MT MASON PROJECT CLEARING PERMIT APPLICATION – SUPPORTING INFORMATION

GOLD VALLEY YILGARN PTY LTD

BACKGROUND

The Mt Mason Project is an approved iron ore development involving mining of high-grade hematite ore and construction of associated mine infrastructure. The Project is located approximately 90km northwest of Menzies.

Juno Minerals Limited (Juno) is currently listed as registered holder of M29/408-I, M29/414-I, G29/22, G29/23, L29/100, L29/79 and L29/121 at the Project which has an approved clearing permit (CPS 9379/1) for clearing of 141 ha of native vegetation on these tenements (Figure 1).

Juno recently completed the sale of the Project to Gold Valley Yilgarn Pty Ltd (GVY) which includes transfer in ownership of M29/408-I and G29/23 which are part of CPS 9379/1. The remaining tenements are to be retained by Juno.

As the approved clearing on these tenements can not be transferred to GVY, this new clearing application is being submitted for the clearing of 72 ha of native vegetation on M29/408-I and G29/23 (which are currently part of CPS 9379/1). In parallel, Juno has submitted an application to amend CPS 9379/1 to remove M29/408-I and G29/23, and, reduce the size of the approved clearing from 141 ha to 69 ha. Juno's clearing is for the camp and haul road. There will be no change in the total area of native vegetation to be cleared.

A copy of the Asset sale agreement (confidential) has been included with the clearing permit submission.

The Project was referred under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) in May 2013. On 24 June 2013, the decision on referral was received from the Department of Sustainability, Environment, Water, Population and Communities that the proposed action is "not a controlled action, if undertaken in a particular manner" (EPBC Ref: 2013/6870).

PROPOSED CLEARING

This application is for the clearing of 72 ha of native vegetation within an area of 781.2 ha on M29/408-I and G29/23 (Figure 2). These tenements comprise the main mining area.

EXISTING ENVIRONMENT

Overview

To support the original CPS 9379/1 application, Juno (2021) produced a document "*Native Vegetation Clearing Permit Application - Mount Mason DSO Hematite Project*". Section 3.0 from this document, which provides a site overview and summary of the biological survey work completed at the Project is included as **Appendix 1**. While this provides information for clearing outside of the permit area, it does provide an assessment of the 'cumulative' impact of the proposed clearing at the Project.

As the clearing in this application has been assessed under CPS 9379/1 and included in Juno (2021), this document addresses only changes in environmental impacts on vegetation/flora and fauna since grant of CPS 9379/1, and, also includes an assessment of the clearing permit principles for the clearing on M29/408-I and G29/23.

GVY has completed updated Department of Biodiversity, Conservation and Attractions (DBCA) Threatened, flora, fauna and communities searches (DBCA 2025a; 2025b; 2025c) to inform this assessment.

Biological surveys completed at the Project include as summarised in Juno (2021):

Flora

- Flora and Vegetation of the Mount Mason Study Area, Mt Mason DSO Haematite Project (Western Botanical 2021) – **Appendix 2**.
- Level 1 Flora and Vegetation Survey of the proposed Mount Mason Haul Road by Native Vegetation Solutions (NVS), May 2012 (results incorporated into Western Botanical 2021);
- Mt Mason Project, Level 2 Flora and Vegetation Survey: Part 1–October 2011 & Part 2–March 2012 by NVS, Spring 2011 and Autumn 2012 (results incorporated into Western Botanical 2021).

Fauna

- Targeted Fauna Survey June 2021 for Malleefowl, Long-tailed Dunnart, Night Parrot and the Arid Bronze Azure Butterfly – **Appendix 3**.
- Level 2 Fauna Survey of the Mt Mason Mining Tenement (M29/408) by Keith Lindbeck Associates in Spring 2011 and Autumn 2012 (included SRE) – **Appendix 4**.
- Targeted EPBC Survey by Keith Lindbeck Associates in Autumn 2012.
- Targeted Malleefowl Survey of Non-process Infrastructure Areas by GHD in Spring 2012.
- Central Yilgarn Iron Project, Terrestrial Short-Range Endemic Invertebrate Survey by Outback Ecology 2011.

