



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 3961/3
Permit Holder:	Karara Mining Limited
Duration of Permit:	11 December 2010 – 11 December 2015

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 constructing a transmission line.

2. Land on which clearing is to be done

LOT 10246 ON PLAN 206717 (ENEABBA 6518)
LOT 10842 ON PLAN 210815 (ENEABBA 6518)
LOT 10488 ON PLAN 208223 (ENEABBA 6518)
LOT 10890 ON PLAN 210786 (ENEABBA 6518)
LOT 2 ON PLAN 22567 (ENEABBA 6518)
LOT 10893 ON PLAN 210804 (KADATHINNI 6519)
LOT 10897 ON PLAN 210818 (KADATHINNI 6519)
LOT 201 ON DIAGRAM 74650 (KADATHINNI 6519)
LOT 10433 ON PLAN 207347 (KADATHINNI 6519)
LOT 4586 ON PLAN 136992 (KADATHINNI 6519)
LOT 8031 ON PLAN 149613 (KADATHINNI 6519)
PART LOT 5283 ON PLAN 139408 (KADATHINNI 6519)
LOT 4212 ON PLAN 136982 (KADATHINNI 6519)
LOT 11 ON PLAN 231998 (KADATHINNI 6519)
LOT 50 ON DIAGRAM 7478 (WOMARDEN 6519)
LOT M764 ON PLAN 3086 (BRUCE WOMARDEN 6519)
LOT M763 ON PLAN 3086 (WOMARDEN 6519)
LOT M762 ON PLAN 3086 (WOMARDEN 6519)
LOT M761 ON PLAN 3086 (WOMARDEN 6519)
LOT 3 ON PLAN 4578 (WOMARDEN 6519)
LOT M1369 ON DIAGRAM 5877 (WOMARDEN 6519)
LOT 1 ON PLAN 7190 (PERENJORI 6620)
LOT M1586 ON DIAGRAM 6969 (BOWGADA 6623)
LOT 5485 ON PLAN 82618 (BOWGADA 6623)
LOT M1554 ON DIAGRAM 6856 (BOWGADA 6623)
LOT 5593 ON PLAN 138910 (BOWGADA 6623)
LOT 7418 ON PLAN 201958 (BOWGADA 6623)
LOT 6316 ON PLAN 226642 (BOWGADA 6623)
LOT 7652 ON PLAN 150615 (KOOLANOOKA 6623)
LOT 7684 ON PLAN 202082 (KOOLANOOKA 6623)

LOT 7876 ON PLAN 202083 (KOOLANOOKA 6623)
LOT 4608 ON PLAN 136994 (KADATHINNI 6519)
LOT 8637 ON PLAN 152179 (KADATHINNI 6519)
LOT 5282 ON PLAN 139407 (KADATHINNI 6519)
LOT 16 ON PLAN 231998 (KADATHINNI 6519)
LOT 8903 ON PLAN 204618 (KADATHINNI 6519)
LOT 4213 ON PLAN 136983 (KADATHINNI 6519)
LOT 3 ON PLAN 4578 (WOMARDEN 6519)
LOT 5485 ON PLAN 82618 (BOWGADA 6623)
LOT 4459 ON PLAN 143563 (BOWGADA 6623)
LOT 1 ON DIAGRAM 23570 (BOWGADA 6623)
LOT 6954 ON PLAN 82617 (BOWGADA 6623)
LOT 7812 ON PLAN 150616 (KOOLANOOKA 6623)
LOT 7684 ON PLAN 202082 (KOOLANOOKA 6623)
LOT 7876 ON PLAN 202083 (KOOLANOOKA 6623)
LOT M1255 ON DIAGRAM 5355 (PERENJORI 6620)
LOT 10832 ON PLAN 210805 (WARRADARGE 6518)
LOT 10831 ON PLAN 210805 (WARRADARGE 6518)

3. Area of Clearing

The Permit Holder must not clear more than 16.7 hectares of native vegetation within the combined areas shaded yellow on attached Plan 3961/3a and Plan 3961/3b and Plan 3961/3c and Plan 3961/3d and Plan 3961/3e and Plan 3961/3f, Plan 3961/3g, Plan 3961/3h and Plan 3961/3i.

4. 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.

5. 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 power to clear native vegetation for those activities under the *Land Administration Act 1997*, *Mining Act 1978* or any other written law.

6. 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

7. 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.

8. Environmental management plan

- (a) The Permit Holder must prepare, implement and adhere to a fauna impact and threatened ecological community *EMP*.
- (b) The *EMP* must include:
 - (i) an Environmental Risk Assessment;
 - (ii) a plan for managing the *impacts* to fauna habitat and threatened ecological community;
 - (iii) a table setting out the Permit Holder's commitments to the *EMP*'s requirements; and
 - (iv) a program for monitoring compliance with the Permit Holder's commitments.

- (c) Once the Permit Holder has developed an *EMP*, the Permit Holder must provide that *EMP* to the CEO for the CEO's approval. The clearing to which the *EMP* relates and the implementation of the *EMP* shall not take place until the Permit Holder receives approval from the CEO.

9. Dieback and weed control

- (a) 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* and *dieback*:
- (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
 - (ii) shall only move soil in *dry conditions*;
 - (iii) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
 - (iv) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.
- (b) At least once in each 12 month period for the term of this Permit, the Permit Holder must remove or kill any *weeds* growing within areas cleared under this Permit.

10. Fauna management

- (a) Prior to undertaking any clearing authorised under this Permit, the area shall be inspected by a *fauna specialist* for the presence of *Kwonkan* sp spider mounds.
- (b) Where *Kwonkan* sp spider mounds are identified in relation to condition 9(a) of this Permit, the Permit Holder shall ensure that no clearing occurs within 50 metres of the identified *Kwonkan* sp spider mound.

11. 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 three months following clearing authorised under this permit, *revegetate* and *rehabilitate* areas 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) ripping the ground on the contour to remove soil compaction; and
 - (iii) laying the vegetative material and topsoil retained under condition 11(a) on the cleared area(s).
- (c) within 24 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 11(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 11(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.

12. Offsets

If part or all of the clearing to be done is or may be at variance with one or more of the clearing principles, then the Permit Holder must implement an *offset* in accordance with conditions 12(a) and (b) of this Permit with respect to that clearing.

