GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	4532/11
Duration of Permit:	From 5 November 2011 to 5 November 2032
Permit Holder:	Argyle Diamonds Limited

The Permit Holder is authorised to clear native vegetation subject to the following conditions of this Permit.

PART I - CLEARING AUTHORISED

1. Land on which clearing is to be done
Diamond (Argyle Diamond Mines Joint Venture) Agreement Act 1981, Mining Lease 259SA (AM 70/259)
Mining Lease 80/114
Miscellaneous Licence 80/1

2. Clearing authorised (purpose)
The permit holder is authorised to clear native vegetation for the purposes of mineral exploration, mineral production and associated activities.

3. Area of Clearing
The Permit Holder must not clear more than 416 hectares of native vegetation within the areas shaded yellow in Figure 1 of Schedule 1.

4. Period in which clearing is Authorised
The permit holder must not clear any native vegetation after 5 November 2025.

PART II - MANAGEMENT CONDITIONS

5. Avoid, minimise and reduce the impacts and extent of clearing
In determining the amount of native vegetation 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.

6. Weed control
When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the 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. Retain and spread vegetative material and topsoil

The Permit Holder shall:

(a) retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil within an area that has already been cleared for later use in *rehabilitation* of the *Argyle Diamond Mine*.

(b) within 12 months following clearing authorised under this permit, *revegetate* and *rehabilitate* the areas that are no longer required for the purpose for which they were cleared under this Permit by:

(i) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land;
(ii) ripping the ground on the contour to remove soil compaction;
(iii) deliberately laying vegetative material that has comparable vegetation types and comparable soil types to pre-clearing vegetation types within the Permit area;
(iv) deliberately *revegetating* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area; and
(v) ensuring only *local provenance* seeds and propagating material are used to *revegetate* and *rehabilitate* the area.

(c) within 4 years of undertaking *revegetation* and *rehabilitation* in accordance with condition 7(b) of this Permit:

(i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
(ii) where, in the opinion of an *environmental specialist*, the composition, structure and density determined under condition 7(c)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.

(d) Where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with condition 7(c)(ii) of this permit, the Permit Holder shall repeat condition 7(c)(i) and 7(c)(ii) within 24 months of undertaking the additional *planting* or *direct seeding* of native vegetation.

(e) Where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in condition 7(c)(i) and 7(c)(ii) of this permit, that determination shall be submitted for the *CEO's* consideration. If the *CEO* does not agree with the determination made under condition 7(c)(ii), the *CEO* may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 7(c)(ii).

8. Retain vegetative material and topsoil, revegetation and rehabilitation

(a) The Permit Holder shall *revegetate* and *rehabilitate* 67.59 hectares of *temporary disturbance* previously cleared within the area shaded yellow on attached Plan 4532/10 by:

(i) laying vegetative material and topsoil previously retained within the area shaded yellow on attached Plan 4532/11 on the cleared areas;
(ii) ripping the ground on the contour to remove soil compaction; and
(iii) re-shaping the surface of the land so that it is consistent with the surrounding 5 metres of uncleared land.

(b) Within 4 years of undertaking *revegetation* and *rehabilitation* in accordance with condition 8(a) of this Permit:

(i) engage an *environmental specialist* to determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and

(ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 8(b)(i) of this Permit will not result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, *revegetate* the area by deliberately *planting* and/or *direct seeding* native vegetation that will result in a similar species composition, structure and density of native vegetation to pre-clearing vegetation types in that area and ensuring only *local provenance* seeds and propagating material are used.

(c) Where additional *planting* or *direct seeding* of native vegetation is undertaken in accordance with condition 8(b)(ii) of this permit, the Permit Holder shall repeat condition 8(b)(i) and 8(b)(ii) within 24 months of undertaking the additional *planting* or *direct seeding* of native vegetation.

(d) Where a determination by an *environmental specialist* that the composition, structure and density within areas *revegetated* and *rehabilitated* will result in a similar species composition, structure and density to that of pre-clearing vegetation types in that area, as determined in condition 8(b)(i) and 8(b)(ii) of this permit, that determination shall be submitted for the *CEO*'s consideration. If the *CEO* does not agree with the determination made under condition 8(b)(ii), the *CEO* may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 8(b)(ii).

