



## 1. Application details

### 1.1. Permit application details

Permit application No.: 1756/1  
 Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: WestNet Rail Pty Ltd

### 1.3. Property details

Property: Within railway reserves vested in the West Australian Government Railways 1904 and leased under a 49 year lease agreement by WestNet Rail Pty Ltd for locations at Seabrook, Grass Valley, Bungulla, Booraan, Bodallin, Lake Julia, Koolyanobbing, Darrine and Wallaroo.

Local Government Area: Coolgardie, Merredin, Northam, Tammin, Yilgarn.

Colloquial name:

### 1.4. Application

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

## 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 Associations: 352 - Medium woodland; York gum 1049 - Medium woodland; wandoo, York gum, salmon gum, morel and gimlet 36 - Shrublands; thicket, acacia-casuarina alliance species 141 - Medium woodland; York gum, salmon gum and gimlet 8 - Medium woodland; salmon gum and gimlet 1068 - Medium woodland; salmon gum, morel, gimlet and <i>Eucalyptus sheathiana</i> 144 - Medium woodland; wandoo, salmon gum, morel, gimlet and rough fruited mallee 435 - Shrublands; <i>Acacia neurophylla</i> , <i>A. beauverdiana</i> and <i>A. resinomarginea</i> thicket	The proposal is for the clearing of up to one hectare of native vegetation to build extensions to existing passing loops within railway reserves in the Shires of Coolgardie, Merredin, Northam, Tammin and Yilgarn.  A Declared Rare Flora (DRF) and Priority Flora search of five of the nine sites under application was undertaken by Woodman Environmental Consulting in March 2007. The sites included in the Woodman Report were Seabrook, Bungulla, Booraan, Koolyanobbing and Bodallin. Photographs included in the report suggest that these sites are completely degraded with very little vegetation of any kind other than the occasional isolated shrub. Seabrook is the only site surveyed in the Woodman Report that appears to have a small stand of native trees within the area proposed to be cleared. Photos indicate that the Seabrook site is also completely degraded with no middle or under storey. The Woodman Report (2007) noted that all sites were very disturbed and dominated by paddock	Completely Degraded: No longer intact; completely/almost completely without native species (Keighery 1994)	Vegetation condition was deemed to be 'completely degraded' (Keighery, 1994) from photographs of Seabrook, Bungulla, Booraan, Koolyanobbing and Bodallin supplied by Woodman Environmental Consulting (2007), and from GIS databases Cadastre - DLI, and Railways - DLI 14/02/05. The GIS databases confirmed that the proposal sites are located within railway reserves. These reserves are likely to be highly disturbed and cleared as a result of previous activities associated with railway transport and infrastructure.

weeds and grasses.

The other application sites at Grass Valley, Lake Julia, Darrine and Wallaroo are all located within railway reserves and, as such, are likely to be completely degraded as a result of previous clearing activities associated with railway transport and related infrastructure.

### 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 at variance to this Principle**

The proposal is for the clearing of up to one hectare of native vegetation to build extensions to existing passing loops within railway reserves in the Shires of Coolgardie, Merredin, Northam, Tammin and Yilgarn to address an increase in interstate rail transport.

A Declared Rare Flora (DRF) and Priority Flora search of five of the nine sites under application was undertaken by Woodman Environmental Consulting in March 2007. The sites included in the Woodman Report were Seabrook, Bungulla, Booraan, Koolyanobbing and Bodallin. Photographs included in the report suggest that these sites are completely degraded (Keighery, 1994) with very little vegetation of any kind other than the occasional isolated shrub. Seabrook is the only site surveyed in the Woodman Report that appears to have a small stand of native trees within the proposal area. Photos indicate that the Seabrook site is also completely degraded (Keighery, 1994) with no middle or under storey. The Woodman Report (2007) noted that all sites were very disturbed and dominated by paddock weeds and grasses.

The other application sites at Grass Valley, Lake Julia, Darrine and Wallaroo are all located within railway reserves and, as such, are likely to be completely degraded (Keighery, 1994) as a result of previous clearing activities associated with railway transport and related infrastructure.

Given the highly disturbed and degraded nature of the areas under application, it is considered that the proposal sites do not comprise a high level of biodiversity.