- (a) Determination of *offsets*:
- (i) in determining the *offset* to be implemented with respect to a particular area of native vegetation proposed to be cleared under this Permit, the Permit Holder must have regard to the *offset* principles contained in condition 12(b) of this Permit;

- (ii) once the Permit Holder has developed an *offset proposal*, the Permit Holder must provide that *offset proposal* to the CEO for the CEO's approval prior to undertaking any clearing to which the *offset* relates, and prior to implementing the *offset*;
 - (iii) clearing may not commence until and unless the CEO has approved the *offset proposal* to which the clearing relates;
 - (iv) the Permit Holder shall implement the *offset proposal* approved under condition 12(a)(iii); and
 - (v) each *offset proposal* shall include a *direct offset*, timing for implementation of the *offset proposal* and may additionally include *contributing offsets*.
- (b) For the purpose of this condition, the *offset* principles are as follows:
- (i) *direct offsets* should directly counterbalance the loss of the native vegetation;
 - (ii) *contributing offsets* should complement and enhance the *direct offset*;
 - (iii) *offsets* are implemented only once all avenues to avoid, minimise, rectify or reduce environmental impacts have been exhausted;
 - (iv) the environmental values, habitat, species, *ecological community*, physical area, ecosystem, landscape, and hydrology of the *offset* should be the same as, or better than, that of the area of native vegetation being *offset*;
 - (v) a ratio greater than 1:1 should be applied to the size of the area of native vegetation that is offset to compensate for the risk that the *offset* may fail;
 - (vi) *offsets* must entail a robust and consistent assessment process;
 - (vii) in determining an appropriate *offset*, consideration should be given to ecosystem function, rarity and type of *ecological community*, *vegetation condition*, habitat quality and area of native vegetation cleared;
 - (viii) the *offset* should either result in no net loss of native vegetation, or lead to a net gain in native vegetation and improve the *condition* of the natural environment;
 - (ix) *offsets* must satisfy all statutory requirements;
 - (x) *offsets* must be clearly defined, documented and audited;
 - (xi) *offsets* must ensure a long-term (10-30 year) benefit; and
 - (xii) an *environmental specialist* must be involved in the design, assessment and monitoring of *offsets*.

PART III - RECORD KEEPING AND REPORTING

13. 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 environmental management plan pursuant to condition 8, a description of the environmental management plan activities undertaken, in accordance with that environmental management plan.
- (c) In relation to fauna management pursuant to condition 10 of this Permit, the location of each *Kwonkan* sp spider mound recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings
- (d) In relation to the *revegetation* and *rehabilitation* of areas pursuant to condition 11 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;
 - (ii) a description of the *revegetation* and *rehabilitation* activities undertaken;
 - (iii) the size of the area *revegetated* and *rehabilitated* (in hectares); and
 - (iv) the species composition, structure and density of *revegetation* and *rehabilitation*.
- (e) In relation to the *offset* of areas pursuant to condition 12 of this Permit:

- (v) the location of any area of *offsets*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
- (vi) a description of the *offset* activities undertaken; and
- (vii) the size of the *offset* area (in hectares).

14. Reporting

- (a) The Permit Holder must provide to the CEO, on or before 30 June of each year, a written report of records required under condition 13 of this Permit and activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 11 October 2015, the Permit Holder must provide to the CEO a written report of records required under condition 13 of this Permit where these records have not already been provided under condition 14(a) of this Permit.

Definitions

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

condition means the rating given to native vegetation using the *Keighery scale* and refers to the degree of change in the structure, density and species present in the particular vegetation in comparison to undisturbed vegetation of the same type;

contributing offset/s has the same meaning as is given to that term in the Environmental Protection Authority's *Position Statement No.9: Environmental Offsets*, January 2006;

dieback means the effect of *Phytophthora* species on native vegetation;

direct offset/s has the same meaning as is given to that term in the Environmental Protection Authority's *Position Statement No.9: Environmental Offsets*, January 2006;

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;

dry conditions means when soils (not dust) do not freely adhere to rubber tyres, tracks, vehicle chassis or wheel arches;

ecological community/ies means a naturally occurring biological assemblage that occurs in a particular type of habitat (English and Blythe, 1997; 1999);

EMP means environmental management plan;

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;

fauna specialist means a person with training and specific work experience in fauna identification or faunal assemblage surveys of Western Australian fauna;

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

Keighery scale means the vegetation condition scale described in *Bushland Plant Survey: A Guide to Plant Community Survey for the Community (1994)* as developed by B.J. Keighery and published by the Wildflower Society of WA (Inc). Nedlands, Western Australia;

impacts means any impact of clearing on environmental values;

local provenance means native vegetation seeds and propagating material from natural sources within 50 kilometres of the area cleared;

offset/s means an offset required to be implemented under condition 12 of this Permit;

offset proposal means an *offset* determined by the Permit Holder in accordance with condition 12 of this Permit;

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;

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 *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 a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.

