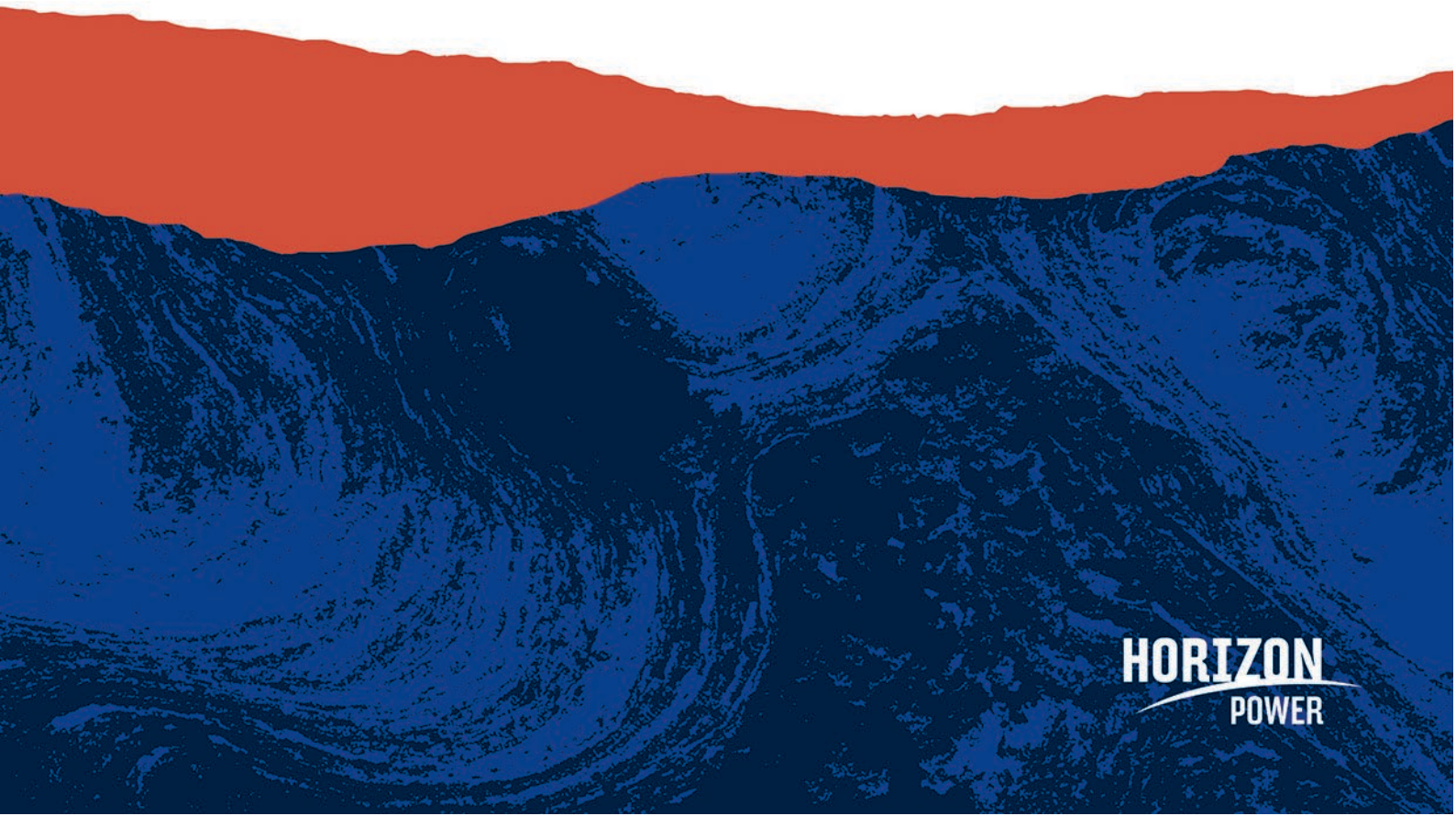
Carnarvon Renewables

Construction Environmental Management Plan

July 2026



Contents

1 Introduction 3
1.1 Project Context 3
1.2 Scope and Purpose 3
2 Description of the Activity 5
2.1 Project Location 5
2.2 Proposed clearing activities 5
2.2.1 Clearing of Native Vegetation 5
3 Avoidance Measures 5
4 Management Measures 6

