



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 10591/1
Permit Holder:	Mt Ida Gold Pty Ltd
Duration of Permit:	From 10 January 2025 to 10 January 2030

The permit holder is authorised to clear *native vegetation* subject to the following conditions of this permit.

PART I – CLEARING AUTHORISED

1. Clearing authorised (purpose)

The permit holder is authorised to clear *native vegetation* for the purpose of road construction.

2. Land on which clearing is to be done

Lot 15 on Deposited Plan 238440, Ularring Mt Ida Road reserve (PIN 11694119), Ularring

3. Clearing authorised

The permit holder must not clear more than 11 hectares of *native vegetation* within the area cross-hatched yellow in Figure 1 of Schedule 1.

PART II – MANAGEMENT CONDITIONS

4. Avoid, minimise, and reduce impacts and extent of clearing

In determining the *native vegetation* authorised to be cleared under this permit, the permit holder must apply the following principles, set out in descending order of preference:

- (a) avoid the *clearing* of *native vegetation*;
- (b) minimise the amount of *native vegetation* to be cleared; and
- (c) reduce the impact of *clearing* on any environmental value.

5. Wind erosion management

The permit holder must ensure that construction activities occur no later than three (3) months after undertaking the *clearing* authorised under this permit.

6. Weed management

When undertaking any *clearing* authorised under this permit, the permit holder must take the following measures to minimise the risk of introduction and spread of *weeds*:

- (a) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
- (b) ensure that no known *weed*-affected soil, *mulch*, *fill*, or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

7. Fauna management – direction and timing of clearing

The permit holder must:

- (a) conduct *clearing* activities authorised under this permit in a slow, progressive manner, from one side of the *clearing* area to the other, towards adjacent *native vegetation*, to allow fauna to move into adjacent *native vegetation* ahead of the *clearing* activity; and
- (b) restrict *clearing* activities to *daytime hours* to minimise the risk of injury to fauna.

8. Fauna management – fauna spotter

- (a) The permit holder must engage a fauna spotter to traverse the area cross-hatched yellow in figure 1 of Schedule 1, ahead of *clearing* machinery immediately prior to and for the duration of *clearing* activities, to identify native vertebrate fauna.
- (b) Where native vertebrate fauna is identified under *condition* 8(a), the permit holder must:
 - (i) cease *clearing* activities in any area where native vertebrate fauna was identified under *condition* 8(a), until the identified individual(s) have naturally dispersed from the *clearing* area to adjoining habitat;
 - (ii) where native vertebrate fauna identified under *condition* 8(a) do not naturally disperse, the fauna spotter must remove and relocate native vertebrate fauna to an area of suitable habitat outside of the authorised *clearing* area, prior to recommencing *clearing*; and
 - (iii) where fauna listed under the *Biodiversity Conservation Act 2016* require removal and relocation under *condition* 8(b)(ii), this action must be undertaken in accordance with a section 40 authorisation under the *Biodiversity Conservation Act 2016*.
- (c) where evidence of *conservation listed* fauna is identified under *condition* 8(a), the permit holder must include the following in a report:
 - (i) the species and number of individuals identified;
 - (ii) the date each individual was identified;
 - (iii) the location where each individual was identified, recorded using a GPS unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings or decimal degrees; and
 - (iv) the location of any native fauna captured and relocated, using a GPS unit set to GDA2020, expressing the geographical coordinates in Eastings and Northings or decimal degrees.

9. Vegetation management – watercourse and drainage line surface flow

Where a *watercourse* or *drainage line* is to be impacted by the *clearing* authorised under this permit, the permit holder must ensure surface flow is maintained or is reinstated downstream into existing natural *drainage lines*.

PART III - RECORD KEEPING AND REPORTING

10. Records that must be kept

The permit holder must maintain records relating to the listed relevant matters in accordance with the specifications detailed in Table 1 below.

 Table 1: Records that must be kept

No.	Relevant matter	Spec	ifications
1.	In relation to the authorised clearing	(a)	the species composition, structure, and density of the cleared areas;
activities generally	(b)	the location where the <i>clearing</i> occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 2020 (GDA2020), expressing the geographical coordinates in Eastings and Northings;	
		(c)	the date that the areas were cleared;
		(d)	the size of the areas cleared (in hectares);
		(e)	actions taken to avoid, minimise, and reduce the impacts and extent of <i>clearing</i> in accordance with <i>condition 4</i> ;
		(f)	actions taken to minimise the risk of the introduction and spread of <i>weeds</i> in accordance with <i>condition</i> 5; and
		(g)	actions taken in accordance with <i>condition</i> 6, <i>condition</i> 7 and <i>condition</i> 9.
2.	In relation to fauna management pursuant	(a)	results of the pre-clearance fauna inspection undertaken in accordance with <i>condition</i> 8; and
	to <i>condition</i> 8	(b)	a copy of the fauna report in accordance with <i>condition</i> 8.

