



**Project Horizon –
Clearing Permit
Referral**

Mooloogool – CEV Facility

Document Control

Project Horizon – Clearing Permit Referral

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1 Purpose of this Document

RFF Pty Ltd act on behalf of Vertiv with relation to the construction of a Controlled Environmental Vault ('CEV') associated with the broader Vocus Project Horizon fibre optic route.

This report relates to the construction of the Mooloogool CEV facility.

RFF is seeking a determination from the Department of Water and Environmental Regulation ('DWER') Native Vegetation Branch regarding the need for a Part V Clearing Permit for this proposed telecommunications asset. As such, this document has been prepared to support a Referral of Proposed Clearing form.

As part of this assessment, the proposed works were assessed against the clearing exemptions under Regulation 5, which found that it not fit any category due to the nature of the structures being installed. The proposed works are small in scale and are unlikely to be environmentally significant. Further information to support this has been provided below.

The proposed development site is depicted in **Figure 1 – Site Plan**.



2 Project Scope

The proposed works will support and sustain the operation of a high-speed optic fibre cable constructed parallel to Great Northern Highway (See Figure 2 – Project Site Plan). This referral pertains to one of a total 13 CEV sites associated with Project Horizon, nine of which are being referred to DWER.

The proposed works include the earthworks (including access tracks), site preparation, installation, and commissioning of a Controlled Environment Vault (CEV) building, complete with, a battery hut and a 5-kW solar array, supported by a self-contained, emergency diesel powered generator set on its own separate footing.

The site will be completed with a full-scale galvanised security fence surrounding the buildings and equipment.

Construction of the development includes the placement of temporary site huts, delivery via semi-trailer and on site craneage into position of the CEV and the Emergency Generator. All components will be contained within the clearing boundary, with no temporary clearing.

The total area of permanent clearing is 0.42 ha. There is no Asset Protection Zone (APZ) required for bushfire risk mitigation at this site.

2.1 Construction Methodology

Project construction is scheduled to commence as soon as possible, no later than 14 October 2024 and be completed and demobilised from site by 25 November 2024. Works should take approximately six weeks from commencement, assuming no delays.

Construction sequencing and execution method has been detailed below:

- Contractor's surveyor to mark out site boundaries.
- Locate any existing services both above and below ground.
- Mark out access pathway, length and width.
- Mark out for temporary site security fence to define the 'work area', in accordance with Construction Site Plan.
- Clear the construction site of vegetation.
- Establish temporary access roadway, worker parking area, set-down area, truck turning area, crane manoeuvring area.
- Place temporary crib shed, amenities, first aid. Tie Down.
- Undertake bulk earthworks, cut / fill, grading, compaction, dust suppression.
- Equipment in use:
 - o excavator / back-hoe.
 - o dozer
 - o compactor
 - o 8t tipper truck



- Excavate trenches for electrical, communications. Install earth rods and connections.
- Excavate for CEV footings, generator slab with block outs, and solar power pole footing (if required).
- Install conduits for all in ground services.
- Form, reinforce and place concrete for footings, pads, slabs.
- Place crane in position for CEV lift.
- Receive CEV module on articulated semi-trailer.
- Crane CEV into position in accordance with crane study. Tie Down.
- Place crane in position for Emergency Generator lift.
- Receive Emergency Generator module on articulated semi-trailer.
- Crane Emergency Generator into position in accordance with crane study. Tie Down.
- Undertake surface treatment of flat level site in accordance bulk excavation and civil engineering design drawings.
- Articulated semi-trailer to enter and exit site in a forward direction.
- Connect electrical and fibre services.
- Excavate for Security Fence footings.
- Form, reinforce, place concrete for fence uprights.
- Construct fence infills and security screening in accordance with approved fence plan.
- Install fence signage.
- Undertake commissioning procedures.
- Complete all building works and site cleanup.
- Remove temporary construction fencing from site.
- Remove all traffic management items.



3 Environmental Context

A summary of the proposed site location and environmental attributes is provided in Table 1.

