

Page: 1 of 19

MMG **Environment**

Mt Magnet Clearing Permit **Supporting Information**



Page: 2 of 19

MMG

Environment

TABLE OF CONTENTS

1.	INTRODUCTION	1
_,		
1.1.	LOCATION & TENURE	1
1.2.	DESCRIPTION OF CLEARING ACTIVITIES	4
2.	BIOPHYSICAL ENVIRONMENT	4
2.1.	REGIONAL ENVIRONMENT	4
2.2.	CLIMATE	6
2.3.	SOIL AND LANDSCAPE	6
2.4.	BIODIVERSITY AND ECOSYSTEM	7
3.	LEGISLATIVE FRAMEWORK	8
3.1.	HYDROLOGY	10
4.	ENVIRONMENTAL MANAGEMENT	12
4.1.	MITIGATION HIERARCHY	12



Page: 1 of 19

MMG Environment

1. INTRODUCTION

The region surrounding the Project has a long history of mining since the discovery of gold in 1888. Mount Magnet Gold (MMG) Operations is extensive and includes open pit and underground mines; waste rock landforms, a processing facility; tailings storage facilities, and a range of supporting infrastructure. Around 80 tenements cover an area of approximately 180 km².

An approved purpose clearing permit (CPS 7445/2) is in place. This application is for project areas that are outside CPS 7445/2. On DEMIRS advice MMG are applying for a new Native Vegetation Clearing Permit (NVCP) which will adjoin the existing clearing footprint for additional areas within the MMG tenement portfolio. Figure 1-1 shows the CPS 7445/2 envelope and the new areas to be included in the new permit.

This document provides supporting information to the clearing permit application.

1.1. **LOCATION & TENURE**

MMG operations are located adjacent to the town of Mount Magnet in the Murchison Region of Western Australia (WA). The township of Mount Magnet is located 570 km northeast of Perth and 320 km east of Geraldton.

A location map of the proposed purpose permit boundary is included in Figure 1-1. Details on twenty five (25) tenements intersected either partially or wholly within the seven clearing permit area polygons are provided in Table 1. Mt Magnet Gold Pty Ltd (MMG) tenement holder, the subject of this application, is a wholly owned subsidiary of Ramelius Resources Pty Ltd (Ramelius). The ownership tenement reports are attached in Appendix 1.

Table 1: Project Tenements

Tenement	Holder	Status
G58/8	Mt Magnet Gold Pty Ltd	Live
M58/119	Mt Magnet Gold Pty Ltd	Live
M58/120	Mt Magnet Gold Pty Ltd	Live
M58/121	Mt Magnet Gold Pty Ltd	Live
M58/136	Mt Magnet Gold Pty Ltd	Live
M58/147	Mt Magnet Gold Pty Ltd	Live
M58/173	Mt Magnet Gold Pty Ltd	Live
M58/174	Mt Magnet Gold Pty Ltd	Live
M58/180	Mt Magnet Gold Pty Ltd	Live
M58/186	Mt Magnet Gold Pty Ltd	Live
M58/187	Mt Magnet Gold Pty Ltd	Live
M58/192	Mt Magnet Gold Pty Ltd	Live
M58/193	Mt Magnet Gold Pty Ltd	Live
M58/194	Mt Magnet Gold Pty Ltd	Live
M58/201	Mt Magnet Gold Pty Ltd	Live
M58/205	Mt Magnet Gold Pty Ltd	Live
M58/210	Mt Magnet Gold Pty Ltd	Live
M58/233	Mt Magnet Gold Pty Ltd	Live
M58/273	Mt Magnet Gold Pty Ltd	Live
M58/30	Mt Magnet Gold Pty Ltd	Live
M58/60	Mt Magnet Gold Pty Ltd	Live



Page: 2 of 19

MMG Environment

Tenement	Holder	Status
M58/78	Mt Magnet Gold Pty Ltd	Live
M58/79	Mt Magnet Gold Pty Ltd	Live
M58/80	Mt Magnet Gold Pty Ltd	Live
M58/81	Mt Magnet Gold Pty Ltd	Live



