



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 3433/1
Permit Holder:	Western Australian Land Authority t/a LandCorp
Duration of Permit:	7 February 2010 – 7 February 2016

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 extraction of construction materials for the expansion of the Ord River Irrigation Area.
- 2. Land on which clearing is to be done**
Lot 396 on Plan 58305, Kununurra
- 3. Area of Clearing**
The Permit Holder must not clear more than 70 hectares of native vegetation within the area hatched yellow on attached Plan 3433/1.
- 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 – Staged Clearing**
The Permit Holder shall not clear native vegetation unless actively extracting the construction materials within one month of the clearing being undertaken.
- 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. Vegetation management

The Permit Holder shall not clear native vegetation within 30 metres of the *riparian vegetation* of any *watercourse* or *wetland* within and/or adjacent to the area cross-hatched yellow on Plan 3433/1.

9. Weed control

When undertaking any clearing or other activity authorised under this Permit, the Permit Holder must take the following steps to minimise the risk of the introduction and spread of *weeds*:

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

10. Retain vegetative material and topsoil, ripping, revegetation and rehabilitation

(a) The Permit Holder shall retain the vegetative material and topsoil removed by clearing authorised under this Permit and stockpile the vegetative material and topsoil in an area that is already cleared.

(b) Prior to undertaking works pursuant to conditions 10(c), the Permit Holder shall rip the pit floor and contour batters within the extraction site.

(c) Within six months following completion of extraction operations the Permit Holder must *revegetate* and *rehabilitate* areas no longer required by deliberately laying vegetative material and topsoil that has been retained under condition 10(a) of this permit

(d) Within 24 months of undertaking *revegetation* and *rehabilitation* in accordance with condition 10(c) of this Permit, the Permit Holder must:

- (i) determine the species composition, structure and density of the area *revegetated* and *rehabilitated*; and
- (ii) where, in the opinion of an *environmental specialist*, the composition structure and density determined under condition 10(d)(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, the Permit Holder must undertake *planting* or *direct seeding* of native vegetation using only *local provenance* seeds and propagating material.

PART III - RECORD KEEPING AND REPORTING

11. Records must be kept

(a) The Permit Holder must maintain the following records for activities done pursuant to this Permit in relation to the clearing of native vegetation authorised under this Permit:

- (i) the species composition, structure and density of the cleared area;
- (ii) the location where the clearing occurred, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
- (iii) the date that the area was cleared; and
- (iv) the size of the area cleared (in hectares).

(b) In relation to the revegetation and rehabilitation of areas pursuant to condition 10 of this Permit:

- (i) the location of any areas *revegetated* and *rehabilitated*, recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings;
- (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*.

12. 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 11 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 7 November 2015, the Permit Holder must provide to the CEO a written report of records required under condition 11 of this Permit where these records have not already been provided under condition 12(a) of this Permit.

Definitions

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

direct seeding means a method of re-establishing vegetation through the establishment of a seed bed and the introduction of seeds of the desired plant species;

environmental specialist means a person who is engaged by the Permit Holder for the purpose of providing environmental advice, who holds a tertiary qualification in environmental science or equivalent, and has experience relevant to the type of environmental advice that an environmental specialist is required to provide under this Permit;

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

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

mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation;

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

regenerate/ed/ion means *revegetation* that can be established from in situ seed banks contained either within the topsoil or seed-bearing *mulch*;

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

revegetate/ed/ion means the re-establishment of a cover of *local provenance* native vegetation in an area using methods such as *regeneration*, *direct seeding* and/or *planting*, so that the species composition, structure and density is similar to pre-clearing vegetation types in that area;

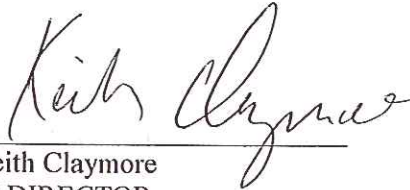
riparian vegetation has the meaning given to it in Regulation 3 of the Environmental Protection (Clearing of Native Vegetation) Regulations 2004;

term means the duration of this Permit, including as amended or renewed;

watercourse has the meaning given to it in section 3 of the *Rights in Water and Irrigation Act 1914*;

weed/s, for the purpose of this permit, 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*, excluding those species permitted for planting under a Pastoral Diversification Permit, issued by the Department of Planning and Infrastructure.

wetland/s means an area of seasonally, intermittently or permanently waterlogged or inundated land, whether natural or otherwise, and includes a lake, swamp, marsh, spring, dampland, tidal flat or estuary.



