Government of Western Australia
Department of Mines, Industry Regulation and Safety

# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

**Permit application No.:** 6937/2
**Permit type:** Purpose Permit

### 1.2. Proponent details

**Proponent's name:** **GJ & KJ McLean**

### 1.3. Property details

**Property:** Mining Lease 70/1342
**Local Government Area:** Shire of Lake Grace
**Colloquial name:**

### 1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|---|---|---|---|
| 7.64 | | Mechanical Removal | Gypsum Mining and Access Roads |

### 1.5. Decision on application

**Decision on Permit Application:** Grant
**Decision Date:** 29 March 2021

## 2. Site Information

### 2.1. Existing environment and information

*2.1.1. Description of the native vegetation under application*

**Vegetation Description**

The vegetation of the application area is broadly mapped as the following Beard vegetation associations:

Beard vegetation association 125: Bare areas; salt lakes; and
Beard vegetation association 941: Mosaic: Medium woodland; salmon gum & morrel / Shrublands; mallee scrub, redwood. (GIS Database).

Rick (2015) conducted a flora and vegetation survey over the application in November 2015 and identified six vegetation types:

**Open Woodland/Mallee (Ew)**
The Woodland association covers higher ground adjacent to the proposed access track on flat to gently sloping terrain of sandy soils over clay. Mallee including *Eucalyptus ?horistes* and trees of *Eucalyptus urna and Eucalyptus ?kondininensis* (buds and fruits not found) form a very sparse layer. The understorey consists of a sparse layer of *Melaleuca acuminata, Melaleuca thyoides* and *Melaleuca halmaturorum* shrubs over 2 metres in height over a sparse layer of *Darwinia* sp. Karonie, *Conostephium drummondii, Olearia muelleri, Bossiaea barbarae, Pimelea* sp. *Frankenia tetrapetala, Chamelaucium ciliatum, Rhagodia drummondii* and *Phebalium filifolium* shrubs to 1 metre. Ground covers included a very sparse layer of sedges to 0.5 metres including species of *Lepidosperma* and *Gahnia ancistrophylla*. Annual and perennial herbs form a very sparse layer including *Waitzia suaveolens, Podolepis capillaris* and *Lomandra micrantha* subsp. *teretifolia.* Scattered grasses including *Austrostipa elegantissima, Austrostipa hemipogon, Rytidosperma caespitosum* and *Neurachne alopecuroides* were also recorded. Weed species **Ursinia anthemoides.*

**Open Mallee (Em)**
The Mallee association covers a deep sandy ridge on the eastern edge of the salt lake. Mallee including *Eucalyptus perangusta* form a sparse layer to 6 metres with scattered trees of *Eucalyptus ?urna*. The understorey consists of a sparse layer of *Melaleuca thyoides, Melaleuca halmaturorum* and *Melaleuca brophyi* shrubs over 2 metres in height over a sparse layer of shrubs including *Darwinia* sp. Karonie*, Bossiaea halophila, Bossiaea barbarae, Conostephium drummondii, Seorsus clavifolius* and *Olearia sp. Eremicola* and sedges including *Lepidosperma* species and *Gahnia ancistrophylla* to 1 metre. Ground covers form a very sparse layer of shrubs to 0.5 metres including *Enchylaena tomentosa*, *Disphyma crassifolium, Calytrix leschenaultii, Rhagodia drummondii* and *Bossiaea barbarae.* Scattered grasses to 0.5 metres including *Austrostipa ?trichophylla, Austrostipa hemipogon, Austrostipa elegantissima, Austrostipa juncifolia, Rytidosperma caespitosum* and *Neurachne alopecuroides* were also recorded along with scattered annual herbs *Waitzia suaveolens* and scattered rushes *Desmocladus quiricanus.* Weed species **Ursinia anthemoides.*

**Melaleuca Scrub/Thicket (Me)**
*Melaleuca* Scrub/Thicket covers higher ground on the edge of the lake shore on sandy ridges and gently sloping terrain on sandy soils over clay. Species recorded include *Melaleuca thyoides, Melaleuca brophyi, Melaleuca halmaturorum* and *Melaleuca hamulosa*. Occasional shrubs of *Santalum acuminatum, Leptospermum erubescens, Exocarpos aphyllus* and *Alyxia buxifolia* were also present. Shrubs to 1 metre form a sparse to very sparse understorey including *Darwinia* sp. Karonie, *Conostephium drummondii, Leucopogon* sp. Kau Rock,