Page: 3 of 19

MMG **Environment**



Mt Magnet **NVCP** application

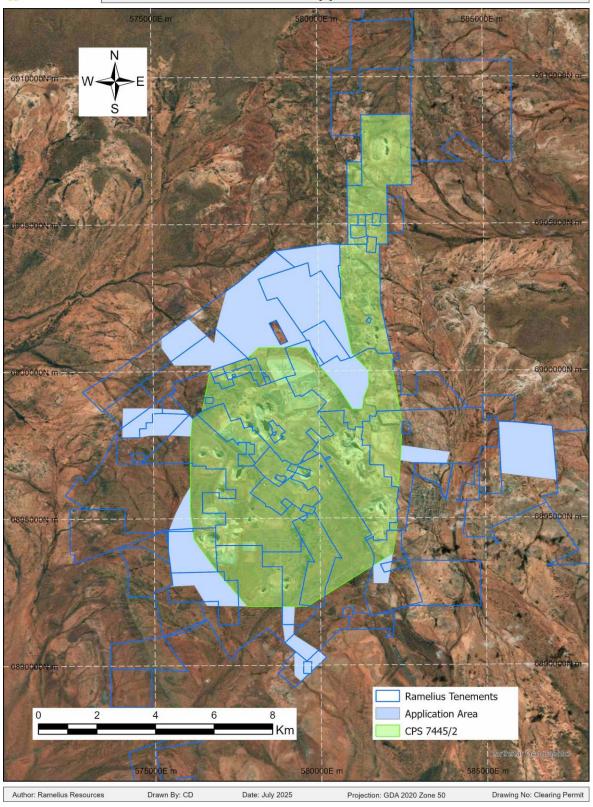


Figure 1-1: Clearing permit areas



Page: 4 of 19

MMG **Environment**

1.2. **DESCRIPTION OF CLEARING ACTIVITIES**

Vegetation clearing of up to 950 ha in an activity area of 2,658 ha will be required for the following activities:

- Expansion of the Eridanus open pit
- Construction of a new tailings storage facility
- Construction of wind turbines
- Expansion and cutbacks of a number of existing open pits
- Ancillary infrastructure; access roads, pipelines, powerlines.

Each of the major components will also require a mining proposal to be submitted to DEMIRS. This will include relevant supporting technical reports.

2. **BIOPHYSICAL ENVIRONMENT**

2.1. **REGIONAL ENVIRONMENT**

According to the Interim Biogeographic Regionalisation of Australia (IBRA) the study area lies within the Eastern Murchison subregion of the Murchison Region (Figure 2-1). The Eastern Murchison subregion lies on the northern parts of the 'Southern Cross' and 'Eastern Goldfields' Terrains of the Yilgarn Craton. This subregion is characterised by systems of internal drainage, with extensive tracts of red sand plains, series of salt lake systems that are associated with an occluded Paleodrainage system, broad plains of red-brown soils and breakaway complexes (Cowan 2001). Beard (1990) describes the topography of the region as undulating with occasional ranges of low hills and extensive sandplains located in the east. The dominant soil type is a shallow earthy loam, overlying red-brown hardpan. Red earthy sands can be found on the sandplains.

Vegetation of the Eastern Murchison subregion is dominated by Mulga Woodlands that are frequently rich in ephemerals, hummock grasslands, saltbush shrublands and Tecticornia shrublands (Cowan 2001). The Murchison Bioregion was described as being comparatively biodiverse, with many species having wide distributions, with many known to occur in adjoining regions.



