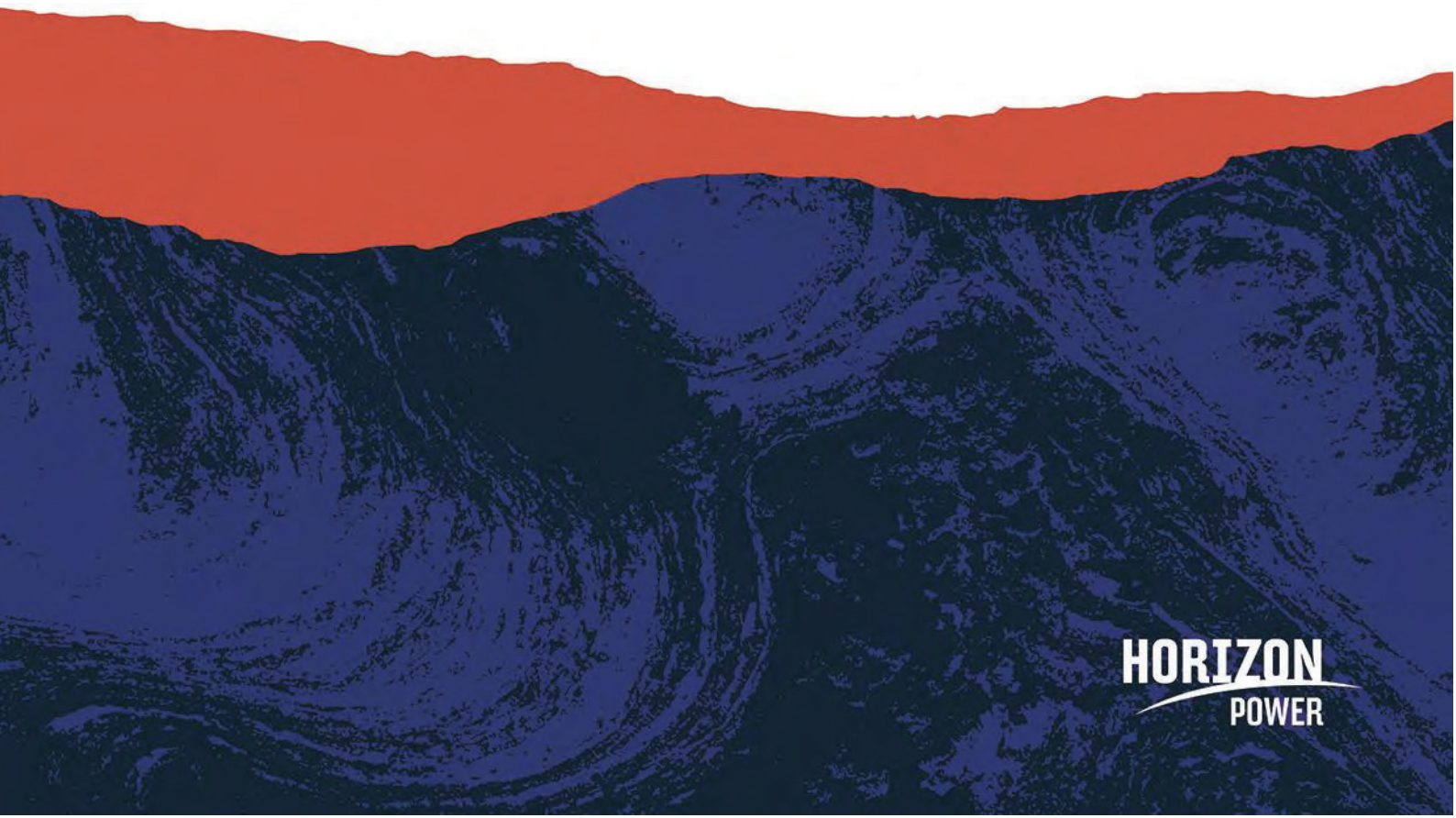
PROTECTED

Midwest Towns Renewable Infrastructure Project - Cue

Construction Environmental Management Plan

July 2024



Contents

1 Introduction

1.1 Project Context and Scope

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

The Western Australian State Government is committed to reduce carbon emissions by 80% by 2030. Horizon Power is proposing to develop a future energy system (FES) in Cue, WA as part of a project to transition several Midwest and remote towns systems to higher levels of renewable energy penetration. Cue is one of seven towns supplied via an Independent Power Producer (IPP) under a Power Purchase Agreement (PPA); an upcoming PPA decision point is an opportunity for Horizon Power to consider how it supplies power to the towns. The generation mix currently recommended for Cue's FES is the construction of additional solar PV and Energy Storage Solutions (ESS). The final design and footprint required for the FES will be determined once geotechnical surveys are undertaken.

