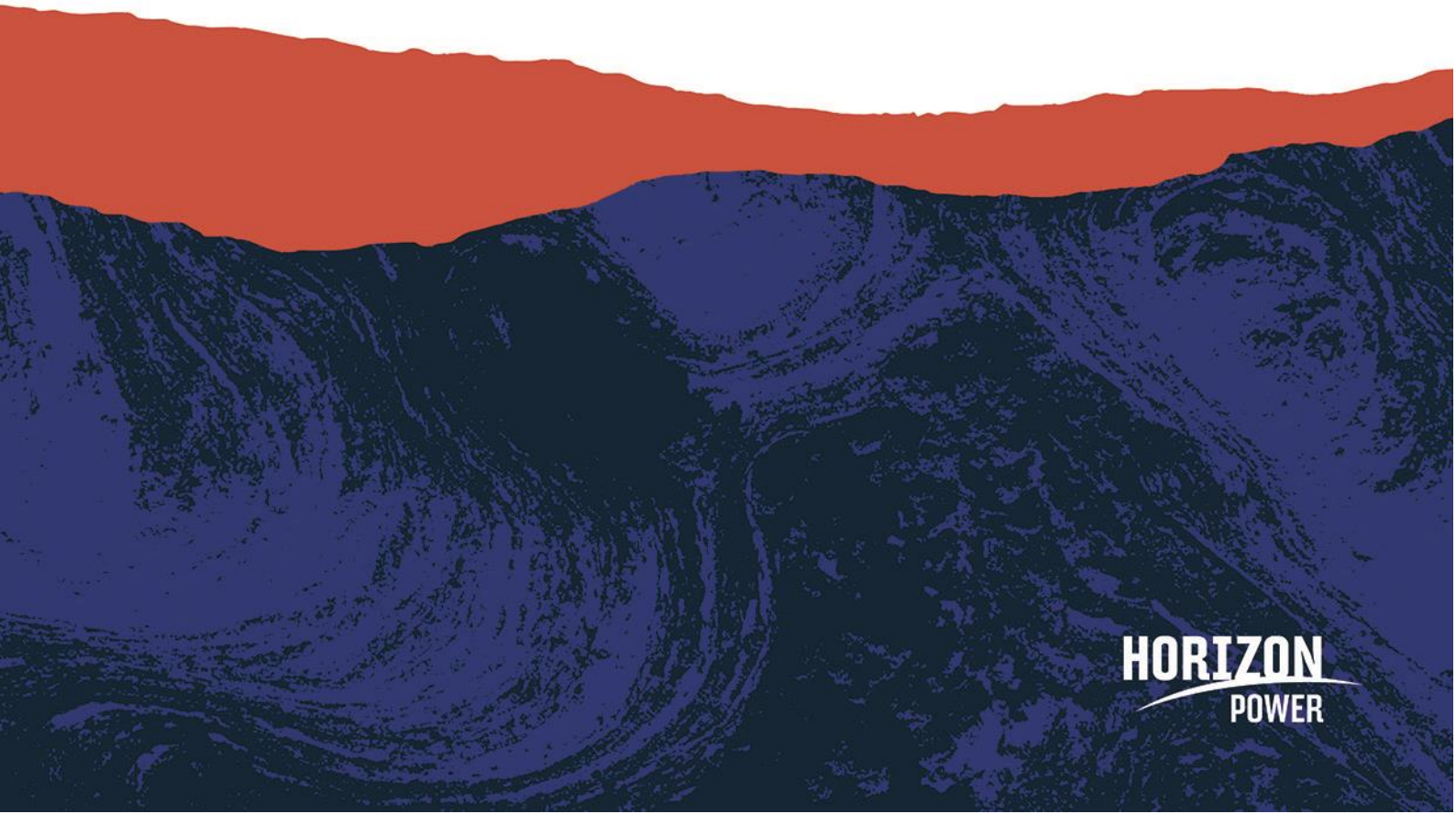
Appendix A: Environmental Management Plan

Derby Future Energy System

Environmental Management Plan

June 2025



Document Version Control

Version	Date	Description (reason for changes)	Authorised	Signature
0	05/06/2025	Submission	Daniel Kippin	

Environmental Protection Authority
Cover Page Table

Project Name	Derby Future Energy System
Proponent Name	Regional Power Corporation T/A Horizon Power
Ministerial Statement Number/s (if applicable)	Not applicable (yet to be assessed), will be added if applicable in later revisions.
Purpose of the EMP	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.
Key Environmental Factor(s) and Objective(s)	– 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 direct and indirect impacts to fauna as far as practicable – Inland waters: to minimise impacts to surface water and groundwater hydrological regimes or 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 – GHG emissions: to minimise the risk of environmental harm associated with climate change by reducing greenhouse gas emissions as far as practicable.
Ministerial Statement Condition Clauses (if applicable)	Not applicable (yet to be assessed), will be added if applicable in later revisions.
Key Components or Legal Requirements of the Plan	This EMP has been prepared in accordance with the WA EPA's (State) *Instructions: How to prepare Environmental Protection Act 1986 Part IV Environmental Management Plans* (EPA, 2024) and DCCEEW's (Commonwealth) *Environmental Management Plan Guidelines* (DCCEEW, 2024).
Proposed Construction and Operation Dates	The construction phase of the Project is estimated to take three years (subject to approvals) from 2027 – 2029. Operation will commence in 2029.
EMP Required Pre-Construction?	Yes

Department of Climate Change, Energy, the Environment and Water
Cover Page Table

EPBC Number	Not applicable (yet to be submitted)
Project Name	Derby Future Energy System
Proponent	Regional Power Corporation T/A Horizon Power
ACN or ABN	ABN 57 955 011 697
The Project	Horizon Power is proposing to construct a future energy system in Derby in the Kimberly region of WA (the Project).
Location of the Action	The solar and BESS facility will be located approximately 2.5 km south of Derby, with the network connection route following Derby Highway, Wodehouse Street and Broome

	Street to the existing substation on Broome Street in Derby. The new thermal power station would be installed adjacent to the existing power station on Broome Street in Derby.

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:

Full name (please print):

Daniel Kippin

Organisation (please print):

Horizon Power

Date: 05 / 06 / 2025

Contents

Table index

Figure index

Glossary

Acronym / Abbreviation	Definition
ACHIS	Aboriginal Cultural Heritage Inquiry System
ASS	Acid Sulfate Soil
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	*Environmental Protection Act 1986*
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999*
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	*Rights in Water and Irrigation Act 1914*
SDS	Safety Data Sheet
WA	Western Australian

1 Introduction

1.1 The Project

Regional Power Corporation, trading as (T/A) Horizon Power, is a Western Australia 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.