11. Reporting

The permit holder must provide to the *CEO* the records required under condition 10 of this permit when requested by the *CEO*.

DEFINITIONS

In this permit, the terms in Table 2 have the meanings defined.

Table 2: Definitions

Term	Definition
СЕО	Chief Executive Officer of the department responsible for the administration of the clearing provisions under the <i>Environmental Protection Act 1986</i> .
clearing	has the meaning given under section 3(1) of the EP Act.
condition	a condition to which this permit is subject under section 51H of the EP Act.
conservation listed	means those fauna taxa listed as threatened or specially protected species under the <i>Biodiversity Conservation Act 2016</i> (WA) or as priority fauna classes 1, 2, 3, or 4 in the Department of Biodiversity, Conservation and Attractions <i>Threatened and Priority Fauna List for Western Australia</i> (as amended from time to time) and/or listed as threatened under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> .
daytime hours	the duration starting 30 minutes before sunrise and ending 30 minutes after sunset.
department	means the department established under section 35 of the <i>Public Sector Management</i> <i>Act 1994</i> (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
drainage line	means a natural depression that carries surface water runoff.
EP Act	Environmental Protection Act 1986 (WA).
fill	means material used to increase the ground level, or to fill a depression.
mulch	means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation.
native vegetation	has the meaning given under section 3(1) and section 51A of the EP Act.
watercourse	has the meaning given under section 3 of the Rights in Water and Irrigation Act 1914.
weeds	 means any plant – (a) that is a declared pest under section 22 of the <i>Biosecurity and Agriculture Management Act 2007</i>; or (b) published in a Department of Biodiversity, Conservation and Attractions species-led ecological impact and invasiveness ranking summary, regardless of ranking; or (c) not indigenous to the area concerned.

END OF CONDITIONS

Meenu Vitarana MANAGER NATIVE VEGETATION REGULATION

Officer delegated under Section 20 of the Environmental Protection Act 1986

18 December 2024

Schedule 1

The boundary of the area authorised to be cleared is shown below (Figure 1).



Figure 1: Map of the boundary of the area within which *clearing* may occur.



Clearing Permit Decision Report

1 Application details and outcome		
1.1. Permit application details		
Permit number:	CPS 10591/1	
Permit type:	Purpose permit	
Applicant name:	Mt Ida Gold Pty Ltd	
Application received:	17 April 2024	
Application area:	11 hectares within a 42.9 hectare footprint	
Purpose of clearing:	Road construction	
Method of clearing:	Mechanical	
Property:	Lot 15 on Deposited Plan 238440 (Perrinvale Pastoral Station) and Mt Ida Road reserve (PIN 11694119)	
Location (LGA area/s):	Shire of Menzies	
Localities (suburb/s):	Ularring	

1.2. Description of clearing activities

The applicant has applied for a clearing permit under Part V of the *Environmental Protection Act 1986* (EP Act) to clear up to 11 hectares of native vegetation in a 42.9 hectare footprint, within Lot 15 on Deposited Plan 238440 (Perrinvale Pastoral Station) and Mt Ida Road reserve (PIN 11694119), Ularring, to realign a portion of Mt Ida Road (see Figure 1).

The applicant has progressed land tenure changes through the Department of Planning, Lands and Heritage to excise a portion of Lot 15 on Deposited Plan 238440, to be dedicated as a road for the proposed Mt Ida Road realignment, with the formalisation of this tenure imminent. The new lot subject to this application, which comprises the realigned road, will be Lot 604 on Deposited Plan 429776.

The application area is 85 kilometres southwest of the Leonora townsite within the Shire of Menzies and forms part of an expansive tract of native vegetation in the Murchison Bioregion and the Eastern Murchison subregion.

The applicant has advised that the road diversion around the Mt Ida Gold mine site will remove the potential intersection of road users with mining activities, noting that the existing Mt Ida Road runs directly through the centre of the mine site. The applicant notes that the proposed works would ensure the safety and well-being of the community by avoiding the potential risks associated with interactions between mining activities and community road users (Delta Lithium, 2024).