Page: 5 of 19

Environment MMG

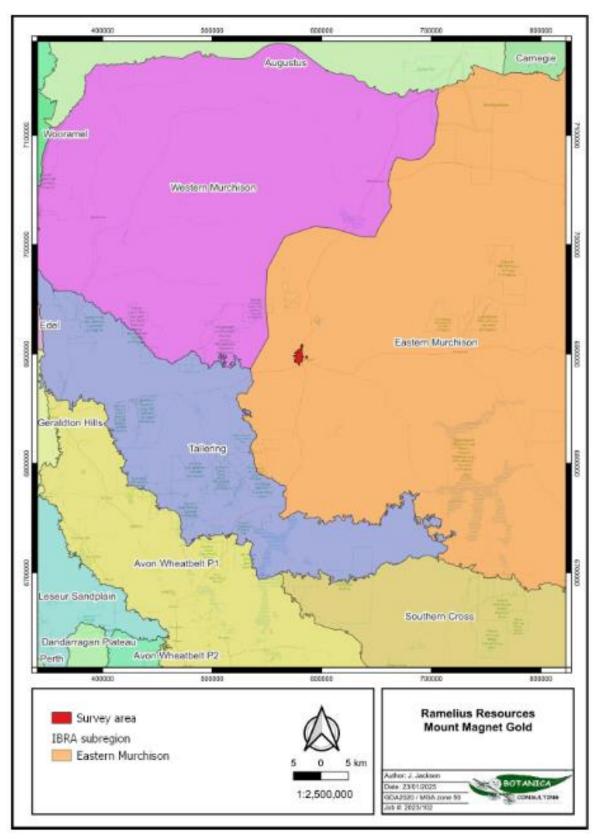


Figure 2-1 IBRA Regions of Western Australia



Page: 6 of 19

MMG **Environment**

2.2. **CLIMATE**

The Mount Magnet area is on the border of desert and semi desert Mediterranean climatic regions. According to climate data obtained from the Bureau of Meteorology (BoM), the mean maximum temperature ranges from 38°C in January to 18.7°C in July and mean minimum temperatures from 23.4°C to 7°C, over the same period. The region has autumn-winter dominated rainfall, with maximum mean monthly rainfalls occurring between May and August. Rainfall is unreliable and highly variable with an average rainfall of 258 mm and an evaporation rate of 2800 mm. On average, there are 58 wet days/year. Average relative humidity is 49%. Winds are persistent and generally from the south-east. Climate data for the Mount Magnet weather station (#7600) is shown in Figure 2-2 (BoM, 2017).

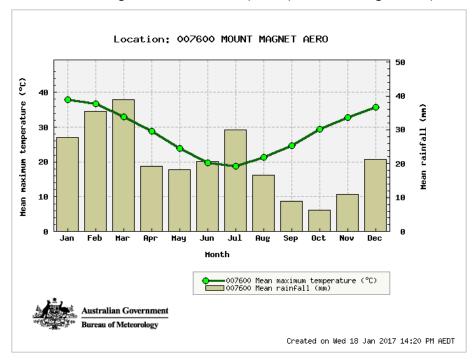


Figure 2-2 Mount Magnet mean monthly climate data

SOIL AND LANDSCAPE 2.3.

The survey area lies within the Murchison Province, which consists of hardpan wash plains and sandplains (with some stony plains, hills, mesas and salt lakes) on the granitic rocks and greenstone of the Yilgarn Craton. Soils include red loamy earths, red sandy earths, red shallow loams, red deep sands and red-brown hardpan shallow loams (with some red shallow sands and red shallow sandy duplexes). Vegetation comprises of mulga shrublands with spinifex grasslands (and some bowgada shrublands, eucalypt woodlands and halophytic shrublands). This zone is located in the inland Midwest and northern Goldfields between Three Springs, the Gascoyne River, Wiluna, Cosmo Newberry and Menzies. (Tille, 2006).

The Yalgoo Plains Zone is comprised of hardpan wash plains (with some sandplains, stony plains, mesas and granite outcrops) on granitic rocks (with some greenstone) of the Yilgarn Craton (Murchison Domain). Soils include red loamy earths and red shallow loams (often with hardpans) with red deep sands and red shallow sands and some red shallow sandy duplexes. Vegetation comprises mulga shrublands with bowgada shrublands (and some halophytic shrublands). This zone is located in the south-western Murchison from Paynes Find to Cue and Twin Peaks Station (Tille, 2006).



Page: 7 of 19

Environment MMG

2.4. **BIODIVERSITY AND ECOSYSTEM**

In late 2024, Botanica Consulting was engaged to conduct a Detailed Flora and Vegetation Survey and Basic Fauna Assessment across the entire MMG operation. The report dated February 2025 is attached in Appendix 2. A summary of the report's key findings is provided below:

- No Threatened Flora or Threatened Ecological Communities, as defined under the Western Australian Biodiversity Conservation Act 2016 or the Commonwealth Environment Protection and Biodiversity Conservation Act 1999, were identified within the survey area.
- No Priority Ecological Communities were identified.
- A total of six Priority flora taxa have been recorded in either previous surveys or the current survey. Neither of the P1 plants found in previous surveys were located in the current survey or are in the clearing permit extension area. The taxa are:
 - Stenanthemum mediale P1
 - Acacia lapidosa P1
 - Acacia burrowsiana P3
 - Alyxia tetanifolia P3
 - o Drosera eremaea (P3)
 - o Ptilotus beardii (P3)
- A total of eleven broad-scale vegetation communities were identified in the survey area. These vegetation types were identified within five landform types and comprised of three major vegetation groups.
- The survey area is located within three pre-European Beard vegetation associations. The extent and percent remaining of these vegetation associations is provided in Table 2.

