
Lakeside Minerals

Malleefowl Survey



Prepared for: **Lakeside Minerals**

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1 Introduction

Bamford Consulting Ecologists (BCE) was commissioned by Lakeside Minerals to conduct a targeted Malleefowl mound survey within their tenement on Lake Lockhart. Lake Lockhart is a natural salt lake located approximately 390km south-east of Perth. Located in the Mallee bioregion and Western Mallee sub-bioregion, Lake Lockhart is part of a network of salt lakes in the south-west of Western Australia and is a natural source of gypsum (Department of Water, 2008). Gypsum is a naturally-occurring source of sulphur and is the targeted resource for Lakeside Minerals. This report presents the results of the Malleefowl mound survey in the access track and proposed clearing zone.

Lakeside minerals is authorised under their clearing permit (EPA 1986) to:

- (a) Within two weeks prior to undertaking any clearing, engage an *environmental specialist* to conduct an inspection of the area to be cleared to identify *active (in use) Malleefowl (Leipoa ocellata) mounds*.
- (b) Where an *active (in use) Malleefowl mound* is identified under Condition 10(a) of this Permit, the Permit

Holder shall ensure that no clearing occurs within 50 metres of the mound, during the months of September through to January, unless first approved by the *CEO*.

1.1 Survey area

The survey area consists of an access track (and laydown area) and a proposed clearing zone; these are located west of the tenement which lies entirely on Lake Lockhart (**Figure 1-1**). The entire survey area is approximately 0.9km² in size, with the access track approximately 0.1km² in size and the proposed clearing zone approximately 0.8km² in size (**Figure 1-1**).