Table 1: Environmental Context

Reference/ Site Name	O5_MOOL
Address	81 km north of Meekatharra townsite on the Great Northern Highway
Certificate of Title	Lot 72 on Plan 217091 contained within Certificate of Title Volume LR 3122, Folio 963 Refer Attachment 1 – Certificate of Title.
Local Government Authority	Shire of Meekatharra
Coordinates	681069, 7129431 -25.9428488621, 118.8086492778
Total Clearing Area	Total combined area of permanent clearing is 0.42 ha for construction of the CEV and associated infrastructure.
Final Development Footprint	Total combined area of permanent clearing is 0.42 ha for construction of the CEV and associated infrastructure. No APZ is required at this site.
Nearest DBCA Managed Lands	The nearest DBCA managed reserve is Collier Range National Park, which is approximately 120 km to the north.
Nearest Environmentally Sensitive Area	The nearest ESA is associated with the Collier Range National Park, approximately 120 km to the north. Refer Figure 3 – Environmental Factors.
Topography	Elevation ranges from 517 mAGL in the north-west to 517.4 mAGL in the south-east.
Soil Landscape	The proposed site is mapped as 272p2 Red-brown hardpan shallow loam, BE8 atlas system, Upper Murchison Zone, described as extensive flat and gently sloping plains, which sometimes have a surface cover of gravels and on which red-brown hardpan frequently outcrops. Hardpans are subject to sheet-overland flow (van Vreeswyl <i>et al</i> , 2004) but the proposed development is unlikely to further exacerbate any erosion on or around the proposed development.
Contaminated Sites and Acid Sulphate Soils	No occurrences of PASS or AASS were identified on or near the site (DWER-047, DWER-048, DWER-049 and DWER-053). No contaminated sites were identified on or near the site (DWER-059). Refer Attachment 2 – Geotechnical Investigation.

<p>Surface Water</p>	<p>The Murchison River is located approximately 6.4 km north of the Site (DWER-O31). This river is not identified as a <i>RiWi Act 1914</i> river.</p> <p>The proposed works will not disturb the bed or banks or take surface water from any <i>RiWi Act 1914</i> rivers, or waterways identified by DWER (DWER-O31).</p>
<p>Groundwater</p>	<p>The proposed site is located within the East Murchison Proclaimed Groundwater Area.</p> <p>The proposed site is not within a PDWSA.</p> <p>The proposed site is within an area identified as 'to be developed' in the <i>RiWi Act 1914</i> Groundwater Areas.</p> <p>No groundwater was recorded during Geotechnical investigations.</p> <p>The proposed works will not interfere with or take groundwater.</p>
<p>Threatened or Priority Ecological Communities</p>	<p>Red Gum Consulting (2024) undertook a detailed vegetation survey within the proposed site, which comprised of a desktop assessment and single-day field survey in August 2024.</p> <p>The desktop assessment, via a search of DBCA database records, found occurrences of eight Priority Ecological Communities (PEC) within 50 km of the proposed site. The closest record to the site is Killara North Calcrete (Priority 1), located approximately 15 km from the Site.</p> <p>The proposed site does not represent suitable habitat for any of the PECs occurring within 5 km.</p> <p>There are no records of any Threatened Ecological Communities (TEC) within 50 km of the proposed site.</p> <p>Refer Figure 3 – Environmental Factors and Attachment 3 – Ecological Survey.</p>
<p>Flora</p>	<p>Red Gum Consulting (2024) undertook a detailed vegetation survey within the proposed site, which comprised of a desktop assessment and single-day field survey in August 2024.</p> <p>A search of DBCA database records found records of two Priority flora taxa within 10 km of the proposed site. A further two were identified through a search of the EPBC Act PMST, however there are no known records within 10 km. These records were of <i>Eremophila improvisa</i> (Priority 1) and <i>Eremophila saxatilis</i> (Priority 1), both recorded 9 km from the Site.</p> <p>Based on the distance of each record from the proposed site and the habitat values present, none of the flora taxa have a 'High' or 'Medium' likelihood of occurring within the Site. .</p> <p>There are no records of any Threatened flora within 10 km of the proposed Site.</p> <p>Refer Figure 3 – Environmental Factors and Attachment 3 – Ecological Survey.</p>

Vegetation

The proposed site is mapped within the Upper Murchison (18) vegetation association (Beard, 1990), which is described as a low woodland, open low woodland or sparse woodland of Mulga *Acacia aneura* and associated species.

The estimated pre-European extent within the Murchison IBRA region is 12,403,172.30 ha and the current extent is estimated to be 12,363,252.47 ha. The proposed clearing represents less than 0.000003% of the remaining extent of the vegetation association.

Currently, approximately 99.76% of this vegetation association remains within WA, 99.68% remains within the Murchison IBRA region, and 99.79% remains within the Shire of Meekatharra (GoWA, 2019).