1.3. Decision on application		
Decision:	Granted	
Decision date:	18 December 2024	
Decision area:	11 hectares of native vegetation, as depicted in Section 1.5, below.	

1.4. Reasons for decision

This clearing permit application was submitted, accepted, assessed and determined in accordance with sections 51E and 51O of the EP Act. The Department of Water and Environmental Regulation (DWER) advertised the application for 21 days and no submissions were received.

In making this decision, the Delegated Officer had regard for:

- the site characteristics (see Appendix A)
- relevant datasets (see Appendix D.1)
- the findings of flora and fauna surveys
- the applicants supporting information
- the clearing principles set out in Schedule 5 of the EP Act (see Appendix B)
- relevant planning instruments, and any other matters considered relevant to the assessment (see Section 3)
- that the applicant has progressed land tenure changes through the Department of Planning, Lands and Heritage to excise a portion of Lot 15 (subject to this application) to have dedicated as a road
- the purpose of the clearing to reduce safety risks through minimising the interaction between mining activities and the community.

The assessment identified that the proposed clearing would result in:

- potential injury to native fauna through clearing operations should they be using the application areas at the time of clearing
- the potential spread of weeds into adjacent native vegetation, which could impact on the biodiversity of adjacent vegetation and its fauna habitat values
- impact on up to 0.6 hectares of riparian vegetation growing within minor non-perennial watercourses.

The Delegated Officer has considered the available information, as well as the applicant's avoidance, minimisation and mitigation measures (see Section 3.1), and the necessity of clearing.

Based on the above information, the Delegated Officer determined that on balance it was appropriate to grant the clearing permit subject to appropriate management conditions. The Delegated Officer considers that these management conditions will ensure that the proposed clearing is unlikely to lead to an unacceptable risk to the environment.

The Delegated Officer therefore decided to grant a clearing permit subject to conditions to require:

- · avoid and minimise measures to reduce the impacts and extent of clearing
- hygiene steps to minimise the risk of the introduction and spread of weeds
- commencement of construction works within three months of undertaking any clearing to reduce the potential for wind erosion and sedimentation
- slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity
- engage a fauna spotter for the duration of clearing to identify, and if necessary, remove and relocate, native vertebrate fauna from the application area to an area of suitable habitat ahead of the clearing activity
- restrict clearing activities to daylight hours to reduce the risk of injury to fauna
- ensure surface water flow is maintained or reinstated downstream into existing natural drainage lines.



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Figure 1. Map of the application area cross-hatched yellow.

2 Legislative context

The clearing of native vegetation in Western Australia is regulated under the EP Act and the *Environmental Protection* (Clearing of Native Vegetation) Regulations 2004 (Clearing Regulations).

In addition to the matters considered in accordance with section 510 of the EP Act (see Section 1.4), the Delegated Officer has also had regard to the objects and principles under section 4A of the EP Act, particularly:

- the precautionary principle
- the principle of intergenerational equity
- the principle of the conservation of biological diversity and ecological integrity.

Other legislation of relevance for this assessment include:

- Biodiversity Conservation Act 2016 (WA) (BC Act)
- Environment Protection and Biodiversity Conservation Act 1999 (Cth) (EPBC Act)

The key guidance documents which inform this assessment are:

- A guide to the assessment of applications to clear native vegetation (DER, December 2013)
- Technical guidance Flora and Vegetation Surveys for Environmental Impact Assessment (EPA, 2016)
- Technical guidance Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment (EPA, 2020).

3 Detailed assessment of application

3.1. Applicant avoidance, minimisation, mitigation and management measures

The applicant has advised that existing cleared areas have been used where practicable in identifying the proposed Mt Ida Road realignment.

The applicant has committed to undertake the following management measures with respect to the proposed clearing:

- the application area will be delineated on foot and marked with survey pegs and flagging tape to ensure clearing beyond the application area will not occur
- clearing will not be undertaken until construction is imminent, minimising erosion and dust risks
- all cleared vegetation will be stockpiled for later use in Mt Ida Golds rehabilitation activities
- all vehicles and equipment will be cleaned before mobilisation to the application area, to remove all dirt and vegetative material
- pre-clearance surveys within the specified clearing areas will be undertaken in the morning of clearing to search for the presence of significant fauna species
- no clearing at night will occur to avoid impacting nocturnal species
- using water to suppress dust emission from unsealed roads, stockpiles and work areas as required.