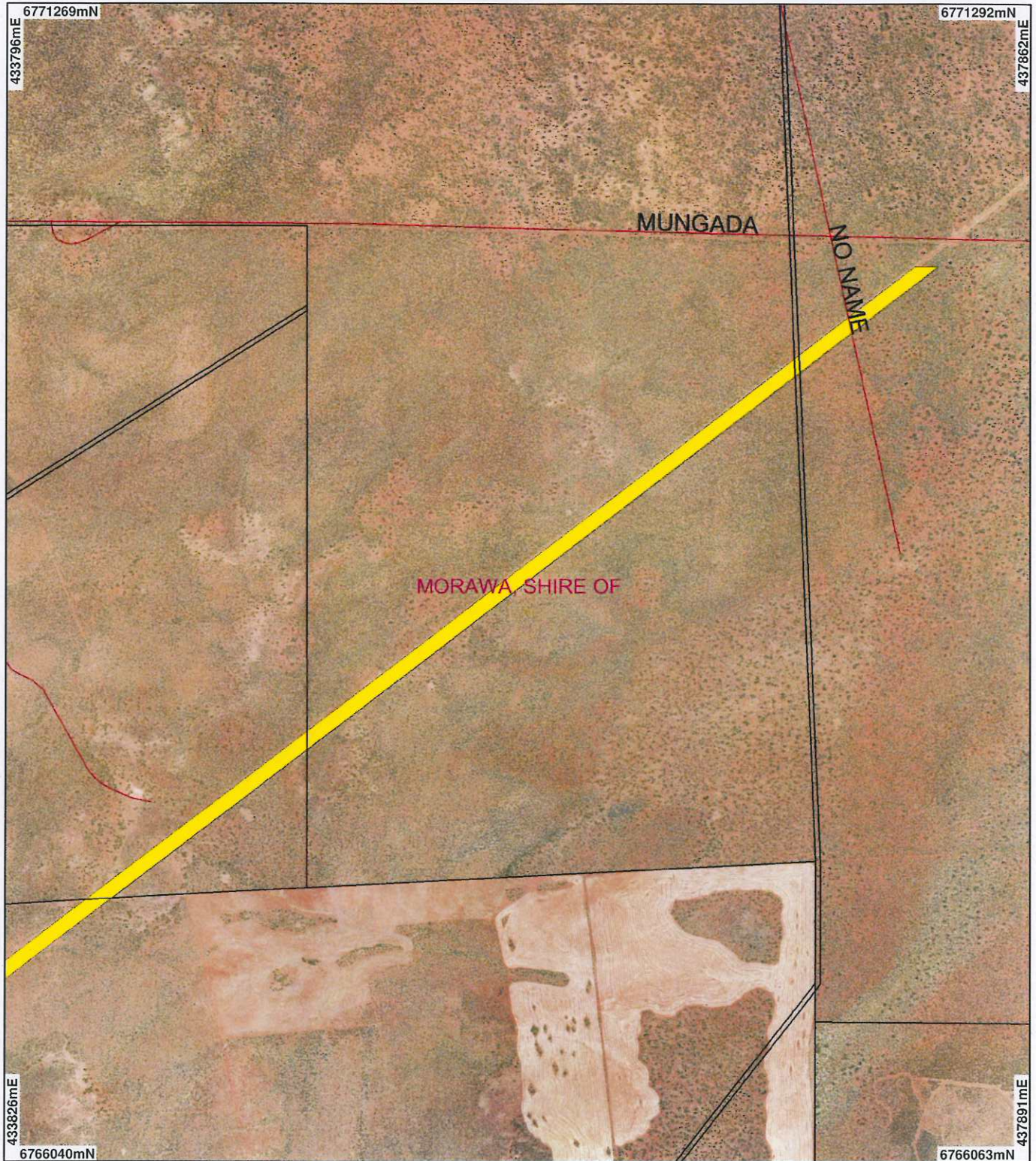


Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

26 May 2011

Plan 3961/3a



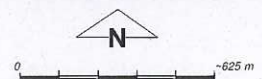
LEGEND

Clearing Instruments

- Areas Approved to Clear
- Road Centrelines
- Cadastre

Local Government Authorities

Perenjori 50cm Orthomosaic - Landgate 2005



Scale 1:23385

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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Date 26/5/11

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

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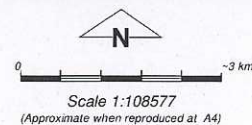
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Plan 3961/3b



LEGEND

- | | |
|-----------------------------|--|
| Clearing Instruments | Local Government Authorities |
| ■ Areas Approved to Clear | Perenjori 50cm Orthomosaic - Landgate 2005 |
| — Road Centrelines | |
| □ Cadastre | |



Geocentric Datum Australia 1994
 Note: the data on this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

K Faulkner Date *29/5/11*
 K Faulkner

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

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Plan 3961/3c



LEGEND

- Road Centrelines
- Cadastre
- Local Government Authorities
- Clearing Instruments**
- Areas Approved to Clear

Perenjori 50cm Orthomosaic - Landgate 2005



Scale 1:100335

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Geocentric Datum Australia 1994

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Date 26/5/11

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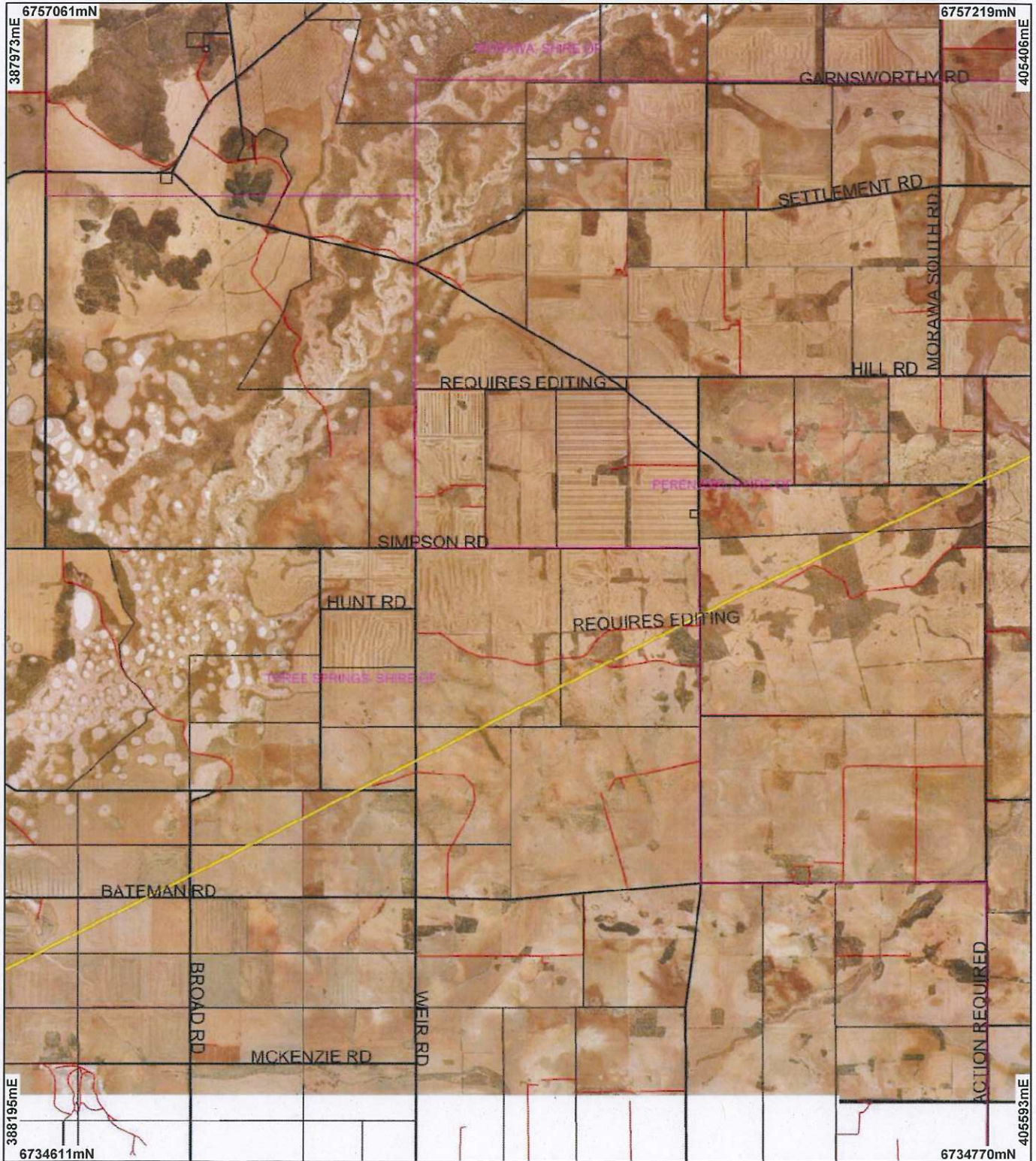


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Plan 3961/3d

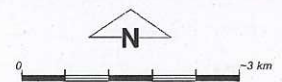


LEGEND

- Road Centrelines
- Cadastre
- Local Government Authorities
- Clearing Instruments**
- Areas Approved to Clear

Perenjori 50cm Orthomosaic - Landgate 2005

Yandanooka 50cm Orthomosaic - Landgate 2005



Scale 1:100306

(Approximate when reproduced at A4)

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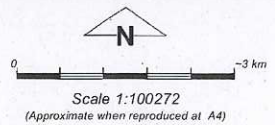
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Plan 3961/3e



LEGEND

- Road Centrelines
- Cadastre
- Local Government Authorities
- Clearing Instruments
- Areas Approved to Clear
- Yandanooka 50cm Orthomosaic - Landgate 2005
- Carnamah 50cm Orthomosaic - Landgate 2006



