



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 4395/4
Permit Holder:	Robe River Mining Co Pty Ltd
Duration of Permit:	24 December 2011 – 24 December 2021

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

PART I – CLEARING AUTHORISED

1. Purpose for which clearing may be done

Clearing for the purpose of building construction and associated infrastructure and geotechnical investigations.

2. Land on which clearing is to be done

LOT 366 ON PLAN 193042 (WICKHAM 6720)
LOT 3000 ON PLAN 51839 (WICKHAM 6720)
LOT 3001 ON PLAN 51839 (WICKHAM 6720)
LOT 3002 ON PLAN 51839 (WICKHAM 6720)
LOT 366 ON PLAN 193042 (WICKHAM 6720)
LOT 392 ON PLAN 217328 (WICKHAM 6720)
LOT 600 ON PLAN 71797 (WICKHAM 6720)
LOT 603 ON PLAN 71797 (WICKHAM 6720)
LOT 604 ON PLAN 71797 (WICKHAM 6720)
LOT 606 ON PLAN 71797 (WICKHAM 6720)
LOT 607 ON PLAN 71797 (WICKHAM 6720)
LOT 64 ON PLAN 57724 (WICKHAM 6720)
LOT 763 ON PLAN 193050 (WICKHAM 6720)
LOT 775 ON PLAN 31274 (WICKHAM 6720)
LOT 768 ON PLAN 195260 (WICKHAM 6720)
LOT 368 ON PLAN 219420 (WICKHAM 6702)
LOT 291 ON PLAN 185487 (WICKHAM 6702)
LOT 292 ON PLAN 185487 (WICKHAM 6702)
LOT 770 ON PLAN 221220 (WICKHAM 6720)
LOT 769 ON PLAN 221220 (WICKHAM 6720)
LOT 120 ON PLAN 214456 (WICKHAM 6720)
POINT SAMSON- ROEBOURNE ROAD RESERVE (PIN 11254981; 1137935; 1137945)
(WICKHAM 6720)
POINT SAMSON- ROEBOURNE ROAD RESERVE (11736610; 11424657) (POINT SAMSON
6720)
JACKARANDA ROAD RESERVE (PIN 11027274)
CARSE STREET ROAD RESERVE (PIN 1342810)
TAMARIND PLACE ROAD RESERVE (PIN 11027435; 11254985)
SPINIFEX DRIVE ROAD RESERVE (PIN 11254984) (WICKHAM 6720)
STURT PEA ROAD RESERVE (PIN 1128888, 11288884, 11292725) (WICKHAM 6720)
WALCOTT DRIVE ROAD RESERVE (PIN 11028050; 1145413) (WICKHAM 6720)
WICKHAM DRIVE ROAD RESERVE (PIN 1137941) (WICKHAM 6720)

UNALLOCATED CROWN LAND (PIN 1191239) (WICKHAM 6720)
UNALLOCATED CROWN LAND (PIN 11261384) (WICKHAM 6720)

3. Area of Clearing

The Permit Holder must not clear more than 74 hectares of native vegetation within the combined areas cross-hatched yellow on attached Plan 4395/4a and Plan 4395/4b.

4. Clearing not authorised

The Permit Holder shall not clear any native vegetation:

(a) after 24 December 2016

(b) unless the purpose for which the clearing is authorised is enacted within 3 months of the clearing being undertaken

5. Application

This Permit allows the Permit Holder to authorise persons, including employees, contractors and agents of the Permit Holder, to clear native vegetation for the purposes of this Permit subject to compliance with the conditions of this Permit and approval from the Permit Holder.

6. Type of clearing authorised

This Permit authorises the Permit Holder to clear native vegetation for activities to the extent that the Permit Holder has the right to access land under the *Land Administration Act 1997* or any other written law.

7. Compliance with Assessment Sequence and Management Procedures

Prior to clearing any native vegetation under conditions 1, 2 and 3 of this Permit, the Permit Holder must comply with the Assessment Sequence and the Management Procedures set out in Part II of this Permit.

