



## CLEARING PERMIT

*Granted under section 51E of the Environmental Protection Act 1986*

<b>Purpose Permit number:</b>	CPS 5669/1
<b>Permit Holder:</b>	Brookfield Rail Pty Ltd
<b>Duration of Permit:</b>	19 October 2013 to 19 October 2023

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 installing underground communication cabling.

#### 2. Land on which clearing is to be done

Railway Reserve corridor within the Shires of Dundas and Esperance being:

LOT 10 ON PLAN 7287 (WEST BEACH 6450)  
LOT 11 ON PLAN 7287 (WEST BEACH 6450)  
LOT 12 ON PLAN 28335 (SINCLAIR 6450)  
LOT 14 ON PLAN 4708 (WEST BEACH 6450)  
LOT 15 ON PLAN 4708 (WEST BEACH 6450)  
LOT 16 ON PLAN 4708 (WEST BEACH 6450)  
LOT 17 ON PLAN 4708 (WEST BEACH 6450)  
LOT 25 ON DIAGRAM 27411 (WEST BEACH 6450)  
LOT 26 ON DIAGRAM 27411 (WEST BEACH 6450)  
LOT 3 ON PLAN 7409 (WEST BEACH 6450)  
LOT 303 ON PLAN 46095 (Lot No. 303 HARBOUR NULSEN 6450)  
LOT 304 ON PLAN 49005 (Lot No. 304 COLLIER PINK LAKE 6450)  
LOT 4 ON PLAN 7409 (WEST BEACH 6450)  
LOT 480 ON PLAN 186490 (PINK LAKE 6450)  
LOT 5 ON PLAN 7287 (WEST BEACH 6450)  
LOT 51 ON PLAN 9505 (SINCLAIR 6450)  
LOT 52 ON PLAN 9505 (WEST BEACH 6450)  
LOT 531 ON PLAN 53970 (SINCLAIR 6450)  
LOT 598 ON PLAN 217626 (NULSEN 6450)  
LOT 598 ON PLAN 217626 (NULSEN 6450)  
LOT 599 ON PLAN 217626 (NULSEN 6450)  
LOT 6 ON PLAN 7287 (WEST BEACH 6450)  
LOT 7 ON PLAN 7287 (WEST BEACH 6450)  
LOT 8 ON PLAN 7287 (WEST BEACH 6450)  
LOT 9 ON PLAN 7287 (WEST BEACH 6450)  
LOT 906 ON PLAN 190528 (PINK LAKE 6450)  
LOT 966 ON PLAN 219776 (Lot No. 966 HARBOUR CHADWICK 6450)  
RAILWAY RESERVE (DUNDAS 6443)  
RAILWAY RESERVE (GIBSON 6448)  
RAILWAY RESERVE (GRASS PATCH 6446)  
RAILWAY RESERVE (MONJINGUP 6450)  
RAILWAY RESERVE (MYRUP 6450)

RAILWAY RESERVE (NORSEMAN 6443)  
RAILWAY RESERVE (PINK LAKE 6450)  
RAILWAY RESERVE (SALMON GUMS 6445)  
RAILWAY RESERVE (SCADDAN 6447)

**3. Area of Clearing**

The Permit Holder must not clear more than ten hectares of native vegetation within the combined areas hatched yellow on attached Plan 5669/1a and Plan 5669/1b and Plan 5669/1c and Plan 5669/1d and Plan 5669/1e and Plan 5669/1f and Plan 5669/1g and Plan 5669/1h.

**4. Period in which clearing is authorised**

The Permit Holder shall not clear any native vegetation after 12 October 2018.

**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.

**PART II –MANAGEMENT CONDITIONS**

**7. Dieback and 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* and *dieback*:

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

**8. Flora management**

Where *priority flora* or *other significant flora* have been identified and their written location(s), provided in Brookfield Rail Pty Ltd's document "Threatened and Priority Flora Field Guide Narrow and Standard Gauge 2012, Rev No. 3.4", the Permit Holder shall ensure that:

- (a) no clearing of *critical habitat* of the identified *priority* and/or *other significant flora* occurs, unless first approved by the CEO; and
- (b) no clearing of identified *priority flora* or *other significant flora* occurs, unless approved by the CEO.

**9. 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 completion of installing underground communication cabling, *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) ripping the ground on the contour to remove soil compaction; and
  - (iii) laying the vegetative material and topsoil retained under condition 9(a) on the cleared area(s).