Geocentric Datum Australia 1994
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Date 26/5/11
 K Faulkner

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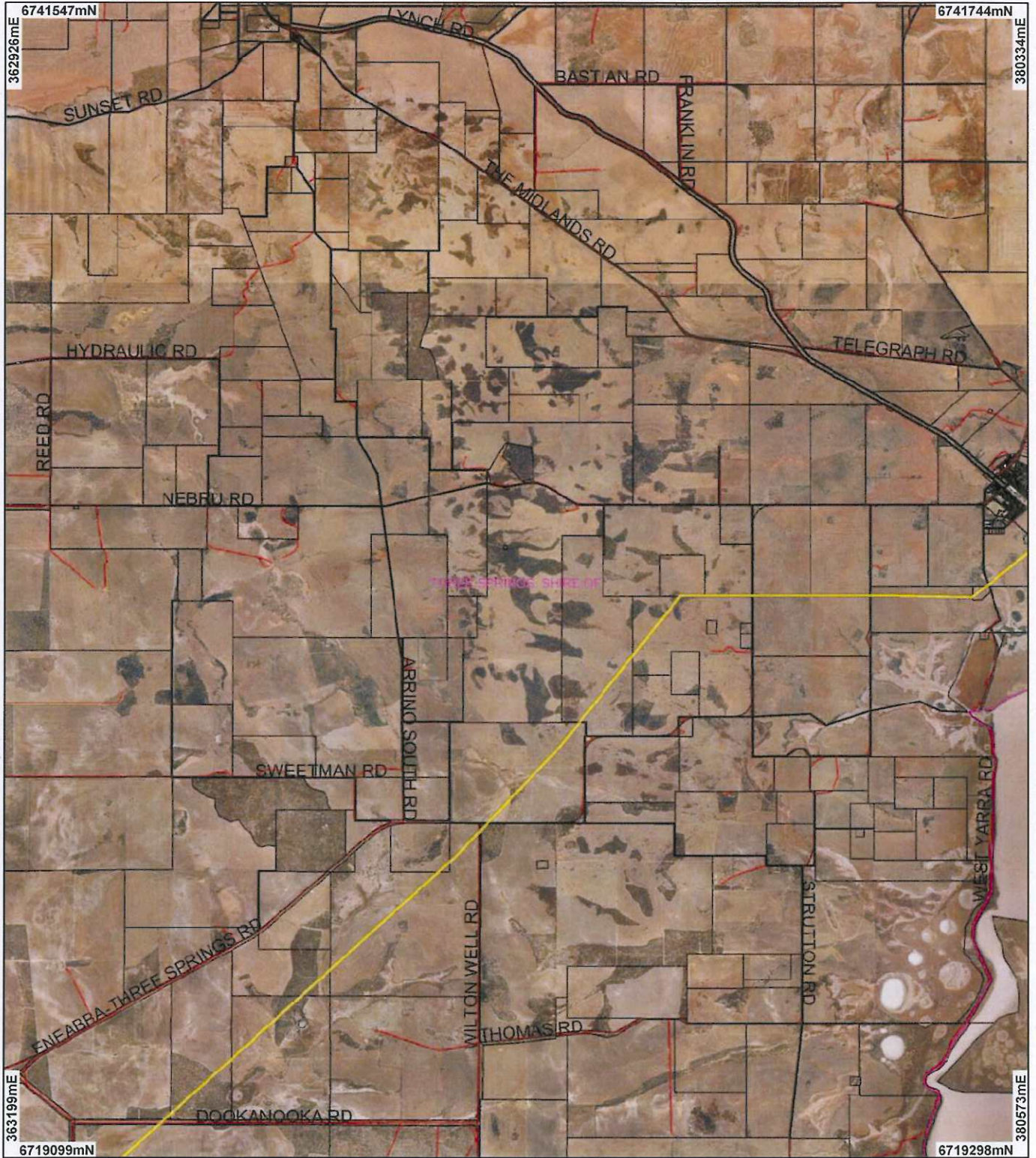


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Plan 3961/3f

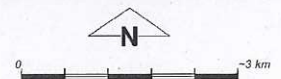


LEGEND

- Road Centrelines
- Cadastre
- Local Government Authorities
- Clearing Instruments**
- Areas Approved to Clear

Yandanooka 50cm
Orthomosaic - Landgate
2005

Carnamah 50cm Orthomosaic -
Landgate 2006



Scale 1:100239
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Date 26/5/11
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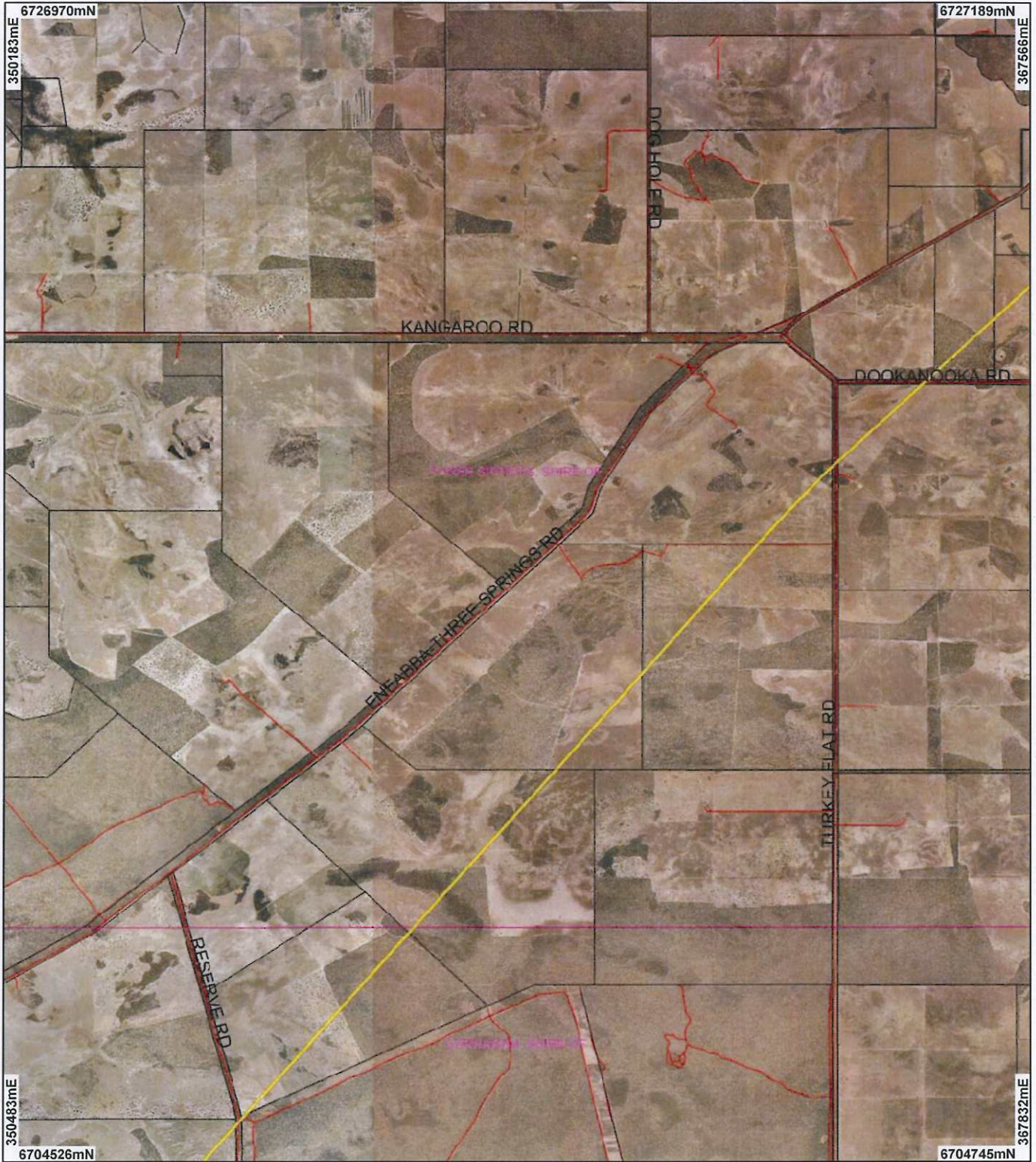
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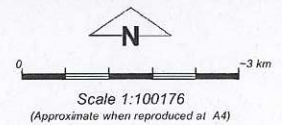
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Plan 3961/3g