The Delegated Officer was satisfied that the applicant has made a reasonable effort to avoid, minimise and manage the potential impacts of the proposed clearing on environmental values.

3.2. Assessment of impacts on environmental values

In assessing the application, the Delegated Officer has had regard for the site characteristics (see Appendix A), biological survey information and the extent to which the impacts of the proposed clearing present a risk to environmental values.

The assessment against the clearing principles (see Appendix B) identified that the impacts of the proposed clearing present a risk to flora and fauna values. The consideration of these impacts, and the extent to which they can be managed through conditions applied in line with sections 51H and 51I of the EP Act, is set out below.

3.2.1. Environmental value: Biodiversity – Clearing Principle (a)

Assessment

The application area and surrounds were subject to a Reconnaissance Flora and Vegetation Survey (flora survey) in April 2023 by Native Vegetation Solutions (NVS).

The flora survey included establishment and survey of releve sites (46 total) along the length of the application area to identify species present, number counts for conservation listed flora, disturbance levels and vegetation condition. The flora survey also included opportunistic recordings of plant taxa and vegetation group mapping via wandering traverses (NVS, 2023).

A total of 22 Families, 38 Genera and 73 Species were recorded within the survey area. Four major vegetation types were recorded in the survey area (see Appendix A) which range from completely degraded to very good (Keighery, 1994) condition (NVS, 2023). Existing disturbance within the survey area from historic exploration activities, and access roads was evident. The four vegetation types within the application area are considered common, widespread and well represented in the Eastern Murchison subregion (NVS, 2023).

There are five conservation listed flora species (DBCA listed priority species) known from the local area (20-kilometre radius surrounding the application area) (Western Australian Herbarium, 1998-):

- Calotis sp. Perrinvale Station (R.J. Cranfield 7096) Priority 3 (DBCA listed)
- Calytrix hislopii Priority 3
- Hemigenia exilis Priority 4
- Homalocalyx grandiflorus Priority 3
- Jacksonia lanicarpa Priority 1

The above species were not identified during the flora survey which was undertaken during the appropriate survey period for the Eremaean province (NVS, 2023). These species were also not identified during a flora survey of the adjacent, extensive Mt Ida Gold mine site (DEMIRS, 2023). With consideration of the survey findings, habitat preferences of these species, site context and distance to known locations, the proposed clearing is not likely to impact on these species, or on significant habitat for these species.

No threatened or priority ecological communities are mapped within the application area, none were identified during the flora survey (NVS, 2023), and the application area is not considered to be an occurrence of any known threatened or priority ecological communities. The flora survey noted that no unique or restricted vegetation communities were identified within the survey area (NVS, 2023).

Noting the above, the application area is unlikely to contain a high level of biodiversity.

While no weeds were recorded during the flora survey (NVS, 2023), the proposed clearing may increase the risk of weeds spreading into adjacent native vegetation through the movement of machinery to and from the application area. Appropriate hygiene measures will assist in minimising this risk.

Conclusion

Based on the above assessment, the vegetation within the application area is well represented in the broader Eastern Murchison subregion and the proposed clearing is not likely to impact on any conservation listed flora or ecological communities. Therefore, the application area is not likely to comprise a high level of biodiversity.

Conditions

The clearing permit contains a condition to require specific hygiene measures, to minimise the risk of the introduction and spread of weeds beyond the application area.

3.2.2. Environmental value: Fauna – Clearing Principle (b)

<u>Assessment</u>

The application area was subject to a fauna assessment undertaken by Terrestrial Ecosystems in 2023 (fauna assessment). The field assessment involved assessing fauna habitat types and their condition and assessing the possible presence of, and recording evidence of, conservation significant fauna, including a search for evidence of malleefowl or their mounds (Terrestrial Ecosystems, 2023).

The survey noted that the methodology broadly followed the Environmental Protection Authority Technical Guidance – *Terrestrial Vertebrate Fauna Surveys for Environmental Impact Assessment* (EPA, 2020) (Terrestrial Ecosystems, 2023).

The fauna assessment identified one broad fauna habitat type within the application area, comprising mixed mulga, acacia and chenopod shrubland (Terrestrial Ecosystems, 2023). The vegetation density across this fauna habitat

varied markedly across the application area with denser vegetation occurring along drainage lines. Drainage line vegetation comprises a small portion (0.6 hectares) of the application area.

The survey identified that some of the project area is highly disturbed and devoid of terrestrial vertebrate fauna (Terrestrial Ecosystems, 2023).