The geotechnical surveys will require the clearing of up to 3.65 ha of native vegetation. This will allow for geotechnical testing, including incidental clearing (driving over and parking on native vegetation) for vehicle / machinery access to test sites. An additional 2.75 ha of temporary clearing will be required for stringing and winching of the connection transmission line and a laydown area for construction.

The construction of the project will require the permanent clearing of up to 16.3 ha in total. This will allow for generation of approximately 1.44 megawatts (MW) of solar, a connection corridor to existing power station, access tracks and fire breaks. Specific detail of the proposed clearing is provided in Section 2.2 of this document.

A Native Vegetation Clearing Permit (NVCP) will be required from the Department of Water and Environmental Regulation (DWER).

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 and its contractors during the construction of the Project. This includes, but is not limited to, measures to manage dust, erosion and spread of weeds during clearing of native vegetation.

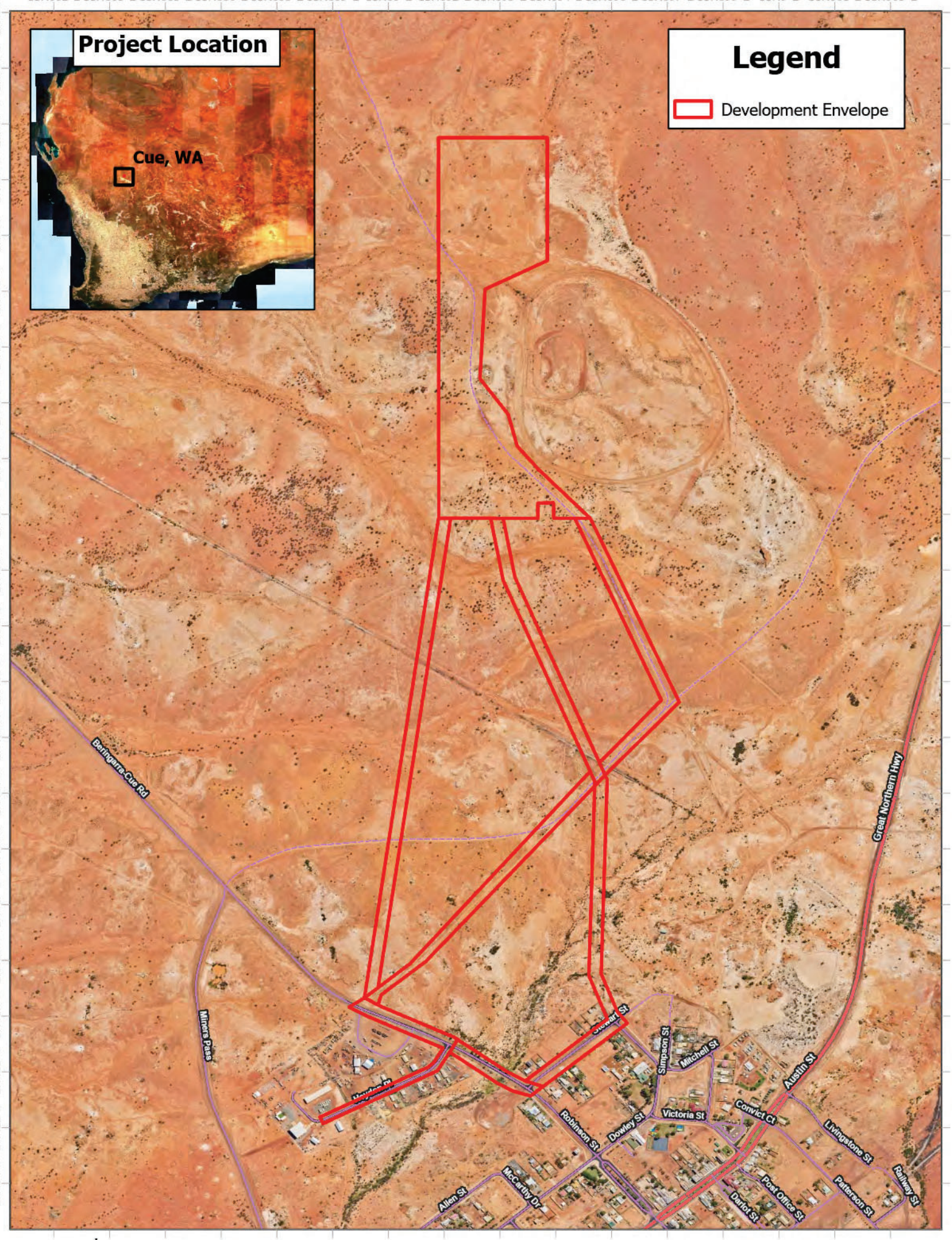


Figure 1 | Development Envelope

N

0 125 250 500 Meters

Scale: 1:13,000

HORIZON POWER

2 Description of the Activity

2.1 Activity Overview

Geotechnical survey works will be required for the Project and will consist of mainly incidental clearing (driving over and parking on native vegetation) for vehicle / machinery access to test sites.

The Project will consist of the construction of renewable infrastructure generating approximately 1.44 MW of energy from solar arrays.

The geotechnical survey works and construction are proposed for 2025, with commissioning to follow. 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 commencement.

2.2 Clearing of Native Vegetation

The proposed clearing will occur within the Development Envelope (Figure 1) which is 38.92 ha in size. No more than 22.7 ha of clearing is proposed, as shown in Table 1.

