

Environmental Management Plan

EPBC Assessment: 2023-09460

Project Name: Comet Vale Sand Project

Proponent: MLG Oz Limited

ACN/ABN: 102642366/53102642366

Location: Western Australia

Date: 23 August 2024

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: Murray Leahy
 Organisation: MLG Oz Limited
 Date: 24 August 2024

Document Control

Revision Number	Section	Summary	Revision Issued on	Revision Issued By
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Appendix 1 Risk Assessment

1. Introduction

1.1 Purpose and Scope

This Environmental Management Plan (EMP) has been developed to support environmental approval under the *Environment Protection and Biodiversity Conservation Act 1999* for the Comet Vale Sand Project (Comet Vale, the Project). This document has been prepared in accordance with the Department of Climate Change, Energy, the Environment and Water (DCCEEW) Environmental Management Plan Guidelines (DCCEEW 2024) and applies to all activities associated with the Proposed Action.

The purpose of this EMP is to detail how potential environmental impacts associated with activities from the Proposed Action will be managed.

This document forms the EMP for all phases of project development including construction, operations and closure. The EMP will be implemented prior to the commencement of construction and will remain in effect until all activities associated with the Proposed Action are complete. This EMP provides information on:

- Description of the Proposed Action.
- Management framework of the Proponent.
- Potential environmental impacts and risks in the form of a risk assessment.
- Environmental management measures to be implemented.
- Audit and review procedures of the EMP.

Contractors will be required to comply with this EMP or provide their own EMP that complies with this document, prior to commencing activities. The specific aims of this EMP are to:

- Summarise the relevant environmental factors potentially affected by activities;
- Detail prevention, minimisation, and mitigation measures for any environmental impacts of these activities; and
- Detail site responsibilities, monitoring, and reporting processes.

2. Proposed Action Description

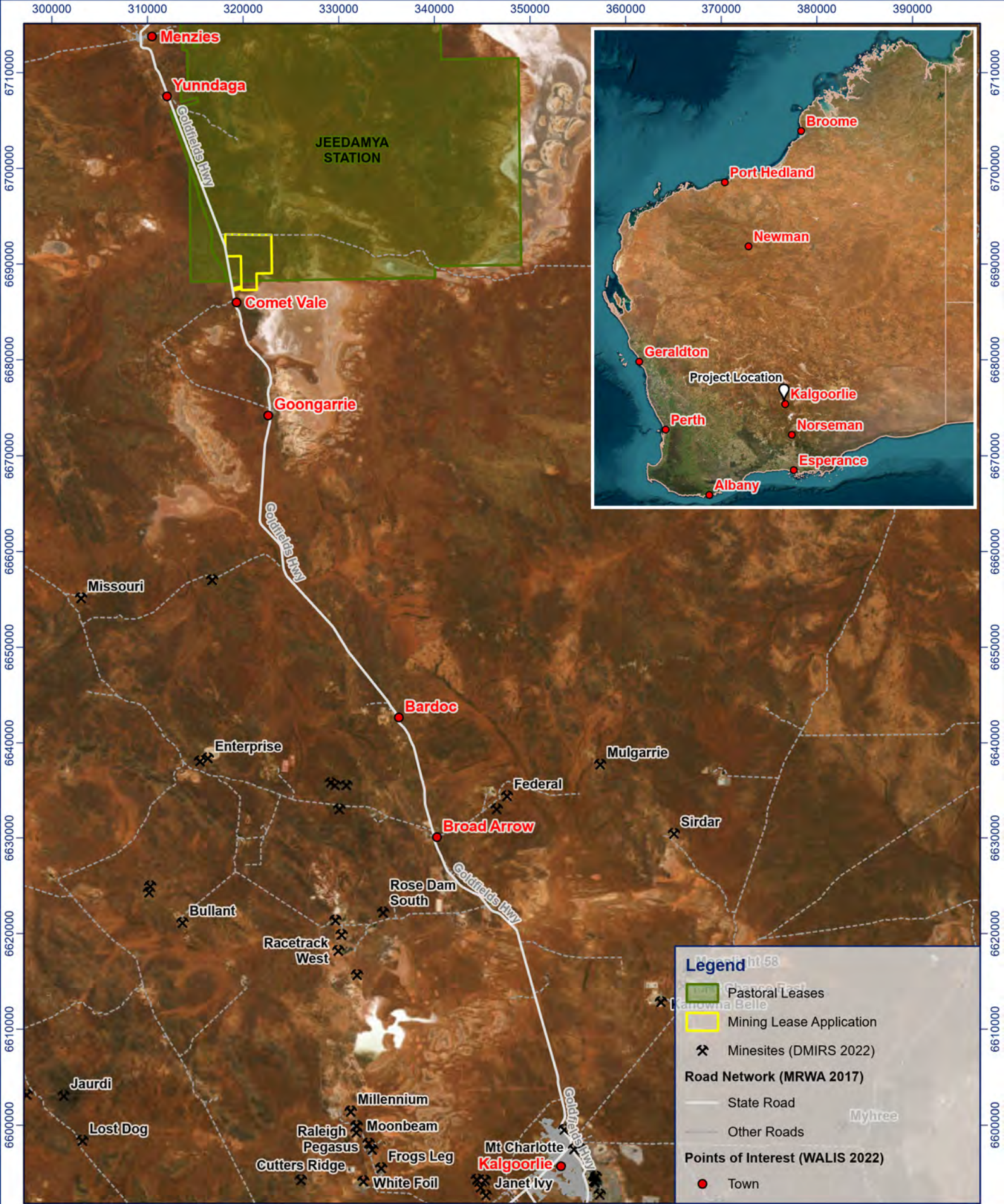
2.1 Location and Tenure

The Proposed Action is located 96 km north of Kalgoorlie, Western Australia on tenure granted under the WA *Mining Act 1972* (Mining Act), accessed from the Goldfields Highway onto internal access tracks. The location of the Proposed Action is shown on Figure 2-1.