There are 13 conservation listed fauna species known from the region that warrant consideration as part of this assessment:

- night parrot (Pezoporus occidentalis) (critically endangered; BC Act, endangered; EPBC Act)
- sandhill dunnart (*Sminthopsis psammophila*) (endangered; BC Act and EPBC Act)
- malleefowl (Leipoa ocellata) (vulnerable; BC Act and EPBC Act)
- chuditch (Dasyurus geoffroii) (vulnerable; BC Act and EPBC Act)
- grey falcon (Falco hypoleucos) (vulnerable; BC Act and EPBC Act)
- princess parrot (*Polytelis alexandrae*) (vulnerable; BC Act and EPBC Act)
- fork-tailed swift (Apus pacificus) (migratory; BC Act and EPBC Act)
- grey wagtail (*Motacilla cinerea*) (migratory; BC Act and EPBC Act)
- peregrine falcon (Falco peregrinus) (other specially protected fauna; BC Act)
- woma (Aspidites ramsayi) (Priority 1; DBCA listed)
- long-tailed dunnart (Sminthopsis longicaudata) (Priority 4; DBCA listed)
- brush-tailed mulgara (Dasycercus blythi (Priority 4; DBCA listed)
- central long-eared bat (Nyctophilus major tor) (Priority 3; DBCA listed).

No conservation listed fauna were identified during the fauna assessment (Terrestrial Ecosystems, 2023).

The application area does not provide suitable habitat for the night parrot, malleefowl, sandhill dunnart, long-tailed dunnart, chuditch, grey wagtail, woma, fork-tailed swift or brush-tailed mulgara (Benshemesh, 2007; BirdLife International, 2017, Commonwealth of Australia, 2008; Commonwealth of Australia, 2015; DEC, 2012, Terrestrial Ecosystems, 2023).

The application area does not provide suitable breeding or roosting habitat for the peregrine falcon, grey falcon, princess parrot, or central long-eared bat (Commonwealth of Australia 2008a; Commonwealth of Australia, 2020; Terrestrial Ecosystems, 2023). The application area provides suitable foraging habitat for these species; however this habitat is unlikely to be significant given the extent of surrounding habitat within the local area, which retains around 99 per cent native vegetation cover (141,739 hectares). The proposed clearing represents the loss of 0.008 per cent of native vegetation in the local area and is not likely to significantly impact on available foraging habitat for these species.

While the proposed clearing is not likely to impact on significant habitat for fauna, it may directly impact on any native vertebrate fauna using the application area at the time of clearing, through machinery strike.

Conclusion

Based on the above assessment, the proposed clearing will result in the loss of suitable foraging habitat for up to four conservation listed fauna species. Noting the extent of similar habitat within the surrounding area, lack of unique habitat features within the application area, and that no conservation listed fauna were recorded in the application areas during the surveys, the fauna habitat proposed for clearing is not likely to be significant. The proposed clearing may however directly impact on native fauna using the application areas at the time of clearing through machinery strike. Appropriate management measures will assist in minimising this risk.

Conditions

To address the above impacts, the following management measures will be required as conditions on the permit:

- slow, progressive one directional clearing to allow terrestrial fauna to move into adjacent habitat ahead of the clearing activity
- engage a fauna spotter for the duration of clearing to identify, and if necessary, remove and relocate, native fauna from the application area to an area of suitable habitat ahead of the clearing activity, as committed to by the applicant
- restrict clearing activities to daylight hours to reduce the risk of injury to fauna.

The Delegated Officer considers that the above conditions will appropriately minimise the risk of impact to native fauna resulting from the proposed clearing.

3.3. Relevant planning instruments and other matters

The applicant has progressed tenure changes through the Department of Planning, Lands and Heritage to excise a portion of the former Lot 15 on Deposited Plan 238440 (initially the land subject of this application) to be dedicated as a road for the proposed realignment. The finalisation of the new road dedication is imminent (DPLH, 2024). The new lot subject to this application will be Lot 604 on Deposited Plan 429766.

The applicant is undertaking the proposed works on behalf of the Shire of Menzies (the Shire). The Shire has provided its endorsement for the applicant to act on its behalf in commissioning this project.

Lot 15 on Deposited Plan 238440 is subject to a pastoral lease (Perrinvale pastoral station), and the applicant has obtained written authority from the leaseholder to undertake the proposed works, notwithstanding the soon to be finalised road dedication.