- (c) within 18 months of laying the vegetative material and topsoil on the cleared area in accordance with condition 9(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 9(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.

### **PART III - RECORD KEEPING AND REPORTING**

#### **10. 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 9 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; and
  - (iii) the size of the area *revegetated* and *rehabilitated* (in hectares).

#### **11. 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 10 of this Permit; and
  - (ii) concerning activities done by the Permit Holder under this Permit between 1 January to 31 December of the preceding calendar year.
- (b) If no clearing authorised under this Permit was undertaken between 1 January to 31 December of the preceding calendar, a written report confirming that no clearing under this permit has been carried out, must be provided to the CEO on or before 30 June of each year.
- (c) Prior to 12 July 2023, the Permit Holder must provide to the CEO a written report of records required under condition 10 of this Permit where these records have not already been provided under condition 11(a) of this Permit.

### **DEFINITIONS**

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

***critical habitat:*** means any part of the Permit Area comprising of the habitat of flora or fauna species and its population, that is critical for the health and long term survival of the flora or fauna species and its population;

***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;

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

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

**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;

**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 20 kilometres and and the same Interim Biogeographic Regionalisation for Australia (IBRA) subregion 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;

**other significant flora:** means flora that are at the extremes of their range or that occur in isolated outlying populations or, undescribed flora (either at the genus, species or infraspecific level) that have been discovered, but not yet formally described in accordance with the International Code of Botanical Nomenclature or, uncommon hybrid flora;

**priority flora** means those plant taxa described as priority flora classes 1, 2, 3, 4 or 5 in the *Department of Environment and Conservation's Threatened and Priority Flora List for Western Australia* (as amended);

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



M Warnock  
MANAGER  
NATIVE VEGETATION CONSERVATION BRANCH

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

19 September 2013

# Plan 5669/1a



## LEGEND

- |                              |   |
|------------------------------|---|
| Local Government Authorities | Norseman 1,4m Orthomosaic - Landgate 2003 |
| Road Centrelines             | Clearing Instruments                      |
| Towns                        | Areas Approved to Clear                   |
| A (cont)                     |   |



Scale 1:125921  
(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.

*M Warnock* Date 19/9/13  
M Warnock

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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Department of Environment Regulation

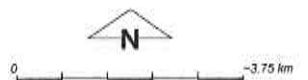
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# Plan 5669/1b



## LEGEND

- Local Government Authorities
- Road Centrelines
- Towns
- A (cont)
- B
- Norseman 1.4m Orthomosaic - Landgate 2003
- Dundas 1.4m Orthomosaic - Landgate 2003
- Clearing Instruments
- Areas Approved to Clear



Scale 1:125707  
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Geocentric Datum Australia 1994

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*M Warnock* Date *19/9/13*  
M Warnock

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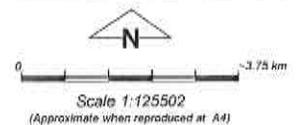
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# Plan 5669/1c



## LEGEND

- Peak Charles 50cm Orthomosaic - Landgate 2007
- Local Government Authorities
- Road Centrelines
- Towns
  - A
  - B
- Dundas 1.4m Orthomosaic - Landgate 2003
- Clearing Instruments
- Areas Approved to Clear



Geocentric Datum Australia 1994

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*M Warnock* Date 19/9/13  
M Warnock

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# Plan 5669/1d

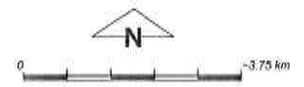


## LEGEND

- Peak Charles 50cm Orthomosaic - Landgate 2007
- Local Government Authorities
- Road Centrelines

- Towns**
- A
  - B
  - Dundas 1.4m Orthomosaic - Landgate 2003
  - Scadgan 1.4m Orthomosaic - Landgate 2004

- Clearing Instruments**
- Areas Approved to Clear



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(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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M Warnock