PART III - RECORD KEEPING AND REPORTING

9. Records to be kept

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

Table 1: Records that must be kept

No.	Relevant matter	Specifications
1.	In relation to the authorised clearing activities generally	(a) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings; (b) the date that the area was cleared; (c) the size of the area cleared (in hectares); (d) actions taken to avoid, minimise, and reduce the impacts and extent of clearing in accordance with condition 5; and (e) actions taken to minimise the risk of the introduction and spread of *weeds* in accordance with condition 6.
2.	In relation to the *revegetation* and *rehabilitation* management pursuant to conditions 7 and 8	(a) The location of any areas *revegetated* and *rehabilitated*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees; (b) a description of the *revegetation* and *rehabilitation* activities undertaken; and

No.	Relevant matter	Specifications
		(c) the size of the area *revegetated* and *rehabilitated* (in hectares).

10. Reporting

(a) The Permit Holder shall provide a report to the *CEO* by 30 September each year for the life of this Permit, demonstrating adherence to all conditions of this Permit, and setting out the records required under condition 9 of this Permit in relation to clearing carried out between 1 July and 30 June of the previous financial year.

(b) If no clearing authorised under this Permit was undertaken between 1 July and 30 June of the previous financial year, a written report confirming that no clearing under this permit has been carried out, must be provided to the *CEO* by 30 September of each year.

(c) Prior to 5 November 2032, the Permit Holder must provide to the *CEO* a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(a) or 10(b) of this Permit.

DEFINITIONS

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

Table 2: Definitions

Term	Definition
Argyle Diamond Mine	means the area covered by the *Diamond (Argyle Diamond Mines Joint Venture) Agreement Act 1981*, Mining Lease 259SA (AM 70/259), Mining Lease 80/114 and Miscellaneous Licence 80/1.
CEO	the Chief Executive Officer of the Department responsible for administering the clearing provisions contained within the *Environmental Protection Act 1986* or an Officer with delegated authority under Section 20 of the *Environmental Protection Act 1986;*
clearing	has the meaning given under section 3(1) of the EP Act.
condition/s	a condition to which this clearing permit is subject under section 51H of the EP Act.
department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
direct seeding	Means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species.
environmental specialist	means a person who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit, or who is approved by the *CEO* as a suitable environmental specialist.
EP Act	*Environmental Protection Act 1986* (WA)
fill	means material used to increase the ground level, or to fill a depression.
local provenance	means native vegetation seeds and propagating material from natural sources within 200 kilometres of the area cleared.
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.

Term	Definition
planting	means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species.
rehabilitate / rehabilitated / rehabilitation	means actively managing an area containing native vegetation in order to improve the ecological function of that area.
revegetate / vegetated / revegetation	means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as natural *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area.
weed/s	means any plant – (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; 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

Tania Liaghati

Tania Liaghati
Acting General Manager Environmental Compliance
Resource and Environmental Compliance Division
02 December 2021

Officer with delegated authority under Section 20
of the *Environmental Protection Act 1986*