*Gunniopsis intermedia, Rhagodia drummondii, Olearia sp. Eremicola, Bossiaea barbarae, Bossiaea halophila, Chamelaucium ciliatum* and *Disphyma crassifolium.* Ground covers form a very sparse stratum to 0.5 metres at some locations. Species recorded include *Frankenia tetrapetala, Enchylaena tomentosa, Disphyma crassifolium, Didymanthus roei, Calytrix leschenaultia, Rhagodia drummondii* and *Tecticornia syncarpa.* Grasses form a very sparse understorey in places, including *Rytidosperma caespitosum, Austrostipa elegantissima, Neurachne alopecuroides, Austrostipa trichophylla, Austrostipa pycnostachya* and *Austrostipa hemipogon.* Weed species **Ursinia anthemoides* and **Pentameris airoides* were also recorded.

**Mixed Heath (Hm)**
Mixed Heath covers small areas on low gypsum ridges on the lake bed. These areas are richer in plant species compared to the *Tecticornia* Scrub /Heath which occurs on the lower areas of the lake bed subject to inundation. *Tecticornia* species are prominent. Shrubs usually to 0.5 metres form a sparse to mid dense layer including *Tecticornia pergranulata*, *Tecticornia halocnemoides, Tecticornia moniliformis, Tecticornia syncarpa, Tecticornia loriae, Lawrencia squamata, Maireana oppositifolia, Frankenia* sp. southern gypsum and *Disphyma crassifolium.* Scattered herbs recorded include *Calandrinia ?*sp. Meckering, *Hydrocotyle medicaginoides* and *Triglochin nana.* The grass *Austrostipa pycnostachya* was also occasional in the vegetation type. Weed species **Parapholis incurva* and **Spergularia marina* were also recorded.

**Frankenia/Tecticornia Heath (Fr)**
*Frankenia/Tecticornia* Heath covers flat terrain on the lake bed on gypsiferous soils. Shrubs under 0.5 metres form a mid-dense stratum with *Frankenia* sp. southern gypsum and *Tecticornia* species (samphire) prominent. Species of samphire recorded include *Tecticornia loriae, Tecticornia syncarpa, Tecticornia pergranulata, Tecticornia halocnemoides* and *Tecticornia undulata*. Other species recorded include *Calandrinia* ?sp. Meckering, *Maireana oppositifolia, Frankenia tetrapetala* and *Lawrencia squamata.* Weed species **Parapholis incurva*, **Sonchus oleraceus* and **Spergularia marina* were also recorded.

**Tecticornia (samphire) Scrub/Heath (Te)**
*Tecticornia* Scrub/Heath occurs over large areas of the lake bed on gypsum over clay. Shrubs to 0.5 metres form a sparse stratum occasionally to mid dense. *Tecticornia* species are dominant including *Tecticornia halocnemoides, Tecticornia pergranulata, Tecticornia peltata, Tecticornia loriae* and *Tecticornia syncarpa*. Scattered shrubs of *Maireana oppositifolia, Frankeni*a sp. southern gypsum and the annual herb *Caladenia* ?sp. Meckering are occasional in the association. Some areas on the edge of the lake are not typical with soils containing more sand and more species than other areas on the lake. Weed species **Parapholis incurva, *Mesembryanthemum nodiflorum* and **Spergularia marina* were also recorded.

**Clearing Description**

GJ and KJ McLean propose to clear up to 7.64 hectares of native vegetation within a total boundary of approximately 16.2 hectares, for the purpose of gypsum mining and access roads. The project is located approximately 14 kilometres south of Lake King in the Shire of Lake Grace.

**Vegetation Condition**

Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery, 1994).

**Comment**

The condition of the vegetation under application was determined via a flora and vegetation survey conducted over the application area by Rick (2015).

Clearing permit CPS 6937/1 was granted by the Department of Mines and Petroleum (now the Department of Mines, Industry Regulation and Safety) on 31 March 2016 and was valid from 23 April 2016 to 31 May 2021. The permit authorised the clearing of up to 7.64 hectares of native vegetation within a boundary of approximately 16.2 hectares, for the purpose of gypsum mining and access roads.

On 28 January 2021, the Permit Holder applied to amend CPS 6937/1 to extend the permit duration by an additional ten years.

## 3. Assessment of application against Clearing Principles

**Comments**

The permit holder has applied to extend the permit duration by a further ten years, as the project is ongoing and all of the authorised clearing and required rehabilitation has not been undertaken for the permit.