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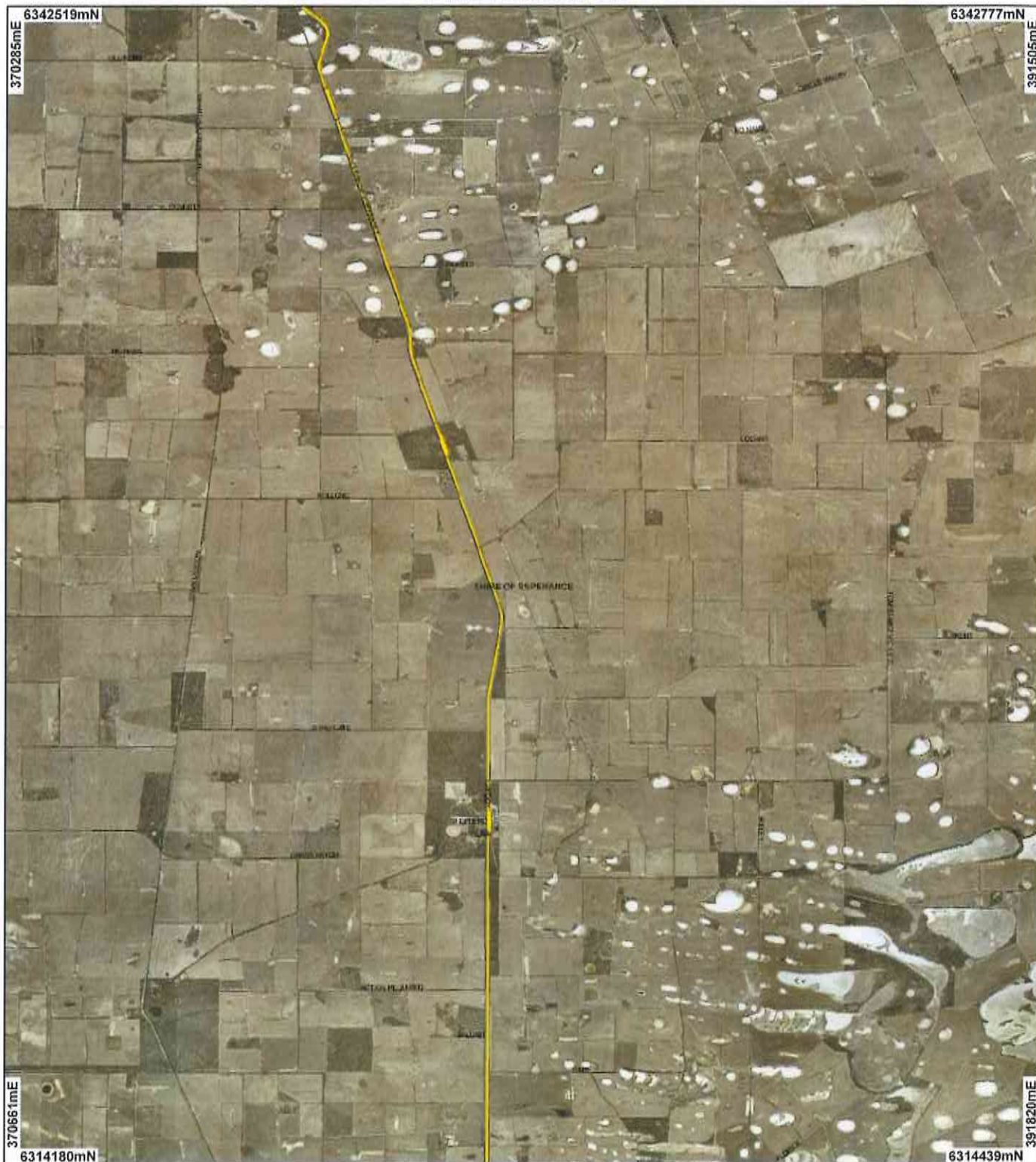


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# Plan 5669/1e



## LEGEND

Peak Charles 50cm  
Orthomosaic - Landgate  
2007

Local Government  
Authorities

Road Centrelines

Towns

A

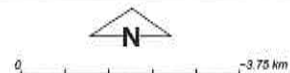
B

Dundas 1.4m Orthomosaic -  
Landgate 2003

Scaddan 1.4m Orthomosaic -  
Landgate 2004

Clearing Instruments

Areas Approved to Clear



Scale 1:125098

(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

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*M Warnock* Date 19/9/13  
M Warnock

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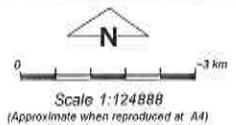
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# Plan 5669/1f