1 Introduction

1.1 Project Context

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

Horizon Power is proposing to construct the Carnarvon Future Energy System (FES) approximately 3 km east of the Carnarvon townsite in the Gascoyne region of Western Australia. The Project will comprise a solar photovoltaic (PV) facility, battery energy storage system (BESS) and associated network connection infrastructure to support the integration of renewable energy into the Carnarvon electricity network. The Project forms part of Horizon Power's broader decarbonisation program and will contribute to reducing reliance on fossil fuel generation while maintaining security and reliability of electricity supply for the Carnarvon community.

Construction of the Project will require the clearing of native vegetation for the solar facility, battery storage infrastructure, network connection, temporary construction areas, access requirements and associated ancillary infrastructure. A Development Envelope (DE) of approximately 256.9 ha has been identified, with no more than 110 ha of native vegetation proposed to be cleared. The DE was informed by environmental investigations and biological surveys and was selected to avoid and minimise impacts to key environmental values where practicable.

The Project requires a Native Vegetation Clearing Permit (NVCP) under Part V of the *Environmental Protection Act 1986*, is being prepared for submission to the Department of Water and Environmental Regulation (DWER). This Construction Environmental Management Plan (CEMP) outlines the environmental management measures that will be implemented during construction activities to ensure impacts associated with clearing and construction are appropriately managed.

1.2 Scope and Purpose

This Construction Environmental Management Plan (CEMP) has been developed to outline environmental management measures to be implemented by Horizon Power during the construction activities for the Project. This includes, but is not limited to, measures to manage dust, erosion and spread of weeds during clearing of native vegetation.

This document will be distributed to the Contractor undertaking construction works for the Project.



Figure 1 | Development Envelope, Carnarvon

N

0 250 500 Meters

Scale: 1:12,665

HORIZON POWER

2 Description of the Activity

2.1 Project Location

Properties impacted by the proposal are outlined in Table 1 below.

Table 1 Property details

Property	Ownership	Locality
Crown Land Lot 584 on Deposited Plan 69550, LR3161/508.	State of Western Australia	Shire of Carnarvon
Crown Land Lot 455 on Deposited Plan 218083, LR3099/260.	Shire of Carnarvon, reserve under management order	
Reserve 610 and 46622	N/A	
P Road	N/A	

2.2 Proposed clearing activities

A total clearing footprint of up to 110 ha has been calculated within the total 256.9 ha Development Envelope (DE). Some allowances have been made within the calculations to provide flexibility during detailed design and construction, and to ensure Horizon Power can meet the conditions of the permit once granted. Clearing is required for the construction of the solar photovoltaic (PV) facility, battery energy storage system (BESS), network connection infrastructure, temporary construction facilities and associated ancillary infrastructure. Clearing will be restricted to the minimum extent necessary to safely construct and operate the Project.

2.2.1 Clearing of Native Vegetation

Clearing of native vegetation is required for the Project. A Native Vegetation Clearing Permit (NVCP) is being lodged with DWER along with supporting documentation which outlines the activities requiring clearing. The application area (herein referred to as the Development Envelope) is shown on Figure 1 above and is a 256.9-hectare (ha) area.

Clearing of native vegetation within the application area will only be undertaken as specified by the Clearing Permit once issued by DWER, including the extent and method of clearing to be undertaken and any specific management measures outlined in the permit conditions.

3 Avoidance Measures

The Project has been designed to avoid and minimise native vegetation clearing wherever practicable, consistent with the requirements of the *Environmental Protection Act 1986* and the WA Native Vegetation Clearing Principles.

The Development Envelope (DE) was informed by biological and environmental investigations and selected to avoid or minimise impacts to key environmental values where practicable. Key avoidance measures incorporated into the Project include:

- Selection of a site adjacent to existing infrastructure and the Mungullah Power Station to minimise the extent of new disturbance and network connection infrastructure.
- Avoidance, where practicable, of drainage line habitats and vegetation types identified as having the potential to support terrestrial groundwater dependent ecosystems.
- Restricting clearing and construction activities to the approved Development Envelope.
- Utilisation of degraded, previously disturbed and lower-value habitat areas where practicable during detailed design and construction planning.
- Minimising the extent of temporary disturbance through defined access routes, designated work areas and progressive rehabilitation of temporary disturbance areas.
- Utilising existing access tracks where possible,

Through implementation of these avoidance measures, the Project seeks to minimise impacts to native vegetation, fauna habitat, landforms and water-related environmental values.