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 Derby, 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 Derby in the Kimberley region of WA (the Project). The Project will ensure security of energy supply to Derby 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 Derby FES project will nominally consist of a solar PV system (nominally up to 21 megawatts alternating current (MWAC)), battery energy storage systems (BESS) (nominally up to 10 megawatts MW/ 55 megawatt-hr (MWh)), a network connection route (up to 8.9 km) and a new thermal power station (nominally up to 8 megawatts (MW)).

1.1.1 Project Location

The solar and BESS facility is proposed to be located at either Site A or Site B. Site A is located approximately 2.5km south of Derby on Lot 31 on Deposited Plan 207640. Site B is located approximately 5 km south of Derby on Lots 5, 14 and 15 on Deposited Plan 230140.

The network connection route will follow Derby Highway, Wodehouse Street and Broome Street to connect the solar and BESS facility to a substation at the existing power station site on Broome Street in Derby. The network connection will either be an overhead or underground electrical transmission line and will be up to 8.9 km long.

The thermal power station will be installed adjacent to the existing power station on Broome Street in Derby on Lot 648 on Deposited Plan 209773.

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.

Figure 1-1 Project Location and Development Envelope

N

0 0.5 1 2 Kilometers

Scale: 1:35,000

All figures have the projection GDA2020

1.1.2 Activity Overview and Timelines

Along with the solar and BESS facility, thermal power station and network connection, the additional construction and operational requirements for the Project are detailed in Section 1.1.2.1, Section 1.1.2.2 and Section 1.1.2.3.

1.1.2.1 Pre-construction

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

- Solar and BESS facility, network connection route and thermal power station site surveying and marking – surveying personnel utilising Global Positioning System 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 20 boreholes to a depth of 25 metres (m) and up to 15 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.
- 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 20 boreholes to a depth of 25 m and up to 15 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.
- Thermal power station 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 10 boreholes to a depth of 25 m and up to 5 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.

1.1.2.2 Construction

The construction phase is expected to commence in 2027 for a duration of up to 24 months. Construction personnel will consist of a project workforce of up to 50 staff for the solar and BESS facility, up to 40 staff for the network connection route and up to 50 staff for the thermal power station. Construction works will consist of:

- Clearing of up to 73.5 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.
- 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, and 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, power station and other ancillary infrastructure:
- Solar PV panels and frame will be nominally up to 4 m tall from ground level. The battery containers, power station 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 10,000 steel piles (250 mm diameter) installed to a nominal depth of up to 5 m.
- Excavation works for footings for the power station, battery system, office building and other ancillary infrastructure may involve excavation of up to 1,200 m^3 of soil (footing depth typically up to 2 m deep).
- Excavation works for internal electrical cabling may involve excavation of up to 5 km of trenching and up to 1.5 m deep, resulting in excavation of up to 11,000 m^3 of soil.
- Installation of a network connection route from the solar and BESS facility, following Derby Highway, Wodehouse Street and Broome Street to a substation at the existing power station in Derby. The network connection will either be an overhead or underground transmission line:
    - Underground – Trenching excavations of up to 8.9 km and up to 3 m wide and up to 2 m deep, total excavation of up to 60,000 m^3 of soil.
    - Overhead – Electrical poles of up to 20 m height installed at spans of up to 200 m. Total of up to 50 poles installed along the 8.9 km connection route, and excavation for each pole up to 2.5 m deep, total excavations of up to 900m^3 of soil.
- Installation of the thermal power station:
    - Excavation works for footings for the thermal power station may involve excavation of up to 1,000 m^3 of soil (footing depth typically up to 2.5 m deep).
    - Excavation works for internal electrical cabling and gas piping may involve excavation of up to 1km of trenching and up to 2.5 m deep, resulting in excavation of up to 2,500 m^3 of soil.
    - Installation of the power station including up to 10 engine generators, transformers, power station, cooling system, gas supply system, electrical and control cabling, gas pipelines and other auxiliary infrastructure. Engine generators, transformers and power station will be up to 5 m tall from ground level, while engine stacks may be up to 30 m tall.
- 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.

1.1.2.3 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, network connection, and thermal power station.
- 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 transmission line. Activities will depend on whether it is an overhead or underground transmission line:
    - Overhead transmission Line – visual inspections, thermal imaging, tower and pole maintenance, conductor and insulator cleaning, vegetation management and protection system testing.
    - Underground Transmission Line – visual inspections, thermal imaging and electrical testing.
- Routine maintenance activities for the thermal power station including visual inspections, minor and major services, electrical inspections and testing.
- Environmental management activities.

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

1.2 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.

1.3 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'.

1.4 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
Kimberley IRP: Biological Survey (GHD, 2024)	**Survey dates:** 18 to 23 March and 25 March **Survey Area:** The GHD (2024) Survey Area in Derby covered 655.69 total ha. **Scope:** *Flora and Vegetation* Detailed (single season) flora and vegetation survey, including a desktop assessment and field survey. Five sites were surveyed in Derby, with Sites A and B being relevant to the Project. This survey was undertaken in accordance with the EPA Technical Guidance – Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016). 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 15 quadrats and 2 relevés across the Five Derby sites. *Fauna* Targeted and Basic fauna survey, including a desktop assessment and field survey. Five sites were surveyed in Derby, with Sites A and B 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). 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 Brushtail 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. Remote motion sensitive cameras were deployed in areas of suitable habitat to target fauna of conservation significance including Bilby and Northern Brushtail Possum. SM4 ® and Anabat Swift bat call detectors were set for general bat activity and to target the Northern Coastal free-tailed bat (*Ozimops cobourgianus*).

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
- Social surroundings.

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

- Terrestrial environmental quality

- Air quality
- Greenhouse gas (GHG) emissions
- Inland waters.

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 Project 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 19,887 tCO_2-e for construction and 6,349 tCO_2-e/year[1] 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.

[1] A greenhouse gas (GHG) assessment was undertaken for Derby 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_2e) per year).