## LEGEND

- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"> <li>Peak Charles 50cm Orthomosaic - Landgate 2007</li> <li>Local Government Authorities</li> <li>Road Centrelines</li> </ul> | <ul style="list-style-type: none"> <li>Towns</li> <li>A</li> <li>B</li> <li>Dundas 1.4m Orthomosaic - Landgate 2003</li> <li>Scaddan 1.4m Orthomosaic - Landgate 2004</li> </ul> | <ul style="list-style-type: none"> <li>Esperance 1.4m Orthomosaic - Landgate 2002</li> <li>Clearing Instruments</li> <li>Areas Approved to Clear</li> </ul> |
|---|--|---|



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

*M Warnock* Date 19/9/13  
 M Warnock

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

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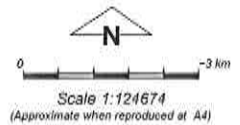
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# Plan 5669/1g



## LEGEND

- |   |  |   |
|---|--|---|
| <ul style="list-style-type: none"> <li>Peak Charles 50cm Orthomosaic - Landgate 2007</li> <li>Local Government Authorities</li> <li>Road Centrelines</li> </ul> | <ul style="list-style-type: none"> <li>Towns</li> <li>A</li> <li>B</li> <li>Dundas 1.4m Orthomosaic - Landgate 2003</li> <li>Scaddan 1.4m Orthomosaic - Landgate 2004</li> </ul> | <ul style="list-style-type: none"> <li>Esperance 1.4m Orthomosaic - Landgate 2002</li> <li>Clearing Instruments</li> <li>Areas Approved to Clear</li> </ul> |
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*M Warnock* Date 19/9/13  
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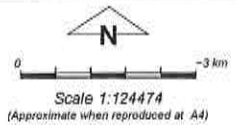
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# Plan 5669/1h



## LEGEND

- |  |   |  |
|--|---|--|
| <p>Peak Charles 50cm Orthomosaic - Landgate 2007</p> <p>Local Government Authorities</p> <p>Road Centrelines</p> | <p>Towns</p> <p>A</p> <p>B</p> <p>Dundas 1.4m Orthomosaic - Landgate 2003</p> <p>Scaddan 1.4m Orthomosaic - Landgate 2004</p> | <p>Esperance 1.4m Orthomosaic - Landgate 2002</p> <p>Clearing Instruments</p> <p>Areas Approved to Clear</p> |
|--|---|--|



Geocentric Datum Australia 1994

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

*M Warnock* Date 19/9/13

M Warnock

Officer with delegated authority under Section 20 of the Environmental Protection Act 1985

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Government of Western Australia  
Department of Environment Regulation

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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.: 5669/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Brookfield Rail Pty Ltd

### 1.3. Property details

LOT 10 ON PLAN 7287 (WEST BEACH 6450)  
LOT 11 ON PLAN 7287 (WEST BEACH 6450)  
LOT 12 ON PLAN 28335 (SINCLAIR 6450)  
LOT 14 ON PLAN 4708 (WEST BEACH 6450)  
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RAILWAY RESERVE (PINK LAKE 6450)  
RAILWAY RESERVE (SALMON GUMS 6445)  
RAILWAY RESERVE (SCADDAN 6447)

Local Government Area: Shires of Dundas and Esperance  
Colloquial name:

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
10		Mechanical Removal	Water/gas/cable/pipeline/power installation
		Mechanical Removal	Water/gas/cable/pipeline/power installation
		Mechanical Removal	Water/gas/cable/pipeline/power installation
		Mechanical Removal	Water/gas/cable/pipeline/power installation
		Mechanical Removal	Water/gas/cable/pipeline/power installation
		Mechanical Removal	Water/gas/cable/pipeline/power installation