LEGEND

- Road Centrelines
- Cadastre
- Local Government Authorities
- Clearing Instruments
- Areas Approved to Clear
- Yandanooka 50cm Orthomosaic - Landgate 2005
- Carnamah 50cm Orthomosaic - Landgate 2006
- Arrowsmith 50cm Orthomosaic - Landgate 2006



Geocentric Datum Australia 1994

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Date 26/5/11
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Plan 3961/3h



LEGEND

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|------------------------------|---|
| Clearing Instruments | Yandanooka 50cm Orthomosaic - Landgate 2005 |
| ■ Areas Approved to Clear | Carnamah 50cm Orthomosaic - Landgate 2006 |
| — Road Centrelines | Arrowsmith 50cm Orthomosaic - Landgate 2006 |
| □ Cadastre | |
| Local Government Authorities | |



0 ————— 3 km

Scale 1:106035
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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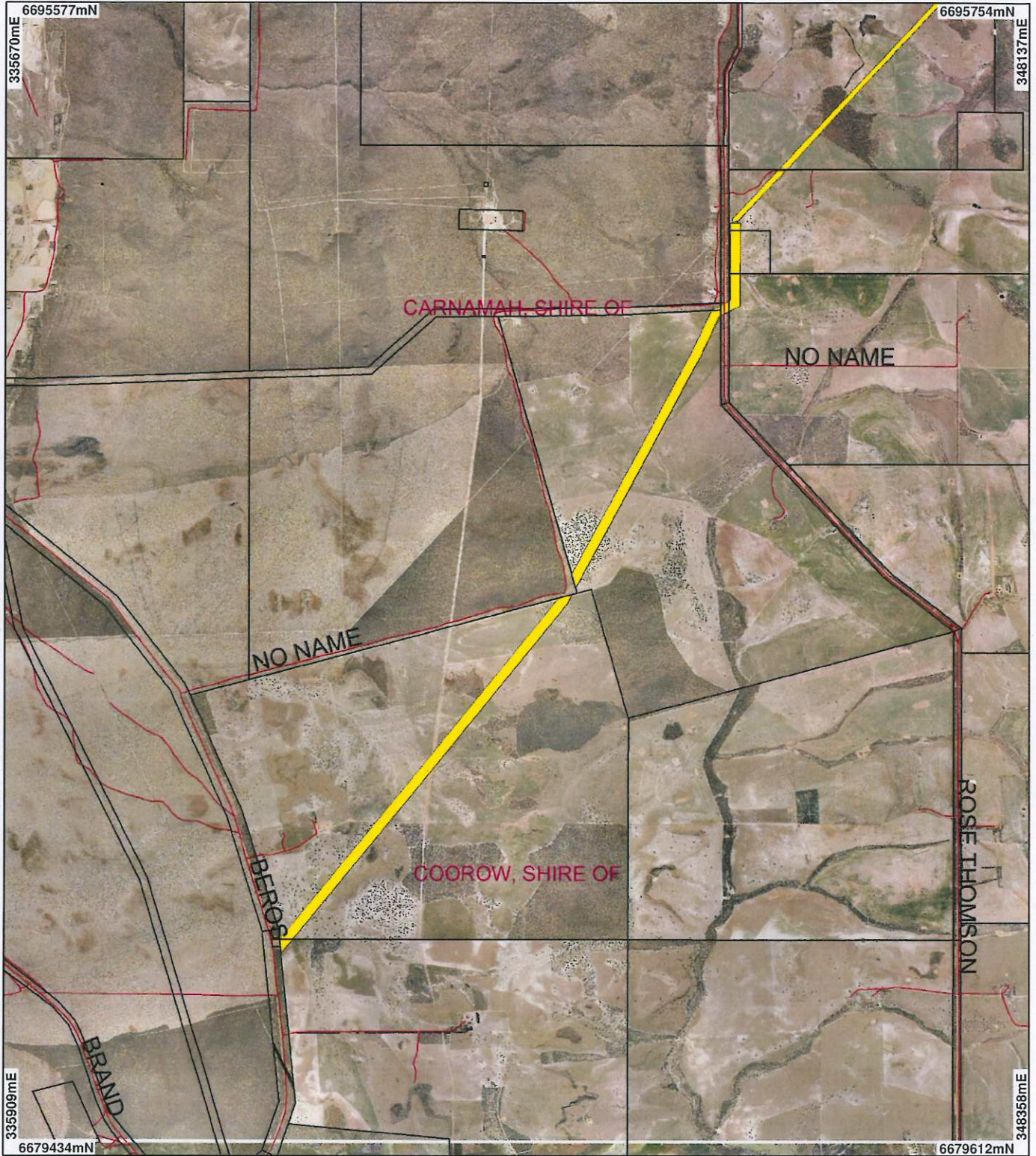
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Plan 3961/3i

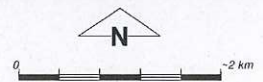


LEGEND

- Clearing Instruments**
- Areas Approved to Clear
 - Road Centrelines
 - Cadastre
 - Local Government Authorities

Hill River Arrowsmith 1.4m
Orthomosaic - Landgate
2000/2001/2002

Arrowsmith 50cm
Orthomosaic - Landgate
2006



Scale 1:71977
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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[Signature] Date *20/5/11*
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1. Application details

1.1. Permit application details

Permit application No.: 3961/3
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Karara Mining Limited

1.3. Property details

Property:

LOT 10246 ON PLAN 206717 (ENEABBA 6518)
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LOT 6316 ON PLAN 226642 (BOWGADA 6623)
LOT 7652 ON PLAN 150615 (KOOLANOOKA 6623)
LOT 7684 ON PLAN 202082 (KOOLANOOKA 6623)
LOT 7876 ON PLAN 202083 (KOOLANOOKA 6623)
LOT 4608 ON PLAN 136994 (KADATHINNI 6519)
LOT 8637 ON PLAN 152179 (KADATHINNI 6519)
LOT 5282 ON PLAN 139407 (KADATHINNI 6519)
LOT 16 ON PLAN 231998 (KADATHINNI 6519)
LOT 8903 ON PLAN 204618 (KADATHINNI 6519)
LOT 4213 ON PLAN 136983 (KADATHINNI 6519)
LOT 3 ON PLAN 4578 (WOMARDEN 6519)
LOT 5485 ON PLAN 82618 (BOWGADA 6623)
LOT 4459 ON PLAN 143563 (BOWGADA 6623)
LOT 1 ON DIAGRAM 23570 (BOWGADA 6623)
LOT 6954 ON PLAN 82617 (BOWGADA 6623)
LOT 7812 ON PLAN 150616 (KOOLANOOKA 6623)
LOT 7684 ON PLAN 202082 (KOOLANOOKA 6623)
LOT 7876 ON PLAN 202083 (KOOLANOOKA 6623)
LOT M1255 ON DIAGRAM 5355 (House No. 655 PARKWOOD PERENJORI 6620)

LOT 10832 ON PLAN 210805 (House No. 570 BEROS WARRADARGE 6518)
 LOT 10831 ON PLAN 210805 (ENEABBA 6518)

Local Government Area:

Shire of Carnamah
 Shire of Coorow
 Shire of Morawa
 Shire of Three Springs
 Shire of Perenjori

Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
4.2		Mechanical Removal	Infrastructure Maintenance
12.5		Mechanical Removal	Infrastructure Maintenance

1.5. Decision on application

Decision on Permit Application:

Decision Date:

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: 49 - Shrublands, mixed heath; and 352 - Medium woodland, York gum; and 379 - Shrublands, scrub-heath on lateritic sandplain in the central Geraldton Sandplain Region; and 420 - Shrublands, bowgada & jam scrub; and 437 - Shrublands, mixed acacia thicket on sandplain (Shepherd 2009)	Beard Vegetation Association: 49 - Shrublands, mixed heath; and 352 - Medium woodland, York gum; and 379 - Shrublands, scrub-heath on lateritic sandplain in the central Geraldton Sandplain Region; and 420 - Shrublands, bowgada & jam scrub; and 437 - Shrublands, mixed acacia thicket on sandplain (Shepherd 2009) The application is for the amendment of an existing clearing permit, CPS 3961/2 to include two additional sections to the upgrade of the Eneabba to Karara Transmission Line, increasing the clearing from 12.5ha within a 766ha area to 16.7ha within 931ha area. The additional sections include: clearing of 1.5ha of native vegetation for the construction of 5 power towers (50m x 50m) within a section to the south of the original application area (the southern section); and the clearing of 2.7ha of native vegetation for the construction of 10 power towers (50m x 50m) within a section to the north of the application area (the northern section). The proposed clearing crosses through five pre-European vegetation system associations. (Shepherd 2009). Overall the vegetation communities are in completely degraded (Keighery, 1994) within the southern section (Woodman Environmental	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994).	The vegetation condition was determined by aerial imagery and from the supporting information provided with the application (Karara Mining Ltd 2010).

Consulting, 2009) and good to excellent condition (Keighery, 1994) within the northern section (Mattiske Consulting Pty Ltd 2008).

3. Assessment of application against clearing principles

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

Comments

Proposal is at variance to this Principle

Clearing Permit CPS 3961/2 has been amended to include two additional sections to the upgrade of the Eneabba to Karara Transmission Line, increasing the clearing size from 12.5ha within a 766ha area to 16.7ha within a 931ha area. These additional sections include clearing of 1.5ha of native vegetation for the construction of 5 power towers (50m x 50m) within a section to the south of the original application area (the southern section) and the clearing of 2.7ha of native vegetation for the construction of 10 power towers (50m x 50m) within a section to the north of the application area (the northern section).

The assessment of the original 12.5ha within a 766ha area has not changed and can be found in the Clearing Permit Decision Report CPS 3961/2.

The application proposes to clear an additional 1.5ha of native vegetation within the southern section of the amended application area. The vegetation under application within this section is largely within cleared agricultural land with some isolated paddock trees (Woodman Environmental Consulting, 2009). The route of the transmission line has been chosen to avoid patches of intact remnant vegetation where possible. A flora and vegetation survey of this section determined that the vegetation under application is in completely degraded (Keighery, 1994) condition (Woodman Environmental Consulting, 2009). This survey determined that the remnant vegetation within this section contains several priority flora species, including *Drosera marchantii* subsp. *Prophylla* (P1), *Banksia micrantha* (P3), *Desmocladius elongates* (P3), *Hakea longifolia* (P3) and *Daviesia epiphyllum* (P3). Given that vegetation under application is considered to be completely degraded and that the transmission line route has been chosen to avoid patches of intact remnant native vegetation, it is not considered that the clearing of 1.5ha of native vegetation within the southern section will significantly impact upon biodiversity values.

The application also proposes to clear an additional 2.7ha of native vegetation within the northern section of the amended application area. The vegetation under application within this section is located largely within a Department of Environment and Conservation (DEC) managed Timber Reserve (02/10) and partly within Unallocated Crown Land vested with the Department of Regional Development and Lands. The vegetation under application within this section is in good to excellent (Keighery, 1994) condition (Mattiske Consulting Pty Ltd 2008). Further, the proposed clearing is located in the extensively cleared Avon Wheatbelt IBRA bioregion (18.2% of pre-1750 vegetation remaining). Within the application area a range of habitat types and potential habitat for a number of specially protected fauna have been identified, most notably this includes Malleefowl (*Leipoa ocellata*) and Western Spiny-tailed Skink (*Egernia stokesii* subsp. *badia*) (Bamford Consulting Ecologists, 2009). Given the limited extent of native vegetation in the local landscape and bioregion, the good to excellent condition of the vegetation under application and the occurrence of potential habitat types for specially protected fauna; it is considered that the vegetation under application comprises significant biodiversity values. Therefore, the proposed clearing is at variance to this Principle. Offset, environmental management plan and fauna conditions would mitigate the loss of habitat.

Methodology

Reference:

- Bamford Consulting Ecologists (2009)
- Keighery (1994)
- Mattiske Consulting Pty Ltd (2008)
- Woodman Environmental Consulting (2009)

GIS Databases:

- Interim Biogeographic Regionalisation of Australia
- SAC Bio Datasets (accessed 2 May 2011)

(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.

Comments

Proposal is at variance to this Principle

This amended proposal is for the clearing of an additional 4.2ha of native vegetation for the construction of an additional 15 power towers (50 m x 50 m each). This additional 4.2ha includes the clearing of 1.5ha of native vegetation for the construction of 5 power towers (50m x 50m) within a section to the south of the original application area (the southern section) and the clearing of 2.7ha of native vegetation for the construction of 10 power towers (50m x 50m) within a section to the north of the application area (the northern section).