The Proposed Action is located within the Nyalpa Pirniku Native Title Claim (WAD91/2019), that was determined on 31 October 2023. The Proposed Action is also located on the Jeedamya Pastoral Lease within the Shire of Menzies. There are two reserves, located over the mining lease application area being:

- Explosives Reserve R13500 which is vested to the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS).
- Common Reserve R16153 which is the responsibility of the Department of Planning, Lands and Heritage (DPLH).

The proposed mining lease application area, reserves, and Native Title Claim areas are shown on Figure 2-2.



Legend

- Pastoral Leases
- Mining Lease Application
- Minesites (DMIRS 2022)

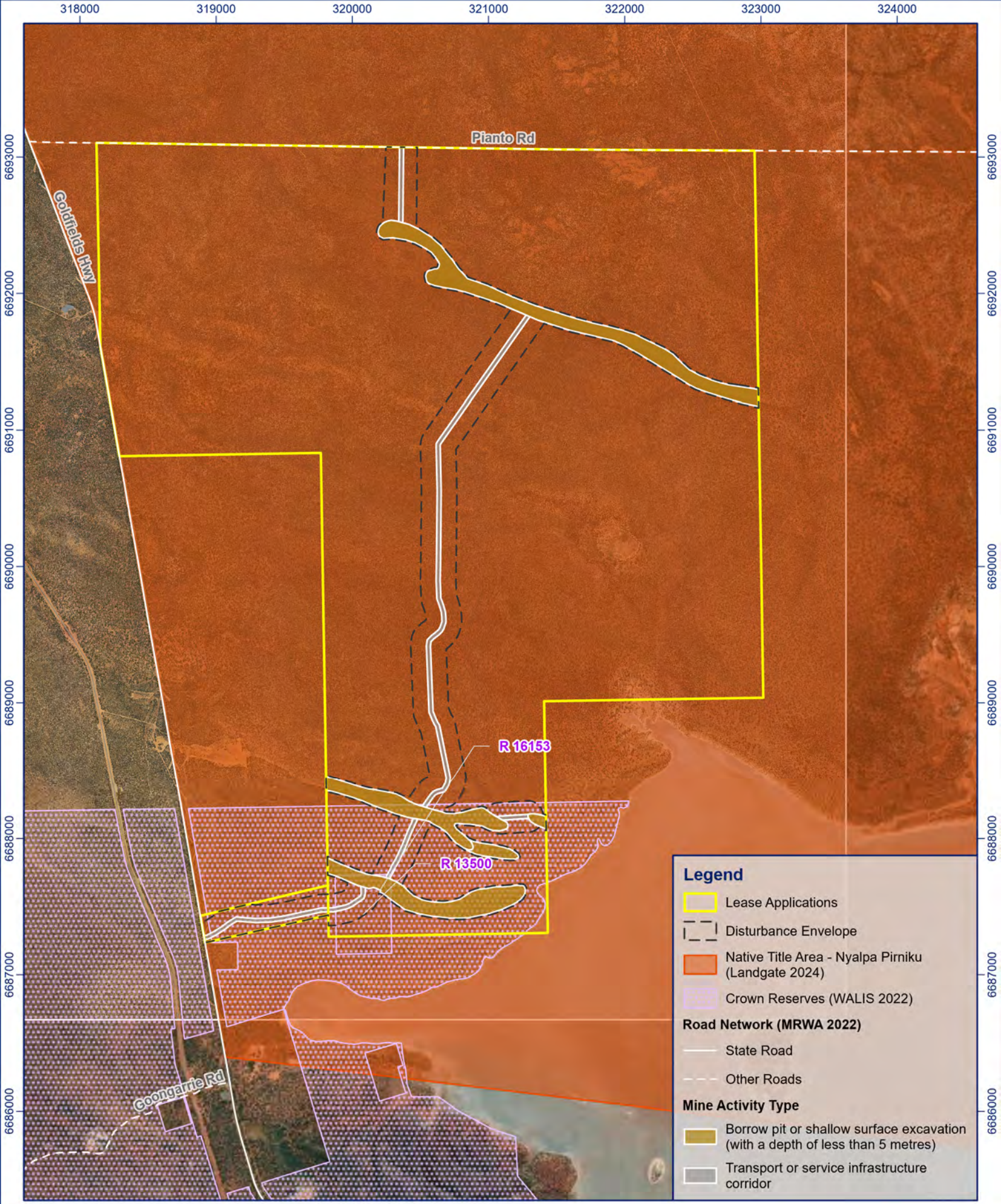
Road Network (MRWA 2017)

- State Road
- Other Roads

Points of Interest (WALIS 2022)

- Town

CLIENT	ADV-AU-00382	Project Name: Comet Vale Sand Project, Corner of Pianto Road and Goldfields Highway, Comet Vale, WA 6436				
<p>Comprehensive Mine Site Services</p>	 <p>GDA2020 MGA Zone 51</p>	EPBC #: 2023/09460	Figure #: 1	Date: October 2024	Author: AW (RPMGlobal)	Scale: 1:500,000
	Figure Name: Project Location					
	Data Sources: <ul style="list-style-type: none"> • Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community (2023) <i>ESRI Satellite Imagery</i>, Basemap • Goldfields Land Services (2022) <i>Comet Vale Flora Report</i>, IBSA Data Package • Department of Planning, Lands and Heritage (2023) <i>Aboriginal Heritage Places</i>, shp 					



Legend

- Lease Applications
- Disturbance Envelope
- Native Title Area - Nyalpa Pirniku (Landgate 2024)
- Crown Reserves (WALIS 2022)

Road Network (MRWA 2022)

- State Road
- Other Roads

Mine Activity Type

- Borrow pit or shallow surface excavation (with a depth of less than 5 metres)
- Transport or service infrastructure corridor

CLIENT	ADV-AU-00382	Project Name: Comet Vale Sand Project, Corner of Pianto Road and Goldfields Highway, Comet Vale, WA 6436			
 Comprehensive Mine Site Services	 GDA2020 MGA Zone 51	EPBC #: 2023/09460	Figure #: 2-2	Date: October 2024	Author: AW (RPMGlobal)
	Figure Name: Tenement Plan				
	Data Sources: • Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community (2023) <i>ESRI Satellite Imagery</i> , Basemap • Main Roads Western Australia (2024) <i>Road Network</i> • Western Australia Land Information Authority (Landgate) (2024) <i>Native Title (Determination (LGate-066), Crown Reserves (LGate-277))</i>				

2.2 Proposed Action Description

MLG propose to develop a small-scale sand and gravel operation that will require progressive clearing of approximately 97.4 ha of native vegetation over the 20-year Life of Mine (LOM). MLG commits to having 10 ha of excavation area open at any one time, with progressive rehabilitation to follow behind completed excavation works.