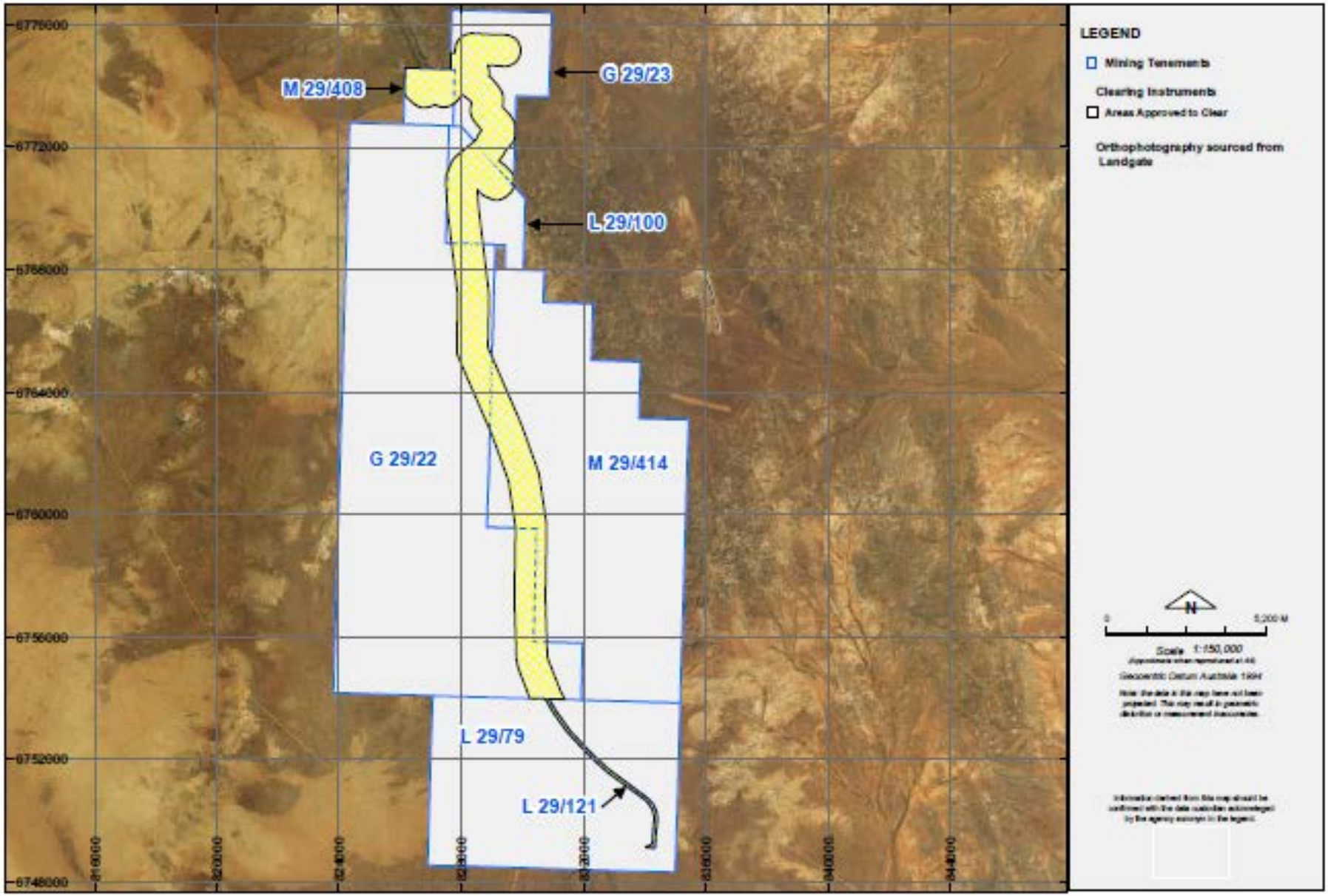

Figure 1: Current CPS 9379/1 areas approved to clear

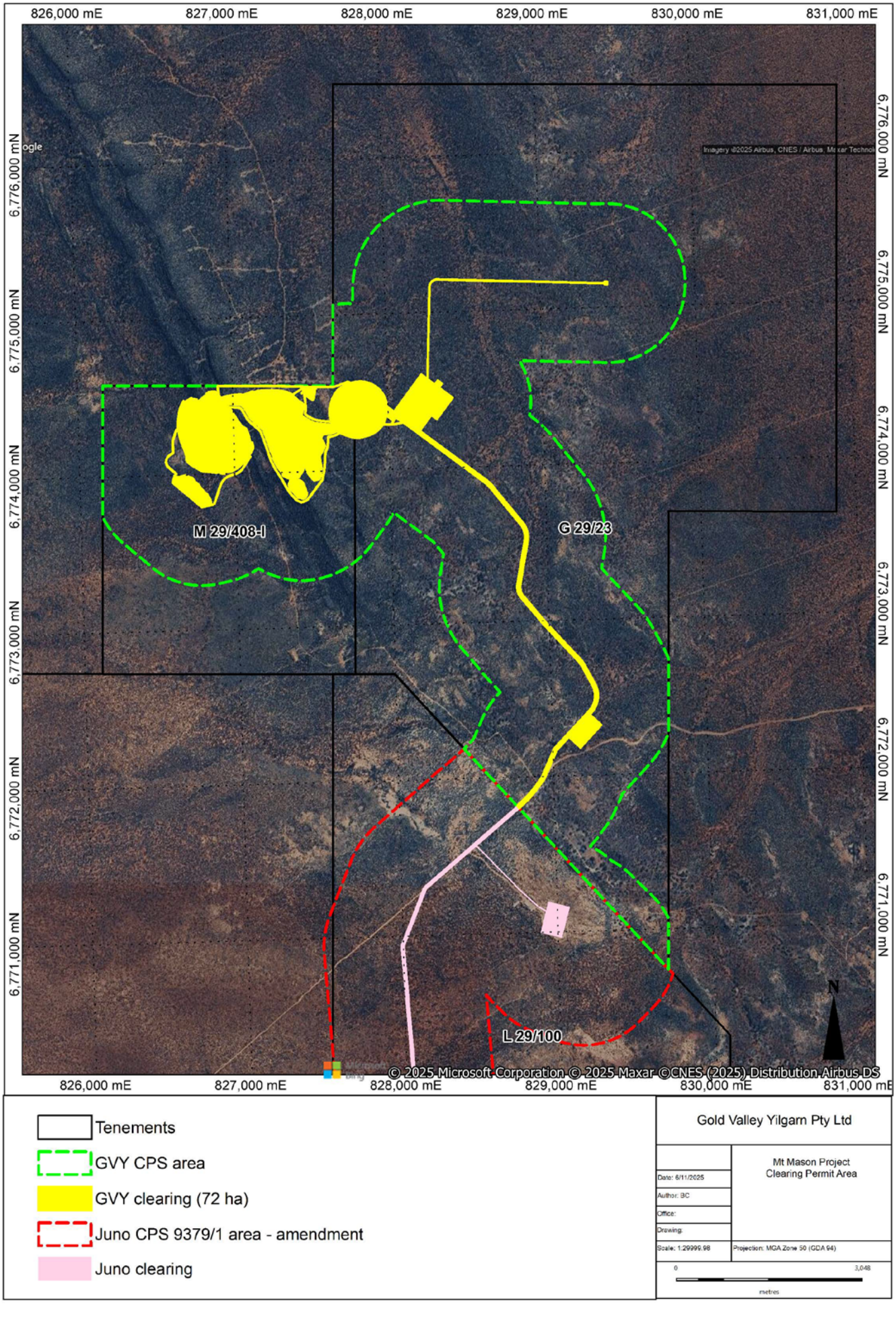

Figure 2: GVY Proposed clearing permit area

Vegetation and flora

Vegetation

- The clearing area is located partially within the Priority 1 Perrinvale/Walling vegetation assemblages (banded ironstone formation) Priority Ecological Community (PEC) (Figure 3).
- Figure 4 presents the vegetation groups as defined by Western Botanical (2021) in the CPS area which is dominated by Acacia (mulga) woodland and includes:

  Acacia (mulga) woodlands

  - A1 - *Acacia quadrimarginea, A. incurvaneura, A. mulganeura, A. caesaneura* (narrow phyllode form) Woodland over *Thryptomene decussata, Prostanthera althoferi* subsp. *althoferi*,
  - *Hibbertia arcuata, Olearia humilis* Shrubland on BIF outcrop and upper slopes
  - A2 - *Acacia incurvaneura* and *Acacia quadrimarginea*, *Acacia cockertoniana* over *Philotheca brucei*, *Hibbertia arcuata*, *Prostanthera althoferi* subsp. *althoferi* and *Dodonaea rigida*
  - on BIF outcrop and upper slopes
  - A3 - *Acacia incurvaneura, A mulganeura, A. caesaneura* over *Eremophila forrestii* subsp. *forrestii* on sandy gravely mid to lower slopes
  - A4 - *Acacia effusifolia* with emergent *Eucalyptus leptopoda*, *E. ewartiana* Mallees on orange-brown sandplain
  - A5 (Recent Fire)
  - A9 - *Acacia incurvaneura, A. ramulosa subsp. ramulosa, A. tetragonophylla, A. mulganeura* over *Ptilotus obovatus* (typical Goldfields form) on hardpan plains, colluvium and alluvium.

  Casuarina woodland

  - C1 - *Casuarina pauper* Woodland over *Ptilotus obovatus* (Upright form, G Cockerton et. al. 15206) Shrubland on weathered basalt and abundant calcrete

  Eucalypt woodlands

  - E1 - *Eucalyptus lesouefii* Woodland over *Eremophila pantonii* Shrubland on weathered basalt and abundant calcrete
  - E2 - *Eucalyptus salubris* woodland on red-brown clay, alluvium
  - E3 - *Eucalyptus oleosa* emergent over *Acacia incurvaneura* and *Acacia cockertoniana* Woodland

  Low Shrublands with Emergent Acacia, Allocasuarina