SCHEDULE 1

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

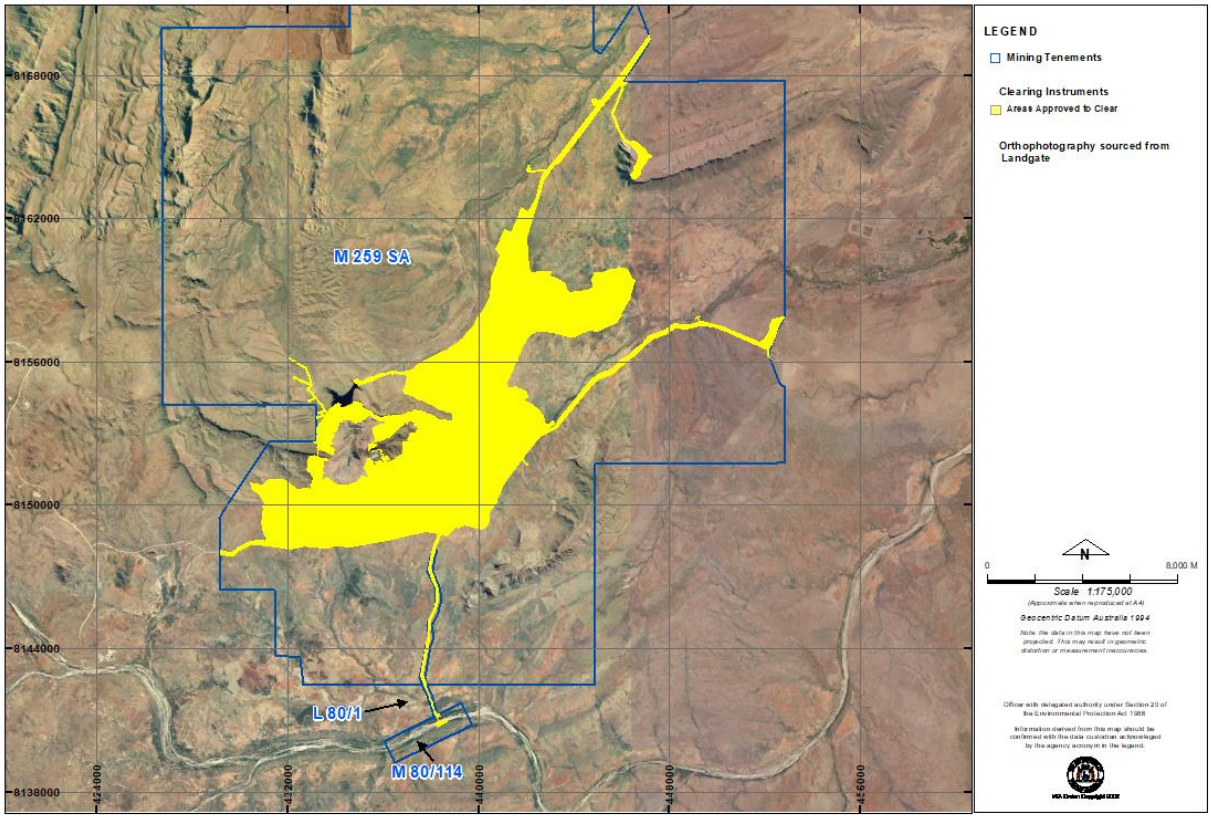

Figure 1: Map of the boundary of the area within which clearing may occur

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.: 4532/11
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: **Argyle Diamonds Limited**

1.3. Property details

Property: *Diamond (Argyle Diamond Mines Joint Venture) Agreement Act 1981*,
Mining Lease 259SA (AM 70/259)
Mining Lease 80/114
Miscellaneous Licence 80/1
Local Government Area: Shire of Wyndham-East Kimberley
Colloquial name: Argyle Diamond Mine

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
416		Mechanical Removal	Mineral Exploration, Mineral Production and Associated Activities

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 2 December 2021

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description Beard vegetation associations have been mapped for the whole of Western Australia. The vegetation of the application area is broadly mapped as the following Beard vegetation associations:

65 - Grasslands, tall bunch grass savanna, sparse low tree, terminalia; mitchell grass (*Astrebla pectinata* and spp.);

126 - Bare areas; freshwater lakes;

808 - Grasslands, curly spinifex, low tree savanna; snappy gum over curly spinifex;

816 – Grasslands, short bunch grass savanna, low tree, Mt House box (*Eucalyptus argillacea*) and bloodwood over arid short grass (*Enneapogon* spp.);

818 - Hummock grasslands, low tree steppe; Snappy Gum over *Triodia inutilis*;

819 - Grasslands, tall bunch grass savanna low tree; cabbage gum and silverleaved box over aristida and ribbon grass on sandy plains;

820 - Grasslands, high grass savanna sparse low tree; snappy gum (*Eucalyptus brevifolia*) over upland tall grass and curly spinifex on granite;

825 - Grasslands, high grass savanna woodland; cabbage gum and *Eucalyptus foelscheana* over upland tall grass and curly spinifex on basalt;

827 - Hummock grasslands, low tree steppe; terminalia over *Triodia wiseana* on limestone; and

833 - Grasslands, short bunch grass savanna sparse low tree; scattered Snappy Gum over arid short grass on plains (GIS Database).