Keith Claymore
A/ DIRECTOR
NATURE CONSERVATION DIVISION

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

7 January 2010



1. Application details

1.1. Permit application details

Permit application No.: 3433/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: West Australian Land Authority t/a LandCorp

1.3. Property details

Property: LOT 396 ON PLAN 58305 (KUNUNURRA 6743)
Local Government Area:
Colloquial name:

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
70		Mechanical Removal	Miscellaneous

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 59: Grasslands, high grass savanna sparse tree; bauhinia & coolabah over mitchell, blue & tall upland grasses	The proposal is to clear 70 ha within a 94 ha area for the purpose of extracting construction material for construction works associated with the East Kimberley Expansion project. The vegetation condition ranges from degraded to excellent (Keighery, 1994) condition.	Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994)	The vegetation condition was determined from vegetation survey reports (GHD 2008).
52: Grasslands, high grass savanna woodland; bloodwood & stringybark over upland tall grass & curly spinifex (Shepherd 2007)	The majority of the area under application consists of: Rocky Hill Including sandstone and rocky outcrops: Low open woodland of Eucalyptus/Corymbia species over mixed shrubs dominated by pea species particularly Tephrosia and Crotalaria over scattered herbs including Euphorbia, Goodenia and Ptilotus species over mixed sedges and hummock grasses in a Pristine condition; and Floodplains: higher ground vegetation of natural swamps. Vachellii farnesiana, Calotropis procera, Mixed pea species, mixed Convolvulaceae species over herbs and grasses in a Pristine to very good condition. Other areas are made up of: Rocky Footslopes with Rocky foothills and rocky plains occurring to the west with Low Open Woodland of Eucalyptus/Corymbia species over mixed shrubs dominated by pea species (Tephrosia and Crotalaria) over scattered herbs including Portulaca, Euphorbia, Goodenia and Ptilotus species, over mixed sedges dominated nu Fimbristylis and hummock grasses in very good condition. Drainage lines occurring in the southeast corner of the area and containing: mixed species including Owenia verrucosa, Acacia lycopodiifolia, and Cochlospermum fraseri over		

mixed herbs including *Ptilotus*, *Crotalaria* over grasses; and

Small area that is disturbed and is dominated by weed species particularly grasses in a degraded to completely degraded condition occurring within the central area of the area under application.

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 may be at variance to this Principle**

The vegetation under application consists of four different vegetation units and landforms (GHD 2008) ranging in condition from degraded to excellent (Keighery, 1994).

It is considered likely for the applied area to contain *Brachychiton tuberculatus* (P3). This species is widely found in most areas during the GHD survey of suitable extraction areas (GHD 2008) except in swamp areas and hills and is predominantly found on sandplains (GHD 2008). This species is not uncommon but is considered to be under threat from altered fire regimes. It is not considered for the proposed clearing to have a significant impact on the conservation status of this species (DEC 2009a).

It is considered likely for the flora species, *Ficus lilliputiana* (P4) to occur within the applied area but would be restricted to sandstone bare rock faces of escarpments (DEC 2009a). It is considered that the north portion of the applied area may provide this habitat for this species (DEC 2009a). This species is locally common however it has a very restricted habitat type and range. This species is only known from 5 records restricted to Hidden Valley about 3 km E of Kununurra (DEC 2009).

There are three habitat types within the applied area including rocky drainage lines, rocky hills and slopes and floodplain habitat (GHD 2008). A high diversity of birds and reptiles has been recorded in fauna surveys of the site as well as numerous mammals and it is expected for the rocky hill habitat to provide shelter for reptiles and small mammals (GHD 2008). However, the area under application has habitat that is similar to surrounding vegetation and does not contain vegetation or habitat zones that are not present within the surrounding areas. Additionally, there is close to 100% native vegetation remaining in the local area and it is not considered for the vegetation to provide a significant fauna corridor or habitat linkage.

Given that the area under application may provide habitat for priority flora species of conservation significance, the proposed clearing may be at variance to this Principle.

Methodology **References**
-DEC (2009)
- DEC (2009a)
-GHD (2008)
- Keighery (1994)
GIS Databases
-Set Bio Datasets (3/12/2009)

(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**

Six fauna species of conservation significance have been recorded in the local area (20 km radius) including; Orange leaf-nosed Bat (*Phinonictes aurantius*), Ghost Bat (*Macroderma gigas*), Flock Bronzewing (*Phaps histrionica*), Burdekin Duck (*Tadorna radjah rufitergum*), Partridge Pigeon (*Geophaps smithii smithii*) and the Water rat (*Hydromys chrysogaster*).