  - S1 - *Hibbertia arcuata,* occasional *Calytrix* spp. Shrubland with emergent Acacia cockertoniana, *A. quadrimarginea, Allocasuarina acutivalvis* tall shrubs on lateritic duricrust outcrop.
- The impacts of the clearing to the vegetation groups identified and the PEC remain unchanged from that assessed in CPS 9379/1 for the mine area (Appendix 1).

Conservation Significant flora

- Figure 4 shows the location of Priority flora in the CPS area.
- Four Priority flora species were previously identified within the CPS 9379/1 application area: *Calotis sp. Perrinvale* (P3), *Calytrix hislopii* (P3), *Drosera eremaea* (then listed as P3) and *Jacksonia lanicarpa* (P1).
- *Drosera eremaea* has since been delisted and is not considered further. No conservation significant *Drosera* species occur at the Project.

- Two of the four species identified are relevant to this clearing permit:
    - *Calotis sp. Perrinvale* (R.J. Cranfield 7096) – Priority 3. Two populations totalling approximately 20 plants of *Calotis* sp. Perrinvale (R.J. Cranfield 7096) have been identified within the application area (Western Botanical, 2021). *Calotis* sp. Perrinvale is known from 21 populations regionally and is likely under-surveyed at all sites (Western Botanical, 2021). Potential impacts of this clearing proposal to this species would be approximately 8.7% of the known regional population, which is not considered to be a significant impact.
    - *Calytrix hislopii* (P3).
- The remaining species are not applicable to the current application area as summarised below:
    - *Jacksonia lanicarpa* – Priority 1. This species is located outside of this clearing permit application area.
    - *Drosera eremaea* – previously listed as Priority 3. This species has since been removed from the Priority flora listing. The other Drosera species.
- There are no known new listings of Threatened or Priority flora from DBCA records at the Project (DBCA 2025a). The detailed survey work completed to support the previous assessments has adequately identified the impacts of the proposed clearing.