As such, the proposed clearing is consistent with Criterion 1 of the Native Vegetation Referrals Guideline (DWER, 2021) whereby the area proposed to be cleared is small relative to the total remaining vegetation.

The vegetation present was described as scattered shrubs and large trees (Red Gum, 2024). Vegetation condition was assessed as Poor. The main disturbances identified were grazing, previous clearing for road construction and wind and water erosion.

Given the scale of the Site and its location immediately adjacent to the transport corridor, Great Northern Highway, the site is not considered supporting conservation significant species or vegetation communities. The proposed clearing is not considered to cause significant impacts on vegetation.

Fauna


Red Gum Consulting (2024) undertook a detailed vegetation survey within the proposed site, which comprised of a desktop assessment and single-day field survey in August 2024.

A search of DBCA databases found that there are records of eight Threatened fauna taxa, eight Migratory species, two Marine aves, and ten Priority fauna taxa within 50 km of the proposed site.

The nearest record is of Common Sandpiper (*Actitis hypoleucos*) which is a Specially Protected Migratory species. The nearest record occurs 11 km east of the Site.

A likelihood of occurrence assessment was undertaken for the proposed site which found that no threatened or priority fauna species have a 'High' or 'Medium' likelihood of occurrence based on the habitat type and scale present (Red Gum, 2024).

Refer Figure 3 – Environmental Factors and Attachment 3 – Ecological Survey.



While more mobile species, like the Northern quoll, may traverse the area, it is unlikely that the scale and extent of works would have long term impacts on the distribution of these species. Best practice construction environmental management plans (CEMP) will be developed. Minimum requirements are included in section 7 of this report.

As identified in Table 1, the site is considered to satisfy the four criteria identified in DWER (2021) *Guideline: Native vegetation clearing referrals* that determine whether clearing activities will have a very low environmental impact:

- Criterion 1: The area proposed to be cleared is small relative to the total remaining vegetation.
- Criterion 2: There are no known or likely significant environmental values within the area.
- Criterion 3: The state of scientific knowledge of native vegetation within the region is adequate.

Information to support criterion 4, that conditions will not be required to manage environmental impacts, is provided in Section 7 where clear measures to avoid and minimise environmental impacts are identified.

3.1 Images of Representative Vegetation Units within the Proposed Site

Plates 1 to 3 illustrate the vegetation type and condition within the Site. The site is in Poor condition, dominated by hardpan with shallow topsoils and rocky areas. Vegetation was sparse and dominated by small to medium shrubs with a low to moderate species diversity (Red Gum, 2024). Vegetation was only found present in patches of sandy loam topsoil. Diversity within the ground stratum was generally low with grasses being completely absent. The wider assessment area showed a slightly higher plant diversity.

The site did not provide habitat values for a variety of fauna. Occasional scattered Mulga (*Acacia aneura*) and other low to medium acacias and a variety of small to medium growing shrub species such as Wattles (*Acacia spp.*), Needle Bush (*Hakea preissii*), Rattle-pod Grevillea (*Grevillea stenobotrya*), and various Emu Bushes (*Eremophila spp.*). The understorey was dominated by bare ground and rock with scattered occurrences of Tall Mulla Mulla (*Ptilotus exaltatus*), *Ptilotus obovatus* (Cottonbush), Copperburrs (*Sclerolaena sp.*) and Bluebush (*Maireana sp.*).

The main disturbances were associated with grazing, previous works for road construction, and erosion.



Plate 1. Mooloogool Site Image 1.



Plate 2. Mooloogool Site Image 2.



Plate 3. Mooloogool Site Image 3.

4 Stakeholder Engagement

A cultural heritage survey was completed for the site with the Ngoonooru Wajarri Traditional Owners (Wajarri Yamaji Aboriginal Corporation RNTBC), prepared by Archaeological Excavations (2023) for the proposed Project Horizon Optic Fibre Cable Installation (section T09 and T10).

The survey was conducted over twelve (12) days between 28 March and 5 May 2023 by a team of Archaeological Excavations personnel and Ngoonooru Heritage Officers.

The survey identified no ethnographic sites within the proposed alignment area of T09 and T10. The survey did identify previously unrecorded artefact scatters, quarries, culturally modified scarred trees, native bush tucker, medicinal trees, and isolated/low-density spread of a variety of surface stone artefacts along the proposed alignment. No findings were recorded within the proposed Mooloogool CEV facility site.