**Methodology**      Woodman Environmental Consulting (2007)  
Keighery, 1994

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

The proposal is for the clearing of up to one hectare of native vegetation to build extensions to existing passing loops within railway reserves in the Shires of Coolgardie, Merredin, Northam, Tammin and Yilgarn. Photographs of application sites at Bungulla, Booraan, Koolyanobbing and Bodallin provided by Woodman Environmental Consulting (2007) indicate that these areas are completely degraded (Keighery, 1994) and devoid of native vegetation other than the occasional isolated shrub. Seabrook is the only site surveyed in the Woodman Report that appears to have a small stand of native trees within the area proposed to be cleared. Photos indicate that the Seabrook site is also completely degraded (Keighery, 1994) with no middle or under storey. The Woodman Report (2007) noted that all sites were very disturbed and dominated by paddock weeds and grasses.

The other application sites at Grass Valley, Lake Julia, Darrine and Wallaroo are all located within railway reserves and, as such, are likely to be completely degraded (Keighery, 1994) as a result of previous clearing activities associated with railway transport and related infrastructure.

Given the proposal is to clear up to 1 ha, in total, over 9 sites that are within railway transport corridors which are generally devoid of native vegetation, and are considered to be completely degraded, it is unlikely that the areas under application are necessary for the maintenance of fauna indigenous to Western Australia.

**Methodology**      Woodman Environmental Consulting (2007)  
Keighery, 1994  
GIS Database:  
- Fauna - SAC Bio datasets 100407

**(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**

1. Seabrook - four known DRF populations occur approximately 10kms south and south-west of the application area, one on the same Beard Vegetation Association as the proposed clearing.
2. Grass Valley - one known Priority 1 and one known Priority 4 flora occur within 10kms of the application area on different vegetation types to that of the proposed clearing.
3. Bungulla - two known Priority 2 flora occur within 10km of the application site on the same vegetation type as the proposed clearing
4. Booraan - one known Priority 1 flora occurs within 10kms of the application area on a different vegetation type to that of the proposed clearing.
5. Bodallin - no known DRF or Priority flora within a 10km radius of the application site.
6. Lake Julia - no known DRF or Priority flora within a 10km radius of the application site.
7. Koolyanobbing - one known DRF occurs 10.6kms south-east of the proposed clearing on the same vegetation type as the application area.
8. Darrine - one Priority 2 flora occurs within 10 km of the application area on a different vegetation type to that of the proposed clearing.
9. Wallaroo - no known DRF or Priority flora within a 10km radius of the application site.

The Declared Rare Flora (DRF) and Priority Flora search undertaken by Woodman Environmental Consulting (2007) found no evidence of DRF or Priority Flora within the application areas at Seabrook, Bungulla, Booraan, Koolyanobbing or Bodallin, and noted that these sites were very disturbed and dominated by paddock weeds and grasses.

The areas under application appear to be completely degraded (Keighery, 1994) with little or no vegetation. It is unlikely that these areas contain any rare flora.

**Methodology** Woodman Environmental Consulting (2007)  
Keighery, 1994  
GIS Database:  
- Declared Rare and Priority Flora List - CALM 01/07/05

**(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 known threatened ecological communities within a twenty kilometre radius of the areas under application. There is no evidence to suggest that any EPBC Act listed TECs or State listed TECs are present on the site of the proposed clearing. The proposal is not likely to be at variance to this Principle.

**Methodology** GIS Database:  
- Threatened Ecological communities - CALM 12/04/05  
- Threatened Plant Communities - DEP 06/95

**(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 may be at variance to this Principle			Conservation Status**	% in Secure Tenure
	Pre-European (ha)*	Current Extent Remaining (ha)*	(%)*		
<b>IBRA Bioregions:</b>					
Avon Wheatbelt	9,578,995	1,536,296	16.0	Vulnerable	
Coolgardie	12,917,718	12,719,084	98.5	Least concern	
<b>Shires:</b>					
<b>Coolgardie</b>					
Merredin	326,610	38,551	11.8	Vulnerable	
Northam	141,410	31,229	22.1	Vulnerable	
Tammin	110,090	6,067	5.5	Endangered	
Yilgarn	727,272	171,915	23.6	Vulnerable	
<b>Beard Units:</b>					
352	874,652	133,255	15.2	Vulnerable	3.0
1049	759,623	23,779	3.1	Endangered	12.0
36	429,445	177,262	41.3	Depleted	10.8
141	676,791	250,256	37.0	Depleted	5.8
8	1,238,672	675,472	54.5	Least concern	16.7
1068	293,053	137,171	46.8	Depleted	7.9
144	535,130	465,663	87.0	Least concern	5.7
435	1,376,961	969,376	70.4	Least concern	8.8

\* (Shepherd et al. 2001)

\*\* (Department of Natural Resources and Environment 2002)

\*\*\* Within the Intensive Landuse Zone

The areas under application are located in the Avon Wheatbelt and Coolgardie Bioregions. The extent of pre-European vegetation within these areas is 16.0% and 98.5% respectively (Shepherd et al., 2001).