PART II – ASSESSMENT SEQUENCE AND MANAGEMENT PROCEDURES

8. Avoid, minimise etc clearing

In determining the amount of native vegetation to be cleared authorised under this Permit, the Permit Holder must have regard to the following principles, set out in 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.

9. 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 *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.

10. Retain vegetative material and topsoil, revegetation and rehabilitation

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 in an area that has already been cleared.

(b) within 12 months following completion of clearing authorised under this permit, *revegetate* and *rehabilitate* the area(s) 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; and

(ii) laying the vegetative material and topsoil retained under condition 10(a) on the cleared area(s) that are no longer required for the purpose for which they were cleared under this Permit.

- (c) within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 10(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 10(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 10(c)(ii) of this permit, the Permit Holder shall repeat condition 10(c)(i) and 10(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 10(c)(i) and (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 10(c)(ii), the CEO may require the Permit Holder to undertake additional *planting* and *direct seeding* in accordance with the requirements under condition 10(c)(ii).

PART III - RECORD KEEPING AND REPORTING

11. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to the clearing of native vegetation authorised under this Permit:
 - (i) the species composition, structure and density of the cleared area;
 - (ii) 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;
 - (iii) the date that the area was cleared; and
 - (iv) the size of the area cleared (in hectares).
- (b) In relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 10 of this Permit:
 - (i) 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;
 - (ii) a description of the *revegetation* and *rehabilitation* activities undertaken;
 - (iii) the size of the area *revegetated* and *rehabilitated* (in hectares);
 - (iv) the species composition, structure and density of *revegetation* and *rehabilitation*, and
 - (v) a copy of the environmental specialist's report.

12. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 11 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the previous calendar year.
- (b) Prior to 24 September 2021, the Permit Holder must provide to the CEO a written report of records required under condition 11 of this Permit where these records have not already been provided under condition 12(a) of this Permit.

DEFINITIONS

The following meanings are given to terms used in this Permit:

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 is engaged by the Permit Holder for the purpose of providing environmental advice, 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;

fill means material used to increase the ground level, or fill a hollow;

local provenance means native vegetation seeds and propagating material from natural sources within 100 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;

planting means the re-establishment of vegetation by creating favourable soil conditions and planting seedlings of the desired species;

regenerate/ed/ion means re-establishment of vegetation from in situ seed banks and propagating material (such as lignotubers, bulbs, rhizomes) contained either within the topsoil or seed-bearing mulch;

rehabilitate/ed/ion means actively managing an area containing native vegetation in order to improve the ecological function of that area;

revegetate/ed/ion 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; and

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 the Department of Environment and Conservation Regional Weed Assessments, regardless of ranking; or
- (c) not indigenous to the area concerned.