The report made the following statements and recommendations:

- No findings were recorded within the proposed Mooloogool CEV facility site.
- To allow works to proceed, Ngoonooru heritage will be managed according to best practices outlined by national and international standards, including the Australian ICOMOS Burra Charter 1999 and the United Nations Declaration of Human Rights of Indigenous People.
- Monitoring of bell hole excavation is recommended, with the monitoring program to engage at least two (2) Ngoonooru Heritage Officers, an Archaeologist and an Archaeological Assistant to undertake monitor, identify, record, and recover any heritage that may reside in subsurface contexts.

Refer Attachment 4 – Aboriginal Heritage Survey.

5 Environmental Approvals Requirements

An environmental due diligence assessment was undertaken to determine environmental impacts and approvals that may be required for the works. The findings are summarised in Table 2.

Table 2: Environmental Approval Requirements.

Environmental Approvals	Requirement Assessment
Cwth <i>Environment Protection and Biodiversity Conservation Act 1999</i>	Not required No Matters of National Environmental Significance (MNES) have been triggered or will be significantly impacted by the works. See Appendix 1 to Attachment 3 – Ecological Survey
WA <i>Environmental Protection Act 1986 (EP Act), Part IV, S38</i>	Not required The proposed works are small in scale, ancillary infrastructure to the installation of the fibre optic cable. The proposed works will not have a significant impact on any environmental factors.
WA <i>Biodiversity Conservation Act 2016</i>	Not required There are no Threatened or Specially Protected species known to occur on the site, or likely to be impacted by the proposed works.
WA EP Act 1986, Part V – Licensed Premises	Not required The proposed infrastructure is not defined as a licensed premises under the EP Act 1986.
RiWi 1914, PDWSA, CAWS Catchment	Not required Proposed works are not disturbing a waterway and are not located within a PDWSA or CAWS Catchment.
Dewatering Licence	Not required Dewatering will not be required for the proposed works. Maximum excavation for cables is 700 mm bgl.
<i>Contaminated Sites Act 2003</i>	Not required There are no Registered contaminated sites located on or near the proposed development. A construction environmental management plan will be prepared that includes management of ‘Unexpected Finds.’
Disturbance of Acid Sulphate Soils	Not required There is no occurrence of PASS or AASS identified at the proposed development site.

6 Clearing Permit – Ten Clearing Principles

An assessment against the ten clearing principles has been undertaken based on the activities and environmental context information presented in Table 1. The assessment is provided in Table 3.

Table 3: Assessment Against the Ten Clearing Principles

Clearing Principle	Assessment	Outcome
<p>Principle (a): Native vegetation should not be cleared if it comprises a high level of biological diversity.</p>	<p>A detailed vegetation survey was undertaken by Red Gum Consulting in August 2024 (Red Gum, 2014). Vegetation in the study area was characterised as open shrubland in Poor condition lacking in diversity. Red Gum (2024) recorded 22 species of flora representing ten genera.</p> <p>The site is mapped as the Upper Murchison (18) vegetation association which is well-represented at the state, regional and local scales, with over 99% of the pre-European extent remaining at each scale (DPIRD-006; DBCA, 2019).</p> <p>There are no records of Threatened or Priority flora, fauna, or communities within the site or the surrounding area, based on the vegetation survey and DBCA database searches. Given the size (0.42 ha), condition, and habitat present within the site, none are expected to occur.</p> <p>Native vegetation clearing is small (<1 ha), and biological diversity is not likely to be permanently reduced as a result of the proposed development actions.</p> <p>Based on the above, the proposed clearing is not at variance with this principle.</p>	<p>Proposed clearing is not at variance to this Principle.</p>
<p>Principle (b): Native vegetation should not be cleared if it comprises the whole or a part, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.</p>	<p>A detailed vegetation survey was undertaken by Red Gum (2024) which identified the vegetation present to be in Poor condition.</p> <p>Based on a search of DBCA database records within a 10 km buffer of the site, no fauna taxa of conservation significance were identified as having a ‘High’ or ‘Medium’ likelihood of occurrence within the site.</p> <p>The vegetation to be cleared is comprised of scattered shrubs over bare ground and does not provide suitable habitat for a variety of native fauna due to its poor condition and high levels of disturbance. Further, no preferred habitat for Threatened or Priority fauna is present. No signs of conservation significant fauna species were recorded. Conservation significant fauna known to occur in the surrounding area have large home ranges and there is abundant adjoining habitat available for these species either side of the site.</p> <p>Measures to minimise impacts to fauna and faunal habitats, including pre-construction surveys for fauna and habitats at the CEV location, will be implemented through a CEMP (see section 7).</p>	<p>Proposed clearing is not at variance to this Principle.</p>