Several flora surveys have been previously conducted by Mattiske (1998; 2002; 2003; 2004) which cover approximately half of the permit area. The majority of the permit area has also been covered by previous vegetation mapping undertaken by Dames and Moore (1982). The following vegetation complexes have been identified which were included as part of the previous version of the permit, CPS 4532/10:

Dames and Moore vegetation associations and complexes:
- Mountain complex
- Riverine complex
- Hill complex
- Plains complex
- Cracking clay plains complex
- Levee/terrace complex
- Frosted bloodwood –steppe woodland association
- Kimberley gum – low tree steppe association
- Thickets associations

Hummock Grasslands

HG1 Hummock Grassland of *Triodia bitextura* and *Triodia bynoei* with emergent *Eucalyptus brevifolia*, *Corymbia confertiflora*, *Corymbia opaca*, *Eucalyptus pruinosa*, *Bauhinia cunninghamii* over *Acacia argyraea* and *Acacia hemignosta*;

HG2 Hummock Grassland of *Triodia bitextura* and *Triodia bynoei* with emergent *Corymbia confertiflora*, *Corymbia opaca*, *Eucalyptus brevifolia*, *Eucalyptus pruinosa*, *Bauhinia cunninghamii* and *Terminalia canescens*;

HG3 Hummock Grassland of *Triodia bitextura* and *Triodia bynoei* with emergent denser pockets of *Terminalia canescens* and *Cochlospermum fraseri*, with the occasional *Corymbia confertiflora* and *Eucalyptus brevifolia*;

Woodlands

Wl Low Open Woodland of *Terminalia canescens* with *Corymbia confertiflora*, *Eucalyptus brevifolia*, *Terminalia oblongata* subsp. *volucris* and *Eucalyptus pruinosa* over patches of *Triodia bitextura* and *Heteropogon contortus*;

W2 Low Open Woodland of *Melaleuca minutifolia* and *Eucalyptus pruinosa* over *Triodia bitextura*;

W4 Open Woodland and Low Open Woodland of *Terminalia platyptera*, *Terminalia arostrata*, *Adansonia gregorii*, *Buchanania obovata* and *Bauhinia cunninghamii*;

W5 Mixture of Open Woodland and Low Open Woodland of *Adansonia gregorii*, *Buchanania obovata*, *Bauhinia cunninghamii* and *Eucalyptus brevifolia* over patches of *Typha domingensis*, *Heteropogon contortus*, *Cenchrus elymoides* and *Chloris truncata*;

W6 Low Open Woodland of *Melaleuca minutifolia* over patches of *Typha domingensis*;

W7 Low Open Woodland of *Bauhinia cunninghamii* and *Eucalyptus pruinosa* over mixed grasses and herbs;

W9 Low Open Woodland of *Corymbia opaca*, *Eucalyptus brevifolia*, *Eucalyptus pruinosa* and *Cochlospermum fraseri* over *Ptilotus spicatus* subsp. *spicatus*, *Cleome viscosa* and *Phyllanthus maderaspatensis var. angustifolia*.

Clearing Description

Argyle Diamond Mine.
Argyle Diamonds Limited is proposing to clear up to 416 hectares of native vegetation within a boundary of approximately 8,016.7 hectares for the purposes of mineral exploration, infrastructure, operational maintenance and reworking of tailings material. The project is located approximately 200 kilometres south west of Kununurra within the Shire of Wyndham-East Kimberley.

Vegetation Condition

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

Comment

Clearing permit CPS 4532/1 was granted by the Department of Mines and Petroleum (DMP) on 13 October 2011. The clearing permit authorised the clearing of 50 hectares of native vegetation within a total boundary of 1,900 hectares.

CPS 4532/1 was amended on 2 August 2012 for the purpose of changing the annual reporting date from 31 July to 30 September each year.

On 27 December 2012, CPS 4532/2 was amended for the purpose of increasing the permit boundary from approximately 1,900 hectares to 2,608 hectares and changing the purpose of the clearing to infrastructure and operational maintenance.