The geotechnical surveys will require the temporary clearing of up to 3.65 ha of native vegetation. The proposed clearing will be mainly incidental clearing (driving over and parking on native vegetation) for vehicle / machinery access to test sites for the geotechnical survey works. An additional 2.75 ha of temporary clearing will be required for stringing and winching of the connection transmission line and a laydown area.

The construction of the Project will require the permanent clearing of up to 16.3 ha for solar infrastructure, the connection corridor and access tracks. This will occur within the permanent clearing footprints.

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

Table 1 Clearing estimated within the DE

Site	Proposed clearing	Clearing breakdown
Cue	22.7 ha	– Temporary clearing: 6.4 ha – Permanent clearing: 16.3 ha

3 Avoidance Measures

Initial avoidance and minimisation was undertaken during site selection, including placement of the proposed infrastructure close to the existing assets to reduce the clearing associated with a longer transmission line. A large area was surveyed to allow for further refinement during site selection, to remove environmental constraints from the DE.

The following avoidance measures have also been applied:

– Avoid impacts to known records of *Eremophila rostrata* subsp. *rostrata* (Threatened – BC Act listed and Critically Endangered - EPBC Act) and associated ESA through revision of the DE to exclude *Eremophila rostrata* subsp. *rostrata*.
– Avoid impacts to known records of *Maireana prosthecochaeta* (Priority 3) and *Ptilotus* sp. Cue (P. Armstrong PA 16/362) (Priority 1) through revision of the DE to exclude these species.

4 Management Measures

The management measures listed in Table 2 will be implemented during geotechnical investigations and construction of this Project. Clearing of native vegetation will occur as per the conditions in the NVCP issued by DWER.

Table 2 Management Measures to be Implemented During Geotechnical Investigations and Construction