The clearing of 1.5ha of native vegetation for the construction of 5 power towers in the southern section is within cleared agricultural land with some isolated paddock trees (Woodman Environmental Consulting, 2009). Given

that the native vegetation within this section is in completely degraded (Keighery, 1994) condition (Woodman Environmental Consulting, 2009) it is not considered that the vegetation within this area comprises significant habitat values.

The clearing of 2.7ha of native vegetation in good to excellent (Keighery, 1994) condition (Mattiske Consulting Pty Ltd 2008), for the construction of 10 power towers in the northern section of the application area, is located within the extensively cleared Avon Wheatbelt IBRA bioregion (18.2% of pre-1750 vegetation remaining). Within the application area a range of habitat types and potential habitat for a number of specially protected fauna have been identified, most notably this included Malleefowl (*Leipoa ocellata*) and Western Spiny-tailed Skink (*Ergernia stokesii* subsp. *badia*) (Bamford Consulting Ecologists, 2009).

Given the limited extent of native vegetation in the local landscape and bioregion and the occurrence of potential habitat types for specially protected fauna; it is considered that the vegetation under application comprises significant habitat values. Therefore, the proposed clearing is at variance to this Principle. Offset, environmental management plan and fauna conditions would mitigate the loss of habitat.

Methodology Reference:
-Bamford Consulting Ecologists (2009)
-Keighery (1994)
-Mattiske Consulting Pty Ltd (2008)
-Woodman Environmental Consulting (2009)

GIS Databases:
- Interim Biogeographic Regionalisation of Australia
- SAC Bio Datasets (accessed 2 May 2011)

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

Comments Proposal is not at variance to this Principle

Flora surveys have been undertaken of both sections of the area under application (Mattiske Consulting Pty Ltd, 2008; Woodman Environmental Consulting, 2009). No rare flora were recorded as occurring within the vegetation under application during these surveys. The proposed clearing is therefore not at variance to this principle.

Methodology Reference:
-Mattiske Consulting Pty Ltd (2008)
-Woodman Environmental Consulting (2009)

GIS Database:
- SAC Bio Datasets (accessed 2 May 2011)

(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.

Comments Proposal is not at variance to this Principle

Three Threatened Ecological Communities (TEC) have been identified within the local areas (10km radius) of the proposed clearing.

There are two records of the Assemblages of organic mound springs of the Three Springs area TEC and four records of the Ferricrete floristic community (Rocky Springs type) within the local area of the southern section of the proposed clearing. Given the small size (1.5ha) of the proposed clearing within this section, the degraded condition of the vegetation under application and distance to these TECs (7.7km), the clearing proposed for this section is not likely to impact upon these TECs.

There are eleven records of the Plant Assemblages of the Koolanooka System TEC within the local area of the northern section of the proposed clearing, the closest being located 6.4km to the west of the vegetation under application. The impacts to these communities have been previously assessed in the Clearing Permit Decision Report for CPS 3961/2.

Given the above, the amended proposal for the clearing of an additional 4.2ha of native vegetation is not at variance to this principle.

Methodology Reference:
-Mattiske Consulting Pty Ltd (2008)
-Woodman Environmental Consulting (2009)

GIS Database:
- SAC Bio Datasets (accessed 2 May 2011)

(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.

Comments Proposal is at variance to this Principle

The national objectives and targets for biodiversity conservation in Australia 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 Avon Wheatbelt bioregion retains less than 30% of pre-1750 vegetation extent, while Beard vegetation units 352 and 379 also retain less than the recommend 30% within the bioregions. Additionally, the Beard vegetation types mapped in the areas under application within the Avon Wheatbelt bioregion are not well represented within conservation reserves vested with DEC.

Given that the vegetation under application within the northern section of the proposed clearing is in good to excellent (Keighery, 1994) condition (Mattiske Consulting Pty Ltd 2008), includes vegetation types that are below the recommended 30% of pre-1750 vegetation extent and is located within the highly cleared Avon Wheatbelt Bioregion, the clearing as proposed is at variance to this principle. Offset conditions would mitigate the loss of vegetation in a highly cleared landscape.

	Pre-European (ha)	Current extent (ha)	Remaining (%)	Pre-European % in reserves/DEC managed lands
BIOREGIONS*				
Avon Wheatbelt (AW)	9 517 109	1 736 214	18.2	
Geraldton Sandplains (GS)	3 136 025	1 410 755	44.9	
LOCAL GOVERNMENT AUTHORITIES*				
Shire of Carnamah	287 233	118 545	41.3	42.0
Shire of Coorow	418 936	165 024	39.4	42.9
Shire of Morawa	351 033	113 798	32.4	42.7
BEARD VEGETATION ASSOCIATIONS*				
- 49 in GS bioregion	39 718	14 446	36.4	22.1
- 352 in AW bioregion	630 581	111 029	17.6	9.2
- 379 in GS bioregion	546 507	130 247	23.8	21.1
- 420 in AW bioregion	44 968	17 140	38.1	10.7
- 437 in AW bioregion	174 686	144 834	82.9	2.2

*(Shepherd 2009)

Methodology

Reference:

- Commonwealth of Australia (2001)
- Keighery (1994)
- Mattiske Consulting Pty Ltd (2008)
- Shepherd (2009)

GIS Databases:

- Pre-European Vegetation
- NLWRA, Current Extent of Native Vegetation
- Interim Biogeographic Regionalisation of Australia

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

Comments Proposal may be at variance to this Principle

Karara Mining Ltd (2011) has advised that no water courses or wetlands will be directly affected by the proposed clearing.

There are a number of un-named minor, non-perennial watercourses intersecting both sections of the proposed clearing and it is considered that vegetation associated with a watercourses may be impacted. Therefore, the proposed clearing may be at variance with this Principle.

It is noted the construction of the transmission line will be undertaken in a manner to minimise the necessity to disturb vegetation growing along or in association with watercourses or wetlands (Karara Mining Limited 2011).

Methodology

Reference:

- Karara Mining Limited (2011)

GIS Databases:

-Hydrography, linear

-Geomorphic Wetlands Wheatbelt

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

Comments Proposal is not likely to be at variance to this Principle

This amended proposal is for the clearing of an additional 4.2ha of native vegetation for the construction of an additional 15 power towers (50 m x 50 m each). The proposal will involve some soil disturbance. However, given the relatively small and localised clearing for each tower the clearing is not likely to lead to appreciable land degradation.

It is noted that the cleared areas not required for operations will be stabilised and rehabilitated immediately after construction (Karara Mining Limited 2011).

Methodology Reference:

- Karara Mining Limited (2011)

(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.

Comments Proposal may be at variance to this Principle

The closest conservation area to the southern section of the areas under application is the South Eneabba Nature Reserve, located 200m west of the proposed clearing. Given the degraded nature of the vegetation under application within this area and that no clearing will occur within the nature reserve the impacts to the reserve are not likely to be significant.