Table 2: Pre European Vegetation

Association	Description	% remaining	Extent in survey area
Upper Murchison 313	Saltbush and bluebush with scrub or open scrub; Mulga (<i>Acacia aneura</i>), other Acacia spp., Atriplex spp. And Maireana spp.	97.80	3566ha (42.65%)
Barlee 202	crub, open scrub or sparse scrub; Acacia, Melaleuca (teatree) and other species.	99.96	5.2ha (0.05%)
Barlee 312	Saltbush and bluebush; Atriplex spp. and Maireana spp. communities on alkaline soils.	94.75	4782ha (57.3%)

- No evidence of conservation-significant fauna was observed.
- There are no Ramsar wetlands of international importance, no sites listed in the Directory of Important Wetlands (DIWA), or any nationally important wetlands.
- No Environmentally Sensitive Area (ESA) was identified.



Page: 8 of 19

Environment MMG

No proposed or gazetted conservation reserves are present.

3. **LEGISLATIVE FRAMEWORK**

Table 3 provides an assessment against the 10 clearing principles. Management actions are listed for specific clearing principles such that the outcome is that there will be no significant variance to any of the 10 clearing principles.



Page: 9 of 19

Environment MMG

Table 3: Clearing principles

	Principle	Existing Environment	Potential Impact	Management Action	Outcome
	Native vegetation should not be cleared if-				
	Biodiversity Significance				
1.	it comprises a high level of biological diversity.	Vegetation identified within the survey area is not considered to be of high biological diversity and is well represented outside of the survey area.	The project will result in only minor biodiversity loss through localised clearing	If available, collect seed from the cleared area for use in rehabilitation programmes	Clearing is not at variance with this principle
2.	it comprises the whole or part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to WA.	The basic fauna search did not record any evidence for the presence of significant fauna or habitat within the survey area.	The project will result in only minor local habitat loss in a region that is well covered in native vegetation.	Rehabilitation at the completion of operations will return habitat to the majority of the disturbed area.	Clearing is not at variance with this principle
3.	it includes, or is necessary for the continued existence of, rare flora.	No Threatened Flora taxa, pursuant to the BC Act and the EPBC Act were identified within the survey area.	No impact to DRF	No specific management measures necessary for this principle	Clearing is not at variance with this principle
4.	it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.	No TEC listed under the EPBC Act or by the BC Act occur within the survey area or within 40 km.	No impact to TEC	No specific management measures necessary for this principle	Clearing is not at variance with this principle
5.	it is significant as a remnant of native vegetation in an area that has been extensively cleared.	The Vegetation associations within the survey area retain >94% of their pre European extent,and development within the survey area will not significantly reduce the current extent of these vegetation associations.	No remnant vegetation communities in the project area	No specific management measures necessary for this principle	Clearing is not at variance with this principle
6.	it is growing in, or in association with, an environment associated with a watercourse or wetland.	There are no permanent/ perennial inland waters or drainage lines within the survey area. There are several minor ephemeral drainage lines occurring in the survey area.	Alteration of drainage paths by mine infrastructure and roads effect vegetation downstream and upstream	Access road crossings over ephemeral drainage lines will be designed as flooodways so that surface water flow is not impeded Diversion channels around mine infrastructure direct water back into natural drainage lines downstream of the infrastructure	Clearing may be at variance with this principle
	Land Degradation				
7.	the clearing of vegetation is likely to cause appreciable land degradation.	The survey area and surrounding region has not been extensively cleared. Clearing within the survey area is not considered likely to lead to land degradation issues such as salinity, water logging or acidic soils.	Overclearing due to poor planning and supervision	Internal clearing procedure is to be implemented as a control measure.	Clearing is not at variance with this principle
	Conservation Estate				
8.	the clearing of vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.	The nearest gazetted conservation reserve is the Lakeside Conservation Park, located approximately 34 km north of the survey area. Clearing within the survey area will not impact this Reserve.	No impact to the conservation estate	No specific management measures necessary for this principle	Project is not at variance with this principle
	Ground and Surface Water Quality				
9.	the clearing of vegetation is likely to cause deterioration in the quality of surface or underground water.	No surface water bodies are located within the survey area. There are several minor ephemeral drainage lines occurring in the survey area. Clearing in the survey area is not likely to impact underground water.	Sediment from cleared areas entering surface drainage lines in rainfall events	Detention basins constructed as required to contain sediment off disturbed areas prior to discharge to the environment.	Clearing is unlikely to be at variance with this principle
10.	clearing the vegetation is likely to cause, or exacerbate, the incidence of flooding.	Rainfall in the Eastern Murchison subregion has an average rainfall of 200mm. Rainfall events are unlikely to result in localised flooding. Clearing within the survey area is not likely to increase the incidence or intensity of flooding within the survey area or surrounds.	The project is unlikely to cause or exacerbate the incidence of flooding.	No specific management measures necessary for this principle	Clearing is unlikely to be at variance with this principle



Page: 10 of 19

MMG Environment

3.1. **HYDROLOGY**

MWES Hydrological Services have undertaken a detailed stormwater management plan for the Mt Magnet site. Their report is attached in Appendix 3. The report separates surface drainage over the site into various catchments and subcatchments as shown in Figure 3-1. As noted above, individual projects within the NVCP area will also require a separate mining proposal. This will include hydrology and hydrogeology reports specific to the project area.