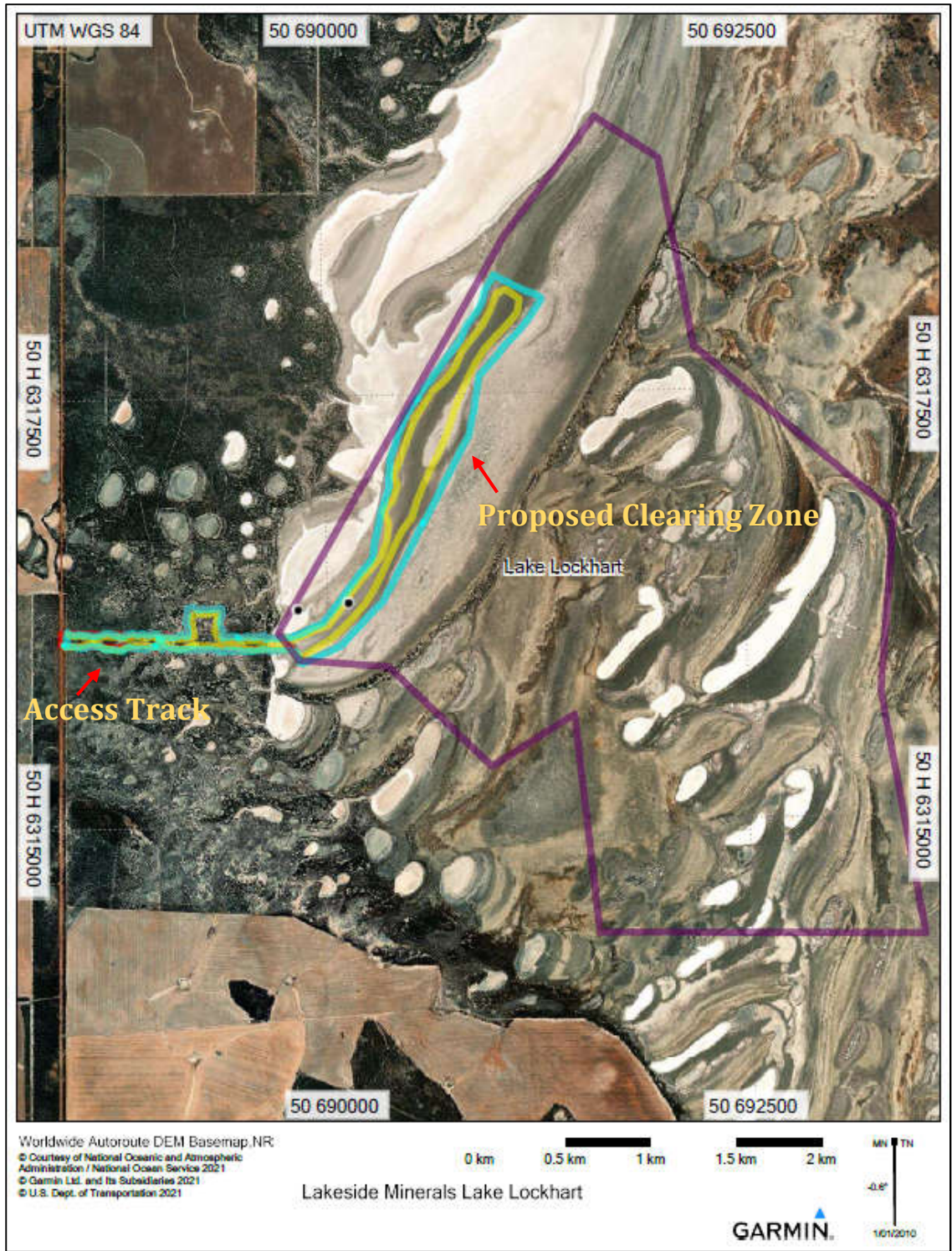


Figure 1-1 Location of survey area showing tenement boundary (purple), access track (red), proposed clearing zone (grey), and GPS tracks of personnel during site visit (blue and yellow).

1.2 Malleefowl

The Malleefowl (*Leipoa ocellata*) is currently federally-listed as Vulnerable on the *Environment and Biodiversity Conservation* (EPBC) Act 1999 and state-listed as Vulnerable on the *Western Australian Biodiversity Conservation* (BC) Act 2016. Malleefowl lives within scrubland and woodland dominated by eucalyptus woodland and wattle species (Burbidge 2004; DotE 2019; DAWE 2022). The Malleefowl is distributed throughout the Southern third of Australia in suitable semi-arid habitats (Menkhorst *et al.* 2017). They are restricted to arid and semi-arid regions of WA with populations known from the Mallee bioregion.

The Malleefowl is threatened due to impacts from feral predation, mortality of individuals (such as roadkill), and habitat loss and fragmentation. Protecting breeding habitat and avoiding impact to active breeding mounds is critical to their survival. As a result, Lakeside Minerals is required to search for active Malleefowl mounds within two weeks prior to any planned clearing to ensure breeding mounds are not impacted by clearing activities in accordance to their clearing permit (EPA 1986).

2 Methods

The survey area was visited on 21st of October 2022 by Eliza-Joyce Mellersh (BSc.) and Sebastian Lloyd (Volunteer). This involved walking along and within the boundaries of the access track and proposed clearing area and searching 50 m either side of the personnel for mounds.

Malleefowl mounds are distinctive in the landscape, and even very old mounds can be obvious.

Figure 1-1 shows the GPS tracks taken by survey personnel. Opportunistic records of all fauna were recorded at all times.

3 Results

3.1 Overview

No active or inactive Malleefowl mounds were recorded throughout the survey area. Eight bird species were opportunistically recorded in the survey area (Appendix 1); these species are considered typical of the area and none is of conservation significance.

3.2 Access Track

The access track is 1 km long and 8 m wide with the layby area 300 m wide (**Figure 1-1**).

Vegetation and substrate within the access track is primarily Melaleuca shrubland with sporadic emergent Eucalyptus Mallee with an understorey of salt-tolerant shrubs, such as *Tecticornia*, on white sandy soils (Figure 3-1).