The proposal sites fall within the Shires of Coolgardie, Merredin, Northam, Tammin and Yilgarn, of which there is 11.8%, 22.1%, 5.5% and 23.6% respectively remaining of pre-European vegetation (Shepherd et al., 2001). These figures are below the National Objectives Targets for Biodiversity Conservation, which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-1750 (Department of Natural Resources and Environment, 2002; EPA 2000). Beyond this value, species extinction is believed to occur at an exponential rate and any further clearing may have irreversible consequences for the conservation of biodiversity.

The Beard Vegetation Associations of the areas under application range between 3.1% and 87.0% of remaining pre-European vegetation (Hopkins et al., 2001). Of these, one has a conservation status of 'endangered' (<10%); one has a conservation status of 'vulnerable' (10 - 30%); three have a conservation status of 'depleted' (>30% and <50%); and three have a conservation status of 'least concern' (>50%) (Department of Natural Resources and Environment, 2002).

All application sites except Koolyanobbing, Darrine and Wallaroo fall within the agricultural zone of EPA Position Paper No. 2. The EPA does not support the further reduction in native vegetation through clearing for agriculture and supports active management by landholders to maintain environmental values of remaining vegetation.

Given the low levels of remnant vegetation within the Avon Wheatbelt Bioregion; within the Shires of Merredin, Northam, Tammin and Yilgarn; and Beard Vegetation Associations 352 and 1049; the proposal may be at variance to this Principle.

To mitigate any potential impacts on the clearing of remnant vegetation, the proposed clearing will be carried out in accordance with a condition imposed on the permit requiring that clearing of vegetation be avoided, and where this is not possible, minimised. In addition, to address the loss of vegetation within a highly cleared landscape, a condition has been imposed to offset the values of the area to be cleared.

**Methodology** Keighery, 1994  
 EPA (2000)  
 Shepherd et al (2001)  
 Hopkins et al., 2001  
 Department of Natural Resources and Environment (2002)  
 GIS Database:

- Pre-European Vegetation - DA 10/01
- Interim Biogeographic Regionalisation of Australia - EA 18/10/00
- EPA Position Paper No. 2 Agriculture Region - DEP 12/00

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

Minor perennial watercourses intersect three of the proposal sites at Seabrook, Booraan and Bodallin. Photographs of these three sites supplied by Woodman Environmental Consulting (2007) indicate that there is no vegetation within the application area at Bodallin, only several isolated shrubs within the Booraan site, and a small degraded stand of trees within the Seabrook site. The minor perennial watercourse at Bodallin also corresponds to an area classified as an Environmentally Sensitive Area (ESA), however photographs supplied by Woodman Environmental Consulting (2007) have established that this site is devoid of native vegetation.

Given that the application areas are within railway reserves that have undergone previous disturbance, it is likely that measures have already been implemented to address any issues associated with watercourses.

The proposal is unlikely to be at variance to this principle.

**Methodology** Woodman Environmental Consulting (2007)  
GIS Database:  
- Hydrography, Linear - DOE 1/2/04  
- Rivers 250K - GA

**(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 sites lie within railway reserves that appear to have been previously cleared for railway transport and associated infrastructure. Other than the site at Seabrook, the proposal sites are generally devoid of native vegetation, and are considered to be completely degraded (Keighery, 1994). The proposal area at Seabrook comprises a small stand of trees, with no middle or under storey, and is also considered to be degraded (Woodman Environmental Consulting, 2007).

Given the small size of the area under application and the degraded condition of the proposal sites, the proposed clearing of native vegetation is unlikely to cause appreciable land degradation.

**Methodology** Keighery, 1994  
Woodman Environmental Consulting (2007)  
GIS Database:  
- Cadastre - DLI  
- Railways - DLI 14/02/05

**(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 is not at variance to this Principle**

The areas proposed to be cleared do not lie within or adjacent to areas set aside for conservation. Given that the application sites are completely degraded and generally devoid of any vegetation, the proposal sites are highly unlikely to function as ecological linkages to nearby conservation areas.