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	The Project is located within Pre-European Vegetation Associations 764 and 127. The Vegetation Association 127 is tidal mudflats and Vegetation Association 764 is characterised as pindan with low trees: *Acacia* thicket with scattered low trees over spinifex *Acacia eriopoda*, *Corymbia dichromophloia*, *Triodia pungens* and T.*bitextura*. More than 95% of both of these Vegetation Associations remains in the State, Interim Biogeographic Regionalisation for Australia (IBRA) bioregion (Dampierland), subregion (Fitzroy Trough) and within the Local Government Area (the Shire of Derby-West Kimberley). 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): – VT02: Open woodland of *Corymbia dichromophloia*, *Adansonia gregorii* and *Lysiphyllum cunninghamii* over open shrubland (where more recently burnt) or tree form of *Acacia tumida* var. *kulparn* over open shrubland of *Alstonia linearis*, *Dodonaea hispidula* and *Brachychiton diversifolius* subsp. *diversifolius* over open tussock grassland of *Chrysopogon fallax*, *Eriachne obtusa* and *Aristida hygrometrica* over open forbland of *Trichodesma zeylanicum* var. *latisepaleum*, *Trianthema pilosum* and *Microstachys chamaelea* on light brown sandplain. – VT03: Open woodland of *Adansonia gregorii*, *Corymbia zygophylla* and *Corymbia opaca* over open woodland of *Lysiphyllum unninghamii*, *Hakea arborescens* and *Melaleuca cajuputi* subsp. *cajuputi* over shrubland of *Flueggea virosa* subsp. *melanthesoides*, *Terminalia canescens* and *Calytrix exstipulata* over mixed open forbland of *Jasminum molle*, *Drosera derbyensis*, *Ptilotus polystachyus* and *Waltheria indica* on light brown sandy loam seasonal drainage flats. – VT04: Open woodland of *Adansonia gregorii*, *Corymbia dichromophloia* and *Corymbia zygophylla* over open woodland of *Lysiphyllum cunninghamii*, *Gyrocarpus americanus* subsp. *americanus* and *Hakea arborescens* over mixed shrubland of *Acacia monticola*, *Acacia tumida* var. *kulparn*, *Calytrix exstipulata* and *Flueggea irosa* subsp. *elanthesoides* over open hummock grassland of *Triodia caelestialis* over open tussock grassland of *Eriachne obtusa* and *Chrysopogon fallax* over mixed open forbland of *Solanum cunninghamii*, *Melhania oblongifolia*,	Flora and vegetation	N/A	– Loss of vegetation and flora through clearing, including significant and riparian 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 chemical, hydrocarbon and/or hazardous materials.

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
	Waltheria indica and *Trichodesma zeylanicum* var. *latisepaleum* on light brown sandy loam plains. – Planted native trees over weeds – Scattered natives over weeds. – Cleared The area of these vegetation types within the DE is provided in the EPA referral supporting document and the EPBC Act referral. The vegetation condition ranges from Very Good to Completely Degraded with the majority of the vegetation in Very Good condition (GHD, 2024). Good or Degraded vegetation is associated with signs of disturbance through clearing for road and track maintenance, presence of weeds and/or clearing for historic gravel extraction (GHD, 2024).			
Significant vegetation	No State or Commonwealth listed Threatened Ecological Communities or Department of Biodiversity, Conservation and Attractions (DBCA) listed Priority Ecological Communities were recorded within the DE (GHD, 2024). VT03 is considered to be riparian vegetation, since it contains seasonal drainage flats. There is up to 2.6 ha of riparian vegetation within the DE to be cleared.	Flora and vegetation	N/A	– Loss of vegetation and flora through clearing, including significant and riparian 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 chemical, hydrocarbon and/or hazardous materials.
Significant flora	No State or Commonwealth listed Threatened flora taxa were recorded within the DE during the GHD (2024) survey. No priority flora species were recorded within the DE. A total of two species recorded within the Survey Area represent range extensions from the species current known range (GHD, 2024). These taxa include: – *Haemodorum capitatum* (the record from the survey (GHD, 2024) is the first collection for the Derby region)	Flora and vegetation	N/A	– Loss of vegetation and flora through clearing, including significant and riparian vegetation, and flora – Introduction and/or the spread of weeds – Alteration of fire regimes

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
	– *Gyrocarpus americanus subsp.* (These records are approximately 160 km southwest from the nearest record)			– Alteration to hydrological flows – Generation of dust – Spills or leaks of chemical, hydrocarbon and/or hazardous materials.
Fauna habitat	Three fauna habitat types have been mapped across the DE (GHD, 2024). These fauna habitats align with the vegetation types identified above. 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. The fauna habitats within the DE are: – Mixed tall closed woodland sandplain – Mixed tall open shrubland sandplain – Open Eucalypt woodland The areas of these habitat types within the DE is provided in the EPA referral supporting document and the EPBC Act referral. 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 Derby. Land within the Derby 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.	Terrestrial fauna	Listed Threatened species and ecological communities	– Loss of fauna habitat through clearing, including habitat for significant fauna species.
Significant fauna	The GHD (2024) survey recorded three conservation significant fauna species within the DE or in close vicinity to the DE, with an additional six species considered likely to occur. The species that are known to occur or are likely to occur in the DE are: – The Fork-tailed Swift (*Apus Pacificus*) 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. – The Northern Brushtail Possum (*Trichosurus vulpecula arnhemensis*) 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	Terrestrial fauna	Listed Threatened species and ecological communities	– Loss of fauna habitat through clearing, including habitat for significant 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.

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
	– The Northern Coastal Free-tailed Bat (*Ozimops cobourgianus*) is listed as Priority 1 by DBCA. Potential foraging, breeding, roosting and dispersal habitat (considered to be critical habitat) for this species will be cleared for the Project. – The Gouldian Finch (*Chleobia gouldiae*) is listed as Endangered under the EPBC Act, DBCA listed Priority 4. Potential foraging and nesting/breeding habitat (considered to be critical habitat) for this species will be cleared for the Project. – The Grey Falcon (*Falco hypoleucos*) 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. – The Peregrine Falcon (*Falco peregrinus*) 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. – The Barn Swallow (*Hirundo rustica*) 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. – The Oriental Cuckoo (*Cuculus opatus*) 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. – The Yellow Wagtail *(Motacilla flava)* is listed as Migratory under the EPBC Act and BC Act. Potential foraging habitat (considered to be supporting habitat) for the species will be cleared for this Project. – The Northern Blue-tongued Skink (*Tiliqua scincoides intermedia*) is listed as Critically Endangered under the EPBC Act and Priority 4 by DBCA. Potential foraging, breeding, shelter and dispersal habitat (considered to be critical habitat) for this species will be cleared for the Project. 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. 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.			