The mining operation is proposed to be carried out in a basic strip-mining style comprising:

- Pre-clearance surveys for Malleefowl mounds with internal clearing approval granted by the MLG Project Manager.
- Demarcation of approved area to be cleared with onsite meeting held with machinery operator.
- Pre-stripping of vegetation and soil, which is stockpiled in low windrows along the active mining area for later use in rehabilitation.
- Excavation of dune for sand and gravel to a typical depth of 1.5 m (maximum of 5 m).
- Screening of material into different product sizes in the excavation area and loaded into road trains for transport offsite.
- Battering down of the shallow pit walls to 12 to 16 degrees.
- Respreading of topsoil on the pit floor to a typical depth of 300 mm.
- Respreading of stockpiled vegetation to provide habitat and nutrients.
- Ripping of pit surfaces to assist in capture of windblown seed, infiltration of water and reduced erosion potential.

At final mine closure, all excavation areas and access tracks will be rehabilitated in accordance with an approved Mine Closure Plan (MCP). Monitoring of rehabilitation will be completed annually until successful closure criteria is achieved in accordance with the MCP.

2.3 Project Schedule

The Proposed Action is estimated to have a 20 year life of mine consisting of a construction, operation and closure phase. Each phase of the Proposed Action and likely schedule is provided in Table 2-1.

Table 2-1 Phases of Proposed Action

Phase	Years	Indicative Commencement Date	Indicative Completion Date
Construction	Year 1	Q1 FY2025	Q2 FY2025
Operations	Years 1 to 19	Q2 FY2025	Q4 FY2045
Progressive Rehabilitation	Years 2 to 19	Q1 FY2026	Q4 FY2045
Closure	Year 20	Q4 FY2045	Q1 FY2046

2.4 Conditions of Approval

This EMP is being provided in support of the ongoing environmental assessment of the Proposed Action. This assessment is mandated by Part 9 of the EPBC Act. Considering the information provided in the Preliminary Documentation to DCCEEW, this EMP proposes environmental management and monitoring to ensure environmental outcomes and objectives are achieved.

This EMP will be updated to include any conditions pertaining to approval of the Proposed Action under the EPBC Act.

2.5 Environmental Setting

2.5.1 Regional Setting

The Proposed Action is located on relatively flat land with undulating dune systems within the East Murchison (MUR01) subregion of the Murchison Region as described by the Interim Biogeographic Regionalisation for Australia (IBRA) Version 7 (DCCEEW, 2020). The East Murchison sub-region is situated in the Yilgarn Craton covering an area of 7,847,996 ha (Cowan et al., 2001).

The East Murchison subregion is characterised by its internal drainage and elevated red desert sandplains with minimal dune development. The vegetation is dominated by Mulga woodlands with ephemerals, hummock grasslands, saltbush shrublands and Halosarcia shrublands (Cowan et al., 2001).

2.5.2 Hydrology

Regionally, the Project lies within the Raeside-Ponton catchment within the Salt Lake Basin of the Western Plateau Division. Locally, the tenement is situated across five small catchments, with the Project footprint located almost entirely within two of these:

- A central, internally draining catchment with all associated drainage terminating within a small, unnamed mud pan located to the southeast of the tenement. This catchment covers approximately 13 km² and contains the northern mining area and the majority of the Project haul roads.
- A southern catchment that drains into the north-west extremity of Lake Goongarrie. This catchment covers approximately 29 km², of which 13 km² is situated within the tenement. The southern mining area and associated haul roads are located within this catchment.

There are no defined drainage lines within the tenement, with stormwater flow expected to occur as sheetwash in a south-easterly direction.

2.5.3 Flora and Vegetation

Goldfields Landcare Services (GLS) were commissioned in 2021 to undertake a detailed flora and vegetation survey over two areas covering 774 ha. This survey complemented a reconnaissance level survey completed in 2017 and 2018 that covered 512 ha. The assessment consisted of a desktop assessment and field survey to verify the results. To cover the remaining area of 208 ha of unsurveyed area within the Mining Lease (ML), RPS Group (RPS) was commissioned to undertake a detailed flora and vegetation survey. The assessment consisted of a review of previous survey and a field survey.

The field surveys recorded no Threatened Ecological Communities (TECs) or threatened flora species listed under the EPBC Act (GLS, 2022).

2.5.4 Terrestrial Fauna

Western Wildlife were commissioned to undertake a basic vertebrate fauna survey and targeted Malleefowl survey in 2021 (Western Wildlife, 2022) with an extension to the survey area occurring in 2023. The fauna study recorded one species listed as Vulnerable under the EPBC Act, Malleefowl (*Leipoa ocellata*). The five fauna habitats identified in the study area have been assessed for their likelihood to support Malleefowl and is provided in Table 2-2 and presented in Figure 2-3.