Clearing Principle	Assessment	Outcome
<p>Principle (c): Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.</p>	<p>Based on the above, the site does not constitute significant habitat for fauna species of conservation significance. As such, the proposed clearing is not at variance to this principle.</p> <p>No rare flora taxa have been recorded within the study area, or are expected to occur within the site.</p> <p>Based on a search of DBCA database records for a 10 km buffer of the site, no declared rare flora taxa were identified as having a 'High' or 'Medium' likelihood of occurrence.</p> <p>A total of two Priority flora taxa, listed by DBCA, have been recorded within 10 km of the site. A further two taxa were identified through a search of the EPBC Act PMST, however there are no known records within 10 km.</p> <p>None of the flora taxa for which records exist within 10 km was assigned a likelihood of 'High' or 'Medium' given the absence of suitable habitat. No Priority flora are expected to occur within the site based on the habitat present within the site as recorded by Red Gum (2024).</p> <p>Further, there are no flora habitats within the study area which are not present immediately adjacent and which are not well represented in the wider area.</p> <p>Based on the above, the site does not support suitable habitat for rare flora and the proposed clearing is not at variance to this principle.</p>	<p>Proposed clearing is not at variance to this Principle.</p>
<p>Principle (d): Native vegetation should not be cleared if it comprises the whole or part of, or is necessary for the maintenance of, a threatened ecological community.</p>	<p>The ecological survey did not identify any PECs or TECs within the study area (Red Gum, 2024).</p> <p>The vegetation identified within the study area is representative of vegetation types that are extensive throughout the Murchison bioregion.</p> <p>The site does not form part of a TEC and is not necessary to the maintenance of any TEC. Therefore, the proposed clearing is not at variance to this principle.</p>	<p>Proposed clearing is not at variance to this Principle.</p>
<p>Principle (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.</p>	<p>The site is within the Upper Murchison (18) vegetation association (DPIRD-006). The vegetation association is described as c low woodland, open low woodland or sparse woodland of <i>Mulga Acacia aneura</i> and associated species. The vegetation within the site was assessed as open shrubland, while the study area had a slightly higher species diversity representing open woodland.</p> <p>Currently, approximately 99.41% of the Upper Murchison (18) vegetation association remains within the Shire of Meekatharra (GoWA, 2019). The estimated</p>	<p>Proposed clearing is not at variance to this Principle.</p>



Clearing Principle

Assessment

Outcome

pre-European extent within the Shire is 3,117,900.46 ha, and the current extent is estimated at 3,111,264.68 ha.
 The percentage of the vegetation association remaining at the state, regional, and local scales is provided below (GoWA, 2019).

Vegetation Association	Description	% Remaining Western Australia	% Remaining Murchison IBRA Region	% Remaining Shire of Meekatharra
Upper Murchison (18)	Low woodland, open low woodland or sparse woodland of Mulga <i>Acacia aneura</i> and associated species	99.76	99.41	99.79

The National Objectives and Targets for Biodiversity Conservation 2001–2005 (Commonwealth of Australia, 2001) recognised the retention of 30% or more of the pre-clearing extent of each ecological community is necessary at a state level to protect Australia’s biodiversity.

As shown in the statistics above, the vegetation association is well represented at the state, regional, and local scales. The proposed clearing is negligible in the context of the remaining extent of the Upper Murchison 18 vegetation association. As such, the site is not within an area or representative of a vegetation unit that has been extensively cleared, and the proposed clearing is not at variance to this principle.

Principle (f): Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

There are no surface water features or vegetation associated with watercourses within or in the vicinity of the Site.

The proposed clearing area does not intersect any surface wetlands or drainage lines. The nearest watercourse is located approximately 6.4 km north of the site. As such, the proposed clearing is not at variance to this principle.

Proposed clearing is not at variance to this Principle.