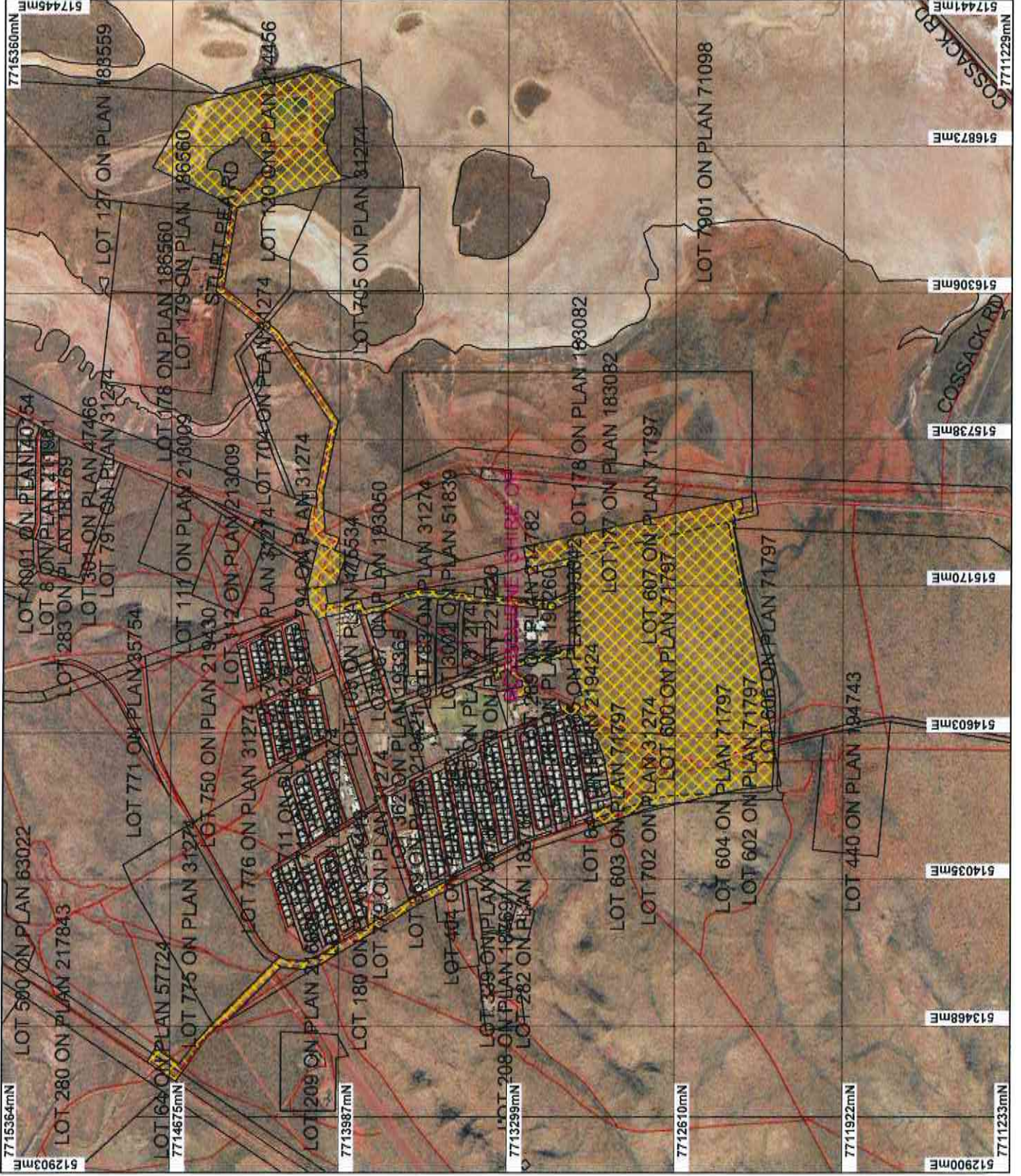
B. Walker

Belinda Walker
A/MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

11 July 2013

Plan 4395/4a



LEGEND

- 88888 Centrelines
- Local Government Authorities_1
- Clearing Instruments
- Areas Applied to Clear
- Areas Subject to Conditions
- Areas Approved to Clear
- Roadbourne 50cm Orthomosaic - Landgate 2007

* Project Data. This data has not been quality assured. Please contact map author for details.