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
Surface water	No permanent water bodies or drainage lines are located within the DE. The DE is within the Fitzroy River Basin (DWER, 2024). No permanent water bodies or drainage lines are located within the DE. The DE overlaps the Derby Water Reserve, which is a Public Drinking Water Source Area (PDWSA), and it also overlaps the Derby and Canning – Kimberley Groundwater Areas proclaimed under the *Rights in Water and Irrigation Act 1914* (RIWI Act). The DE is located 1.8 km from the closest watercourse, a minor perineal watercourse, tributary of Airport Creek. There are no significant or nationally important wetlands, rivers or watercourses identified within the DE (GHD, 2024). There are no Ramsar wetlands in close proximity to the DE, the closest important wetland is approximately 50 km north of the DE (Big Springs). The DE is primarily located in areas classified as having an extremely low probability (low confidence) of Acid Sulphate Soils (ASS), intersecting areas with a high probability (low confidence) of ASS (Fitzpatrick, et al., 2011). There is a high probability of occurrence of ASS along the network connection route and existing power station portion of the DE.	Inland waters	N/A	– 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.
Groundwater	The DE overlaps Derby Groundwater Area proclaimed under the RIWI Act. Based on publicly available data, the depth to groundwater in the area surrounding the DE is estimated to be between <5 m to 48 m below ground level (DWER, 2020).	Inland waters	N/A	– 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, transmission connection infrastructure (the transmission line may be

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
				overhead or underground) or the thermal power station.
Amenity	The Project 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). Construction of the Project will generate noise, dust and vibration of short-term duration within the DE. Noise and vibration may cause nuisance during construction to nearby sensitive receptors, however these impacts will be of a short duration and temporary. The network connection will be constructed adjacent to existing roads and a residential area.	Social Surroundings	N/A	– Potential to impact upon amenity (visual, noise and vibration).
Cultural Heritage	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 4 km west of the existing power station. 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. The Project is not located within an Indigenous Land Use Agreement area (Landgate, 2025). There are currently two registered native title claims within the DE: Booroola Moorrool Morrool (WC2016/005, WAD598/2016) and Warrwa Combined (WC2014/004, WAD33/2019) (NNTT, 2025). Whilst there is no native title determination yet, where Horizon Power's proposed activities would impact native title rights and interests due to the need for formal land tenure (Sites A and B), the current land tenure is freehold, which is inconsistent with native title rights and interests. The proposed connection corridor does not affect any undetermined native title rights and interests. A search of the Aboriginal Cultural Heritage Inquiry System (ACHIS) indicates that the DE intersects the publicly known boundaries of two registered sites and one lodged site. Aboriginal cultural heritage survey will be undertaken and all known Aboriginal cultural heritage intersecting the DE will be avoided. A search of the Heritage Council WA inHerit database confirms two State Heritage sites occur within the DE (DPLH, 2025a). Frosty Pool (Place No. 7207) and Holman	Social Surroundings	N/A	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 relevant Traditional Owners where possible. Horizon Power is committed to avoiding direct impacts to all known Aboriginal cultural heritage. The Project 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

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
	House (Place No. 09741) are located within the network connection route of the DE. These sites are also municipal inventory (DPLH, 2025b)			– Accidental fires during construction or operations, has the potential to cause physical damage to Aboriginal cultural heritage within or adjacent to the DE.
Conservation Reserves and Environmentally Sensitive Areas	There are no DBCA managed lands within the DE (DBCA, 2024a). The closest ESA is 48 km northeast of the DE.	Flora and vegetation Social surroundings	N/A	N/A
Land and soil quality	The vast majority of the DE (92.51%) is described as having an extremely low probability of occurrence of ASS. However, this classification has a confidence level 4, which means that this is a provisional classification inferred from surrogate data with no on-ground verification (Fitzpatrick et al., 2011). , there is a high probability of occurrence of ASS along the network connection route and existing power station portion of the DE. 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 existing power station portion of the DE overlaps: – Site number 793 classified as, "remediated for restricted use": Hydrocarbons (such as from diesel or oil) are present in soil and groundwater at the site. Additional contaminated sites are located approximately 2 km from the DE.	Terrestrial environmental quality	N/A	– Exposure of ASS by ground disturbance associated with construction of the network connection or thermal power station – If groundwater is encountered, short-term dewatering of potentially acidic groundwater may be required – Soil erosion from clearing, earthworks and vehicle/machinery movement – 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

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
				release are expected to be negligible – Soil contamination from accidental release of waste – Disturbance to existing contaminated sites within DE.
Air quality	The network connection route and existing power station portion of the DE intersects Derby 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 relevant Traditional Owners. Amendments to 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)	– Oversee the overall delivery of the Project to ensure good governance is achieved and Project objectives are met.
Project Director (Senior Manager)	– Establish the project team to deliver the Project. – Ensure plans, systems and processes are established, implemented and maintained by the project team to ensure good governance is achieved on the project. – Ensure the Project objectives are visible to the project team and delivery of the objectives are met by the project. – Monitor performance of the Project.
Horizon Power Manager Sustainability	– Oversee specific onsite compliance obligations for the Project. – 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.
Project Manager	– Establish project plans to manage the Project. – Manage project team activities to deliver the project. – Implement systems and processes to ensure good governance is achieved on the project. – Manage scope, cost, time, quality, resourcing and compliance obligations for the Project. – Report performance of the Project.
Site Representative	– Oversee activities onsite to deliver the Project. – Ensure work cease where required if an environmental incident occurs and escalation of incident. – Monitor systems and processes being implemented onsite to ensure good governance is achieved on the project. – Manage specific onsite compliance obligations for the Project. – Report onsite performance of the Project.
Contractor Environmental Officer	– Oversee activities onsite to deliver the Project. – Monitor systems and processes being implemented onsite to ensure good governance is achieved on the project. – Manage specific onsite compliance obligations for the Project. – Report onsite performance of the Project.

This EMP outlines the environmental management activities for the implementation of the Project. Horizon Power and their appointed contractor will undertake these activities, and Horizon Power 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

Category	Stakeholders
Agencies acting on behalf of the Commonwealth Government	– Regional Development Australia Kimberley – DCCEEW
State Government – Departmental	– Hon Divina D'Anna – Member for Kimberley – Hon Amber-Jade Sanderson – Minister for Energy and Decarbonisation
State Government - Agencies	– Department Planning, Lands and Heritage – Kimberley Development Commission, – Water Corporation, – Department of Communities, – DBCA.
Local Government	– Shire of Derby/West Kimberley
Traditional owners	– Derby Claim #1 - Warrwa – Derby Claim #2 - Borrooloola Moorool Moorool – Madanaa Nada Aboriginal Corporation – Kimberley Land Council
Aboriginal Community-Controlled Organisations (ACCO's)	– Emama Nguda Aboriginal Corporation – Dambimangari Aboriginal Corporation – Mowanjum Aboriginal Corporation
Corporate	– Major Account Holders, Derby Chamber of Commerce and Industry, Clean Energy Council, First Nations Clean Energy Network, Kimberley Land Council, Kimberley Aboriginal Lands Trust, EDL Energy
Derby Community	– Customer and community members
Community-led environmental organisations	– Derby Landcare Group – Hon. Robin Chappel & Chappel Research

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

- 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 the 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 8 and Section 9.