DWER's Contaminated Sites Branch provided advice on the proposed clearing and advised that potentially contaminated materials may be encountered during the proposed clearing at the site (DWER, 2024). The applicant advised that the section of tenement M29/2, where the new road diversion is planned, is outside of any historical mining area / activity along this section of the tenement, therefore, the proposed clearing is unlikely to interact with any contaminated areas.

The construction and end land use of the project has the potential to impact on natural water flow in drainage areas, and result in the accidental release of hydrocarbons. The applicant has committed to the following management measures to minimise this risk (Delta Lithium, 2024):

- safe storage of hydrocarbons and chemicals
- ensuring effective spill clean-up material is readily available at all work sites
- constructing roadside drainage so that runoff from the road diversion will be contained during rainfall events
- installing culverts where there is a risk of modification to downstream flow
- implementing erosion and sediment control measures.

There are no Aboriginal Sites of Significance mapped within the application area. It is the permit holder's responsibility to comply with the *Aboriginal Heritage Act 1972* (WA) and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

End

Appendix A. Site characteristics

C.1. Site characteristics

Characteristic	Details
Local context	The application area is 85 kilometres southwest of the Leonora townsite, within the Shire of Menzies and forms part of an expansive tract of native vegetation in the Murchison Bioregion and the Eastern Murchison subregion.
	Aerial imagery indicates the local area (20-kilometre radius from the centre of the application area) retains around 99% native vegetation cover.
Ecological linkage	There are no mapped ecological linkages within or nearby the application area.
Conservation areas	The closest conservation area to the application area is the Helena and Aurora Ranges National Park, located around 100 kilometres southwest.
Vegetation description and condition	 The flora survey identified 4 vegetation types within the application area (NVS, 2023): mulga over <i>Maireana sedifolia</i> and sclerophyll shrubland (3.5 hectares) mulga creekline vegetation (0.6 hectares) mulga woodland (5.4 hectares) open chenopod shrubland with occasional mulga overstorey (1.1 hectares).
	The broad scale vegetation type mapped over the application area is (Shepherd et al, 2001):
	Beard Vegetation Association (BVA) 39, described as wattle, teatree & other species Acacia spp. Melaleuca spp
	BVA 39 retains around 99% of its pre-European vegetation extent (Government of Western Australia, 2019).
	The flora survey indicates that the vegetation within the application area varies in condition from completely degraded to good (Keighery, 1994) condition (NVS, 2023).
	The full Keighery (1994) condition rating scale is provided in Appendix C.
	The full survey vegetation description and condition, representative photographs and mapping are available in the publicly available document titled 'Native Vegetation Solutions. Reconnaissance Flora and Vegetation Survey of the Mt Ida Road Diversion – April 2023. June 2023'.
Climate and topography	The climate of the application area is Arid consisting of low rainfall, hot dry summers and mild winters. Mean annual rainfall is between 200 to 300 millimetres. Thunderstorm activity in the summer months can result in slightly larger monthly averages (BoM, 2024). Evaporation exceeds rainfall in all months.
	Topography of the application area ranges from 460 metres to 480 metres, increasing towards the southern end of the application area.
Soils and landform	 The application area consists of four mapped soil-landscape types including: Bevon System (279Bv): Irregular low ironstone hills with stony lower slopes supporting mulga shrublands. Nubev system (279Nu): Gently undulating stony plains, minor limonitic low rises and drainage floors supporting mulga and halophytic shrublands. Gransal System (279Gr): Stony plains and low rises based on granite supporting mainly halophytic low shrublands. Rainbow System (279Rb): Hardpan plains supporting mulga tall shrublands.
Waterbodies and hydrogeography	According to available datasets, several non-perennial watercourses intersect the application area. Groundwater salinity is mapped as 1000 to 3000 milligrams per litre of total dissolved solids.

Characteristic	Details
Conservation listed flora	Within the local area there are 38 mapped records of conservation listed flora, consisting of five species. The closest record, <i>Hemigenia exilis</i> , is 960 metres from the application area. No conservation listed flora were identified during the flora survey (NVS, 2023).
Conservation listed ecological communities	Within the local area there are there is one priority ecological community, the Perrinvale/Walling vegetation complexes (banded ironstone formation) (Priority 1), located around 7.9 kilometres from the application area.
Conservation listed fauna	Within the local area there are 15 records of conservation significant fauna, consisting of four species. The closest record is the brush-tailed mulgara, located 6.7 kilometres from the application area. No conservation listed fauna were recorded during the fauna survey (Terrestrial Ecosystems, 2023).