Scale 1:20921
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

B. Walker 11/7/18
Date

Belinda Walker

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

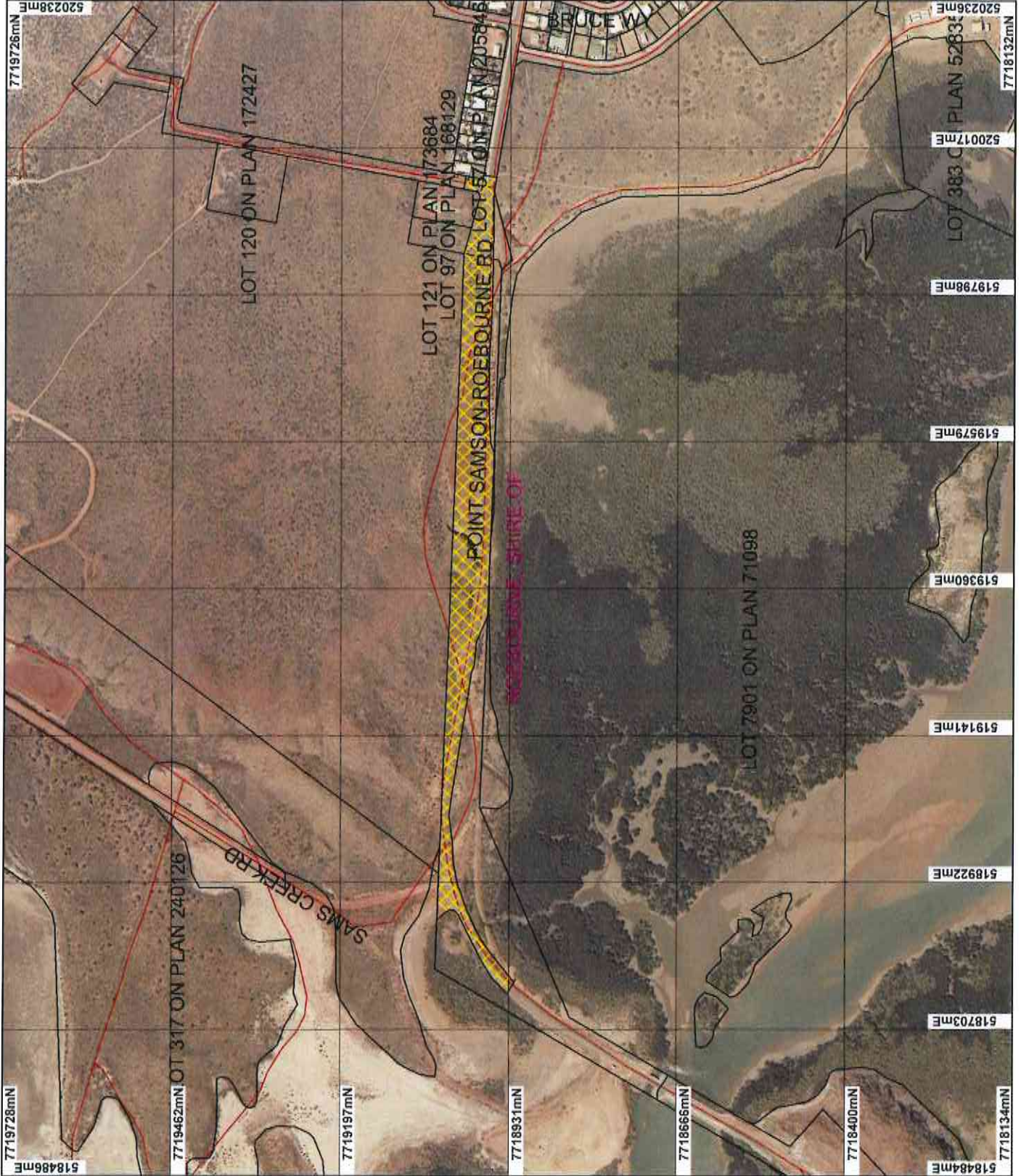
Information derived from the map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of Environment and Conservation

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Plan 4395/4b



LEGEND

- 8985 Clearlines
- Local Government Authorities_1
- Clearing Instruments
- Areas Applied to Clear
- Areas Subject to Conditions
- Areas Approved to Clear
- Roebourne 50cm Orthomosaic - Landgate 2007

* Project Data. This data has not been quality assured. Please contact map author for details.