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-authorised 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 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.

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

EPA Factor: Flora and Vegetation

EPA Objective: *"To protect flora and vegetation so that biological diversity and ecological integrity are maintained."*

EMP Objective:

– To minimise impacts to flora and vegetation required for construction and operation of the Project as far as practicable

Key Environmental Values:

– Native vegetation including significant flora and riparian vegetation

Key Impact and Risks:

– Loss of vegetation and flora through clearing, including significant and riparian 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 chemical, hydrocarbon and/or hazardous materials.

Management Targets	Management Actions	Monitoring	Timing / Frequency of Monitoring	Reporting
Vegetation clearing				
No clearing of vegetation to occur outside of the predefined clearing limits and boundaries described within approval documents, during or attributable to construction. No impacts to significant flora and significant vegetation outside of the predefined clearing limits and boundaries described within approval documents.	Clearing and ground disturbing activities (including soil and geotechnical investigations) limited to the defined clearing limits and boundaries described within the approval document. Driving for geotechnical investigations will be in convoy and no more than 10 m x 10 m of clearing is permitted per test location. The extent of the approved clearing will be clearly	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. Track logs from soil and geotechnical investigations of	Prior to construction.	Contractor to check that drawings, inductions and shape/CAD files show correct approved clearing areas. Record of provision of drawings and shape/CAD files showing approved clearing areas. All relevant contractors to sign onto JHA or equivalent. Pre-clearing photos to be documented and daily inspection of clearing extents during clearing activities and weekly inspections

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).		during the remainder of construction to confirm no over clearing. Visual inspection and record of cleared areas to be undertaken post-clearing to confirm no over clearing and relevant shapefiles provided to Horizon Power. Track logs from soil and geotechnical investigations to show no vehicle movement outside of predefined clearing limits. Clearing area shapefiles from soil and geotechnical investigations to show no clearing outside of predefined clearing limits. Report unauthorised clearing as soon as practicable after identified.
	At risk, 'avoidance areas' will be demarcated on Project drawings and physically on site prior to clearing activities.	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	During construction.	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.

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.

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.
Weeds				
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.

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.
	– Implement a yearly weed monitoring and management program for the first year following completion of ground disturbance activities. – Ad-hoc weed checks during operational maintenance activities, in accordance with standard Horizon Power network weed control	Yearly weed inspection and management program.	Post construction.	Annual Compliance Reporting.
Hydrological flows				
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.			
Fire regimes				
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.

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.
Dust emissions				
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.			
Spills or leaks of chemical, hydrocarbon and/or hazardous materials				

Management Targets	Management Actions	Monitoring	Timing / Frequency of Monitoring	Reporting
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.			

8.3 Terrestrial Fauna

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

Table 8-2 Terrestrial Fauna – management components

EPA Factor: Terrestrial Fauna
EPA Objective: "To protect terrestrial fauna so that biological diversity and ecological integrity are maintained."
EMP Objective: to minimise fauna habitat loss and minimise direct and indirect impacts to fauna as far as practicable
Key Environmental Values: Significant fauna species and habitats
Key Impact and Risks:
– 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
Clearing and ground disturbance				
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.			
Fauna injury/death				
– 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

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.
	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).If any listed fauna is identified during clearing, clearing will stop until the listed fauna has moved out of the clearing area or has been relocated by the licenced fauna handler.	N/A.	Prior to clearing.	Internal Project clearing permit, signed by Supervisor. Licenced fauna specialist to report on areas they inspected, the species found and the location of where any fauna were released to.
	Management of excavations including: – 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 are required to be left 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.

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	overnight, fauna egress points will be made. – 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.			
	In the event of listed threatened fauna injury, advice shall be sought from local qualified wildlife organisations/persons. 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.	In case of fauna injury, advice undertaken and, if necessary, relocation of rescue animals 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.	During construction.	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. Licenced fauna handler to report on areas they inspected, the species found and the location of where any fauna were released to.
	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 daylight hours.	In case of fauna injury, advice undertaken and, if necessary, relocation of rescue animals to an appropriate specialised organisation.	During construction.	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 the injury or death is identified. Annual Compliance Reporting.

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	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, the species found and the location of where any fauna were released to.
	Pre-clearance surveys and fauna relocation for the 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.
Disturbance to native fauna				
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 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.
	No clearing during Northern Blue-tongue Skink birthing season (December to January).	N/A.	During clearing.	Vegetation clearing records and annual environmental reporting.

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	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: – Ground under and between ground mounted solar arrays may be covered with bluestone. – Design the site to drain water or sloped so the water runs off site.	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.
Dust emissions				
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.			
Fire regimes				
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 water quality

Key Environmental Values: Riparian vegetation within the DE, the DE is within the Derby Water Reserve PDWSA.

Key Impact and Risks:

- Excavation of ASS
- Changes to surface water flows
- Soil erosion and sediment discharge
- Accidental spills or leaks of hazardous materials or wastes
- Changes to groundwater infiltration
- Minor temporary drawdown of groundwater should dewatering be required

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
Acid sulfate soils				
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.			
Hydrological flows				
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.
Soil erosion and sediment discharge				
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.			

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
Spills or leaks of chemical, hydrocarbon and/or hazardous materials				
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.			
Groundwater				
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 reinfiltrate 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.
Riparian vegetation				
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.			

8.5 Social Surroundings

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

Table 8-4 Social Surroundings – management components

EPA Factor: Social Surroundings
EPA Objective: "To protect social surroundings from significant harm."
EMP Objective: To minimise impacts to heritage values and visual amenity
Key Environmental Values: Sites of Heritage significance and visual amenity
Key Impact and Risks:
– 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
Heritage sites				
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 relevant 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 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.