4 Management Measures

The management measures listed in Table 3-1 will be implemented during construction for this Project. Clearing of native vegetation will occur as per the conditions in the NVCP issued by DWER.

Table 3-1 Management Measures to be Implemented During Construction – Clearing of Native Vegetation

Aspect	Management Measure
Extent of Clearing	– Clearing of native vegetation will be restricted to the Development Envelope (i.e. approved clearing area), as per the NVCP issued by DWER. – The Development Envelope is to be demarcated with flagging tape or similar prior to clearing activities. No clearing of native vegetation or ground disturbance is to occur outside of this area. – Systematic work sequencing will be adopted to avoid unnecessary multiple passes, reducing disturbance and compaction of access tracks and adjacent areas. – Clearing boundaries will be clearly demarcated using flagging tape, GPS delineation or similar methods prior to commencement. – All proposed clearing areas will be verified by an Environmental Specialist or Site Supervisor prior to commencement to ensure total clearing does not exceed 110 ha for the Project. – A pre-clearing environmental toolbox meeting will be conducted to ensure all personnel understand obligations under the clearing permit and are aware of environmental sensitivities.
Flora and vegetation	– Areas that are degraded, sparsely vegetated and/or previously cleared will be used preferentially for the location of infrastructure and access roads required for the Project. – Driving over native vegetation will be restricted to the minimum necessary to undertake the works. – Clearing of Priority flora will be avoided where practicable. Should Priority flora be identified within approved disturbance areas, management measures consistent with permit conditions and environmental approvals will be implemented. – Vehicle and machinery movements will be restricted to existing access tracks or designated routes and will not encroach into adjacent native vegetation. – Temporarily cleared areas will be restored through basic management measures, as follows: • Topsoil (i.e. the top 10 mm of soil) will be separately stockpiled and re-spread over temporarily cleared areas • On completion of any temporary excavations, excavated materials will be replaced. Topsoil will then be re-spread over the surface • Recontouring and removal of compaction (e.g. ripping or scarification) of soil within areas temporarily disturbed by construction will occur.
Flora and Fauna	– 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. – Construction personnel will be provided with fauna identification materials for relevant conservation significant species for on-site identification and active avoidance. – Construction personnel are not permitted to touch, feed or otherwise directly interact with fauna. – A licenced fauna handler or wildlife carer is to be contacted if injury to fauna occurs during construction activities. – Injury or mortality of fauna will be recorded as an environmental incident. – Vehicle and machinery speeds within the Development Envelopment will be restricted to reduce the likelihood of fauna strike. – All waste containers will have lids to prevent fauna from eating food scraps or becoming trapped in waste containers. – Clearing will occur slowly to allow any fauna not identified during visual inspection to move away. Should fauna be observed during clearing of this habitat, clearing shall halt until the fauna moves away from the area.