There are three habitat types within the applied area including rocky drainage lines, rocky hills and slopes and floodplain habitat (GHD 2008). A high diversity of birds and reptiles has been recorded in fauna surveys of the site as well as numerous mammals including the Northern Brushtail possum, Northern Nailtail Wallaby and the Agile Wallaby and it is expected for the rocky hill habitat to provide shelter for reptiles and small mammals (GHD 2008).

In addition, the creeklines vegetation is described as containing the highest diversity of plant species available for refuge or forage resources for fauna species in the local area (GHD 2008). Approximately 7 ha of this habitat type occurs within the applied area. Drainage line and riparian vegetation provides corridors for fauna species along the waterways and the Shire of Wyndham east Kimberley recommend that a 30 m buffer is maintained around drainage lines (Shire of Wyndham East Kimberley 2009).

It is considered likely for the applied area to contain habitat for the conservation significant Northern Shrike-tit, the endangered Gouldian Finch, the Purple-crowned Fairy wren and the Bush Stone-curler (GHD 2008).

However, the area under application has habitat that is similar to surrounding vegetation and does not contain vegetation or habitat zones that are not present within the surrounding areas. Additionally, there is close to 100% native vegetation remaining in the local area and it is not considered for the vegetation to provide a significant fauna corridor or habitat linkage, therefore the applied area may provide significant habitat for local fauna species. Fauna management, staged clearing and rehabilitation conditions will be placed on the permit to mitigate this impact.

Methodology **References**
- GHD (2008)
- Shire of Wyndham East Kimberley (2009)
GIS Databases
-Set Bio Datasets (3/12/2009)

(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**
No rare flora species have been recorded in the local area (20km radius). The closest recording of a rare flora species is of Eucalyptus ceracea recorded 180 km northwest of the applied area.

This species occurs on skeletal sandy soils on sandstone ridges and scree slopes and is known from one location 100 km north of Kununura (Brown et al, 1998). The applied area contains grey clays on the nearly flat plains with small areas of brown clays and various undescribed loamy and clayey soils occur in gully systems (Northcote et al 1960-68). In addition, this species occurs on different soil and vegetation types as the applied area.

A flora survey of the applied area was undertaken in March 2008 (GHD 2008) and did not recorded any rare flora species occurring within the applied area.

Therefore, it is not considered likely for the proposed clearing to be at variance to this Principle.

Methodology **References**
- GHD (2008)
GIS Databases
- Set Bio Datasets (3/12/2009)

(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**
No Threaten Ecological Community (TEC) has been recorded in the local area (20km radius).

A flora survey of the applied area was undertaken in March 2008 (GHD 2008) and did not record any TEC within the applied area.

Therefore, it is not considered likely for the proposed clearing to be at variance to this Principle.

Methodology **References**
- GHD (2008)
GIS Databases
- Set Bio Datasets (3/12/2009)

(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 described as Beard vegetation association 52 and 59 of which there is 99.98% and 88.35%, of pre-European extent remaining respectively (Shepherd 2007).

The area under application is located within the Shire of Wyndham East Kimberley, of which there is 98.86% of pre-European vegetation extent remaining. In addition, there is approximately 62% of pre-European vegetation remaining in the local area (~10km radius).

The Beard and Mattiske vegetation association of the vegetation under application retains more than the EPA supported threshold level (30%) recommended in the National Objectives Targets for Biodiversity Conservation within the Victoria Bonaparte bioregion; below which species loss appears to accelerate exponentially at an ecosystem level (EPA, 2000).

In addition, the area under application is not a significant remnant in the local area due to its position and the edge of a very large remnant of native vegetation and connectivity to surrounding bushland. Therefore, the proposal is not considered likely to be at variance to this Principle.