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	Protection Agreement requirements and/or heritage survey outcome recommendations to monitor initial ground disturbing earthworks and to manage Aboriginal cultural heritage values of the site and the adjacent areas.	Regular engagement with Traditional Owners.		Induction records. Annual Compliance Reporting.
	Any potential Aboriginal materials or other unexpected finds found on site during excavation, such as subsurface artefacts, 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 Traditional Owners and, if required, an archaeologist will be engaged to assess the archaeological material and provide a report to Horizon Power. Horizon Power will work with Traditional Owners and, if required, 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 Traditional Owners	During construction.	Incident reports. Induction records. Annual Compliance Reporting.
	Enable 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 Traditional Owners.	At all times.	Incident reports. Induction records. Annual Compliance Reporting.

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	Continue to engage and consult with Traditional Owners to ensure heritage values are managed. Regularly liaise with Traditional Owners to establish and maintain processes and accountability between the parties.	Regular engagement with Traditional Owners.	At all times.	Incident reports. Induction records. Annual Compliance Reporting.
	If required, any disturbance to heritage features will be undertaken in accordance with the *Aboriginal Heritage Act 1972* and any other applicable legislation, aligned with the Horizon Power Aboriginal Cultural Heritage Management Policy and following consultation with the Traditional Owners. Compliance with conditions administered under the *Aboriginal Heritage Act 1972* as required.	As per requirements under the *Aboriginal Heritage Act 1972*.	At all times.	Annual Compliance Reporting.
Dust				
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.			
Noise and vibration				
Minimise construction noise and vibration	Construction works will be undertaken in accordance with	Compliance with Environmental Protection (Noise) Regulations	During construction.	Incident reports. Complaint closeout.

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	the Environmental Protection (Noise) Regulations 1997.	1997 and/or approved Noise Management Plan. Investigation and reporting of all complaints.		Annual Compliance Reporting.
	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.

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
Fire regimes				
Refer to Table 8-1 for management targets, actions, monitoring, timing and reporting of management measures in relation to fire regimes.				
Visual amenity				
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

EPA Factor: Terrestrial Environmental Quality
EPA Objective: To maintain the quality of land and soils so that environmental values are protected
EMP Objective: To minimise impacts from Acid Sulphate Soils (ASS) and site contamination as far as practicable
Key Environmental Values: There is a high probability of ASS along the network connection route and existing power station portion of the DE, the DE overlaps one contaminated site
Key Impact and Risks:
– Exposure of ASS
– Soil erosion and sediment discharge
– Disturbance to existing contaminated sites
– Accidental release of chemicals and/or hydrocarbons (i.e. leaks, spills) or waste

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
Acid sulfate soils				
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).

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	Any water abstraction required for construction of the Project will be undertaken to minimise drawdown, and water allowed to reinfiltrate 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).
Soil erosion and sediment discharge				
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.

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	A cyclone management plan will be developed by the contractor prior to construction, if works that cause sedimentation or erosion are proposed during cycling season.			
Groundwater				
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.			
Contamination				
All suspected contamination, such as Site number 793 (refer to Table 2-2) 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 contamination, the construction contractor will develop a dewatering contamination plan or similar.	Dewatering contamination plan or similar.	Prior to construction.	Dewatering contamination plan or similar.

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
Spills or leaks of chemical, hydrocarbon and/or hazardous materials				
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 response measures in the event of a spill.	Record of all site personnel that have undertaken the induction.	Prior to construction.	Induction records.
	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, or using catch trays, and at least 50 m away from all surface water features and drainage areas. Tracked equipment that must be refuelled in situ will be refuelled at least 50 m away from surface water features and spill kits present during refuelling.	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.

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
	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.
	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 Derby Water Reserve Public Drinking Water Source Area (along the network connection route portion of the DE).	Record of diesel storage.	At all times	Inspection Report. Incident Report.
Construction and operation of prescribed activities and premises				
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.
Dangerous goods				
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

EPA Factor: Air Quality
EPA Objective: "To maintain air quality and minimise emissions so that environmental values are protected."
EMP Objective: To minimise impacts to air quality, resulting from the generation of gaseous and dust emissions during construction
Key Environmental Values: Derby township, located approximately 2.5 km north of the solar and BESS facility
Key Impact and Risks:
– Gaseous emissions generated during construction
– Dust emissions generated during construction

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
Gaseous emissions				
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.

Management Targets	Management Actions	Monitoring	Timing / frequency of actions	Reporting
Dust emissions				
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

Am environmental risk assessment is required as part of the DCCEEW's 'Environmental Management Plan Guidelines' (DCCEEW, 2024). Each environmental risk for MENS 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.

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 9.4.	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

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 to 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 9-5).

Table 9-5 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
Construction – Fauna habitat Management							
Minimise EPBC Act listed Threatened and Migratory fauna habitat loss.	Clearing and ground disturbing activities (including soil and geotechnical investigations) limited to the defined clearing limits and boundaries described within the approval document. Driving for geotechnical investigations will be in convoy and no more than 10 m x 10 m of clearing is permitted per test location. The extent of the approved clearing will be clearly communicated in documentation and inductions.	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. Track logs from soil and geotechnical investigations of 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).	Prior to commencement of clearing.	Contractor to check that drawings, inductions and shape/CAD files show correct approved clearing areas. Record of provision of drawings and shape/CAD files showing approved clearing areas. All relevant contractors to sign onto JHA or equivalent. 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. Visual inspection and record of cleared areas to be undertaken post-clearing to confirm no over clearing and relevant shapefiles provided to Horizon Power. Track logs from soil and geotechnical investigations to show no vehicle movement outside of predefined clearing limits. Clearing area shapefiles from soil and geotechnical investigations to show no clearing outside of predefined clearing limits. Report unauthorised 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.	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. In the event of an incident, recommencement will only occur once approval is granted by the Horizon Power Manager Sustainability. 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. 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. 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.	Construction Contractor Environmental Officer. Horizon Power Project manager. Horizon Power Manager Sustainability.
	At risk, 'avoidance areas' will be demarcated on Project drawings and physically on site prior to clearing activities.	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 of avoidance areas during clearing to confirm markings remain in place and are accurate. Weekly inspections of avoidance areas during the remainder of construction to confirm markings remain in place and are accurate.	Prior to commencement of clearing.	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.	Drawings do not show correct approved clearing areas. Shape/CAD files not provided. Site inspections show at risk 'Avoidance areas' not properly demarcated on site. Clearing more than that described in 9.3 JHA does not include risk of clearing within at-risk avoidance areas.		Construction Contractor Environmental Officer. Horizon Power Project manager. Horizon Power Manager Sustainability.