Aspect	Management Measure
Weeds	– A Weed Management Plan will be in place to mitigate the risk of disease and/or weeds being introduced and/or spread within the Development Envelope. This plan will include, but not be limited to, the following: • The Contractor must ensure that no weed-affected soil, mulch, fill or other material is brought into the Development Envelope • Vehicles and machinery must be clean on entry • Movement of vehicles and machinery is to be restricted to within the Development Envelope. • Weed control will be undertaken at the site post-construction as required. • The two identified Weeds of National Significance that were identified within the DE ((Mesquite (*Neltuma pallida*) and *Cylindropuntia aff. fulgida*) will be treated using an approved herbicide in accordance with relevant guidelines, and eradication of these infestations will be undertaken as part of the works: – Movement of vehicles and machinery will be restricted to the DE or established tracks and roads.
Erosion	– Standard construction measures regarding erosion and sediment control (include topsoil management) will be implemented during construction works. – The site is also known to be sensitive to erosion, design considerations will include measures to prevent wind erosion. – Standard construction measures regarding erosion and sediment control will be implemented during construction works. – Designated access tracks will be applied to prevent additional disturbance. – Erosion and surface-water management controls will be incorporated into the project design to reduce the potential for soil loss and prevent erosion. – A flood risk assessment suggests levees, land grading or excavation of open channels to manage flows. Once the design is finalised, further investigation into surface water flows/flood risk is required to ensure impacts are not significant.
Dust	– The Project area contains floodplain, drainage line and dune crest landforms on sandy-clay soils, together with clay flats that may be susceptible to dust generation when disturbed during dry and windy conditions. – Standard construction dust control and mitigation measures will be implemented during clearing. This may include the use of a water truck(s) or similar. – Ground disturbance and/or clearing of vegetation will be restricted during high winds if dust cannot be adequately controlled. – Reduced vehicle speed limits will be applied in areas of unconsolidated soil. – Use of defined routes for machinery/ vehicles travelling on unsealed roads. – 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.
Noise	– Standard construction noise management measures will be implemented. The contractor will comply with the Environmental Protection (Noise) Regulations 1997. – Complaints regarding noise will be recorded and investigated by Horizon Power and the Contractor. – Construction works will be limited to daylight hours.
Waste	– Management strategies will be implemented to ensure the generation of waste during the construction phase is minimised. – Rubbish will be disposed of in appropriate containers with lids and all waste will be removed from the site.
Salinity	– Geotechnical investigations will assess the potential for saline soils and saline groundwater to occur within excavation areas. – Where saline soils or groundwater are encountered, material will be managed to prevent mobilisation to surrounding vegetation, drainage lines and surface water flow paths.

Aspect	Management Measure
	– Excavated material suspected of being saline will be stockpiled separately and stabilised to minimise erosion and sediment transport. – Any groundwater extracted during construction will be assessed prior to discharge or reuse to ensure salinity impacts do not occur. – Disturbed areas will be progressively stabilised and rehabilitated to minimise erosion, scalding and land degradation.
Acid Sulfate Soils	– ASS is not anticipated, based on the GHD assessment, however further investigation is recommended before construction. – Acid sulfate soil testing will be undertaken during geotechnical investigations if warranted, if detected an acid sulfate soil management plan approved by DWER will be commissioned. – Acid sulfate soil (ASS) risk will be assessed during geotechnical investigations prior to construction activities involving excavation below the natural ground surface. – If ASS indicators are identified, works in the affected area will cease until the material has been appropriately characterised and management requirements determined. – Any ASS encountered will be managed in accordance with an Acid Sulfate Soil Management Plan prepared by a suitably qualified person and approved by DWER where required. – ASS material will be handled, stored and disposed of in a manner that prevents oxidation, acid generation and impacts to soil, groundwater and surface water quality. – Construction personnel will be made aware of ASS indicators and reporting requirements through site inductions and environmental toolbox meetings.
Groundwater	– Groundwater may be encountered during excavation activities, nearby bores indicate groundwater at approximately 3-4 m below ground level. – Dewatering is not currently anticipated; however, groundwater may be encountered during excavation activities and will be managed in accordance with this CEMP if required. – Water required for construction activities (e.g. dust suppression, civil works and concrete batching) is expected to be sourced via trucking in water from local or regional sources. Operational water demand will be minimal and primary for equipment cleaning and routine maintenance and will be sourced from truck in water and/or rainwater tanks. – A groundwater risk assessment will be conducted to assess construction activities intercepting groundwater.
Contamination	– An unexpected finds protocol will be implemented by the Contractor. – Works are to immediately cease if hydrocarbon/chemical affected soils are seen or smelled, or if suspected asbestos containing materials are uncovered during works. – Works may recommence once the contamination status has been determined and the contamination is addressed.
Spills	– Minimise impacts to flora and vegetation from spills or leaks of chemical, hydrocarbon and/or hazardous materials. – Hydrocarbons and chemicals will be appropriately managed on site to prevent spills, including maintaining equipment in good working order in accordance with manufacturers specifications. – No refuelling will be undertaken within 50 m of a waterway, drain or drainage line. – Hydrocarbons will be appropriately stored at least 50 m away from drainage lines and stored in an appropriate bunded container. – Refuelling will be undertaken on hardstand or using catch trays only. Uncontrolled refuelling is not permitted. – Chemicals will be appropriately stored.