The proposal is not at variance with this principle.

**Methodology** GIS Database:  
- CALM Managed Lands and Waters - CALM 1/07/05

**(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 sites lie within the Swan Avon\_Mortlock Catchment and the Swan Avon\_Yilgarn Catchment. These regions have an annual rainfall ranging from 300 - 500mm. Groundwater salinity varies from 14,000mg/L to >35,000mg/L TDS (total dissolved solids).

Due to the small area proposed to be cleared, it is unlikely that the clearing of native vegetation will cause deterioration in the quality of surface water or groundwater within the local area.

**Methodology** GIS Database:

- Hydrographic Catchments - Catchments - DOE 23/03/05
- Rainfall, Mean Annual - BOM 30/09/01
- Groundwater Salinity, Statewide - 22/02/00

**(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**  
 Due to the scale and nature of the proposed clearing, it is unlikely to cause or exacerbate flooding within the local area.

**Methodology**    GIS Database:  
 - Topographic Contours, Statewide - DOLA 12/09/02

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

**Comments**  
 No submissions from the public have been received.

The proposal is for the clearing of up to one hectare of native vegetation to build extensions to existing passing loops within railway reserves in the Shires of Coolgardie, Merredin, Northam, Tammin and Yilgarn. The area under application comprises nine sites within Railway Reserves vested in the West Australian Government Railways. Westnet Rail has a Corridor Lease Agreement over this land, which gives Westnet Rail legal ownership of the land and infrastructure over a 49 year period. Westnet Rail has given permission for John Holland Rail Division (Westnet Rail's service contractor) to submit an application for a Clearing Permit for Eastern Goldfields Railway Loop Extensions.

There is no RIWI Act Licence or Works approval required for the proposed works.

The Woodman Report (2007) recorded the presence of *Echium plantagineum*, a declared weed, at the Seabrook and Bungulla sites within the districts of Northam and Tammin. This species "is classified as Priority 1" and "the movement of plants and their seeds is prohibited throughout the state" (cited from Woodman, 2007). Woodman Environmental Consulting has advised that this has implications for the movement of machinery contaminated with seeds of *Echium plantagineum*, and recommend that the Department of Agriculture and Food (DAFWA) be consulted to develop hygiene protocols before the commencement of any machinery works.

There is a Native Title Claim over the area under application. The Department of Environment and Conservation's advertising of the application in the West Australian Newspaper constitutes legal notification of the Native Title representative body for the purpose of the future act procedures under the Native Title Act 1993. No response was received from the representative body.

**Methodology**    Woodman Environmental Consulting (2007)  
 GIS Database:  
 - Native Title Claims - DLI 07/11/05

**4. Assessor's comments**

Purpose	Method	Applied area (ha)/ trees	Comment
Infrastructure Maintenance	Mechanical Removal	1	<p>The assessable criteria have been addressed, and the proposal is not at variance to Principles (a) and (h); is not likely to be at variance to Principles (b), (c), (d), (f), (g), (i) and (j); and may be at variance to Principle (e).</p> <p>Principle (e): Remnant vegetation within the Avon Wheatbelt Bioregion; within the Shires of Merredin, Northam, Tammin and Yilgarn; and within Beard Vegetation Associations 352 and 1049; are poorly represented. The figures quoted in the assessment are below the National Objectives Targets for Biodiversity Conservation, which includes a target that prevents clearance of ecological communities with an extent below 30% of that present pre-1750 (Department of Natural Resources and Environment, 2002; EPA 2000).</p> <p>To address the loss of vegetation within a highly cleared landscape, the permit includes management conditions aimed at avoiding and minimising the clearing of native vegetation, and offset conditions to ameliorate any loss of biodiversity as a result of the proposed clearing.</p>

**5. References**

Department of Natural Resources and Environment (2002) Biodiversity Action Planning. Action planning for native biodiversity at multiple scales; catchment bioregional, landscape, local. Department of Natural Resources and Environment, Victoria.

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.

- Hopkins, A.J.M., Beeston, G.R. and Harvey J.M. (2001) A database on the vegetation of Western Australia. Stage 1. CALMScience after J. S. Beard, late 1960's to early 1980's Vegetation Survey of Western Australia, UWA Press.
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia.
- Woodman Environmental Consulting (March, 2007). Declared Rare Flora (DRF) and Priority Flora search for the Eastern Goldfields Railway Loop Extensions project. TRIM ref: DOC17701

## 6. 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)