Clearing Principle	Assessment	Outcome
<p>Principle (g): Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.</p>	<p>The site is located within the BE8 atlas system within the Upper Murchison Zone. The soil landscape is described as extensive flat and gently sloping plains, which sometimes have a surface cover of gravels and on which red-brown hardpan frequently outcrops.</p> <p>Hardpans are subject to sheet-overland flow (van Vreeswyl et al, 2004). Given the small extent and the nature of the proposed development, it is unlikely that the development would further exacerbate any erosion on or around the site.</p> <p>The CEMP will include measures to ensure that works are not completed if high winds or significant rain events are expected during or a short time after construction takes place.</p> <p>As a result of the above factors, it is highly unlikely that the clearing of vegetation is likely to cause any appreciable land degradation.</p> <p>As such, the proposed clearing is not at variance to this principle.</p>	<p>Proposed clearing is not at variance to this Principle.</p>
<p>Principle (h): Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.</p>	<p>The Site is not located in close proximity to a conservation area, the nearest being Collier Range National Park (R35104), located 120 km to the north.</p> <p>There are measures to be put in place via the project CEMP to ensure weeds, erosion and other construction issues are adequately managed to ensure there are no direct or indirect impacts on adjoining areas</p> <p>Given the large distance between the site and the nearest conservation reserve, the proposed clearing will not impact on the environmental values of any conservation areas. As such, the proposed clearing is not at variance to this principle.</p>	<p>Proposed clearing is not at variance to this Principle.</p>
<p>Principle (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.</p>	<p>There are no surface water features or vegetation associated with watercourses noted within the Site. The nearest watercourse is situated 6.4 km north of the site (DWER-031).</p> <p>There are no surface water bodies, or RiWi Act 1914 rivers within 1 km of the proposed site.</p> <p>The proposed project is located within the East Murchison Proclaimed Groundwater Area, and is identified as 'to be developed' in the <i>RiWi Act 1914</i> Groundwater Areas.</p> <p>There are measures to be put in place via the project CEMP to ensure sediment, erosion and other construction issues are adequately managed to ensure there are no direct or indirect impacts on the adjoining or nearby waterways.</p>	<p>Proposed clearing is not at variance to this Principle.</p>



Clearing Principle	Assessment	Outcome
<p>Principle (j): Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.</p>	<p>The works are shallow and are not expected to impact or affect groundwater storages within the study area.</p> <p>The proposed works will not interfere with or take groundwater. Therefore, the proposed clearing is not at variance to this principle.</p> <p>The Site is located within the Murchison River catchment (DWER-O28). There are no surface water features or vegetation associated with watercourses noted on or in the vicinity of the site.</p> <p>The proposed works are not likely to contribute to or exacerbate flooding risks or associated flood damage from future rain events.</p> <p>As such, the proposed clearing is not at variance to this principle.</p>	<p>Proposed clearing is not at variance to this Principle.</p>



7 Avoidance and Mitigation

The proposed clearing footprint has been minimised as far as possible to provide adequate space for the necessary infrastructure. The resulting construction footprint is approximately 0.42 ha in size.

The assessment against the ten clearing principles has identified the need for a CEMP to minimise the risk of environmental impacts during construction of the project. A CEMP will be developed by the contractor engaged to construct the CEV, with the advice of an experienced environmental practitioner.

Table 4 provides a series of mitigation measures that will be incorporated into the CEMP for this site. The measures detailed are provided as the minimum inclusions, with any additional measures to be implemented accordingly.

The contractor shall be responsible for implementing the CEMP, including the delegation of specific actions to appropriate personnel. A suitably qualified Environmental Supervisor must be present throughout clearing activities.

Implementation of the CEMP will provide assurance that the potential impacts of the proposed development will be avoided, minimised, and mitigated appropriately in the absence of conditions determined by DWER.

Table 4: Summary of Environmental Risks and Proposed Mitigation

Risk	Activity	Risk	Mitigation
Fauna death or injury	Direct interaction by mobile plant or vehicles	Low	<ul style="list-style-type: none"> - If a distressed or injured animal is encountered the Site Supervisor will contact a suitably qualified fauna handler or the Wildcare helpline on (08) 9474 9055. - Trenches and excavations should be checked in the morning prior to commencing activities and trapped fauna extracted by a licenced fauna handler. - Where possible any stockpiled debris should be removed before night to prevent fauna from roosting in the debris.
Unauthorised Clearing	Clearing, rolling, pruning or damage to native vegetation not authorised by this clearing permit.	Med	<ul style="list-style-type: none"> - Clearing cannot commence at sites without required State approvals. - Where clearing is permitted under exemption, the contract should demarcate areas of vegetation to be retained using flagging tape. - No debris or cut/fill material will be stockpiled in the vicinity of native vegetation to be retained. - Clearing should be managed in accordance with any approval conditions and a CEMP.
Wind / Air dispersal (e.g. noise, dust)	Plant and vehicle movements, desilting of assets. Clearing activities Desilting/ excavation in drier periods	Low	<ul style="list-style-type: none"> - Works will be carried out in accordance with environmental noise practices set out in Section 4 of AS 2436-2010 'Guide to Noise and Vibration control on construction, maintenance and demolition sites.' - All works will be undertaken in accordance with the Local Government Authority Noise ordinance. - Weather conditions at the nearest Bureau of Meteorology monitoring site will be monitored and standard dust suppression measures implemented as required.