Appendix B. Assessment against the clearing principles

Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: biological values		
Principle (a): "Native vegetation should not be cleared if it comprises a high level of biodiversity."	Not likely to be at	Yes (Refer to
Assessment:	variance	Section 3.2.1)
The application area is not likely to comprise a high level of biodiversity. The assessment against this principle is assessed in detail under Section 3.2.1.		
<u>Principle (b):</u> "Native vegetation should not be cleared if it comprises the	Not likely to	Yes
habitat for fauna."	variance	(Refer to Section 3.2.1)
Assessment:		,
The application area is not likely to contain significant habitat for fauna, however it may result in direct impacts to any native vertebrate fauna using the application area at the time of clearing, through machinery strike.		
The assessment against this principle is assessed in detail under Section 3.2.2.		
<u>Principle (c):</u> "Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, threatened flora."	Not likely to be at	No
Assessment:	variance	
No threatened flora are known from the local area, and none were identified during a flora survey of the application area (NVS, 2023). The application area is therefore not likely to include, or be necessary for the existence of threatened flora.		
<u>Principle (d):</u> "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."	Not likely to be at variance	No
Assessment:		
There are no threatened ecological communities (TEC) mapped within the local area and the vegetation types recorded during the flora survey of the application area are not representative of any known TEC's. The application area is therefore not likely to comprise, or be necessary for the maintenance of a TEC.		

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Assessment against the clearing principles	Variance level	Is further consideration required?
Environmental value: significant remnant vegetation and conservation are	eas	
<u>Principle (e):</u> "Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared."	Not likely to be at variance	No
Assessment:		
has a target to prevent clearance of ecological communities with an extent below 30 per cent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001).		
The local area and the vegetation association mapped over the application area (Beard Vegetation Association 39 – within the Murchison Bioregion), both retain more than 99% native vegetation (Government of Australia, 2019). Therefore, the extent of native vegetation in the local area is consistent with the national objectives and targets for biodiversity conservation in Australia.		
Given the above, the application area is not within an area that has been extensively cleared.		
<u>Principle (h):</u> "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."	Not likely to be at variance	No
Assessment:		
There are no conservation areas within the local area and the proposed clearing is not likely to impact on the environmental values of any conservation area.		
Environmental value: land and water resources		
<u>Principle (f):</u> "Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland."	At variance	No
Assessment:		
The application area intersects several minor non-perennial watercourses, which typically only flow after heavy rainfall events. The intersections of these watercourses with the application area were mapped during the flora survey as mulga creekline vegetation (comprising 0.6 hectares) in largely good to very good (Keighery, 1994) condition. Therefore, the proposed clearing will impact on riparian vegetation.		
The proposed clearing of 0.6 hectares of creekline vegetation is not likely to significantly impact on riparian habitat within the local area, noting the high number of non-perennial watercourses that exist nearby.		
To ensure that the health of downstream riparian vegetation is not impacted, the clearing permit contains a condition that requires for surface water flows to be maintained downstream.		
<u>Principle (g):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation."	May be at variance	No
Assessment:		
The mapped soils within the application area may be susceptible to wind erosion and salinity, resulting from the proposed clearing. Regarding salinity, noting the linearity of the application area and extent of surrounding native		

Assessment against the clearing principles	Variance level	Is further consideration required?
vegetation, surface expression of salinity causing appreciable land degradation is unlikely.		
Similarly, for the reasons described above, significant wind erosion is unlikely, however there is the risk of localised wind erosion should appropriate management measures not be adhered to.		
The applicant has advised that the following measures will be undertaken to minimise the risk of wind erosion (Delta Lithium, 2024):		
 clearing will not be undertaken until construction is imminent 		
 water will be used to suppress dust emissions 		
• operational activities will be scheduled to avoid high winds, where practicable.		
To minimise the risk of localised erosion, the clearing permit contains a condition that requires the applicant to undertake construction activities within three months of undertaking any clearing.		
The above measures and clearing permit condition are considered adequate to manage the risk of erosion.		
<u>Principle (i):</u> "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."	May be at variance	No
Assessment:		
The application area intersects several minor non-perennial watercourses. In years of high rainfall these minor watercourses flow to the salt lakes of Lake Raeside to the north-east and Lake Ballard to the south-east, which are around 40 kilometres from the application area.		
The proposed clearing may cause short term localised sedimentation if undertaken during heavy rainfall events. However, this is likely to be minimal should clearing not occur during heavy rainfall, given that this is the only time that these drainage lines flow. The applicant has advised that the construction activities will be designed so that runoff from the road diversion will be contained during unexpected high rainfall events (Delta Lithium, 2024).		
The proposed clearing is not likely to increase groundwater salinity noting the type of vegetation proposed to be cleared, extent of surrounding vegetation, and linearity of the application area.		
Noting the above, the proposed clearing may result in minor, short term, localised sedimentation during heavy rainfall, that is unlikely to significantly deteriorate the quality of surface water downstream.		
<u>Principle (j):</u> "Native vegetation should not be cleared if the clearing of the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding."	Not likely to be at variance	No
Assessment:		
The climate of the region is semi-arid, with a low average rainfall of around 230 millimetres per year (BoM, 2024). There are no permanent watercourses or waterbodies within the application area. Seasonal drainage lines are common in the region and temporary localised flooding may occur briefly following heavy rainfall events. However, the proposed clearing is unlikely to increase the incidence or intensity of natural flooding events.		