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 Project will be undertaken to minimise drawdown, and water allowed to reinfiltrate 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.

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.	All site personnel to be inducted on environmental responsibilities including fire prevention. 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. 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. Fire extinguishers will be strategically positioned in locations with a higher risk of fire. Hot work permits will be mandatory before commencing any hot work. Vehicles and equipment access limited to designated roads/access tracks and cleared areas where possible. Smoking will be confined to designated smoking area only. Identify potential ignition sources and/or activities with the potential to lead to fire.	No accidental fires as a result of construction activities.	During construction and operation.	Record of all site personnel that have undertaken the induction. Weekly site inspection report. Compliance with hot work permits.	Site inspections show that management measures not implemented. Inductions are not made prior to construction activities, or personnel do not demonstrate the correct knowledge. Any incidents of fires occurring within or outside the DE, resulting from construction works.	No hot work until management measures implemented. Refresher training will be undertaken. The incident will be reported, and the cause investigated. Extinguish the fire, if safe to do so. If the fire is uncontrolled, notify emergency services and the Local Government Authority.	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.	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.	Avoid the introduction and spread of weeds species and maintain weeds register with relevant information.	During construction.	Record of weed register. Implement yearly weed monitoring and management program for the first year following completion of ground disturbance activities.	Site inspection shows requirements not met. New significant weed infestation (WONS/Declared Plant) (i.e. above existing background levels) identified.	Where new weed infestation is evident, appropriate controls shall be deployed. Education on clean on entry requirements.	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.	Site inspection shows requirements not met. New significant weed infestation (WONS/Declared Plant) (i.e. above	Where new weed infestation is evident, appropriate controls shall be deployed. Education on clean on entry requirements.	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
					existing background levels) identified.		
Construction – General EPBC Act listed Threatened and/or Migratory species management							
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 clearing, clearing will stop until the listed fauna has moved out of the clearing area or has been relocated by the licenced fauna handler.	Commencement of mechanical clearing of vegetation occurs without a pre-clearance fauna inspection	Prior to clearing.	Internal Project clearing permit, signed by Supervisor. Licenced fauna specialist to report on areas they inspected, the species found and the location of where any fauna were released to.	Commencement of clearing occurs without a pre-clearance fauna inspection.	Clearing will cease immediately until the pre-clearance requirements are completed Incident will be recorded, and the cause investigated.	Construction Contractor Environmental Officer.
	Management of excavations including: – 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. Licenced fauna handler to report on areas they inspected, the species found and the location of	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.

Management Objective / Desired Outcome	Management Measure	Performance Target / Completion Criteria	Timing	Monitoring / Reporting Activity	Corrective Action Trigger(s)	Corrective Action	Corrective Action Responsibility
	– 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.			where any fauna were released to.			
	In the event of EPBC Act listed threatened fauna injury, advice shall be sought from local qualified wildlife organisations/persons. 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.	In case of fauna injury, advice undertaken and, if necessary, relocation of rescue animals 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.	During construction.	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.	Fauna injured without proper rescue undertaken.	The appropriate specialised organisation will be contacted to assist with rescue/movement of fauna if possible. Refresher training will be conducted. The incident will be reported, and the cause investigated.	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.	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 the injury or death is identified. Annual Compliance Reporting.	Fauna injured without proper rescue undertaken.	The appropriate specialised organisation will be contacted to assist with rescue/movement of fauna if possible. Refresher training will be conducted. The incident will be reported, and the cause investigated.	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.	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, the species found and the location of where any fauna were released to.	Fauna not identified within Project area.	Refresher training will be conducted.	Construction Contractor Environmental Officer.
	Pre-clearance surveys and fauna relocation for the Northern Brushtail Possum and Northern Blue-tongue Skink as detailed in Appendix A.	No physical harm to 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.	No physical harm to 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. The incident will be reported, and the cause investigated.	Construction Contractor Environmental Officer.
	Drainage control will be established during detailed design and may include:	No Cane Toad reproduction at the site.	During operations.	Report any standing water as soon as practicable after identified and	Standing water identified on site.	Implement additional drainage controls.	Construction Contractor

Management Objective / Desired Outcome	Management Measure	Performance Target / Completion Criteria	Timing	Monitoring / Reporting Activity	Corrective Action Trigger(s)	Corrective Action	Corrective Action Responsibility
	– Ground under and between ground mounted solar arrays may be covered with bluestone – Design the site to drain water or sloped so the water runs off site.			modification to remove standing water.			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.
	No clearing during Northern Blue-tongue Skink birthing season (December to January).	N/A.	During clearing.	Vegetation clearing records and annual environmental reporting.	Clearing occurs during December or January.	The incident will be reported, and the cause investigated. Clearing will stop immediately.	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.
Construction – General management measures							
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.

Management Objective / Desired Outcome	Management Measure	Performance Target / Completion Criteria	Timing	Monitoring / Reporting Activity	Corrective Action Trigger(s)	Corrective Action	Corrective Action Responsibility
	Erosion and sediment control measures will be applied to prevent erosion of exposed areas and sediment discharge to adjacent areas, where practicable. Laydown areas will be rehabilitated or otherwise stabilised as early as practicable to minimise the potential for erosion. 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. A cyclone management plan will be developed by the contractor prior to construction if works that may cause sediment or erosion are proposed during cyclone season.	No injury, harm or damage to the site as a result of extreme weather events.		Site inspection reports. Cyclone Management Plan.	disturbance outside of the approved areas. Extreme weather warning issued. Cyclone Management Plan not developed.	sediment controls are in place. A site inspection and clean-up will be undertaken prior to the cyclone. Development of Cyclone Management Plan.	Cyclone Management Plan.
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. Routine inspections of surface water drainage and flows.	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 such as Site number 793 (refer to Table 2-2) is characterised and appropriately managed.	All site personnel to be inducted on environmental responsibilities. 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. If dewatering is required in areas of known contamination, the construction contractor will develop a dewatering contamination plan or similar.	No new areas of contamination identified. No dewatering in areas of known contamination.	During construction.	Induction records. Visual monitoring during excavation. Dewatering contamination plan or similar.	Monitoring during excavation identifies areas of previously unknown contamination. Dewatering encounters contamination.	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.	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.	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. Spill management procedures to be developed prior to construction. Hazardous materials used during construction will be stored in compliance with relevant Australian Standards and Regulations. On-site refuelling of machinery and plant to occur on designated areas, or using catch trays, and at least 50m away from all surface water features and drainage areas. Tracked equipment that must be refuelled in situ will be refuelled at least 50 m away from surface	No new uncontrolled pollution incidents recorded.	During construction.	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.	Site inspections identify uncontrolled pollution incidents.	Spill response protocols will be implemented including containing the pollution incident as quickly as possible. The incident will be reported, and the cause investigated. Refresher training will be conducted as appropriate.	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
	water features and spill kits present during refuelling. Scheduled / major maintenance of vehicles / plant to be undertaken offsite. Provision of spill response kits at refuelling locations and any locations where hydrocarbons or chemicals are stored. SDSs and hazardous materials inventory to be retained on site. 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. General construction waste material to be appropriately managed and disposed of off-site at an appropriate facility. Diesel storage will not exceed 5000 litres within the Derby Water Reserve Public Drinking Water Source Area (along the network connection route portion of the DE).						
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. Compliance with conditions administered under a Dangerous Goods Site Licence as required.	As per requirements of works approvals and/or licencing under Part V of the EP Act. As per requirements of Dangerous Goods Site Licence.	At all times	As per requirements of works approvals and/or licencing under Part V of the EP Act. As per requirements of Dangerous Goods Site Licence.	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.
Operation – General EPBC Act listed Threatened and/or Migratory species management							
Minimise the spread and/or introduction of weeds.	Implement a quarterly weed monitoring and management program for the first year following completion of ground disturbance activities. Ad-hoc weed checks during operational maintenance activities in accordance with standard Horizon Power network weed control.	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.