Risk	Activity	Risk	Mitigation
Spills causing water and soil contamination	Plant equipment and vehicle storage and movements	Med	<ul style="list-style-type: none"> - Plant and equipment will be inspected daily for leaks and spills. - A spill kit will be available at all times onsite during works. - Plant and equipment will be stored on hardstand overnight.
Soil and water contamination	Disturbance of Potential or Actual acid sulphate soils	Low	<ul style="list-style-type: none"> - Excavation depths are not more than 700mm bgl, and no occurrences of PASS or ASS were identified on or near the proposed site. - Geotechnical investigations will identify if ASS is encountered and a ASSMP is required.
Spread of soil pathogens and weeds	Introduction or spread of soil pathogens and declared weeds.	Low	<ul style="list-style-type: none"> - The site is highly modified and good to completely degraded. Standard management processes will be implemented. All plant and equipment will be inspected and cleaned prior to site entry.
Dewatering	Drawdown impacts on surrounding vegetation.	Low	<ul style="list-style-type: none"> - Excavation depths will not be more than 700 mm bgl, therefore dewatering will not be required.
Inappropriate waste management	Incorrect storage and/or disposal of waste resulting in contamination or amenity impacts.	Med	<ul style="list-style-type: none"> - Contractor will dispose of all waste and retain records of disposal. - The site will be tidied, waste removed, and the site reinstated at the completion of works.



8 Conclusion

Based on the assessment above, the proposed works are not at variance with any of the Ten Clearing Principles, and satisfies the four criteria identified in DWER (2021) *Guideline: Native vegetation clearing referrals* that determine whether clearing activities will have a very low environmental impact.

The proposed works can be managed through standard best practice through a CEMP, as detailed in section 7 of this report.

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Figures





Figure 1: Clearing Permit Area - Mooloolgool

SCALE 1:1,000	SHEET SIZE A3 COLOUR	PROJECT REFERENCE NAME Project Horizon - Clearing Permit Referral Mooloolgool CEV	CLIENT RFF Australia Pty Ltd
COORDINATE REFERENCE SYSTEM GDA2020 / MGA zone 50	DATA SOURCE LANDGATE AERIAL IMAGERY Summer 2023	PROJECT NUMBER A24-114	VERSION 0
		DRAWN BY / REVIEWED BY HS/MMM	DATE 26/8/2024

Legend

- Clearing Permit Area (0.42 ha)
- Cadastre (No Attributes) (LGATE-001)
- Cultural Heritage Survey Area

No	Description	Drawn	Approved	Date
1	Original Issue	HS	MM	26/8/2024

NOTE:
 For Attribution: LGATE-001 - Issue map title
 From: Surveyors (LGATE-24)





LEGEND

○ Sites

Intersecting Native Title Determinations

- Gingirana
- Kariyarra
- Nyiyaparti and Nyiyaparti #3
- Palyku Part A
- Wajarri Yamaji Part A
- Yamaji Nation
- Yugunga-Nya People Part A