	Pre-European (ha)	Current extent (ha)	Remaining %
IBRA Bioregion			
Victoria Bonaparte	1871372.37	1848351.97	98.77*
Shire of Wyndham	11191430.4	11074546.5	98.96*
Local Area (~10km radius)	31,400	11945	62
Beard type in Bioregion*			
52	194527	194489	99.98
59	138823	122647	88.35
916	82331	82331	100

* (Shepherd 2007)

Methodology References
 - Shepherd (2007)
 - EPA (2000)
 GIS Databases
 -Kununurra 50cm Orthomosaic - Landgate 2005
 -Interim Biogeographic Regionalisation of Australia
 - SAC Bio Databases (3/12/09)

(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 majority of the eastern corner of the applied area is floodplain and the vegetation in this area occurs in good (Keighery 1994) condition. Little remains of natural floodplain vegetation in the area which contains similar vegetation to high ground vegetation of natural swamps (GHD 2008). In addition, the area under application includes a rocky drainage line in an overall Good (Keighery 1994) condition (GHD 2008). It is considered for the drainage line to be ephemeral and not connected to any surface water bodies (Stratagen 2009).

It is recommended by the Shire of Wyndham East Kimberley that a 30m buffer surrounds the watercourses (drainage areas) within the applied area. Landcorp has agreed to exclude the watercourses from the proposed clearing.

As the area under application includes a floodplain and watercourses, it is considered likely for the proposed clearing to be at variance to this Principle. A condition will be placed on the permit to exclude the watercourses if granted.

Methodology References
 -Keighery (1994)
 -CALM (1999)
 -GHD (2008)
 Gis Databases
 -Hydrography, linear

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

Comments Proposal may be at variance to this Principle

The majority of the area under application contains soils identified as grey clays on nearly flat plains and various loamy clay soils as well as pale sands and rocky area within the Rocky hills and slopes (Northcote et al, 1960-68, GHD 2008).

The proposed clearing has a risk of wind and water erosion due to the sandy nature of the soils and the topography of the area.

Without appropriate ground cover, windbreaks or adequate dust suppression on exposed surfaces the proposal may cause appreciable land degradation.

The proposal therefore may be at variance to this Principle. Staged clearing and rehabilitation conditions will be placed on the permit.

Methodology **References**
-GHD (2008)
- Northcote et al (1960-68)
Gis Databases
-Soils, Statewide
-Topography, 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 closest conservation area to the proposed clearing area occurs 15.8 km south and is the Mirima National Park. The area under application also occurs 50 m south of indigenous freehold lands that are vested with the conservation commission for the purpose of joint management (DEC 2009) and is connected to this conservation area through continuous vegetation.

The area under application is zoned Conservation /Environmental protection however has been received for the purpose of 'Raw Material Area'.

In addition, the applied area was proposed as a park of a conservation park within Discussion Document on the 'Proposed Conservation Areas Associated with Ord Stage Two Development - Kununurra WA' (CALM 1999).

Given the distance to the closest conservation area (50 m) the proposed clearing may impact on the environment values of the conservation reserve through the introduction of weeds. Therefore, the proposed clearing may be at variance to this Principle. A weed management condition will be placed on the permit to mitigate this impact.

Methodology **References**
-DEC (2009)
-CALM (1999)
GIS Databases
-DEC Managed lands
-Town Planning Scheme Zones

(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 majority of the eastern corner of the applied area is floodplain and the vegetation in this area occurs in good (Keighery 1994) condition. In addition, the area under application includes a rocky drainage line in an overall Good (Keighery 1994) condition (GHD 2008). It is considered for the drainage line to be ephemeral and not connected to any surface water bodies (Strategen 2009).

The area under application is surrounded by cultivated land on the west, south and eastern sides. Given this, the proposed clearing of additional 70 ha of native vegetation is not considered likely to cause degradation to groundwater quality.

Clearing within drainage lines may cause sedimentation of the drainage line and further up stream of the proposed clearing. It is recommended that clearing does not take place during the wet season to avoid sedimentation of the surface water of the drainage line. However, Landcorp has committed to excluding the drainage line from the proposed clearing and therefore, it is not considered likely for the proposed clearing to be at variance to this Principle.

Methodology **References**
-Keighery (1994)
-GHD (2008)
-Strategen (2009)
GIS Databases
- Hydrography, linear
-Kununurra 50cm Orthomosaic - Landgate 2005

(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 at variance to this Principle**

The majority of the eastern corner of the applied area is floodplain and the vegetation in this area occurs in Good (Keighery 1994) condition. In addition, the area under application includes a rocky drainage line in an overall Good (Keighery 1994) condition (GHD 2008). It is considered for the drainage line to be ephemeral and not connected to any surface water bodies (Strategen 2009).