CPS 4532/3 was amended on 6 February 2014, to increase the permit boundary by 18.34 hectares to approximately 2,626 hectares.

CPS 4532/4 was amended on 24 December 2015, to increase the permit boundary from 2,626 hectares to 2,696 hectares.

CPS 4532/5 was amended on 26 May 2016 to amend the purpose of clearing, amend the period in which clearing is authorised to allow for 15 hectares to be cleared each financial year, and increase the permit boundary.

CPS 4532/6 was amended on 20 October 2016 for the purposes of increasing the permit boundary, increasing the permitted amount of clearing to 300 hectares, amending the purpose of clearing and amalgamating eight existing permits into one permit.

CPS 4532/7 was amended on 4 May 2017 for the purpose of increasing the permit boundary by 74.85 hectares.

CPS 4532/8 was amended on 15 March 2018 for the purpose of increasing the permit boundary by 3.26 hectares to allow for rehabilitation trials on a waste rock dump.

CPS 4532/9 was amend on 30 June 2021 to increase the amount of clearing authorised to 416 hectares and increase the clearing permit boundary to approximately 7,423.5 hectares. These changes to the permit were to facilitate rehabilitation activities.

Argyle Diamonds Limited has applied to amend CPS 4532/10 to increase the permit boundary to approximately 8,016.7 hectares (see Figure 1). The increase in permit boundary is to facilitate rehabilitation works on the existing waste rock dumps.