Table 2-2 Fauna Habitat

Fauna Habitat	Key Fauna Elements	Likely Malleefowl Presence	Total Study Area (ha)	Area in Indicative Development Envelope (ha)
Mulga Woodland	<ul style="list-style-type: none"> Tall, dense shrubland provides habitat for nesting birds. Larger mulga trees provide crevices and small hollows. Leaf litter and gravelly sands provide breeding habitat for Malleefowl. 	<ul style="list-style-type: none"> Known to occur. Malleefowl mounds identified during field survey. Evidence such as tracks observed during field survey. Highly likely mounds identified during LiDAR surveys. 	150.5	0.0
Acacia Shrubland	<ul style="list-style-type: none"> Tall, dense shrubland provides habitat for nesting birds. Leaf litter and gravelly sands provide breeding habitat for Malleefowl. Scattered mallee eucalypts provide crevices and small hollows. 	<ul style="list-style-type: none"> Known to occur. Malleefowl mounds identified Evidence such as tracks observed during field survey Highly likely mounds identified during LiDAR surveys. 	423.3	14.8
Sand Dune	<ul style="list-style-type: none"> Loose sands provide habitat for fossorial reptiles. Scattered mallee eucalypts provide crevices and small hollows. 	<ul style="list-style-type: none"> Known to traverse through Sand Dune habitat type. No mounds identified during field survey or LiDAR survey. 	81.7	73.4
Eucalypt-spinifex Sandplain	<ul style="list-style-type: none"> Scattered mallee eucalypts provide crevices and small hollows. Consolidated sands provide habitat for burrowing fauna. Spinifex provides habitat for some reptiles. 	<ul style="list-style-type: none"> Known to traverse through Eucalypt-spinifex Sandplain habitat type. No mounds identified during field survey or LiDAR survey. 	115.5	4.8

Fauna Habitat	Key Fauna Elements	Likely Malleefowl Presence	Total Study Area (ha)	Area in Indicative Development Envelope (ha)
Salt Lake	<ul style="list-style-type: none"> May support waterbirds when inundated. 	<ul style="list-style-type: none"> No evidence of Malleefowl as unsuitable for breeding or foraging. 	2.3	0.0
Total			773.3	93

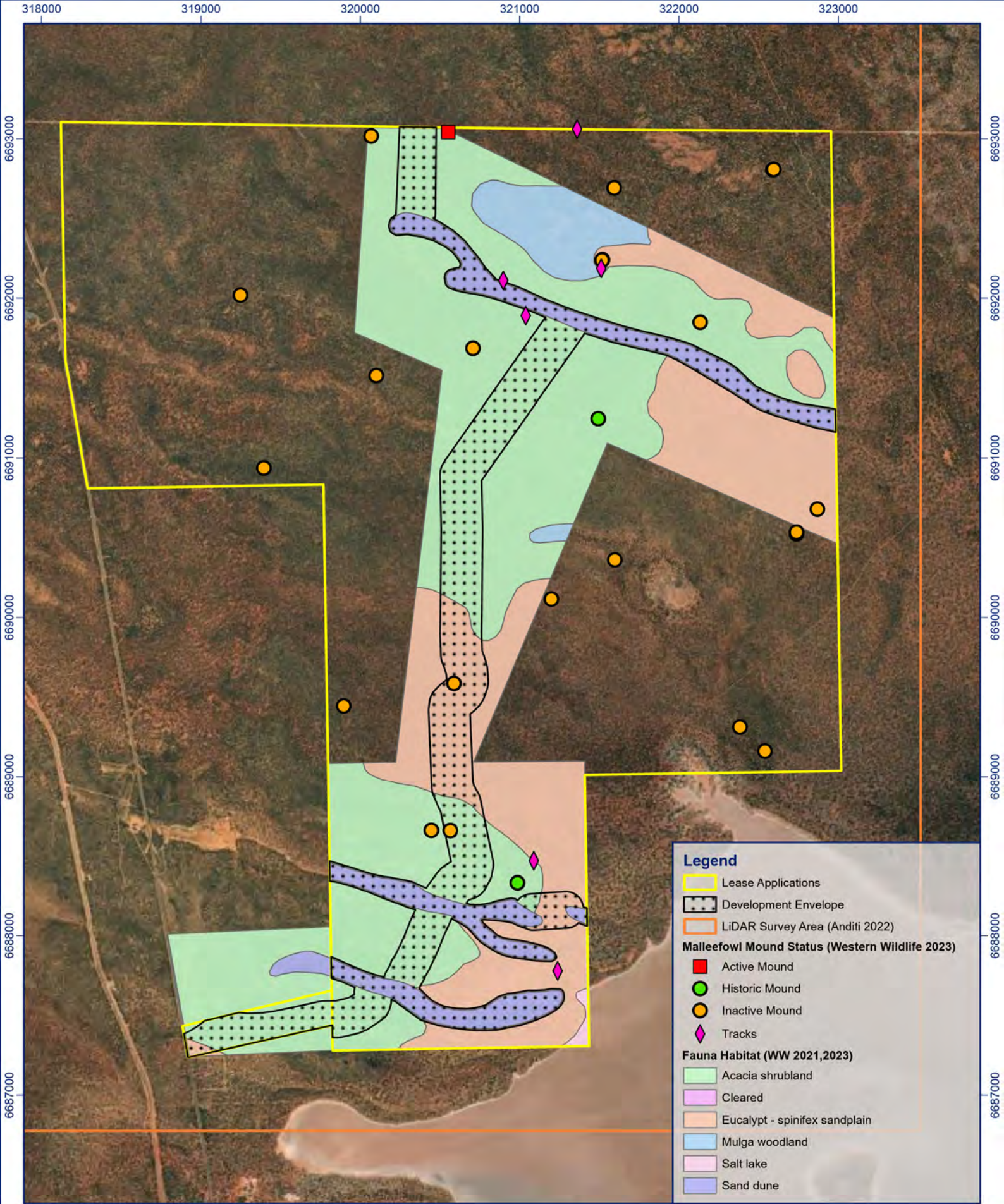
An assessment of study area summarised the recorded Malleefowl mounds into three categories based on activity:


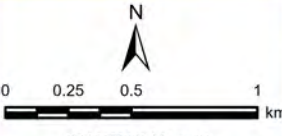

- Active mounds - those currently incubating eggs.
- Inactive mounds - not currently active but may be used again in the future.
- Historic mounds - very weathered mounds not used for several years.