Figure 3-1. Vegetation within access track

3.3 Proposed Clearing Zone

The proposed clearing zone is located on the salt lake and is approximately 2.6 km long and between 180 m – 400 m wide. Vegetation and substrate within the proposed clearing zone consists of an understorey of salt-tolerant shrubs, such as *Tecticornia*, on sandy white soils. No Malleefowl mounds were recorded within or adjacent to the proposed clearing zone.

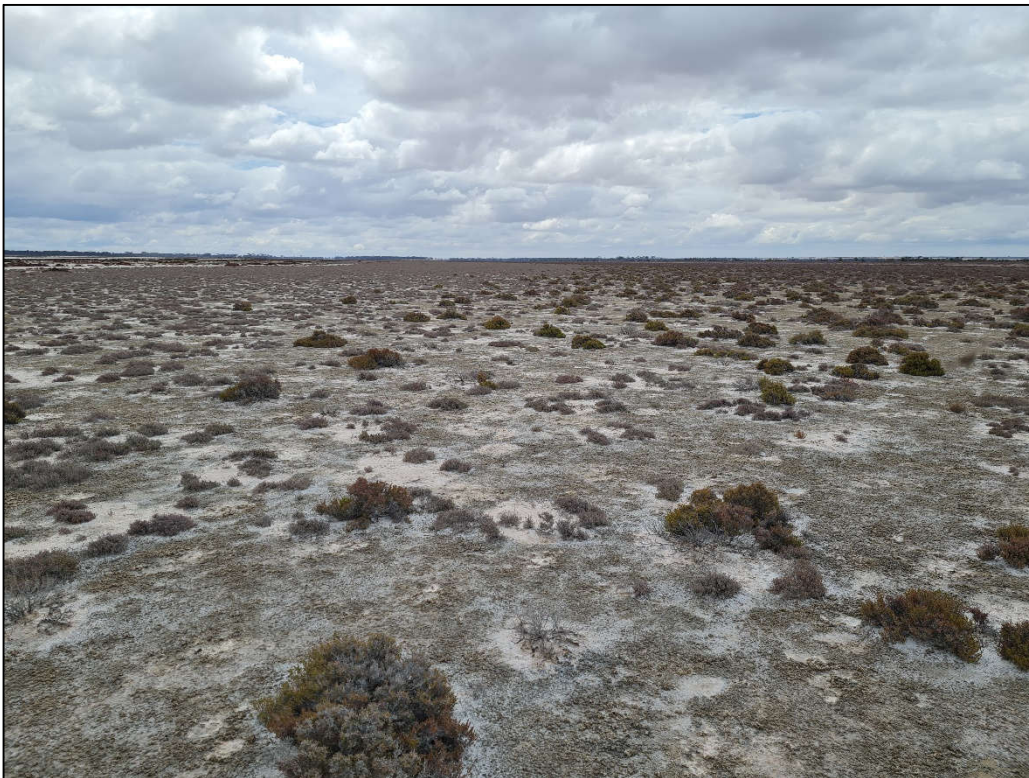


Figure 3-2. Vegetation in proposed clearing zone

4 Summary

No active or inactive Malleefowl mounds were found throughout the survey area and neither the access track nor the salt lake provides the sort of habitat that the species uses for mound construction. As suitable Malleefowl habitat does not occur on salt lakes, no further Malleefowl surveys will be required as part of this clearing proposal. However, should the mining tenement boundaries move towards woodland vegetation, further Malleefowl surveys will be required as woodland is suitable for Malleefowl breeding.

Appendix

Appendix 1. Birds recorded opportunistically during site visit.

Common Name	Species
Red-capped Plover	<i>Charadrius ruficapillus</i>
Grey Currawong	<i>Strepera versicolor</i>
Australian Raven	<i>Corvus coronoides</i>
Australian Magpie	<i>Gymnorhina tibicen</i>
Horsfield's Bronze Cuckoo	<i>Chrysococcyx osculans</i>
Rufous Whistler	<i>Pachycephala rufiventris</i>
Crested Bellbird	<i>Oreoica gutturalis</i>
Galah	<i>Eolophus roseicapilla</i>

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