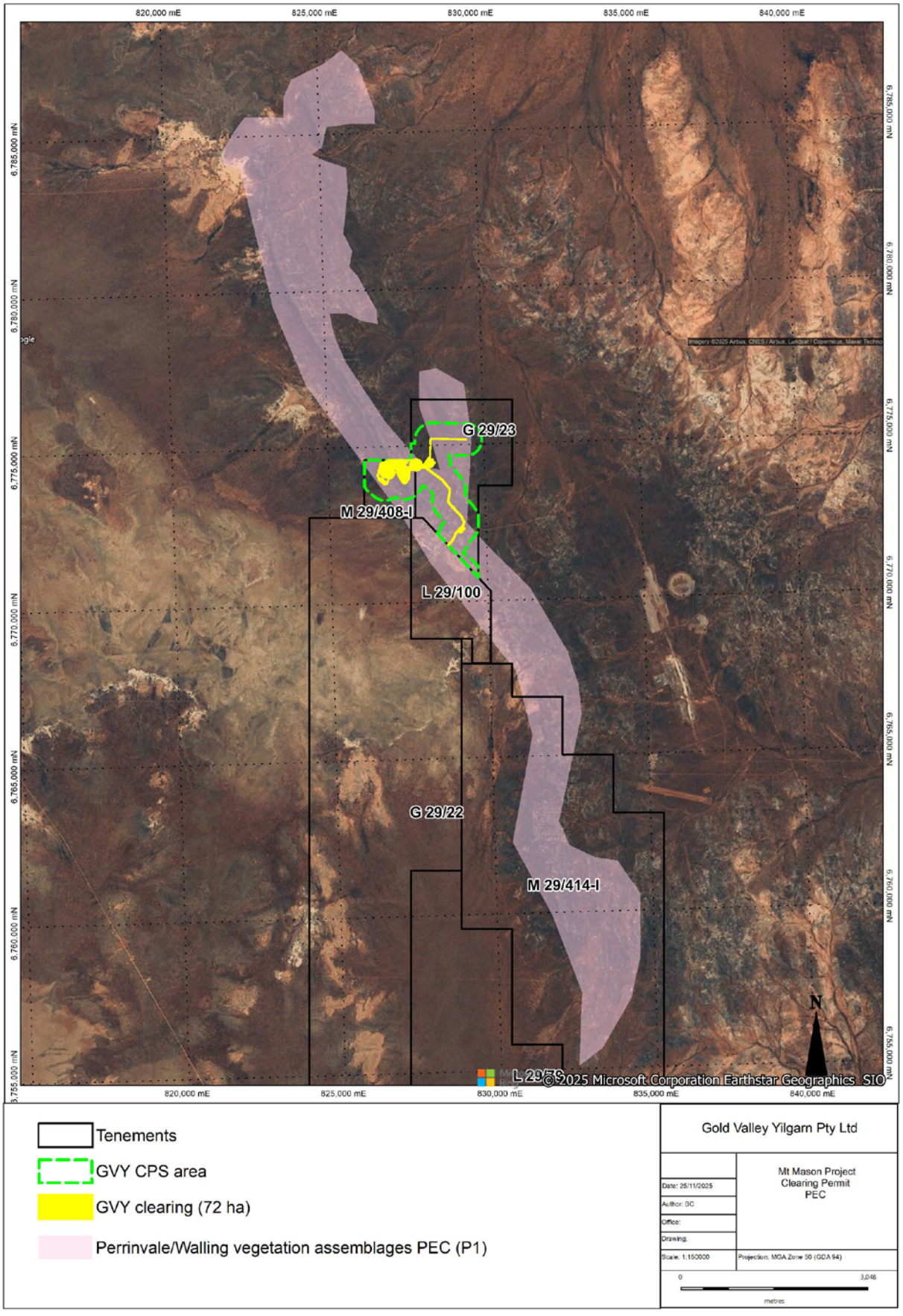

Figure 3: Location of CPS area relative to the PEC

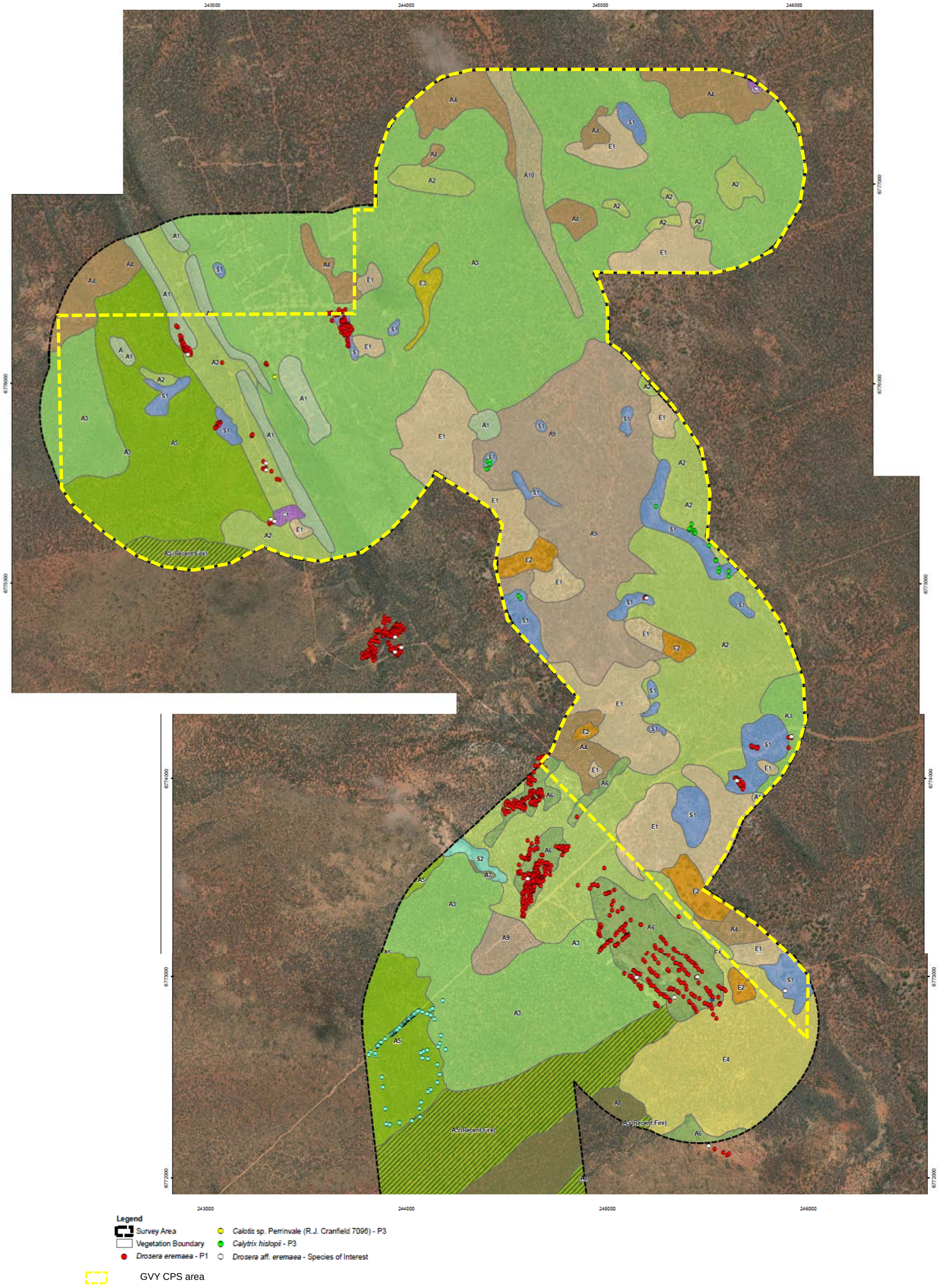

Figure 4: Vegetation groups and Priority flora in GVY CPS area (yellow dotted area) – composite map generated from Western Ecological (2021) Vegetation Sheets 1 - 5

NB**Drosera eremaea and Drosera aff. eremaea* taxa recorded are no longer listed as conservation significant species

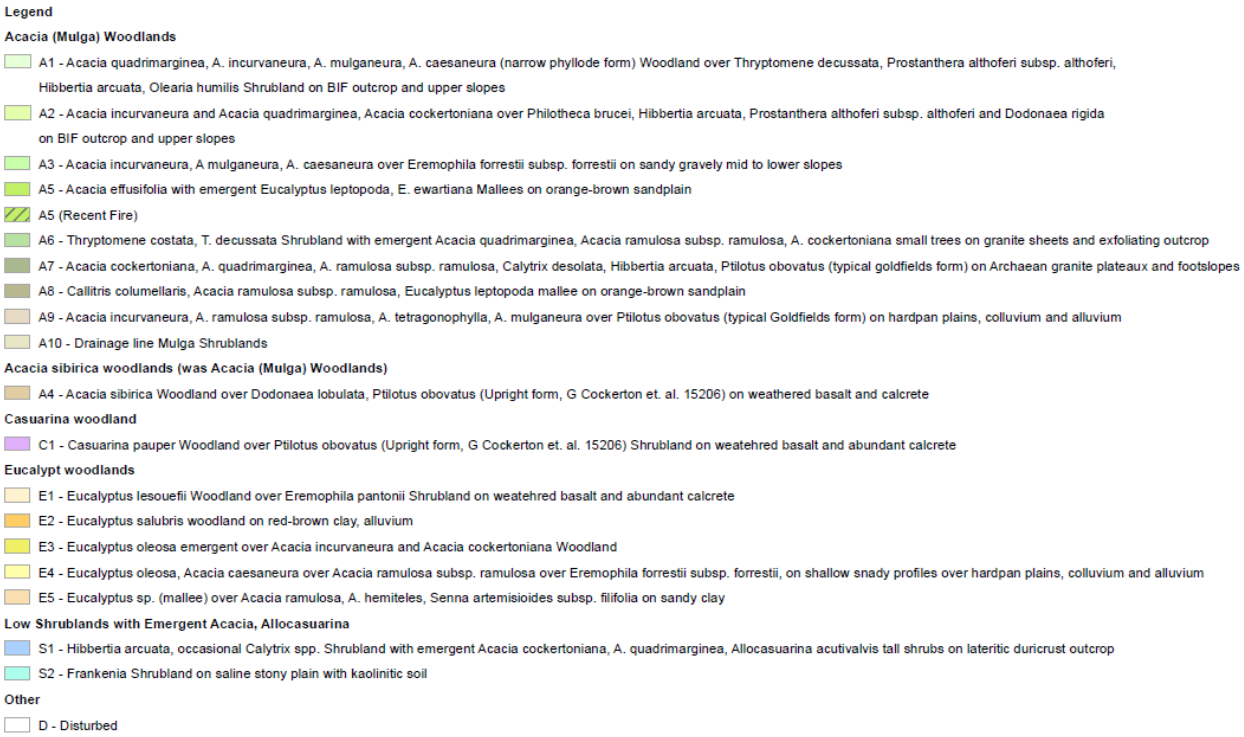

Figure 5: Vegetation map legend (from Western Botanical 2021)

Terrestrial Fauna

Fauna habitat

The dominant fauna habitat in the application area is Acacia shrubland with smaller areas of: *Eucalypt lesouefi* Open woodland; *Eucalypt salubris* Open woodland; and Mulga Shrubland.

Fauna of conservation significance

There are no new records of conservation significant fauna at or in proximity to the Project, and known new listings applicable to the application area (DBCA 2025b). This is further addressed in the 'Clearing Principles' assessment.

Fauna of conservation significance recorded at the Project include (Juno 2021):

- Malleefowl (*Leiopoa ocellata*) – Vulnerable (EPBC), Schedule 1 (WA).
- Long-tailed Dunnart (*Sminthopsis longicaudata*) – Priority 4.
- Rainbow Bee-Eater (*Merops ornatus*) – Migratory.
- Crested Bellbird (*Oreoica gutturalis* subsp. *gutturalis*) – Priority 4.
- White-browed Babbler (*Pomatostomus superciliosus*) – Priority 4.