Table 10-6 Environmental monitoring

Management Objective / Desired Outcome	Performance Target/Completion Criteria	Monitoring/Reporting Activity	Monitoring Method	Monitoring Area	Frequency
Construction – Fauna Habitat Management					
Minimise EPBC Act listed Threatened and Migratory fauna habitat loss.	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. Track logs from soil and geotechnical investigations of 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).	Contractor to check that drawings, inductions and shape/CAD files show correct approved clearing areas. Record of provision of drawings and shape/CAD files showing approved clearing areas. All relevant contractors to sign onto JHA or equivalent. 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. Visual inspection and record of cleared areas to be undertaken post-clearing to confirm no over clearing and relevant shapefiles provided to Horizon Power. Track logs from soil and geotechnical investigations to show no vehicle movement outside of predefined clearing limits. Clearing area shapefiles from soil and geotechnical investigations to show no	Inspection of drawings and shape/CAD files. Inspection of photos. Visual inspection records. Inspection of vehicle track logs.	N/A.	Prior to and during clearing

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.			
	All '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.	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 During construction
	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 clearing and construction.

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.

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 aeras.	Weekly.
	Correct knowledge about weed species and hygiene protocol importance.	Induction records.	Written records. Visual inspection. Weed monitoring reports.	N/A.	Weekly.
Construction – General EPBC Act listed threatened and/or migratory species management					
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.

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. Annually for compliance report.
	No commencement of mechanical clearing of vegetation occurs without a pre-clearance fauna survey as detailed in Appendix A	Internal Project clearing permit, signed by Supervisor. Licenced fauna specialist to report on areas 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).	Daily during excavations Annually for compliance report.
	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	Visual inspection. Written records.	N/A.	Opportunistic. Daily during excavations

Management Objective / Desired Outcome	Performance Target/Completion Criteria	Monitoring/Reporting Activity	Monitoring Method	Monitoring Area	Frequency
	Daily inspections of non-battered excavations during construction to identify trapped fauna and to enable capture and relocation and/or treatment.	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 obtained 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 not battered 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, the species found and the location of where any fauna were released to.	Visual inspection. Written records.	N/A.	Daily as required.

Management Objective / Desired Outcome	Performance Target/Completion Criteria	Monitoring/Reporting Activity	Monitoring Method	Monitoring Area	Frequency
	No physical harm to 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.
	No clearing during Northern Blue-tongue Skink birthing season (December to January).	Vegetation clearing records and annual environmental reporting.	Visual inspection. Written records.	Construction site boundary.	During December and January.
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.

Management Objective / Desired Outcome	Performance Target/Completion Criteria	Monitoring/Reporting Activity	Monitoring Method	Monitoring Area	Frequency
Construction – General management measures					
No noticeable increase in sediment discharge or soil erosion.	No excessive sedimentation events recorded. No injury, harm or damage to the site as a result of extreme weather events.	Routine inspections of erosion and sediment discharge. Monitoring of weather. Site inspection reports.	Review of written records. Visual inspection.	Construction site boundary.	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. 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.	Al all times.

Management Objective / Desired Outcome	Performance Target/Completion Criteria	Monitoring/Reporting Activity	Monitoring Method	Monitoring Area	Frequency
Operation – General EPBC Act listed Threatened and/or Migratory species management					
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 disturbance activities. Ad hoc weed checks during operational maintenance activities.	Visual inspection. Review of written records.	Operational area.	Quarterly.

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)

- 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

12.1 Northern Brushtail Possum

A pre-clearance fauna survey will be undertaken within 14 days prior to clearing for construction to identify Northern Brushtail Possum habitat. This includes the identification and inspection of Northern Brushtail Possum hollows and determination of whether 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 Northern Brushtail Possum; and
- Where evidence of Northern Brushtail Possum use is identified, transects spaced at 20 metres on average will be undertaken, to identify evidence of Northern Brushtail Possum hollows that may be in use.

If a Northern Brushtail Possum hollow is identified:

- Hollows showing signs of recent use will be flagged by the fauna specialist and a 20 m avoidance area will be established around the hollow so they will not be impacted by the Project.
- If a hollow is in use and cannot be avoided for the Project, activities may not proceed without approval from the Horizon Power Sustainability Manager and additional controls will be implemented, including:
    - Engaging a licenced fauna specialist to install fauna monitoring cameras to confirm presence of Northern Brushtail Possum in hollows
    - Remove and relocate the identified 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.

12.2 Northern Blue-tongue Skink

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.

12.3 Geotechnical investigations

During geotechnical investigations, a fauna specialist will attend site and identify if any hollows suitable for use are present in the proposed testing location. If any hollows 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.

12.4 Pre-clearance fauna survey reporting

A report of the fauna identification work undertaken must be provided to Horizon Power including:

- The location of the Northern Brushtail Possum hollows
- The location of Northern Brushtail Possum or Northern Blue-tongued Skink sighting

- Location of animal release if relocated
- Date and time the fauna was recorded
- The gender of the fauna if known
- The vegetation type and weather conditions it was recorded in
- The name and copy of fauna licence of the fauna specialist that relocated fauna.