The northern section of the areas under application is located 2.2km north-west of the Bowgarder Nature Reserve. The proposed clearing is also situated largely within a Timber Reserve (02/10) with ~0.25ha of the clearing proposed within vegetation types with less than 30% of its pre-1750 extent. It is also noted that the 2.7ha of native vegetation proposed to be cleared within the northern section is in good to excellent (Keighery, 1994) condition (Mattiske Consulting Pty Ltd 2008) and also that the declared plant species Saffron Thistle (*Carthamus lanatus*) has been recorded as occurring on the boundary of this area (Mattiske Consulting Pty Ltd, 2008)

Given the above, the proposal may be at variance to this principle. Offset, weed and dieback conditions will manage impacts to conservation areas.

Methodology Reference:

-Keighery (1994)

-Mattiske Consulting Pty Ltd (2008)

GIS Database:

- DEC Tenure

(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.

Comments Proposal is not likely to be at variance to this Principle

Karara Mining Ltd (2011) has advised that no water courses or wetlands will be directly affected by the proposed clearing.

There are a number of un-named minor, non-perennial watercourses intersecting both sections of the proposed clearing. The removal of limited vegetation associated with small non-perennial watercourses is unlikely to significantly impact on this watercourse network as a whole throughout the landscape. Therefore, the proposed clearing is not likely to be at variance with this Principle.

It is noted the construction of the transmission line will be undertaken in a manner to minimise the necessity to disturb vegetation growing along or in association with watercourses or wetlands (Karara Mining Limited 2011).

Methodology Reference:

- Karara Mining Limited (2011)

GIS Databases:

-Hydrography, linear

-Geomorphic Wetlands Wheatbelt

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

Comments Proposal is not likely to be at variance to this Principle

This amended proposal is for the clearing of an additional 4.2ha of native vegetation for the construction of an additional 15 power towers (50 m x 50 m each) and 3 line string points over 133 km. The proposal will involve some soil disturbance. However, given the relatively small and localised clearing for each tower the clearing is not likely to cause or increase the incidence or intensity flooding.

Methodology GIS Databases:
-Hydrography, linear
-Geomorphic Wetlands Wheatbelt

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

Comments

The vegetation under application is located in the area defined in EPA Position Statement No. 2 (EPA 2000). EPA Position Statement No. 2 states that clearing should not compromise any vegetation type by taking it below the threshold level of 30%; however, where this occurs EPA expects alternative mechanisms to be put forward to protect biodiversity (EPA, 2000). In exceptional circumstances the EPA would consider supporting clearing in the agricultural are if:

- (a) There are alternative mechanisms for protecting biodiversity.
- (b) The area to be cleared is relatively small, depending on the scale at which biodiversity changes over the area, including extent of vegetation in the surrounding area and recognising that values will vary for different ecosystems.
- (c) The proponent demonstrates that the elements set out in Section 4.3 of this Position Statement are being met. This will require extensive local and regional biodiversity work.
- (d) Land degradation, including aquatic environments and threatening processes, such as dieback, salinisation or disruption of catchment processes, on-site and off-site would not be exacerbated.

The proposal to construct the Eneabba to Koolanooka transmission line was referred to the Environmental Protection Authority (EPA) in 2009. The EPA's recommendation on the 1 June 2009 was 'Not Assessed - Public Advice Given'.

The Shire of Moorow has approved a Planning Application for the northern section of the transmission line (Shire of Moorow, 2011).

Karara Mining Ltd (2011) have advised that they are in the process of obtaining Planning Approvals from the Shires of Carnamah and Coorow for the clearing of native vegetation within the southern section of the application area.

Karara Mining Ltd (2011) have advised that the northern section of the application area requires a Mining Tenement and that Miscellaneous Mining Tenement L70/130 is pending approval.

Consent to apply for a clearing permit has been obtained from the Department of Regional Development and Lands and Kyndalyn Park Pty Ltd, the property owners of the land subject to the application (Karara Mining Ltd, 2011).

It is considered that the southern section of the application area is susceptible to being infested with the dieback disease (area with annual rainfall of greater than 400 mm annually). Hygiene measures should be implemented to prevent the introduction and spread of dieback within this western section.

Potential impacts to Malleefowl and the Western Spiny-tailed Skink will be managed in accordance with Karara Mining Limited (2010) Malleefowl Management and Monitoring Procedure and the Western Spiny-tailed Skink Management and Monitoring Procedure. Both procedures have been developed in consultation with DEC and DEWHA and detail pre-disturbance survey, translocation, monitoring and reporting requirements. DEC considers that these procedures need to be reviewed to ensure they will manage the impacts related to this project.

Karara Mining Ltd (2011a) has provided an amended offset plan on 8 April 2011 for CPS 3961/3. The amended offset plan includes an extra 8.4ha of native vegetation to offset the clearing of the additional 4.2ha applied for in CPS 3961/3.

Methodology No submissions were received for this project.
Reference:
EPA (2000)
Karara Mining Ltd (2010)
Karara Mining Ltd (2011)
Shire of Moorow (2011)

4. References

- Banford Consulting (2009) Three Springs to Koolanooka Transmission Line Fauna Assessment, IN Karara Iron Ore Project - Native Vegetation Clearing Permit Application 330kV Transmission Line: Koolanooka to Eneabba August 2010, Karara Mining Limited. DEC Ref A331076
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- EPA (2000) Environmental protection of native vegetation in Western Australia. Clearing of native vegetation, with particular reference to the agricultural area. Position Statement No. 2. December 2000. Environmental Protection Authority, Western Australia.
- Karara Mining Limited (2011a) Native Vegetation Clearing Permit Application CPS 3961/3 Supporting Information. Revised offset plan for CPS 3961/3. DEC Ref: A386873.
- Karara Mining Ltd (2010) Karara Iron Ore Project - Native Vegetation Clearing Permit Application Supporting Information, Management Plans, Karara Mining Limited. DEC Ref A345614
- Karara Mining Ltd (2011) Karara Iron Ore Project - 330kV Transmission Line - Native Vegetation Clearing Permit Application to Amend CPS 3961/2 March 2011. Karara Mining Limited. DEC Ref A381418.
- 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 Consulting Pty Ltd (2008) Flora and Vegetation Survey of the Proposed Rose Substation to Koola Substation HV Transmission Line Upgrade and Modified Route Alignment; IN Karara Iron Ore Project - Native Vegetation Clearing Permit Application 330kV Transmission Line: Koolanooka to Eneabba August 2010, Karara Mining Limited. DEC Ref A331076
- Shepherd, D.P. (2009) Adapted from: 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 Moorow (2011). Shire response to DIL for Clearing Permit Application CPS 3961/3. * April 2011. DEC Ref:A386771.
- Woodman Environmental Consulting (2009) Flora and vegetation of the proposed Eneabba - Moonyoonooka 330KV transmission line; Supplementary Field Survey 2008. Karara Mining Limited. DEC Ref: A385357.

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)