PROJECT SITE PLAN

Project Horizon - Clearing Referral Sites

Scale: 1:5,000,000

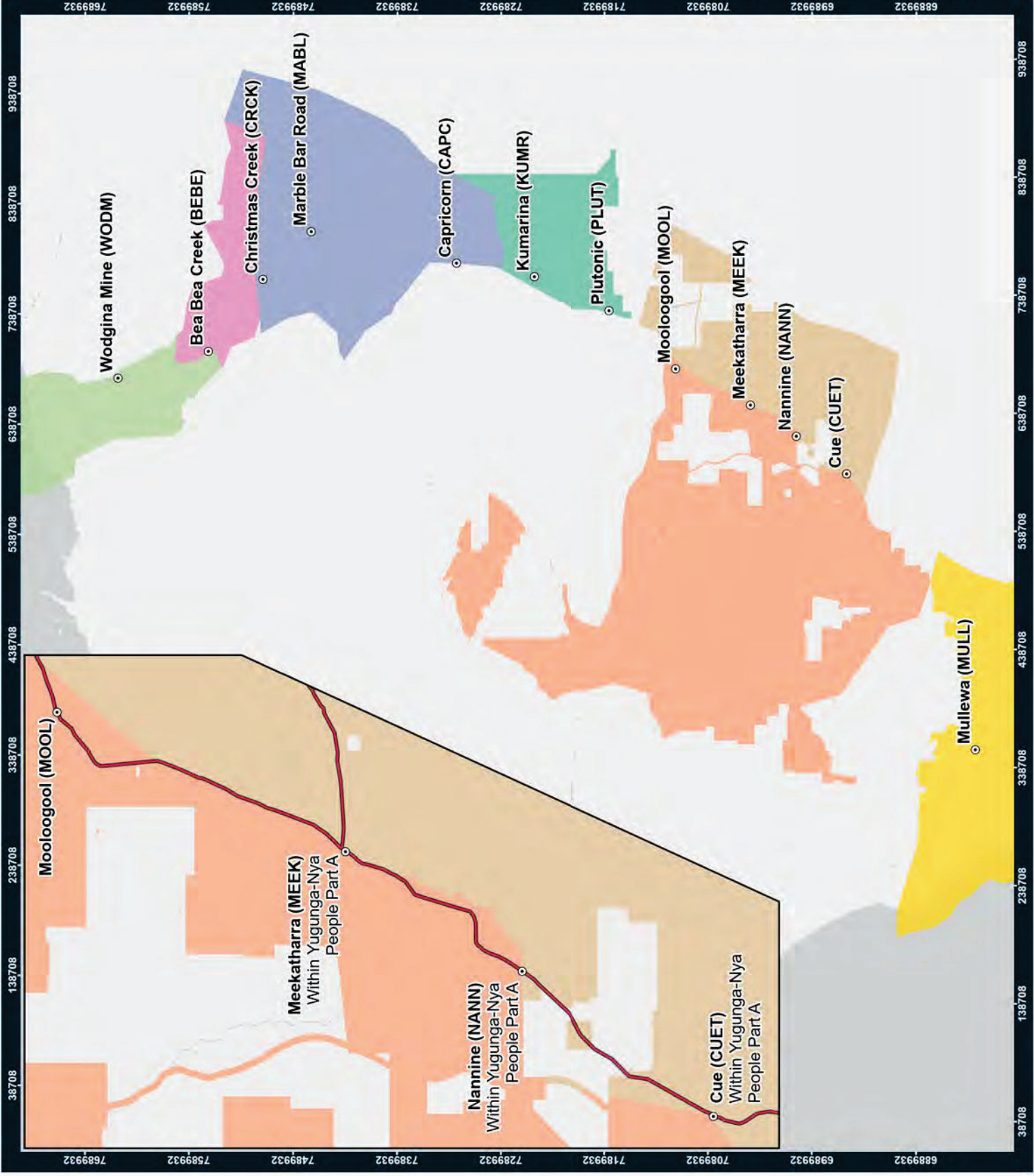
Coordinate System: GDA2020

Reference: 2024_035_project_site_plan_r1

Date: 21/06/2024

Size: A4L

This map is intended to provide a general overview of the project area and is not intended to be used for legal purposes. It is not a substitute for a detailed site plan or other technical drawings. The information contained herein is for informational purposes only and should not be relied upon for any legal or financial decisions. The information contained herein is for informational purposes only and should not be relied upon for any legal or financial decisions.



38708 138708 238708 338708 438708 538708 638708 738708 838708 938708

7689932 7589932 7489932 7389932 7289932 7189932 7089932 6989932 6889932

38708 138708 238708 338708 438708 538708 638708 738708 838708 938708



Legend

- DIT_AssetLocations_20240409
- Threatened Ecological Communities (DBCA-038)
- Threatened and Priority Fauna (DBCA-037)
- Threatened and Priority Flora (DBCA-036)
- MOOLOOGOL
- MOOL_TempFootprint_20240522
- MOOL_SSV_Design_20240430

Google Maps Satellite Imagery

Coordinate System: GDA 2020 MGA Zone 50
Vertical Datum: AHD

Scale: 0, 25, 50 km

Project: Project Horizon
Site Name: Mooloogool
Client: DecisiveIT
Title: Environmental Factors

Date: 24/05/24
Revision: A
Author: KAA
Figure: 2

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