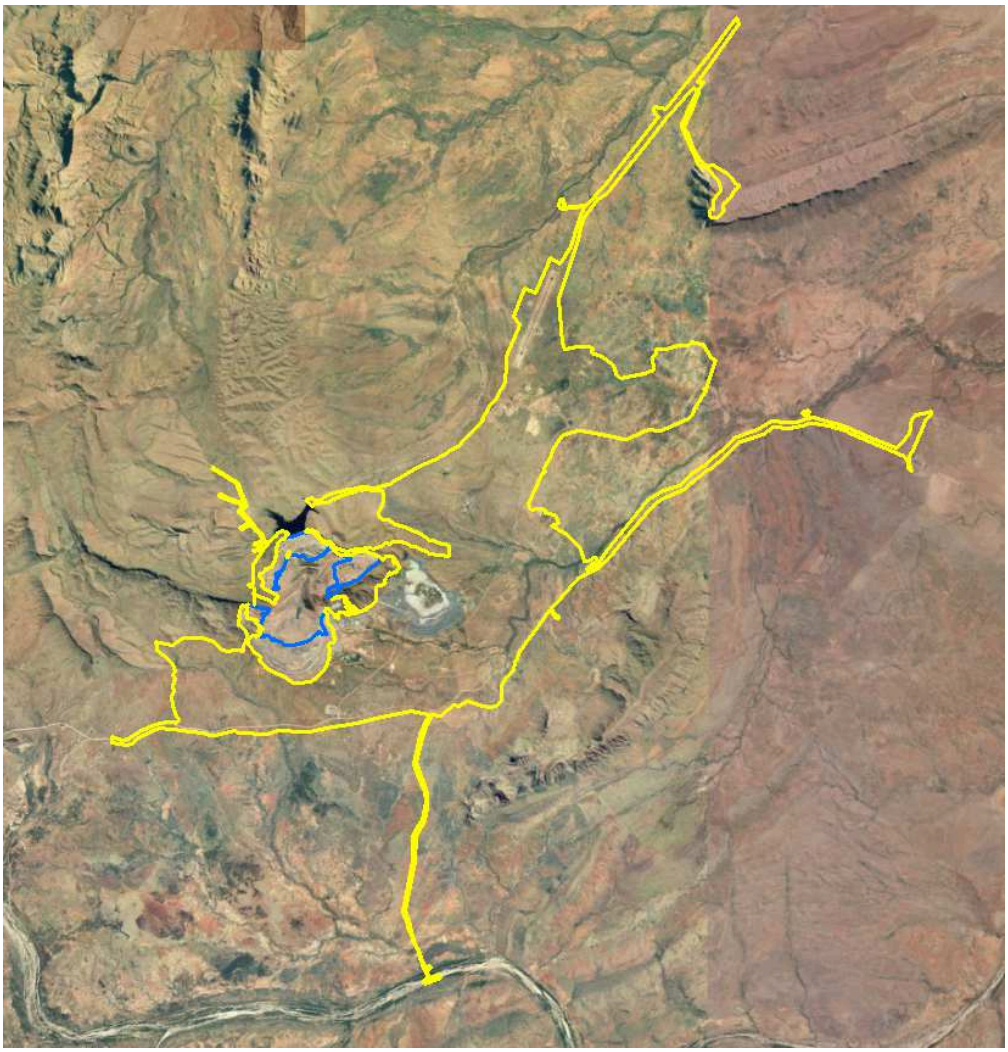

Figure 1: Previous permit boundary (yellow area) and proposed amended permit boundary (blue areas)

3. Assessment of application against clearing principles

Comments

This amendment is to increase the clearing permit boundary by approximately 593.2 hectares to allow for rehabilitation activities to be undertaken. The amount of clearing authorised will remain unchanged at 416 hectares.

Mining at the Argyle Diamond mine ceased in November 2020 (Rio Tinto, 2020). The proposed amendment is to facilitate the removal of weeds, pushing down of steep slopes, the application of growth media, ripping and seeding of the north waste rock dump.

The vegetation on the waste dump within the amendment area is highly degraded as there are large numbers of weeds and there are large areas not covered by vegetation due to the steep slopes consisting of coarse waste rock with no topsoil. The northern waste dump does include a population of the Priority 1 flora species *Triodia cremnophila* which has most likely been recruited to the area by wind following the cessation of open pit mining in 2013 (Argyle Diamonds Ltd, 2021; Western Botanical, 2018). This species is naturally found on near-vertical and steep quartz-sandstone rock faces, growing in narrow fissures in the rock (Barrett and Barrett, 2011). The distribution of this species is restricted to a small area in the Ragged Range (Barrett and Barrett, 2011; Western Australian Herbarium, 1998-; Western Botanical, 2018).

A targeted survey for *Triodia cremnophila* was undertaken in September 2018 at the Argyle Diamond Mine and other accessible sites within the Ragged Range, all within 25 kilometres of the permit area (Western Botanical, 2018). The survey recorded a total 761 plants growing on the waste dump, although it is estimated that 1,000 plants are likely to occur in this area (Western Botanical, 2018). The survey also recorded six other populations of the species occurring naturally in the Ragged Range area (Western Botanical, 2018). The natural populations of the species recorded during the survey were found to support a minimum of 4,933 plants (Western Botanical, 2018). There is also a population recorded during a previous survey at the Ridges Iron Ore project (approximately 15 kilometres west of the permit area) which was stated as being several thousand plants (Western Botanical, 2018). For the purpose of the population estimate undertaken by Western Botanical (2018), it was assumed that there are 3,000 plants at this location. Based on this estimate and plants recorded during the targeted survey, Western Botanical (2018) estimated the population of *Triodia cremnophila* to be 8,694 individuals. There is also suitable habitat for this species in the vicinity of the Argyle Diamond Mine and

Limestone Creek to the east which was not able to able to be searched in detail due to inaccessibility (Western Botanical, 2018). Based on the numbers of plants recorded in suitable habitat and the areas of potential habitat that have not been searched, it is likely that the total numbers of plants for this species are much higher than what was estimated during the targeted survey (Western Botanical, 2018).

Based on the estimated number of plants from the targeted survey (Western Botanical, 2018), the proposed clearing will impact on approximately 9% of the known population. The clearing will only remove plants which have been recruited to the waste dump and will not impact on any of the natural populations of *Triodia cremnophila* (Argyle Diamonds, 2021). Argyle Diamonds Ltd (2021) has indicated that it would be difficult to retain or harvest any of the individuals growing on the waste dump as they are dispersed between an extensive population of the weed species *Calotropis procera.* This weed will be removed and buried as part of rehabilitation works (Argyle Diamonds Ltd, 2021).