As noted in the original decision report, there were timing and seasonal constraints associated with the initial flora and vegetation survey of the permit area. Consequently, herbaceous flora species (including additional Priority flora species) may not have been recorded but could persist within the permit area. It was concluded that provided the permit area is appropriately rehabilitated, impacts are unlikely to be significant. A rehabilitation condition was implemented to manage potential impacts to Priority flora. On the basis that the permit holder is yet to undertake rehabilitation of cleared areas (which are not yet available for rehabilitation due to active mining), it is recommended the permit duration only be extended by five years, instead of the requested ten years. This will allow sufficient time for mined out areas to be rehabilitated and for DMIRS to evaluate the adequacy of the rehabilitation.

The amendment application has been assessed against the clearing principles, planning instruments and other matters in accordance with s.51O of the *Environmental Protection Act 1986*. Environmental information has been reviewed, and the assessment of the proposed clearing against the clearing principles remains consistent with the assessment contained in decision report CPS 6937/1.

**Methodology**

GIS Database:

- DPaW Tenure
- Hydrography, Lakes
- Hydrography, Linear
- IBRA Australia
- Imagery
- Landsystem Rangelands
- Pre-European Vegetation
- Public Drinking Water Source Areas
- Soils, Statewide
- Threatened and Priority Ecological Communities boundaries
- Threatened and Priority Ecological Communities buffers
- Threatened and Priority Flora
- Threatened Fauna

### Planning Instrument, Native Title, previous EPA decision or other matter.

**Comments**

There is one native title claim (WC2000/007) over the area under application (DPLH, 2021). This claim has been registered with the National Native Title Tribunal on behalf of the claimant group. However, the mining tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore, the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (DPLH, 2021). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Water and Environmental Regulation and the Department of Biodiversity, Conservation and Attractions, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

The amendment application was advertised on 8 February 2021 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received in relation to this application.

**Methodology** DPLH (2021)

## 4. References


DPLH (2021) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS (Accessed 22 March 2021).

Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Rick (2015) Proposed Gypsum Mine M70/1342 Vegetation and Flora Survey. Unpublished report prepared for Shane McLean, by Anne Rick, 2015.


## 5. Glossary

### Acronyms:

| | |
|---|---|
| **BC Act** | *Biodiversity Conservation Act 2016,* Western Australia |
| **BoM** | Bureau of Meteorology, Australian Government |
| **DAA** | Department of Aboriginal Affairs, Western Australia (now DPLH) |
| **DAFWA** | Department of Agriculture and Food, Western Australia (now DPIRD) |
| **DAWE** | Department of Agriculture, Water and the Environment, Australian Government |
| **DBCA** | Department of Biodiversity, Conservation and Attractions, Western Australia |
| **DER** | Department of Environment Regulation, Western Australia (now DWER) |
| **DMIRS** | Department of Mines, Industry Regulation and Safety, Western Australia |
| **DMP** | Department of Mines and Petroleum, Western Australia (now DMIRS) |
| **DoEE** | Department of the Environment and Energy (now DAWE) |
| **DoW** | Department of Water, Western Australia (now DWER) |
| **DPaW** | Department of Parks and Wildlife, Western Australia (now DBCA) |
| **DPIRD** | Department of Primary Industries and Regional Development, Western Australia |
| **DPLH** | Department of Planning, Lands and Heritage, Western Australia |
| **DRF** | Declared Rare Flora (now known as Threatened Flora) |
| **DWER** | Department of Water and Environmental Regulation, Western Australia |
| **EP Act** | *Environmental Protection Act 1986*, Western Australia |
| **EPA** | Environmental Protection Authority, Western Australia |

| | |
|---|---|
| **EPBC Act** | *Environment Protection and Biodiversity Conservation Act 1999* (Federal Act) |
| **GIS** | Geographical Information System |
| **ha** | Hectare (10,000 square metres) |
| **IBRA** | Interim Biogeographic Regionalisation for Australia |
| **IUCN** | International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union |
| **PEC** | Priority Ecological Community, Western Australia |
| **RIWI Act** | *Rights in Water and Irrigation Act 1914*, Western Australia |
| **TEC** | Threatened Ecological Community |

## Definitions:

**{DBCA (2019) Conservation Codes for Western Australian Flora and Fauna. Department of Biodiversity, Conservation and Attractions, Western Australia}:-**

**T** **Threatened species:**

Listed by order of the Minister as Threatened in the category of critically endangered, endangered or vulnerable under section 19(1), or is a rediscovered species to be regarded as threatened species under section 26(2) of the *Biodiversity Conservation Act 2016* (BC Act).

***Threatened fauna*** is that subset of 'Specially Protected Fauna' listed under schedules 1 to 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for Threatened Fauna.