Scale 1:8073
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

B. Walker
11/1/13
Date

Belinda Walker,
Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



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Clearing Permit Decision Report

Government of Western Australia
Department of Environment Regulation

1. Application details

1.1. Permit application details

Permit application No.: 4395/4
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Robe River Mining Co Pty Ltd

1.3. Property details

Property:
ROAD RESERVE (POINT SAMSON 6720)
LOT 120 ON PLAN 214456 (WICKHAM 6720)
ROAD RESERVE (WICKHAM 6720)
UNALLOCATED CROWN LAND (WICKHAM 6720)
ROAD RESERVE (WICKHAM 6720)
UNALLOCATED CROWN LAND (WICKHAM 6720)
ROAD RESERVE (WICKHAM 6720)
LOT 763 ON PLAN 193050 (WICKHAM 6720)
ROAD RESERVE (WICKHAM 6720)
LOT 3002 ON PLAN 51839 (Lot No. 3002 SPINIFEX WICKHAM 6720)
LOT 600 ON PLAN 71797 (WICKHAM 6720)
LOT 3000 ON PLAN 51838 (Lot No. 3000 POINT SAMSON-ROEBOURNE WICKHAM 6720)
LOT 366 ON PLAN 193042 (WICKHAM 6720)
ROAD RESERVE (WICKHAM 6720)
LOT 3001 ON PLAN 51838 (Lot No. 3001 SPINIFEX WICKHAM 6720)
LOT 607 ON PLAN 71797 (WICKHAM 6720)
ROAD RESERVE (WICKHAM 6720)
LOT 606 ON PLAN 71797 (WICKHAM 6720)
LOT 607 ON PLAN 71797 (WICKHAM 6720)
LOT 768 ON PLAN 195260 (Lot No. 768 TAMARIND WICKHAM 6720)
LOT 368 ON PLAN 219420 (Lot No. 368 WICKHAM WICKHAM 6720)
ROAD RESERVE (WICKHAM 6720)
LOT 770 ON PLAN 221220 (Lot No. 770 CARSE WICKHAM 6720)
LOT 769 ON PLAN 221220 (Lot No. 769 CARSE WICKHAM 6720)
ROAD RESERVE (WICKHAM 6720)
ROAD RESERVE (WICKHAM 6720)
UNALLOCATED CROWN LAND (WICKHAM 6720)
LOT 291 ON PLAN 185487 (WICKHAM 6720)
LOT 292 ON PLAN 185487 (WICKHAM 6720)
LOT 365 ON PLAN 193042 (WICKHAM 6720)
LOT 604 ON PLAN 71797 (WICKHAM 6720)
UNALLOCATED CROWN LAND (WICKHAM 6720)
LOT 603 ON PLAN 71797 (WICKHAM 6720)
ROAD RESERVE (WICKHAM 6720)
LOT 64 ON PLAN 57724 (Lot No. 64 CAPE LAMBERT WICKHAM 6720)
LOT 392 ON PLAN 217328 (WICKHAM 6720)
LOT 775 ON PLAN 31274 (WICKHAM 6720)
ROAD RESERVE (WICKHAM 6720)

Local Government Area: Shire of Roebourne
Colloquial name:

1.4. Application

Clearing Area (ha) 74
No. Trees
Method of Clearing Mechanical Removal
For the purpose of: Building or Structure