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 12 September 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
<p>The vegetation under application comprises numerous Beard Vegetation Associations dominate by the following:</p> <p>9 - Medium woodland; coral gum (<i>Eucalyptus torquata</i>) &amp; goldfields blackbutt (<i>E. le soufil</i>), (also some e10,11);</p> <p>42 - Shrublands; mallee &amp; acacia scrub on south coastal dunes;</p> <p>47 - Shrublands; tallerack mallee-heath;</p> <p>486 - Mosaic: Medium woodland; salmon gum &amp; red mallee / Shrublands; mallee scrub <i>Eucalyptus</i> <i>eremophila</i>;</p> <p>522 - Medium woodland; redwood (<i>Eucalyptus transcontinentalis</i>) &amp; merrit (<i>E. floctoniae</i>);</p> <p>3106 - Medium woodland; salmon gum &amp; Dundas blackbutt;</p> <p>6048 - Shrublands; banksia scrub-heath on sandplain in the Esperance Plains Region; and</p> <p>7048 - Tall woodland; tuart (<i>Eucalyptus gomphocephala</i>).</p>	<p>The proposal is to clear up to 10 hectares of native vegetation over the length of railway reserve corridor between Norseman and Esperance (approximately 200 kilometre in length) for the purpose of laying communication cable.</p>	<p>Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)</p>	<p>The vegetation under application is dominated by eucalyptus woodlands and eremophila species in the application areas north and changes to melaleuca and proteaceous species towards the south. The poor vegetation condition noted is a result of historic and ongoing rail network maintenance activities, the reserves proximity to road reserve infrastructure, agriculture and mining activities (Niche, 2013).</p> <p>The clearing and cable laying activity is to occur within existing firebreaks within the corridor. Clearing will only be required where the cable route needs to deviate from the firebreak, but any proposed clearing will remain within the corridor.</p>

(Shepherd et al, 2001)

## 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 not likely to be at variance to this Principle**

The application to clear up to 10 hectares of native vegetation over the length of the railway reserve corridor between Norseman and Esperance (approximately 200 kilometres) is for the purpose of laying communication cable. The activity is to occur within existing firebreaks within the corridor. Any clearing within the corridor will only be required where the cable route needs to deviate from the firebreak.

The vegetation under application is dominated by eucalyptus woodlands and eremophila species in the application areas north and changes to melaleuca and proteaceous species towards the south. The degraded (Keighery, 1994) vegetation condition noted is a result of historic and ongoing rail network maintenance activities, the corridors proximity to road reserve infrastructure, agriculture and mining activities (Niche, 2013).

A flora survey of the corridor determined that the species richness was comparatively low with 148 species recorded (Niche, 2013).

There are numerous records of Priority 1 to Priority 4 listed flora species (eleven P1 species, six P2 species, 26 P3 species and seven P4 species) within a 5 kilometre radius to the corridor. Seven species (*Cryptandra* sp., *Bossiaea* sp., *Adenanthos* sp., *Allocasuarina* sp., *Eucalyptu* sp., *Eremophila* sp., and *Darwinia* sp.) occur within the corridor at varying locations. The proponent has location details for these flora species which will assist planning the proposed cable laying activity and avoidance of these flora species (JHG, 2013).

As the proposed clearing is within a 200 kilometre long, linear corridor, and will be of a minor and linear nature, it is unlikely to significantly impact the habitat or conservation status of any priority listed flora or fauna species that may be present.

In addition, three Priority Ecological Communities occur within the vicinity of the corridor, but none within the corridor, as noted below:

"Allocasuarina globosa assemblages on green stone rock" - located approximately three kilometres east of the reserve and 12 kilometres south of Norseman (Priority One);

"Stromatolite like microbialite community of a Coastal Hypersaline Lake (Pink Lake)" - located west side and adjacent to the railway reserve and five kilometres northwest of Esperance (Priority One); and

"Scrub heath on Esperance Sandplain; scrub heath on deep sand with Banksia and Lambertia, and Banksia scrub heath on Sandplain" - located approximately seven kilometres east of the reserve and 27 kilometres north of Esperance, and another occurrence six kilometres west of the reserve and 17 kilometres northwest of Esperance (Priority Three).

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

**Methodology** References  
- Niche (2013)

GIS databases  
- SAC Bio datasets (accessed August 2013)

**(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 may be at variance to this Principle**

The application area, a railway reserve corridor between Norseman and Esperance, has been predominately cleared and maintained for railway use. The vegetation under application is dominated by eucalyptus woodlands and eremophila species in the application areas north and changes to melaleuca and proteaceous species towards the south. The poor vegetation condition noted is a result of historic and ongoing rail network maintenance activities, the reserves proximity to road reserve infrastructure, agriculture and mining activities (Niche, 2013).

The corridor occurs within an agricultural zone, which has been historically cleared for agricultural purposes. The remaining vegetation within the corridor may be important as a wildlife corridor linking with other remnants in the area.