Given that a portion of the proposed clearing (70ha) will occur within the floodplain, it may be considered likely for the proposed clearing to increase the occurrence of flooding during high rainfall events due to increase runoff.

Landcorp has committed to not clearing within the drainage area within the area under application. However, clearing in close proximity to this drainage line may also increase the occurrence of flooding during high rainfall events.

Given the above, it is considered likely for the proposed clearing to cause or exacerbate flooding.

Methodology **References**
-Keighery (1994)
-GHD (2008)
-Strategen (2009)
GIS Databases
-Hydrography, linear

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

Comments

The proposal is to clear 70 ha within a 94 ha area for the purpose of extracting construction material for construction works associated with the East Kimberley Expansion project. This is a part of the Ord River Irrigation Area Stage 2 (Supply Channel) project.

The area under application has not been assessed by the EPA and was not referred.

A bed and banks permit is not required however the area under application occurs within a RIWI Groundwater area and a Groundwater extraction Licence may be required.

The 'Ord Final Agreement', which the applied area, was signed in October 2005 in Kununurra by a number of key stakeholders including the Department of Environment, other State Government agencies and the Miriuwung Gajerrong Traditional Owners. This final agreement extinguishes Native Title over the area proposed for clearing. However direct interest letters were sent to the Miriuwung Gajerrong Traditional Owners.

The area under application is zoned Conservation /Environmental protection however has been received for the purpose of Raw Material Area.

The Shire of Wyndham East Kimberley (2009) stated that they no extractive industry licence is required as the applicant is a government agency and the resource is being used for public works. In addition the Shire stated that they have no objection to the proposed clearing however requests for a 30 m buffer area to be maintained around drainage lines, clearing should be done in stages and that the Shire requests the opportunity to salvage native vegetation seedlings prior to clearing.

Permission from Department of Planning and Infrastructure (DPI), exercising the delegated authority of the Minister for Lands, has no objections for Main Roads WA and its representative agencies to occupy the applied area to carry out disturbance to vegetation and material extraction for the Ord East Kimberley Expansion project (Strategen 2009a).

A direct interest submission has been received and comments have been incorporated into relevant Principles.

Methodology **References**
-Shire of Wyndham East Kimberley (2009)
-Strategen (2009a)

4. Assessor's comments

Comment

The application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the Environmental Protection Act 1986, and the proposed clearing is at variance to the clearing Principles (f) and (j) and may be at variance to Principle (a), (b), (h) and (g).

5. References

CALM (1999) Cordon Graham and Kathryn White (Eds), Discussion Document on the "Proposed Conservation Areas Associated with Ord Stage Two Development - Kununurra WA". Department of Conservation and Land Management Kimberley Region.

DEC (2009) Regional Advice on CPS 3432/1 - LandCorp - Lot 353, 355 Kununurra. Kimberley Region, Department of Environment and Conservation. TRIM Ref DOC112872

DEC (2009a) Advice on Priority Flora within CPS 3433/1 - LanCorp, from Species and Communities Branch and Native Vegetation Conservation Branch, Department of Environment and Conservation. TRIM Ref DOC112947 and DOC112946.

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.

GHD (2008) Main Roads Western Australia Kununurra Heavy Vehicle Route - Flora and Fauna Survey. TRIM ref DOC105633

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

Northcote, K. H. with Beckmann G G, Bettenay E., Churchward H. M., van Dijk D. C., Dimmock G. M., Hubble G. D., Isbell R. F., McArthur W. M., Murtha G. G., Nicolls K. D., Paton T. R., Thompson C. H., Webb A. A. and Wright M. J. (1960-68): 'Atlas of Australian Soils, Sheets 1 to 10, with explanatory data'. CSIRO and Melbourne University Press: Melbourne.

Shepherd, D.P. (2007). 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. Includes subsequent updates for 2006 from Vegetation Extent dataset ANZWA1050000124.

Shire of Wyndham East Kimberley (2009) Direct Interest Submission for CPS 3432/1. TRIM ref DOC112651

Stratagen (2009a) Email regarding access to Lot 353 and 355 Kununurra for CPS 3432/1. TRIM Ref DOC13686

Stratagen (2009) Ord River Irrigation Area - Weaber Plain Development Project. Clearing Permit Application: Area 9 Draft. Prepared for LandCorp by Stratagen. TRIM Ref DOC105633

Western Australian Herbarium (1998?). FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 21/12/2009).

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 (now DEC)
DMP	Department of Mines and Petroleum (ex DoIR)
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)