1.5. Decision on application

Decision on Permit Application: Grant

Decision Date: 11 July 2013

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Beard Vegetation Association: 157 - Hummock grasslands, grass steppe; hard spinifex Triodia wiseana.	The application is to expand the clearing footprint by 31.19 hectares, increase the clearing area from 73 hectares to 74 hectares and include the additional purpose of geotechnical investigations. CPS 4395/3 was for the purposes of building construction and associated infrastructure. The vegetation condition ranges from excellent to a completely degraded (Keighery, 1994) condition, with the majority considered to be very good (Keighery, 1994).	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994).	The vegetation condition was assessed by botanists from Rio Tinto (2010; 2011; 2013).
589 - Mosaic: Short bunch grassland - savanna / grass plain (Pilbara) / Hummock grasslands, grass steppe; soft spinifex soft spinifex (Shepherd et al, 2001).	In September 2010 Rio Tinto (2010) undertook flora and vegetation surveys of the Wickham town expansion study area and identified the following vegetation units within the application area: Vegetation of minor narrow drainage channels of rocky hills and surrounding red sand plains: MF1 - <i>Acacia tumida</i> var. <i>pilbarensis</i> , <i>Grevillea wickhamii</i> open scrub over <i>Acacia stellaticeps</i> , <i>Scaevola spinescens</i> low scattered shrubs over <i>Triodia schinzii</i> scattered hummock grasses. MF2 - <i>Corymbia hamersleyana</i> scattered low trees over <i>Acacia tumida</i> var. <i>pilbarensis</i> , <i>Grevillea wickhamii</i> tall open shrubland over <i>Acacia tumida</i> var. <i>pilbarensis</i> , <i>Eremophila longifolia</i> open shrubland over <i>Acacia stellaticeps</i> , <i>Scaevola spinescens</i> low open shrubland over <i>Triodia epactia</i> open hummock grassland. SP1 - <i>Acacia stellaticeps</i> low open heath over <i>Triodia schinzii</i> , <i>Triodia epactia</i> hummock grassland. SP2 - <i>Grevillea wickhamii</i> tall open shrubland over <i>Santalum lanceolatum</i> , <i>Acacia bivenosa</i> open shrubland over <i>Acacia stellaticeps</i> , <i>Diplopeltis eriocarpa</i> low open shrubland over <i>Triodia schinzii</i> , <i>Triodia epactia</i> open hummock grassland. SP3 - <i>Dolichandrone heterophylla</i> , <i>Acacia bivenosa</i> shrubland over <i>Acacia stellaticeps</i> , <i>Scaevola spinescens</i> shrubland to low open heath over <i>Triodia schinzii</i> , <i>Triodia epactia</i> hummock grassland. SP4 - <i>Grevillea wickhamii</i> , <i>Acacia tumida</i> var. <i>pilbarensis</i> tall open shrubland to tall open scrub over <i>Acacia tumida</i> var. <i>pilbarensis</i> , <i>Acacia bivenosa</i> , <i>Acacia ancistrocarpa</i> shrubland over <i>Acacia stellaticeps</i> open scattered shrubs over <i>Triodia schinzii</i> , <i>Triodia epactia</i> hummock grassland. SP5 - <i>Corymbia hamersleyana</i> scattered low trees over <i>Acacia trachycarpa</i> tall open shrubland over <i>Acacia stellaticeps</i> scattered low shrubs over <i>Triodia epactia</i> hummock grassland over <i>Cenchrus ciliaris</i> very open tussock grassland. SD1 - <i>Acacia sabulosa</i> tall open shrubland over <i>Acacia sabulosa</i> , <i>Santalum lanceolatum</i> shrubland over <i>Acacia stellaticeps</i> , <i>Diplopeltis eriocarpa</i> , <i>Scaevola sericophylla</i> low shrubland over <i>Triodia schinzii</i> open hummock grassland. LH1 - <i>Grevillea wickhamii</i> tall scattered shrubs over <i>Acacia bivenosa</i> , <i>Acacia ancistrocarpa</i> , <i>Hakea lorea</i> open shrubland over <i>Triodia wiseana</i> , <i>Triodia epactia</i> hummock grassland. In August 2011 Rio Tinto (2011) undertook a site visit of additional clearing areas and recorded the following two stony plain vegetation units and 'heavily disturbed' areas. <i>Acacia bivenosa</i> open shrubland over <i>A. Stellaticeps</i> low open shrubland over <i>Triodia epactia</i> and emergent <i>T. Angusta</i> over scattered mixed herbs <i>Triodia longiceps</i> hummock grassland over <i>*Cenchrus ciliaris</i> scattered tussock grassland In May 2012 Rio Tinto (2011) undertook site visits of the additional	To Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994).	The vegetation condition was described using a scale based on Trudgen (1988) and has been converted to the corresponding condition from the Keighery (1994) scale.

clearing areas and recorded the following nine vegetation units.