A section of the application area within six kilometres of the Esperance Town site occurs within a confirmed roosting region for Carnaby's Cockatoo (*Calyptorhynchus latirostris*). Two confirmed roost sites occur within large remnants located west of the corridor. However, using aerial imagery (Esperance 1.4 Orthomosaic - Landgate 2002) the vegetation within the adjacent rail corridor does not contain suitable roosting trees.

The clearing as proposed may be at variance to this Principle. However, as the proposed clearing is within a 200 kilometre long, linear corridor, and will be of a minor and linear nature, it is unlikely to impact the habitat or conservation status of any conservation significant fauna. Rehabilitation and revegetation management practices will assist to further mitigate this risk.

**Methodology** References  
- Niche (2013)

GIS databases  
- Aerial imagery, various Orthomosaic-Landgate 2001 to 2005  
- Esperance 1.4 Orthomosaic - Landgate 2002  
- SAC Bio datasets

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

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

There are four rare flora species recorded within five kilometres of the railway reserve corridor. No species were recorded during a recent flora survey and no records have been recorded within the reserve corridor (Niche, 2013).

The clearing as proposed is not likely to be at variance to this Principle.

**Methodology** Reference  
- Niche (2013)

GIS databases  
-SAC Bio datasets (accessed August 2013)

**(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 likely to be at variance to this Principle**

There are no Threatened Ecological Communities recorded within the railway reserve corridor and none recorded within five to ten kilometres of the corridor.

The clearing as proposed is not likely to be at variance to this Principle.

**Methodology** GIS database  
- SAC Bio datasets (accessed August 2013)

**(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 not likely to be at variance to this Principle**

The vegetation under application is dominated by eucalyptus woodlands and eremophila species in the application areas north and changes to melaleuca and proteaceous species towards the south. The degraded (Keighery, 1994) vegetation condition noted is a result of historic and ongoing rail network maintenance activities, the corridors proximity to road reserve infrastructure, agriculture and mining activities (Niche, 2013).

There are numerous Beard Vegetation Associations that transect the 200 kilometre length of the railway reserve corridor between Norsemen and Esperance. Of the dominant associations, Number 486 is the least represented vegetation complex with 39 per cent of its pre-European extent remaining. The other complexes are well represented with greater than 78 per cent of their pre-European extent remaining (Government of Western Australia, 2013).

Given the proposed clearing of 10 hectares (over 200 kilometres) will be of a minor and linear nature and that the vegetation under application is in a degraded (Keighery, 1994) condition, the application area is not considered a significant remnant in an extensively cleared area.

The clearing as proposed is not likely to be at variance to this Principle.

Pre-European	Current Extent (ha)	Remaining (ha)	(%)
*IBRA Bioregions:			
Coolgardie	12,912,204	12,648,491	97
Mallee	7,395,894	4,185,989	56
Esperance Plain	2,899,940	1,508,057	52
*Shire			
Dundas	9,301,345	9,293,644	99
Esperance	4,459,670	3,211,034	72

\*Government of Western Australia (2013)

**Methodology** References:  
- Government of Western Australia (2013)  
- Niche (2013)

GIS Databases:  
- Interim Biographic Regions of Australia  
- Pre-European Vegetation

**(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 is at variance to this Principle**

The railway reserve corridor transects various minor non-perennial watercourses where existing rail infrastructure, such as culverts, already exist to manage surface water flows (Niche, 2013).

Various perennial and non-perennial lakes (mostly salt lakes) also exist adjacent to the corridor from Norseman



then south for approximately 60 kilometres. These features appear again from south of Salmon Gums onto Esperance. As above, existing rail infrastructure, such as culverts, already exist to manage surface water flows.

Any impact to these water features is likely to be minimal as historical rail infrastructure and maintenance activities may have previously impacted the buffers to these areas.

The corridor bisects Pink Lake and Lake Warden (registered as the Lake Warden System RAMSAR) five kilometres north of Esperance.

Any impact to the buffers of these wetlands immediately adjacent to any proposed clearing is also likely to be minimal as they may have been previously altered by existing rail infrastructure and maintenance activities.

As parts of the corridor (application area) are associated with riparian vegetation, the proposed clearing is at variance to this Principle.

**Methodology** References:  
- Niche (2013)

GIS databases:  
- Hydrography, Linear  
- ANCA Wetlands  
- RAMSAR, Wetlands

**(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**

The application area, a railway reserve corridor between Norseman and Esperance, has been predominately cleared and maintained, and contains existing railway network infrastructure including drainage culverts.