Mounds recorded within the survey area and the buffer area are described in Table 2-3.

Table 2-3 Classification of Malleefowl Mounds

Classification	Number of Mounds	
	Survey Area	50 km ² Buffer Area
Active	1	1
Inactive	8	23
Historic	2	2
Total	11	26



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		Figure Name: Malleefowl Survey Records				
Data Sources: <ul style="list-style-type: none"> Esri, DigitalGlobe, GeoEye, i-cubed, USDA FSA, USGS, AEX, Getmapping, Aerogrid, IGN, IGP, swisstopo, and the GIS User Community (2023) <i>ESRI Satellite Imagery</i>, Basemap Western Wildlife (2021,2023) <i>Comet Vale Fauna Report</i> IBSA Data Package Anditi (2022) <i>Comet Vale 2 Malleefowl Mound Analysis</i> 						

3. Management Framework

3.1 Roles and Responsibilities

Management at all levels and supervisory personnel are expected to lead by example and set high standards for environmental management. They are to immediately correct any non-conforming conditions or behaviours and promote environmental awareness. The roles and responsibilities of site personnel are provided in Table 3-1.

Table 3-1 Roles and Responsibilities

Role	Responsibilities
Managing Director	<ul style="list-style-type: none"> Overall responsibility for the environmental management system. Liaises with stakeholders.
General Manager	<ul style="list-style-type: none"> Overall responsibility for site-specific implementation of environmental policy, systems and management measures.
Operations and Site Managers	<ul style="list-style-type: none"> Ensures Integrated Management System (IMS) is prepared, implemented uniformly, revised and maintained. Ensures implementation and regular review of relevant environmental management measures. Liaison with applicable employees as required.
Contractors	<ul style="list-style-type: none"> Fulfil contractual obligations and abide by MLG's IMS. Ensures that contractors fulfil their contractual obligations in regards to health, safety and environment (HSE) requirements.
HSE Manager and HSE Advisors	<ul style="list-style-type: none"> Ensures IMS is prepared, implemented uniformly, revised and maintained. Assesses the suitability and effectiveness of the IMS. Implements induction procedures and appropriate awareness sessions training. Ensures compliance with legislation and company policy via the establishment and maintenance of appropriate reporting systems and MYOSH (current Occupational Health and Safety incident and compliance system) databases. Participates with personnel to improve work practices on site. Undertakes internal site environmental audits. Liaises with stakeholders. Ensures implementation and regular review of environmental management measures.

3.2 Reporting

The Annual Compliance Report (ACR) to DCCEEW will report on environmental compliance and management practices. It will encompass details of all reported incidents applicable to this EMP during the year including, but not limited to:

- Date and time of the incident.
- Description of the incident and its potential causes.

- Actions to address the incident, including containment, remediation, and mitigation measures.
- Lessons learned from the incident and any changes implemented in management actions to prevent future occurrences.

In addition, MLG will report incidents associated with this EMP within seven business days to the appropriate federal or state regulatory authority that may be involved ie DCCEE, Department of Biodiversity (DBCA), Department of Water and Environmental Regulation (DWER).

3.3 Training Awareness

Site induction materials include environmental information relevant to all MLG employees and contractors. The general site induction ensures the Project team is made aware of environmental and social objectives, targets, risks, and procedures and provides training in Project-specific systems and procedures, where relevant. The site induction will include the MLG Workplace Familiarisation Induction which includes information regarding the environmental expectations and processes implemented at the workplace and shall be completed by all personnel engaged in support of the contracted scope of works at the Project.

MLG shall maintain records to verify that personnel have received the appropriate training and are competent to perform their roles. Training records for all personnel shall be entered into MYOSH, allowing for a workplace Training Matrix to be generated.

3.4 Emergency Contact and Procedures

Environmental incidents that occur either as a result of an emergency, accident or equipment malfunction and which cause or threaten serious environmental harm or material environmental harm, will be reported to the Site Manager (or delegate) and also to relevant regulatory authorities (as relevant) within 24 hours of the event as per 'OHS.GEN.PRO.005 Incident Management & Investigation'.

The incident will be registered in the MYOSH System Database, investigated, and where required an investigation report will be formulated.

In addition to statutory reporting requirements, the incident report will detail any deficiencies in the IMS or its elements (e.g., EMP and standard operating procedures). Any such deficiencies will result in the revision of the relevant IMS elements, other documents and appropriate additional training, as required.

The MYOSH System Database will be used for all operational records in relation to occupational health and safety (OH&S) and environmental incidents, near misses and hazards.

4. Potential Environmental Impacts and Risks

4.1 Environmental Policy

MLG acknowledges a responsibility to the environment and commit to implementing practices which will promote environmental sustainability. The following policy governs the management of the environment aspects of the company with specific focus on the environmental risks and actively reducing waste.

The policy relates to all operations across the business and is continually reviewed to ensure environmental and social considerations are embedded in everyday practices. The company consistently encourages participation by employees in environmental matters.

MLG is committed to the following principles:

- Comply with any laws governing the environment, and actively looking for ways to improve on these guidelines.
- Work towards the conservation of energy, water and resources in all our operations.
- Strive to better understand both the direct and indirect impacts that our practices may have on the environment.
- Promote and communicate environmental awareness throughout all operations of the company.
- Dispose of waste thoughtfully, and develop an attitude of 'reducing, recycling and reusing'.
- Lessen the environmental impact by incorporating environmental considerations into business decision-making processes and where practical and economically viable purchase environmentally-friendly products.
- Work with our entire supply chain in order to gain mutual benefits of incorporating environmentally sustainable goals into everyday business.
- Committed to actively considering the use of alternative energy sources, and low emissions technology, as they become economically viable.