Page: 11 of 19

Environment MMG

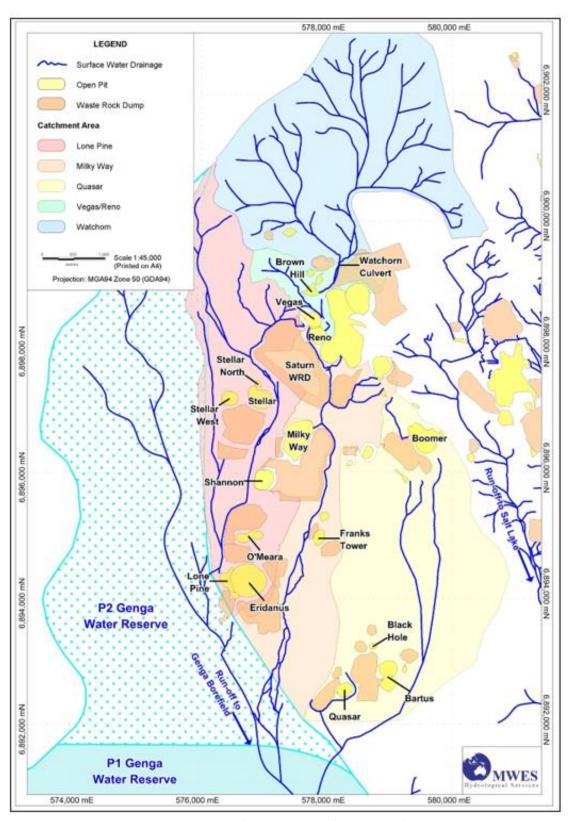


Figure 3-1: Surface catchments (MWES 2020)



Page: 12 of 19

MMG Environment

4. **ENVIRONMENTAL MANAGEMENT**

Ramelius has developed its own Environmental Management System (EMS) that is implemented over its various operating sites.

The EMS includes a number of procedures and forms, the most relevant of which for the NVCP is related to clearing and ground disturbance. For reference, the Ramelius Vegetation Clearing and Ground Disturbance Management Plan and MMG Clearing and Ground Disturbance procedure are attached in Appendix 4. Implementing this procedure will allow site environmental staff to identify significant features prior to clearing occurring and to avoid over-clearing.

Appendix 4 also includes a weed management procedure that outlines measures in place to reduce the likelihood of introducing weeds into MMG. This includes implementing control programs, inspecting mine areas for presence of weeds, and equipment to prevent weeds coming to site.

4.1. **MITIGATION HIERARCHY**

The location of the additional areas in the clearing permit application have been selected on the basis of association with existing mine features or by site selection based on other factors as follows.

- The application area in the south west is associated with the existing Eridanus mining complex
- The application area in the north is associated with site selection for a new tailings storage facility (TSF). This is required to be located adjacent to the existing facilities to avoid further clearing to duplicate pipeline, powerline and access corridors if it was located further away.
- Polygons around existing open pits that are earmarked for likely expansion/cutback projects are located due to the existing pits.
- The polygon area to the west is associated with construction of wind turbines. This site has been selected as a result of a site selection process that considered, proximity to the town of Mt Magnet, proximity to existing powerline corridors, wind direction, access roads, heritage sites and other factors.

The purpose clearing permit application for up to 950ha is an upper limit, not to be exceeded. Each project within the NVCP area is assessed on its merit to define a practical clearing envelope which is then documented in the specific mining proposal for that project. Opportunity to reduce clearing area and mitigate impact by rehabilitation of disturbance is documented in the mining proposal. Rehabilitation outcomes are documented in the Mine Closure Plan (MCP).



Page: 13 of 19

MMG Environment

Appendices



Page: 14 of 19

MMG Environment

Appendix 1: Ownership report



Page: 15 of 19

MMG Environment

Appendix 2: Flora and Fauna Report



Page: 16 of 19

MMG Environment

Appendix 3: Water Assessment



Page: 17 of 19

MMG Environment

Appendix 4: EMS Procedures and Forms