Given the proposed clearing of 10 hectares (over 200 kilometre clearing footprint) will be of a minor and linear nature, it is unlikely to influence or contribute to land degradation.

The proposed clearing is not likely to be at variance to this Principle.

**Methodology** References  
- Niche (2013)

GIS databases:  
- Hydrography, linear  
- Groundwater Salinity, Statewide  
- Soils, Statewide

**(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 application area, a railway reserve corridor between Norseman and Esperance, bisects and/or occurs adjacent to the Lake Warden, Shark Lake, Speddingup East, Truslove, Red Lake Townsite, Dowak Nature Reserves, and two un-named nature reserves, one being Reserve No. 42943 and one north of Speddingup East.

The proposed clearing will be of a minor and linear nature, so it is unlikely to significantly impact these conservation areas. The disturbance caused by the proposed underground cable laying activity may increase the risk of weed and dieback dispersal. Weed and dieback management practices will assist in mitigating this risk.

Given the above, the proposed clearing may be at variance to this Principle.

**Methodology** GIS databases  
- 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**

The application area, a railway reserve corridor between Norseman and Esperance, has been predominately cleared and maintained, and contains existing railway network infrastructure including drainage culverts. The corridor traverses the Esperance Groundwater Drinking Water Source Area, the Gibson Groundwater Area and

Water Reserve, the Salmon Gums Catchment Area and the Goldfields Groundwater Area.

Salinity levels range from 500 to greater than 35,000 tds\_mg/l in the Norseman to Gibson region.

Given the proposed clearing of 10 hectares (over 200 kilometres) will be of a minor and linear nature, it is unlikely to influence salinity levels or the quality of surface or underground water.

The proposed clearing is not likely to be at variance to this Principle.

**Methodology** References  
- Niche (2013)

GIS database  
- Hydrographic Catchments  
- Hydrography, linear  
- Salinity, Statewide

**(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**

The application area, being a railway reserve corridor, consists of vegetated and non-vegetated areas. The vegetated areas are in a degraded (Keighery, 1994) condition as a result of historic and ongoing rail network maintenance activities, the corridors proximity to road reserve infrastructure, agriculture and mining activities (Niche, 2013).

The proposed clearing of 10 hectares (over 200 kilometres) will be of a minor and linear nature, and is unlikely to increase the incidence or intensity of flooding.

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

**Methodology** References  
- Niche (2013)  
- Keighery (1994)

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

**Comments**

One submission was received from a Native Title claimant asking that the proponent contact them to discuss any potential disturbance to Aboriginal heritage sites (Submission, 2013).

The applicant has conducted a comprehensive Aboriginal Heritage Survey for the proposed cable route. The study identified seven Aboriginal heritage Sites between Norseman and Esperance that will be managed in consultation with the traditional owners. No Aboriginal Heritage Sites will be disturbed (JHG, 2013).

The Shire of Esperance has requested that the applicant not dispose of any cleared vegetation by burning outside prohibited burning times, that they have a weed and dieback management plan in place and that they use local provenance species in any rehabilitation works (Shire of Esperance, 2013).

Brookfield Rail Pty Ltd's authority to access those sections of the railway corridor where that land is un-allocated Crown land is permitted under Section 183 of the Land Administration Act 1997; authorisation to undertake construction within the corridor is done by Enabling Acts - the Esperance Northwards Railway Act 1914 (1915/008) and ENR Extension Act 1922 (1922/035). Further, Section 4 of the Government Railway Act allows Brookfield Rail to exist on land without that tenure being legally formalised (i.e. vested as a railway reserve) (JHG, 2013).

**Methodology** References  
- Shire of Esperance (2013)  
- Submission (2013)  
- JHG (2013)

**4. References**

- 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.
- JHG (2013), John Holland Group, Supporting documentation for Clearing Permit application CPS 5669/1 (DER Ref: A662280, A673087, A656048, A673970 and A673969).
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Niche (2013), Niche Environmental Services, Assessment of the flora and vegetation at CER sites and proposed SMOF

communications route from Norseman to Esperance, Report prepared for John Holland, supporting documentation for Clearing Permit application CPS 5669/1 (DER Ref: A644497).  
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 Esperance (2013) Submission response to Clearing Permit application CPS 5669/1 (DER Ref: A664560)  
Submission (2013) Native Title claimant (DER Ref: A664765)

## 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)