4.2 Environmental Risk Assessment

The risk assessment was completed based on the Likelihood and Consequence descriptions shown in Table 4-1 and Table 4-2 to determine the risk rating described in Table 4-3. The potential impacts to Malleefowl identified in are presented in the Project’s risk assessment provided as Appendix 1

Table 4-1 Likelihood Criteria

Likelihood	Description
Almost Certain	Common or Frequent occurrence (e.g., once per day)
Likely	Is known to occur or “it’s happened” (e.g., >once per month, but <once per day)
Possible	Could occur or “I’ve heard of it happening” (e.g., >once per year, but < once per month)
Unlikely	Not Likely to occur (e.g., <once per year)
Rare	Rare / practically impossible (e.g., very unlikely to ever occur)

Table 4-2 Consequence Criteria

Consequence	Description
Insignificant	None or insignificant impact of MNES (Malleefowl) with no effect on ecosystem function
Minor	Moderate to minor impact to MNES (Malleefowl) resulting in a minor, recoverable impact.
Moderate	Minor and short-term impact to MNES expected, resulting in a moderate, recoverable impact.
Major	Long-term impact to MNES expected, resulting in a major, recoverable impact.
Catastrophic	Irreversible impact to MNES expected.

Table 4-3 Risk Rating Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Catastrophic
Almost Certain	Medium	High	High	Extreme	Extreme
Likely	Medium	Medium	High	High	Extreme
Possible	Low	Medium	Medium	High	High
Unlikely	Low	Low	Medium	Medium	High
Rare	Low	Low	Low	Medium	Medium

5. Environmental Management Measures

This section outlines the provisions that MLG will undertake to achieve the environmental objectives established for the construction and operation phases of the Proposed Action. The objective based provisions are tailored to address the key impacts to the Malleefowl and are aligned with the provisions presented within the National Recovery Plan for Malleefowl (*Leipoa ocellata*) (Department of Environment and Heritage South Australia, 2007).

Objective-based management actions and targets are outlined in Table 5-1. Management actions specified in the provision table are in line with the conservation species conservation significance and the potential impacts of the Proposed Action.

Table 5-1 Objective Based Provisions

Management Objective: To ensure the Proposed Action is undertaken in a manner that minimises direct and indirect impacts on the Malleefowl				
Key environmental value: Malleefowl (<i>Leipoa ocellata</i>)				
Management Targets	Management Actions	Monitoring	Timing/Frequency of Actions	Reporting
Prevent the loss of Malleefowl individuals within the Development Envelope				
Key impact: Mortality of individuals due to land clearing for the Proposed Action				
No mortalities of Malleefowl individuals from land clearing activities.	<ul style="list-style-type: none"> • Training and awareness of internal ground disturbance procedure and known MNES. • Implement the Land Clearing Procedure. • All vehicles and equipment movement will be restricted to existing tracks, roads, and the area proposed for clearing. • Clearing will preferentially be undertaken outside of Malleefowl breeding season (October to December). 	<ul style="list-style-type: none"> • Employee training records. • Environmental compliance inspections. • Fauna register. 	<ul style="list-style-type: none"> • Prior to clearing during construction and operational phases of the Proposed Action. • During clearing. 	<ul style="list-style-type: none"> • Mortalities reported to DBCA within seven business days. • Annual Compliance Report (ACR).
Avoid and minimise impacts to potential critical habitat during construction and operational phases				
Key impact: Loss of potential critical habitat due to the Proposed Action				
Limit clearing of critical habitat for the Malleefowl to upper clearing limit.	<ul style="list-style-type: none"> • Spatial data of current Malleefowl habitats and sightings to be maintained (Fauna Register) and used in planning of clearing activities. • Minimise clearing of critical habitat to as low as reasonably possible. • Pre-clearance survey to identify Malleefowl Mounds completed prior to clearing. Where active Malleefowl mounds are surveyed, a 50 m buffer to be flagged and avoided. 	<ul style="list-style-type: none"> • Environmental compliance inspections. • Clearing and fauna registers. • Annual aerial capture of areas cleared against critical habitat (satellite or Remotely Piloted Aircraft). 	<ul style="list-style-type: none"> • Pre-clearing. • Annual reconciliation of critical habitats cleared. 	<ul style="list-style-type: none"> • ACR. • Mine Rehabilitation Fund (MRF) (WA).

Management Objective: To ensure the Proposed Action is undertaken in a manner that minimises direct and indirect impacts on the Malleefowl

Key environmental value: Malleefowl (*Leipoa ocellata*)

Management Targets	Management Actions	Monitoring	Timing/Frequency of Actions	Reporting
Improvement to remaining habitat by managing key threats				
Key impact: Fire resulting from Proposed Action				
<p>Minimise accidental bushfires started by activities from the Proposed Action.</p>	<ul style="list-style-type: none"> Conduct site inductions that include fire prevention and control measures. Appropriate firefighting equipment is to be available to control localised outbreaks of fire. Regular inspection and maintenance of firefighting equipment will be implemented to comply with relevant fire safety standards. Emergency response (firefighting) procedures are to be implemented to control fires that arise from the implementation of the Proposed Action. No hot works performed onsite with all maintenance activities conducted at the MLG depot. No unauthorised off-road driving to prevent vehicles and machinery from igniting grassfires. All vehicles will carry portable fire extinguishers, with training provided on fire-fighting equipment. 	<ul style="list-style-type: none"> Induction and training records. Inspection of firefighting equipment to ensure availability and compliance with fire safety standards. Inspection of hazard/incident records. 	<ul style="list-style-type: none"> Annually or as appropriate during the life of mine. 	<ul style="list-style-type: none"> ACR
Key Impact: Weeds resulting from the Proposed Action				
<p>Target and manage existing or emerging weed populations as a result of the Proposed Action.</p>	<ul style="list-style-type: none"> Implementation of vehicle and equipment hygiene measures. No materials or fill brought to the site unless certified clean. 	<ul style="list-style-type: none"> Environmental inspection records of earth-moving equipment. 	<ul style="list-style-type: none"> Annual inspections or as appropriate during the life of mine. Weed control as required. 	<ul style="list-style-type: none"> ACR