Aspect	Management Measure
Geotechnical works	
Extent of Clearing	– No clearing is permitted outside the DE (Figure 1) – Where possible, pre-existing access tracks will be used and vehicles and machinery will exit the DE along the same route used for access. – Clearing will be minimised where possible through placement of geotechnical tests in existing cleared locations where possible. – Mechanical clearing for the development of formal access tracks is not proposed during geotechnical works. – Works will be undertaken systematically to minimise re-run and compaction of access tracks. – The clearing locations are to be demarcated with flagging tape, GPS or similar prior to clearing activities. – No more than 3.65 ha of clearing will be undertaken for the geotechnical survey. – A pre-clearing toolbox will be held so all staff are aware of their responsibilities under the permit. – Clearing areas are to be checked by an Environmental Specialist or Site Supervisor prior to clearing.
Flora and vegetation	– Areas that are degraded, sparsely vegetated and/or previously cleared will be used preferentially for laydown and access tracks. – Mechanically cleared areas will be restored, as follows: • Topsoil will be stockpiled separately to other excavated materials. • On completion of test pit works, excavated materials will be placed back into the test pits. Topsoil from the test pit will then be respread over the surface. • Recontouring of soil within the test pit and laydown areas will be undertaken to prevent compaction. – The clearing area allows for driving over vegetation to access geotechnical sites. Driving on vegetation will be kept to the minimum required to perform the works. – Movement of vehicles and machinery will be in convoy along access tracks/ routes and will not go into adjacent vegetation.
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 not touch, feed or otherwise directly interact with fauna. – Vehicle and machinery speeds within the DE will be restricted to reduce the likelihood of fauna strike.
Weeds	– All vehicles and machinery will arrive clean on site. – Movement of vehicles and machinery will be restricted to the DE or established tracks and roads.
Soils and 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.
Dust	– Standard construction dust control and mitigation measures will be implemented during clearing. This may include the use of a water trucks, or similar. – Ground disturbance and 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.
Noise	– The contractor will comply with the Environmental Protection (Noise) Regulations 1997 – Complaints regarding noise will be recorded and investigated by Horizon Power.
Waste	– Rubbish will be disposed of in appropriate containers and all waste will be removed from the site.

Aspect	Management Measure
Contamination	– Works are to immediately cease if hydrocarbons affected soil 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.
Hydrocarbons and chemicals	– 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.
Heritage	– Should aboriginal cultural heritage materials be uncovered during construction works, works are to stop immediately within 20 m of the find. The Contractor is to contact the Horizon Project Manager and an incident will be raised. The area will be cordoned off and no access permitted to the area by people until the incident is investigated and resolved.
Construction	
Extent of Clearing	– No clearing is permitted outside the DE (Figure 1) – Clearing will be minimised where possible through placement of assets and access tracks in existing cleared locations where possible. – The clearing locations are to be demarcated 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 22.7 ha of clearing is undertaken for the Project – A pre-clearing toolbox will be held so all staff are aware of their responsibilities under the permit.
Flora and vegetation	– If the connection corridor that contains VT05 (riparian vegetation; shown in Figure 3) is selected, pole pads will be positioned to avoid this vegetation type where possible. If clearing of VT05 is required for the connection corridor this will be limited to 0.05 ha of clearing for one pole pad. – Areas that are degraded, sparsely vegetated and/or previously cleared will be used preferentially for laydown and access tracks. – Trees and tall shrubs will be avoided in the selection of access routes and laydown areas, where possible.
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 not touch, feed or otherwise directly interact with fauna. – Vehicle and machinery speeds within the DE will be restricted to reduce the likelihood of fauna strike.
Weeds	– The Contractor will ensure that no weed-affected soil, mulch, fill or other material is brought into the DE. – Vehicles and machinery will arrive clean, and weed control will be undertaken at the site post-construction as required. – Movement of vehicles and machinery will be restricted to the DE or established tracks and roads.

Aspect	Management Measure
Erosion and soils	– Standard construction measures regarding erosion and sediment control will be implemented during construction works. – Designated access tracks will be applied to prevent additional disturbance. – Acid sulphate soils will be managed in accordance with the ASSMP (if required pending geotechnical investigations, in accordance with the *Treatment and management of soils and water in acid sulfate soil landscapes* (DER, 2015b[1]).
Dust	– Standard construction dust control and mitigation measures will be implemented during clearing. This may include the use of a water trucks, or similar. – Ground disturbance and 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.
Noise	– The contractor will comply with the Environmental Protection (Noise) Regulations 1997 – Complaints regarding noise will be recorded and investigated by Horizon Power.
Waste	– Rubbish will be disposed of in appropriate containers and all waste will be removed from the site.
Hydrocarbons and chemicals	– 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.
Heritage	– Should aboriginal cultural heritage materials be uncovered during construction works, works are to stop immediately within 20 m of the find. The Contractor is to contact the Horizon Project Manager and an incident will be raised. The area will be cordoned off and no access permitted to the area by people until the incident is investigated and resolved.

[1] Department of Environment Regulation 2015b, Treatment and management of soils and water in acid sulfate soil landscapes, May 2015, Perth, Western Australia