AH21 - *Corymbia hamersleyana* scattered low trees over **Aerva javanica* scattered low shrubs over *Triodia wiseana* scattered hummock grasses and **Cenchrus ciliaris*, *Enneapogon caerulescens* tussock grassland (4.6%).

AH20 *Senna glutinosa* subsp. *pruinosa* scattered shrubs over *Acacia stellaticeps*, *Trichodesma zeylanicum* var. *zeylanicum* low open shrubland over *Triodia wiseana* hummock grassland over *Themeda triandra* scattered tussock grasses with *Tricoryne* sp. Hamerley Range (S. van Leeuwen 915) scattered herbs (6.9%).

AH19 - *Acacia coriacea* subsp. *coriacea* tall open shrubland over *Scaevola sericea*, *Crotalaria cunninghamii* subsp. *sturtii*, *Santalum lanceolatum*, *Corchorus walcottii* low shrubland over *Triodia schinzii* open hummock grassland with **Cenchrus ciliaris*, *Eragrostis eriopoda*, *Eriachne benthamii* open tussock grassland (4.6%).

AH24 - *Acacia sabulosa* tall open shrubland over *Acacia stellaticeps*, *Scaevola spinescens* low open shrubland over *Triodia schinzii* hummock grassland with *Bonamia rosea* scattered herbs (20.6%).

AH22 - *Avicennia marina* scattered tall open shrubland over *Tecticornia halocnemoides* scattered low shrubs over *Sporobolus virginicus* scattered tussock grasses with *Trianthema glossostigma* scattered herbs (10.7%).

AH23 - *Acacia rhodophloia* scattered tall shrubs over *Acacia bivenosa* shrubland over *Acacia stellaticeps* low open shrubland over *Triodia epactia* open hummock grassland over **Cenchrus ciliaris* scattered tussock grasses (3.8%).

AH25 - *Acacia bivenosa* scattered shrubs over *Acacia synchronica* scattered low shrubs over *Triodia wiseana* open hummock grassland over **Cenchrus ciliaris*, *Eriachne mucronata* open tussock grassland (4.6%).

Bare mud (2.3%)

Cc *Cenchrus ciliaris* tussock grassland (1.5%).

3. Assessment of application against clearing principles

Comments

The application is to expand the clearing footprint by 31.19 hectares, increase the clearing area from 73 hectares to 74 hectares and include the additional purpose of geotechnical investigations. CPS 4395/3 was for the purposes of building construction and associated infrastructure.

A review of current environmental information reveals no new additional impacts to biodiversity, priority flora and fauna, priority ecological communities, land degradation or conservation reserves. The application does not fall within an extensively cleared landscape and is not likely to cause or exacerbate the intensity or incidence of flooding. Given this the assessment of clearing Principles (a), (b), (c), (d), (e), (g), (h), (i) and (j) has not changed and can be found in Clearing Permit Decision Report CPS 4395/1.

In addition to the two ephemeral minor watercourses identified in Clearing Permit Decision Report CPS 4395/1, the application area now falls in close proximity to mangroves and is within seasonal mudflats. As the application will involve clearing within mudflats it is at variance to Principle (f).

Given the above the application is at variance to Principle (f) and is not likely to be at variance to the remaining clearing Principles.

Methodology

References:
Rio Tinto, 2013

GIS Databases:
- SAC Biodatasets - 11/02/2013
- Hydrography linear

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

Comments

The applicant waived the 28 days period on the 9 July 2013.

The application is to expand the clearing footprint by 31.19 hectares, increase the clearing area from 73 hectares to 74 hectares and include the additional purpose of geotechnical investigations. CPS 4395/3 was for the purposes of building construction and associated infrastructure.