***Threatened flora*** is that subset of 'Rare Flora' listed under schedules 1 to 3 of the *Wildlife Conservation (Rare Flora) Notice 2018* for Threatened Flora.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

**CR** **Critically endangered species**
Threatened species considered to be "*facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as critically endangered under section 19(1)(a) of the BC Act in accordance with the criteria set out in section 20 and the ministerial guidelines. Published under schedule 1 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for critically endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for critically endangered flora.

**EN** **Endangered species**
Threatened species considered to be "*facing a very high risk of extinction in the wild in the near future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as endangered under section 19(1)(b) of the BC Act in accordance with the criteria set out in section 21 and the ministerial guidelines. Published under schedule 2 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for endangered fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for endangered flora.

**VU** **Vulnerable species**
Threatened species considered to be "*facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with criteria set out in the ministerial guidelines*".

Listed as vulnerable under section 19(1)(c) of the BC Act in accordance with the criteria set out in section 22 and the ministerial guidelines. Published under schedule 3 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for vulnerable fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for vulnerable flora.

**Extinct Species:**

**EX** **Extinct species**
Species where "*there is no reasonable doubt that the last member of the species has died*", and listing is otherwise in accordance with the ministerial guidelines (section 24 of the BC Act).

Published as presumed extinct under schedule 4 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018* for extinct fauna or the *Wildlife Conservation (Rare Flora) Notice 2018* for extinct flora.

**EW** **Extinct in the wild species**
Species that *"is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; and it has not been recorded in its known habitat or expected habitat, at appropriate seasons, anywhere in its past range, despite surveys over a time frame appropriate to its life cycle and form*", and listing is otherwise in accordance with the ministerial guidelines (section 25 of the BC Act).

Currently there are no threatened fauna or threatened flora species listed as extinct in the wild. If listing of a species as extinct in the wild occurs, then a schedule will be added to the applicable notice.

**Specially protected species:**

Listed by order of the Minister as specially protected under section 13(1) of the BC Act. Meeting one or more of the following categories: species of special conservation interest; migratory species; cetaceans; species subject to international agreement; or species otherwise in need of special protection.

Species that are listed as threatened species (critically endangered, endangered or vulnerable) or extinct species under the BC Act cannot also be listed as Specially Protected species.

**MI** **Migratory species**

Fauna that periodically or occasionally visit Australia or an external Territory or the exclusive economic zone; or the species is subject of an international agreement that relates to the protection of migratory species and that binds the Commonwealth; and listing is otherwise in accordance with the ministerial guidelines (section 15 of the BC Act).

Includes birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and fauna subject to the *Convention on the Conservation of Migratory Species of Wild Animals* (Bonn Convention), an environmental treaty under the United Nations Environment Program. Migratory species listed under the BC Act are a subset of the migratory animals, that are known to visit Western Australia, protected under the international agreements or treaties, excluding species that are listed as Threatened species.

Published as migratory birds protected under an international agreement under schedule 5 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**CD** **Species of special conservation interest (conservation dependent fauna)**

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened, and listing is otherwise in accordance with the ministerial guidelines (section 14 of the BC Act).

Published as conservation dependent fauna under schedule 6 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**OS** **Other specially protected species**

Fauna otherwise in need of special protection to ensure their conservation, and listing is otherwise in accordance with the ministerial guidelines (section 18 of the BC Act).

Published as other specially protected fauna under schedule 7 of the *Wildlife Conservation (Specially Protected Fauna) Notice 2018*.

**P** **Priority species:**

Possibly threatened species that do not meet survey criteria, or are otherwise data deficient, are added to the Priority Fauna or Priority Flora Lists under Priorities 1, 2 or 3. These three categories are ranked in order of priority for survey and evaluation of conservation status so that consideration can be given to their declaration as threatened fauna or flora.

Species that are adequately known, are rare but not threatened, or meet criteria for near threatened, or that have been recently removed from the threatened species or other specially protected fauna lists for other than taxonomic reasons, are placed in Priority 4. These species require regular monitoring.

Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

**P1** **Priority One - Poorly-known species**

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

**P2** **Priority Two - Poorly-known species**

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be

included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

**P3** **Priority Three - Poorly-known species**
Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

**P4** **Priority Four - Rare, Near Threatened and other species in need of monitoring**
(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection but could be if present circumstances change. These species are usually represented on conservation lands.
(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for vulnerable but are not listed as Conservation Dependent.
(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

## Principles for clearing native vegetation:

**(a)** Native vegetation should not be cleared if it comprises a high level of biological diversity.

**(b)** Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

**(c)** Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

**(d)** Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

**(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.

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

**(g)** Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.

**(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.

**(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.

**(j)** Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.