Malleefowl mound records in the CPS application area are shown in Figure 6. GVY notes that the most recent fauna survey (Western Ecological 2021) only recorded evidence of recent Malleefowl activity outside of the CPS area (i.e. at the southern end of the haul road). The mounds in the CPS area are all inactive (old and disused. Western Ecological (2021) noted the area for the Mt Mason pits on M29/408 on BIF is largely unsuitable nesting habitat.

The Project was referred for assessment under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) in May 2013 (EPBC Ref 2013/6870). Notification was received on 24 June 2013 that the proposed action was not a controlled action, provided it is undertaken in accordance with 'the manner' described in the decision document:

- Clearing must not exceed 115ha;
- Construction activities must not be undertaken within 250m buffer radius of active Malleefowl mounds;
- Inactive Malleefowl mounds outside the development footprint to be retained with a buffer of 50m;
- Prior to construction the development footprint must contain fire trails for the safe transit of fire fighting vehicles to mitigate the effects of advancing fires; and
- Prior to construction "Malleefowl Ahead" warning signs and advisory speed limit signs, must be installed along main access roads within the development footprint.

GVY will ensure the activities are consistent with these management actions, and, the current CPS 9379/1 conditions which require targeted Malleefowl surveys to be completed prior to all clearing activities.

The Western Ecological (2021) targeted survey to support CPS 9379/1 included, in addition to Malleefowl and the Long-tailed Dunnart:

- Night Parrot – no night parrot calls recorded and no habitat for this species at the Project.
- Arid Bronze Azure Butterfly (*Ogyris subterrestris petrina*) – limited potential habitat. The project area does fall into this very large area that has been very broadly mapped as the potential distribution of the Sugar Ant which is the ABABs host. There is one small patch of *Eucalyptus salubris* in the Mount Mason and haul road section of the project area which account for 4.92 ha or 0.62% of the total habitat (Western Ecological 2021). The proposed clearing in this area is ~ 0.8 ha.

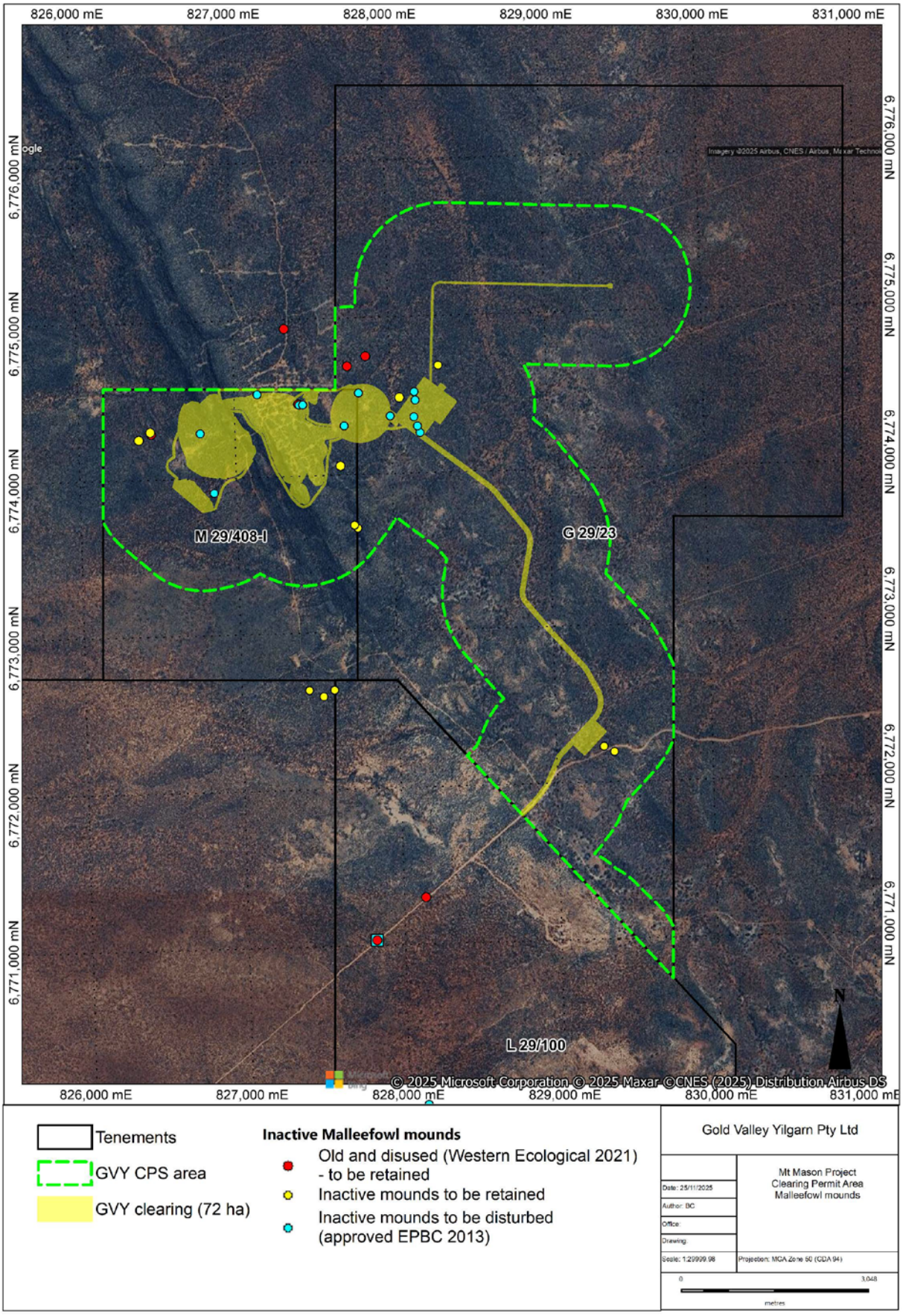

Figure 6: Malleefowl mounds recorded in CPS application area – all inactive (no recent activity recorded)