Given this species has been readily able to establish itself on the current waste dump, if the waste materials currently present are incorporated into the final surface of the landform, it is highly likely that *Triodia cremnophila* will naturally establish again (Western Botanical, 2018). Whilst the proposed amendment will result in the clearing of 9% of this restricted species, it will not remove any natural populations and the rehabilitation works will not impact on significant habitat for this species.

The proposed amendment is not likely to have any significant environmental impacts above those already assessed under previous versions of the clearing permit. 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*, and the proposed clearing is at variance to Principle (f), may be at variance to Principle (a), is not likely to be at variance to Principles (b), (c), (d), (g), (h), (i) and (j) and is not at variance to Principle (e).

Methodology

Argyle Diamonds Ltd (2021)
Barrett and Barrett (2011)
Rio Tinto (2020)
Western Australian Herbarium (1998-)
Western Botanical (2018)

Planning instrument, Native Title, Previous EPA decision or other matter.

Comments

The clearing permit application was advertised on 30 July 2021 by the Department of Mines, Industry Regulation and Safety inviting submissions from the public. No submissions were received.

There is one Native Title claim over the area under application (DPLH, 2021). 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 several 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.

Methodology

DPLH (2021)

4. References

Argyle Diamonds (2021) Information provided to support clearing permit application 4532/11.

Barrett, R.L. and Barrett, M.D. (2011) Two new species of Triodia (Poaceae: Triodieae) from the Kimberley region of Western Australia. Telopea 13(1-2) 57-67, 2011.

DPLH (2021) Aboriginal Heritage Inquiry System. Department of Planning, Lands and Heritage. http://maps.daa.wa.gov.au/AHIS/ (Accessed 24 November 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.

Mattiske (2004) Flora and Vegetation Survey, Expansion of Waste Dumps and Area Associated with Underground Expansion near Limestone Creek. Report prepared for Argyle Diamond Mines Pty Ltd, by Mattiske Consulting Pty Ltd, March 2004.

Rio Tinto (2020) The Iconic Argyle Diamond Mine Delivers Its Final Production. Access online at https://www.riotinto.com/news/releases/2020/The-iconic-Argyle-diamond-mine-delivers-its-final-production

Western Australian Herbarium (1998-) FloraBase - the Western Australian Flora. Department of Biodiversity, Conservation and Attractions. https://florabase.dpaw.wa.gov.au/ (Accessed 24 November 2021).

5. Glossary

Acronyms:

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)
DBCA	Department of Biodiversity Conservation and Attractions, Western Australia
DEC	Department of Environment and Conservation, Western Australia (now DBCA and DWER)
DEE	Department of the Environment and Energy, Australian Government
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)
DPIRD	Department of Primary Industries and Regional Development, Western Australia
DPLH	Department of Planning, Lands and Heritage, Western Australia
DRF	Declared Rare Flora
DoE	Department of the Environment, Australian Government (now DEE)
DoW	Department of Water, Western Australia (now DWER)
DPaW	Department of Parks and Wildlife, Western Australia (now DBCA)
DSEWPaC	Department of Sustainability, Environment, Water, Population and Communities (now DEE)
DWER	Department of Water and Environmental Regulation, Western Australia
EPA	Environmental Protection Authority, Western Australia
EP Act	*Environmental Protection Act 1986*, 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:

{DPaW (2017) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

T **Threatened species:**
Published as Specially Protected under the *Wildlife Conservation Act 1950,* listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).

Threatened fauna is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the *Wildlife Conservation Act 1950*.

Threatened flora is flora that has been declared to be 'likely to become extinct or is rare, or otherwise in need of special protection', pursuant to section 23F(2) of the *Wildlife Conservation Act 1950*.

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. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

EN **Endangered species**
Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

VU **Vulnerable species**
Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 3 of the Wildlife Conservation

(Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

EX **Presumed extinct species**
Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.

IA **Migratory birds protected under an international agreement**
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 the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.

CD **Conservation dependent fauna**
Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.

OS **Other specially protected fauna**
Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.

P **Priority species**
Species which are poorly known; or
Species that are adequately known, are rare but not threatened, and 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.