The geotechnical investigations are for upgrades to a water treatment plant, a prescribed premises licence a prescribed premises licence is currently being sought.

The amended application area originally contained Mangroves as well as Mudflat habitat. These habitat types fall within the definition of 'Benthic Primary Producer Habitat' defined by the Environmental Protection Authority, Environmental Assessment Guideline Number 3. The guideline states that proponents should demonstrate that they have considered the 'Overarching Environmental Protection Principles' of avoiding damage/loss of habitat, project design to limit damage/loss where avoidance is not possible and demonstrating 'best practicable' design, construction methods for environmental management. On assessing these principles the Mangrove vegetation was removed and the application area reduced.

The Shire of Roebourne (2012) granted planning approval for the Wickham South Stage One Subdivision Civil Works on 2 July 2012. The permit holder has confirmed that the proposed clearing is to facilitate the approved Stage One expansion only (Rio Tinto, 2012).

The proponent must obtain the right to access land under the Land Administration Act 1997 or another written law prior to the commencement of works.

There are six Aboriginal Sites of Significance within the application area. It is the permit holder's responsibility to comply with the Aboriginal Heritage Act 1972 and ensure that no Aboriginal Sites of Significance are damaged through the clearing process. The permit holder is advised to contact the Department of Indigenous Affairs regarding its responsibilities.

The application area is within the Pilbara Ground Water and Surface Water Areas proclaimed under the Rights in Water and Irrigation Act 1914. Any interference with the bed or banks of a watercourse in this area may require a permit from the Department of Water (DoW, 2013). Any taking or diversion of surface water and abstraction of groundwater is subject to licensing by the DoW (2013). The permit holder has advised that the required permits will be obtained (Rio Tinto, 2012).

Methodology

References:

DoW, 2013
Rio Tinto, 2012
Shire of Roebourne, 2012
Rio Tinto, 2012

GIS Databases:

- Aboriginal Sites of Significance
- Native Title Claims - Determined
- RIWI Act, Areas

4. References

DoW (2013) Advice for Clearing Permit Application CPS 4395/4. Received 8 May 2013. Department of Water, Western Australia. DEC Ref: A268160.

Government of Western Australia. (2013). 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of October 2012. WA Department of Environment and Conservation, Perth.

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

Rio Tinto (2010) Wickham Town Expansion Flora and Vegetation Survey: Native Vegetation Clearing Permit Supporting Report October 2010. DEC Ref: A531049

Rio Tinto (2011) Biological Survey of the Wickham Town Expansion: Native Vegetation Clearing Permit Supporting Report October 2011. DEC Ref: A531056

Rio Tinto (2012) Clearing Permit Application CPS 4395/2 and Supporting Information. DEC Ref: A520363; A531056; A539306

Rio Tinto (2013) Clearing Permit Application CPS 4395/4 and Supporting Information. DEC Ref: 634791.

Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.

Shire of Roebourne (2012) Copy of Planning Approval for Wickham South Stage One Subdivision Civil Works. Granted 02/07/2012. Provided by Rio Tinto 13/08/2012. DEC Ref: A534377.

Trudgen M.E. (1998) A Report on the Flora and Vegetation of the Port Kennedy Area. Unpublished report prepared for Bowman Bishaw and Associates, West Perth.

5. Glossary

Term	Meaning
BCS	Biodiversity Coordination Section of DEC
CALM	Department of Conservation and Land Management (now BCS)
DAFWA	Department of Agriculture and Food
DEC	Department of Environment and Conservation
DEP	Department of Environmental Protection (now DEC)
DoE	Department of Environment
DoIR	Department of Industry and Resources
DRF	Declared Rare Flora
EPP	Environmental Protection Policy
GIS	Geographical Information System
ha	Hectare (10,000 square metres)
TEC	Threatened Ecological Community
WRC	Water and Rivers Commission (now DEC)