CLEARING PRINCIPLES

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

The clearing permit application area is located within the East Murchison subregion of the Murchison Interim Biogeographic Regionalisation of Australia (IBRA) bioregion (GIS Database). The East Murchison subregion represents a total area of approximately 7.8 million hectares, and is characterised by an arid climate with a mainly winter rainfall of approximately 200-250 millimetres (CALM, 2002). The subregion is rich and diverse in both its flora and fauna however most species are wide ranging and usually occur in at least one, and often several adjoining subregions. Vegetation in the subregion is dominated by mulga woodlands, often rich in ephemerals, hummock grasslands, saltbush shrublands and samphires (CALM, 2002).

No Threatened flora, fauna, or fauna habitats of conservation significance were identified within the application area (Outback Ecology, 2013; Western Botanical, 2021).

Two Priority flora species are located in the CPS application area:

- *Calotis sp. Perrinvale* (R.J. Cranfield 7096) – Priority 3; and
- *Calytrix hislopii* – Priority 3.

Two populations totalling approximately 20 plants of *Calotis* sp. Perrinvale (R.J. Cranfield 7096) have been identified within the application area (Western Botanical, 2021). *Calotis* sp. Perrinvale is known from 21 populations regionally and is likely under-surveyed at all sites (Western Botanical, 2021). Potential impacts of this clearing proposal to this species would be approximately 8.7% of the known regional population, which is not likely to be a significant impact.

Part of the CPS application area falls within the Perrinvale/Walling vegetation complexes (banded ironstone formation) PEC (P1). In the strategic review of the BIF ranges completed by DEC and DoIR (2007), the various ranges were classified according to their relative biodiversity values. Mount Mason was not included in the list of areas which were considered to have the highest biodiversity and conservation values. The PEC is located over 7,369 ha. The proposed clearing represents 0.98% of the total PEC area. While it is expected that some vegetation associations of the area may be regionally restricted, particularly those associated with the geology of the BIF ranges, these are likely be widespread within similar landforms of the Mt Mason / Mt Ida area (Western Botanical, 2021). The proposed clearing is unlikely to have any significant impact on the continued existence of the PEC.

Western Botanical (2021) reported minor weed infestation within the application area and recorded a total of two weed species during the survey, however, none of these weed species were classified as declared plants for the Menzies district (Western Botanical, 2021).

The fauna habitat types are common and widespread within the subregion, and are unlikely to function as ecological linkages or refugia (Juno Minerals, 2021). While it is expected that some vegetation associations in the CPS application area may be regionally restricted, particularly those associated with the geology of the BIF ranges, these will most likely be widespread within similar landforms of the Mt Mason / Mt Ida area (Western Botanical, 2021).

The CPS application area is unlikely to represent an area of higher biodiversity than surrounding areas, in either a local or regional context.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

(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.

Western Ecological (2021) conducted a fauna survey of the application area in June 2021, and five fauna habitat types within the CPS application area:

- Acacia Shrubland
- Acacia Shrubland (Burnt)
- *Eucalypt lesouefi* Open woodland;
- *Eucalypt salubris* Open woodland; and
- Mulga Shrubland.

These habitat types are not restricted to the CPS application area.

Juno (2021 – Appendix 1) completed a desktop assessment which identified 11 vertebrate fauna species of conservation significance with the potential to occur, with six of these considered to likely occur within the application area based on known distributions and habitat preferences:

- Malleefowl (*Leipoa ocellata*) (Vulnerable);
- Fork-tailed Swift (Migratory);
- Rainbow Bee-eater (*Merops ornatus*) (Migratory);
- Crested Bellbird (*Oreoica gutturalis* subsp. g*utturalis*) (Priority 4)
- Long-tailed Dunnart (*Sminthopsis longicaudata*) (Priority 4);
- White-browed Babbler (*Pomatostomus superciliosus*) (Priority 4).

There are no new listings of threatened fauna in the CPS application area since this assessment (DBCA 2025b).

All but the Fork-tailed Swift have been confirmed through prior surveys to be present within the broader survey area (Juno 2021). Due to the highly mobile nature of the Rainbow Bee-eater, Crested Bellbird and White-browed Babbler, it is considered unlikely that the proposed clearing will have a significant impact on these species.

The evidence of Malleefowl recorded by Western Ecological (2021) which included observation of two Malleefowl and a mound under construction, were recorded >20km south of the CPS application area. The Malleefowl mounds recorded historically and in 2021 are all inactive (old and disused).

Malleefowl may use the area for foraging but there is no evidence of active breeding habitat in the CPS application area. Notwithstanding this, the fauna habitats are widespread locally and regionally.

The Long-tailed Dunnart was recorded at the base of a rocky scree at Mount Mason in 2011 but was not recorded during the June 2021 Targeted Fauna Survey or on any of the five camera traps that were placed out in Mulga shrubland on rocky ridges and rocky hill slopes (Western Ecological 2021). Given the limited number of captures during the historic survey and no captures on camera traps during the 2021 survey, the Long-tailed Dunnart is likely to occur in very low densities in this area (Western Ecological 2021). It is considered unlikely that the proposed clearing would result in a significant impact to this species.

None of these fauna species are likely to be dependent on the habitat within the areas proposed to be cleared. The proposed clearing is unlikely to have any significant impact on fauna habitats at either a local or regional scale.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

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

No DRF are located at the Project. No plant taxa listed as Threatened pursuant to Schedule 1 of the *EPBC Act (1999)* have been recorded.