Management Objective: To ensure the Proposed Action is undertaken in a manner that minimises direct and indirect impacts on the Malleefowl

Key environmental value: Malleefowl (*Leipoa ocellata*)

Management Targets	Management Actions	Monitoring	Timing/Frequency of Actions	Reporting
	<ul style="list-style-type: none"> Implement weed control as required. All site personnel to be informed during their site induction of the risk of weeds. Presence of weeds included in environmental hazard and site inspections. 	<ul style="list-style-type: none"> Inspections to assess material storage. Induction presentations, materials, and records. Targeted monitoring and management in high-risk areas. 		
Prevent deaths or injuries to the Malleefowl by managing key threats				
Key impact: Feral predators resulting from the Proposed Action				
<p>Target and manage existing or emerging feral fauna populations as a result of implementation of the Proposed Action.</p>	<ul style="list-style-type: none"> The feeding and capture of fauna is strictly prohibited by onsite personnel. Periodic feral predator control implemented across the exploration licence and mining tenement (once granted). Implementation of Waste Management Procedure. 	<ul style="list-style-type: none"> Environmental incident records. Maintain feral sights records. Induction presentation, materials and records. 	<ul style="list-style-type: none"> Annual or as appropriate during the life of mine. Control as required. 	<ul style="list-style-type: none"> ACR
Key impact: Direct strikes from vehicle and machinery movement				
<p>Minimise mortalities of Malleefowl individuals due to vehicle movement.</p>	<ul style="list-style-type: none"> Induction will include site speed limits and reporting requirements for vehicle impacts with Malleefowl. Vehicles and machinery are to remain on designated roads. Roads and tracks signposted with speed limits and warnings of presence of Malleefowl. 	<ul style="list-style-type: none"> Speed signage in place. Fauna signs in place. Environmental induction records. Environmental incident records. Inspection of incident records 	<ul style="list-style-type: none"> Annual or as appropriate during the life of mine. 	<ul style="list-style-type: none"> Mortalities reported to DBCA within seven business days. ACR.

Management Objective: To ensure the Proposed Action is undertaken in a manner that minimises direct and indirect impacts on the Malleefowl

Key environmental value: Malleefowl (*Leipoa ocellata*)

Management Targets	Management Actions	Monitoring	Timing/Frequency of Actions	Reporting
Key impact: Fauna encounters/interactions				
Avoid direct or indirect deaths or injuries of fauna due to Proposed Action.	<ul style="list-style-type: none"> All site personnel to be informed during their site induction of EPBC Act listed threatened species (Malleefowl) Malleefowl encountered on site are to be recorded and records maintained for the Proposed Action. This will include locations, and animal status (alive/dead). Malleefowl injury or fatality to be documented as an incident. If Malleefowl are required to be moved, individuals are to be handled and transported in accordance with the requirements of the BC Act. Feeding of native fauna, hunting, keeping of firearms or pets on site is prohibited. 	<ul style="list-style-type: none"> Inspection of records, related to sightings, records, encounters and fauna removal. Training records. 	<ul style="list-style-type: none"> Annual or as appropriate during the life of mine. 	<ul style="list-style-type: none"> ACR

6. Audit and Review

6.1 Audits

Compliance with different State and Federal requirements will be evaluated through internal and external audits. Completion of these audits shall be recorded in MYOSH and any findings from the audit shall be recorded in the Project Environmental Risk Register. Failure to comply with any of the requirements and documents stated in this EMP, or any partial compliance, will generate non-compliance which will be treated with preventive or corrective actions.

6.2 EMP Compliance

To measure compliance with the EMP, the Site Supervisor shall complete an audit and communicate the results to the Personnel and Contractors, as soon as practicable. Contractors shall develop actions to address all identified non-compliances identified in the audit. Actions shall be entered into the MYOSH and describe the non-compliance issue, the action required to remedy the non-compliance, person(s) assigned accountability for the action, and a date the action is to be completed.

6.3 Management Review

MLG recognises the importance of continual improvement and shall review this EMP to ensure that it remains suitable at the following times:

- At least every 12 months.
- Following any change to regulatory requirements.
- As a result of trends in environmental incidents.
- Following any recommendations for improvement as identified in inspections and audits.

7. Glossary

For the purposes of this Environmental Management Plan, the following terms, definitions, and acronyms apply.

Abbreviation	Description
AS/NZS	Australian/New Zealand Standard
CRAW	Critical Risk Assessment Workshop
DWER	Department of Water and Environmental Regulation (WA)
DEMIRS	Department of Energy, Mines, Industry Regulation and Safety (WA)
EMP	Environmental Management Plan
HSMS	Health and Safety Management System
JHA	Job Hazard Analysis
MLG	Murray Leahy Group (where referenced also extends to contractors)
MYOSH	Safety Management System Software
PROJECT	Comet Vale
SDS	Safety Data Sheet
SWI	Safe Work Instruction
WHS	Work Health and Safety