Appendix C. Vegetation condition rating scale

Vegetation condition is a rating given to a defined area of vegetation to categorise and rank disturbance related to human activities. The rating refers to the degree of change in the vegetation structure, density and species present in relation to undisturbed vegetation of the same type. The degree of disturbance impacts upon the vegetation's ability to regenerate. Disturbance at a site can be a cumulative effect from a number of interacting disturbance types.

While DWER notes that typically the Trudgen condition rating scale is used in the Eremeaen Botanical Province, the flora survey provided to support this clearing permit application used the Keighery scale (see below) to measure the condition of the vegetation within the application area. This scale has been extracted from: Keighery, B.J. (1994) *Bushland Plant Survey: A Guide to Plant Community Survey for the Community*. Wildflower Society of WA (Inc). Nedlands, Western Australia.

Measuring vegetation condition for the South West and Interzone Botanical Province (Keighery, 1994)

Condition	Description
Pristine	Pristine or nearly so, no obvious signs of disturbance.
Excellent	Vegetation structure intact, with disturbance affecting individual species; weeds are non-aggressive species.
Very good	Vegetation structure altered, with obvious signs of disturbance. For example, disturbance to vegetation structure caused by repeated fires, the presence of some more aggressive weeds, dieback, logging and/or grazing.
Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances. Retains basic vegetation structure or ability to regenerate it. For example, disturbance to vegetation structure caused by very frequent fires, the presence of some very aggressive weeds at high density, partial clearing, dieback and/or grazing.
Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not to a state approaching good condition without intensive management. For example, disturbance to vegetation structure caused by very frequent fires, the presence of very aggressive weeds, partial clearing, dieback and/or grazing.
Completely degraded	The structure of the vegetation is no longer intact and the area is completely or almost completely without native species. These areas are often described as 'parkland cleared' with the flora comprising weed or crop species with isolated native trees or shrubs.

Appendix D. Sources of information

D.1. GIS databases

Publicly available GIS Databases used (sourced from www.data.wa.gov.au):

- 10 Metre Contours (DPIRD-073)
- Aboriginal Heritage Places (DPLH-001)
- Cadastre (LGATE-218)
- Contours (DPIRD-073)
- DBCA Lands of Interest (DBCA-012)
- DBCA Legislated Lands and Waters (DBCA-011)
- Directory of Important Wetlands in Australia Western Australia (DBCA-045)
- Environmentally Sensitive Areas (DWER-046)
- Flood Risk (DPIRD-007)
- Groundwater Salinity Statewide (DWER-026)
- Hydrography Inland Waters Waterlines
- IBRA Vegetation Statistics
- Imagery
- Local Planning Scheme Zones and Reserves (DPLH-071)
- Native Title (ILUA) (LGATE-067)
- Offsets Register Offsets (DWER-078)
- Pre-European Vegetation Statistics
- Ramsar Sites (DBCA-010)

- Regional Parks (DBCA-026)
- Remnant Vegetation, All Areas
- RIWI Act, Surface Water Areas and Irrigation Districts (DWER-037)
- Soil Landscape Mapping Best Available

Restricted GIS Databases used:

- ICMS (Incident Complaints Management System) Points and Polygons
- Threatened Flora (TPFL)
- Threatened Flora (WAHerb)
- Threatened Fauna
- Threatened Ecological Communities and Priority Ecological Communities
- Threatened Ecological Communities and Priority Ecological Communities (Buffers).

D.2. References

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