Based on the above, the proposed clearing is not likely to be at variance to this Principle.

(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.

No TECs are listed under the Commonwealth EPBC Act 1999 or endorsed by the Western Australian Minister for the Environment for the project area. Therefore, the proposed clearing is not at variance to this principle.

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

The application area is broadly mapped as Beard vegetation associations 18: Low woodland; mulga (*Acacia aneura*); 202: Shrublands; mulga & *Acacia quadrimarginea* scrub 18 (Low woodland; mulga (*Acacia aneura*); and 202 (Shrublands, mulga and *Acacia quadrimarginea* scrub); which are not classified as remnant vegetation.

These vegetation associations have >99% of the original extent remaining and cannot be considered 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 wetlands.

There are no water courses, wetlands or large drainage channels within the Project area (Western Botanical 2021). The clearing area contains broad and ill-defined ephemeral drainage lines which only flow following periods of heavy rainfall events.

There is no riparian vegetation in the clearing area.

There is, therefore, no vegetation growing in association with a water course or wetland. The clearing is not at variance to this principle.

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

The proposed clearing is located on the BIF ridges and in the swale below the ridge which consists of shallow stony soils and alluvial plains. The vegetation is predominantly open mulga (*Acacia aneura*) with sparse shrubs and grasses. The majority of the area remains well vegetated and all cleared areas (with the exception of the open pits) will be rehabilitated at closure.

The clearing of vegetation is not likely to lead to land degradation issues such as salinity, water logging or acidic soils and therefore is not at variance to this principle. The disturbed area (with the exception of the open pits) will be rehabilitated at completion of mining.

(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.

There are no conservation areas in the vicinity of the application area. The nearest DBCA (formerly DPaW) managed land is the former Bulga Downs pastoral station which is located approximately 44 kilometres

north, north-west of the application area (GIS Database). The proposed clearing is unlikely to impact on the environmental values of any conservation area.

The clearing, therefore, is not at variance to this principle.

(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.

Surface water in the project area is sourced from direct precipitation and surface runoff following rainfall events.

Surface water drainage lines in the area are broad and ill-defined ephemeral watercourses and drainage lines which only flow following periods of heavy rainfall events. There is no surface water of significance, large drainage lines, lakes or swamps in the clearing area.

With an average rainfall of 254 mm and a mean daily evaporation rate of 6.6 mm there is little surface flow during normal seasonal rains.

Given the low annual rainfall, high evaporation rate and size of the proposed clearing area there is expected to be little (if any) rainfall recharge that would impact the groundwater levels or the quality of groundwater in the local area or region.

The area proposed to be cleared does not fall within a Public Drinking Water Source Area (PDWSA) or PDWSA Protection Zone (www.dwer.wa.gov.au).

The clearing of native vegetation is not likely to cause deterioration in the quality of surface or groundwater and therefore, is not at variance to this principle.

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

The proposed clearing area is surrounded by native vegetation. Annual average rainfall is only 254 mm with little surface flow during normal seasonal rains.

There are no permanent water courses or waterbodies within the application area (GIS Database). Seasonal drainage lines are common in the region and temporary localised flooding may occur briefly following heavy rainfall events.

The clearing of native vegetation is not likely to cause or exacerbate the incidence or intensity of flooding. The proposed clearing is not at variance to this principle.

REFERENCES

Juno Minerals Limited (2021). Native Vegetation Clearing Permit Application - Mount Mason DSO Hematite Project. Unpublished report prepared for Juno Minerals Limited by Western Botanical, August 2021.

KLA (2012a). Mt Mason Project and proposed Haul Road: Targeted EPBC Fauna Survey. Unpublished report for Jupiter Mines Limited.

KLA (2012b). Mt Mason Level 2 Fauna Assessment. Unpublished report for Jupiter Mines Limited

NVS. (2012). Mt Mason Project: Level 2 Flora and Vegetation Survey. Unpublished Report for Jupiter Mines Limited.

NVS. (2012a). Level 1 Flora and Vegetation Survey of the Proposed Mount Mason Haul Road. Unpublished report for Jupiter Mines Limited.

NVS. (2012c). Level 1 Flora and Vegetation Survey of the Proposed Mt Mason Haul Road. Kalgoorlie: Unpublished report for Jupiter Mines Limited.

Outback Ecology Services. (2011). *Jupiter Mines Limited Central Yilgarn Iron Project. Terrestrial Short- range Endemic Invertebrate Survey*. Unpublished report prepared by Outback Ecology Services, March 2011.

Western Botanical (2021) Flora and Vegetation of the Mount Mason Study Area, Mt Mason DSO Haematite Project. Unpublished report prepared for Juno Minerals Limited by Western Botanical, November 2021.

Western Ecological. (2021). Targeted Fauna Survey - Mount Mason Project. Unpublished report for Juno Minerals Limited.

APPENDICES – ATTACHED SEPARATELY

APPENDIX 1 - NATIVE VEGETATION CLEARING PERMIT APPLICATION - MOUNT MASON DSO HEMATITE PROJECT – SECTION 3.0

APPENDIX 2 - FLORA AND VEGETATION OF THE MOUNT MASON STUDY AREA, MT MASON DSO HAEMATITE PROJECT (WESTERN BOTANICAL 2021)

APPENDIX 3 - TARGETED FAUNA SURVEY JUNE 2021 FOR MALLEEFOWL, LONG-TAILED DUNNART, NIGHT PARROT AND THE ARID BRONZE AZURE BUTTERFLY

APPENDIX 4 - LEVEL 2 FAUNA SURVEY OF THE MT MASON MINING TENEMENT (M29/408) BY KEITH LINDBECK ASSOCIATES IN SPRING 2011 AND AUTUMN 2012