8. References

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Appendices

Appendix 1 Risk Assessment

Risk Event	Potential Impact	Inherent			Mitigation Measures	Risk		
		Likelihood	Consequence	Rating		Likelihood	Consequence	Rating
Unauthorised clearing outside of approved areas	Reduction in habitat critical to the survival of the species	Likely	Moderate	High	<ul style="list-style-type: none"> Approved clearing areas are demarcated prior to disturbance. Implementation of internal clearing procedure. Induction for all onsite personnel. 	Unlikely	Moderate	Medium
Clearing of Malleefowl mounds	Reduced breeding success of resident breeding pairs	Likely	Moderate	High	<ul style="list-style-type: none"> Approved clearing areas are demarcated prior to disturbance. Pre-clearance surveys undertaken to identify any mounds. Any mounds identified during pre-clearance surveys are avoided with a 50 m buffer applied from clearing. 	Unlikely	Moderate	Medium
Machinery strike on individual birds during clearing activities	<ul style="list-style-type: none"> Loss of individuals Loss of breeding pairs Loss of young chicks unable to escape machinery 	Possible	Minor	Medium	<ul style="list-style-type: none"> Pre-clearance surveys are undertaken prior to clearing activities. Any mounds identified during pre-clearance surveys are avoided with a 50 m buffer applied from clearing. Clearing to be undertaken towards undisturbed vegetation to allow individuals to escape into vegetation cover. 	Unlikely	Minor	Low
Vehicle strike from light vehicles travelling through site	<ul style="list-style-type: none"> Loss of individuals Loss of breeding pairs 	Possible	Minor	Medium	<ul style="list-style-type: none"> Offroad driving is prohibited by all MLG employees and contractors. Signage will be erected upon entrance to the site, warning drivers that Malleefowl is present. A maximum of 40 km/hr speed limit applied across the whole site. All vehicle strikes are immediately reported. Clearing will preferentially be undertaken outside of Malleefowl breeding season (October to December) 	Unlikely	Minor	Low

Risk Event	Potential Impact	Inherent			Mitigation Measures	Risk		
		Likelihood	Consequence	Rating		Likelihood	Consequence	Rating
Fragmentation of habitat from clearing	Reduction of continuous habitat foraging.	Possible	Moderate	High	<ul style="list-style-type: none"> Excavation areas are limited to 10 ha open at any one time. Progressive rehabilitation is completed throughout the LOM. Existing pastoral tracks are utilised where possible. . 	Unlikely	Moderate	Medium
Incorrect storage or disposal of putrescible waste	Increase in feral predator species causing increase in mortality of young and adult birds	Possible	Moderate	High	<ul style="list-style-type: none"> No infrastructure onsite, with all employees and contractors driving on to site each day. All putrescible waste is disposed offsite in approved waste facilities.as per OHS.GEN.STD.003.0 Environmental Standards 3: Waste Management Waste management is included in the Site Induction. 	Unlikely	Moderate	Medium
Poor rehabilitation techniques	<ul style="list-style-type: none"> Increase in ponding of surface water attracting feral predator and herbivore species. Foraging and critical habitat not returned to a self-sustaining ecosystem 	Likely	Moderate	High	<ul style="list-style-type: none"> Rehabilitation undertaken in accordance with approved MCP. Rehabilitation undertaken in a way to reduce water ponding. 	Unlikely	Moderate	Medium
Unauthorised fire from Project activities	<ul style="list-style-type: none"> Reduction in critical habitat Reduction of foraging habitat 	Likely	Major	High	<ul style="list-style-type: none"> All onsite personnel are trained in available firefighting equipment and techniques. All light and heavy vehicle equipment are fitted with firefighting equipment. No hot work is performed onsite. Offroad driving is prohibited by onsite personnel. 	Unlikely	Major	Medium

Risk Event	Potential Impact	Inherent			Mitigation Measures	Risk		
		Likelihood	Consequence	Rating		Likelihood	Consequence	Rating
	<ul style="list-style-type: none"> Loss of individual birds or breeding pairs 				<ul style="list-style-type: none"> Deliberate burning of vegetation onsite is prohibited. Smoking by onsite personnel to be undertaken in designated areas away from vegetation. Cigarette butts are extinguished appropriately and disposed of in appropriate waste facility offsite. 			
Excessive dust generation	Reduction in health of vegetation critical to the survival of Malleefowl	Possible	Minor	Medium	<ul style="list-style-type: none"> Clearing of vegetation and stripping of topsoil is not undertaken during periods of high winds. Screening of product is not undertaken during periods of high winds. Adherence to speed limits to reduce dust generation. Utilisation of standard dust suppression techniques including use of water cart on access roads when required. Adhere to ENV.CRU.PLN.004.0 Dust Management and Minimisation. 	Unlikely	Minor	Low
Introduction and/or spread of weed species	Reduction in health of vegetation critical to the survival of Malleefowl	Likely	Minor	Medium	<ul style="list-style-type: none"> Adherence to Weed Management Procedure. All vehicles and machinery are clean of seeds, soils and plant material prior to entering site. 	Unlikely	Minor	Low
Excessive noise and vibration from machinery and plant	Individual birds do not breed in areas close to the operating excavation area	Likely	Minor	Medium	<ul style="list-style-type: none"> All vehicles are regularly serviced to manufacturers specifications. Heavy vehicles only utilised when required. 	Unlikely	Moderate	Medium
Spills from hydrocarbon handling or onsite refuelling	Decline of critical or foraging fauna habitat surrounding impact area.	Possible	Minor	Medium	<ul style="list-style-type: none"> Hydrocarbons managed in accordance with Australian Standard 1940-2004. Implementation and adherence to site Spill Response Procedure. No fuel stored on site. 	Rare	Minor	Low

Risk Event	Potential Impact	Inherent			Mitigation Measures	Risk		
		Likelihood	Consequence	Rating		Likelihood	Consequence	Rating
					<ul style="list-style-type: none"> Preventative maintenance program of all light and heavy vehicles. Refuelling to occur in disturbed areas only where topsoil and vegetation have been stripped for excavation. Refuelling cart to be equipped with spill kit that is regularly maintained and stocked. Spills are to be cleaned up immediately and reported. 			
Surface water runoff from contaminants from Proposed Action	<ul style="list-style-type: none"> Decline in health of foraging and critical habitat from contaminants after rainfall. Contamination or sedimentation of surface water systems. 	Possible	Minor	Medium	<ul style="list-style-type: none"> Implement erosion control measures to prevent sediment runoff from excavation area. Implementation of Hydrocarbon Management Procedure to prevent spills and runoff. Adhere to all relevant environmental regulation, permits and reporting requirements related to surface water management. 	Unlikely	Minor	Low