



1. Application details

1.1. Permit application details

Permit application No.: 1985/1
 Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: Woodside Energy Ltd

1.3. Property details

Property: LOT 300 ON PLAN 46449 (GAP RIDGE 6714)
 LOT 300 ON PLAN 46450 (BAYNTON 6714)
 ROAD RESERVE (GAP RIDGE 6714)
 LOT 302 ON PLAN 46450 (GAP RIDGE 6714)
 LOT 301 ON PLAN 46450 (BAYNTON 6714)

Local Government Area: Shire Of Roebourne
 Colloquial name: Power Easement

1.4. Application

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

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
HHg1 - Hummock grassland (30-70%) of <i>Triodia wiseana</i> with scattered (<2%) <i>Acacia bivenosa</i> <i>Senna pruinosa</i> .	(HHg1) Hummock grassland of <i>Triodia wiseana</i> with scattered shrubs on stony hill rises with no obvious disturbance, no fire and no weeds.	Pristine: No obvious signs of disturbance (Keighery 1994)	Information on vegetation condition has been referenced from Vegetation and Flora Survey conducted by Astron Environmental (June 2007). HHg1 - Vegetation found on gentle hill rise (800m from Madigan Road) with red-brown silts and stony mantle with no disturbance evident.
PSh2 - Open (2-1%) to tall shrubland (10-30% >2m) of <i>Acacia inaequalatera</i> over open (2-10%) to shrubland (10-30% 1-2m) of <i>Acacia bivenosa</i> and sometimes over hummock grassland of <i>Triodia wiseana</i> .	(PSh2) Low shrubland and hummock grassland on this stony plain is in excellent condition, no tracks, no weeds.		PSh2 - Vegetation found on flat stony plain with red-brown colluvial silts and dense stony mantle with occasional areas of scald on the eastern side of Madigan Road. No disturbance evident.
PSm2 - Open tall shrubland(2-10% >2m) of <i>Acacia inaequalatera</i> over open shrubland (2-10% >2m) of <i>Acacia pyrifolia</i> and <i>Acacia bivenosa</i> over mosaic of mixed hummock and tussock grassland of <i>Triodia wiseana</i> , <i>T. epactia</i> (on silts) and <i>Eragrostis xerophila</i> , <i>E. benthamii</i> with patches of <i>Cenchrus ciliaris</i> (on silty loams).	PSm2 - Hummock grassland in good condition: tussock grasslands have patchy buffel grass (<20%): annual grasses on scalds senesced. shrubs good. PSh1 - in very good condition west side of Madigan Road (poor condition east side, see below). Buffel grass only along the edge of Madigan Road which intercepts this association.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	PSm2 - Vegetation occurs on the north-western and western portions of the alignment on a flat plain with mosaic of red-brown silts with scattered to moderate stones and silty clays. There is some invasion of buffel grass from powerline and nearby 7 Mile Creek. PSh1 - Vegetation is located at the southern end of the alignment extending both east and west of Madigan Road. Vegetation occurs on plain with red-brown colluvial silts with scattered small stones to stony mantle with areas of stony scald. The first 300 m on the eastern side of Madigan Road is disturbed by several tracks and an area of shallow scrape.
PSh1 - Low shrubland (10-30% 1-2m) of <i>Acacia bivenosa</i> over hummock grassland of <i>Triodia wiseana</i> / <i>T. epactia</i> . There are scattered tall <i>Acacia inaequalatera</i> over annual hermland of <i>Trichodesma zeylancium</i> .	PSt1 - Tussock grassland in good condition. there are many naturally occurring scalds on this area as well as some man made scrapes obvious.		PSt1 - Vegetation located on a flat plain in the Western portion of the alignment with red-brown silts and sparse to moderate small stones. Small areas of weakly gilgaied clays and small stony scalds. The powerline alignment intercepts an area of previous shallow scrape, however, natural scalds also occur and buffel grass occurs in patches.
PSt1 - Open tussock	HHg2 - Hummock grassland on hill ridge is in		HHg2 - Vegetation is located on low ridge towards the eastern end of the alignment, 206 m west of the powerline, with small rocky crests. Rocky stones and skeletal red-brown silts. Some excavation of rock has

<p>grassland (10-30%) of <i>Erichne benthamii</i>, <i>Eragrostis xerophila</i>, patchy <i>Cenchrus ciliaris</i> with annual grassland (<i>Aristida contorta</i>) on stony scalds. Open shrubland (2-10% 1-2m) (sometimes scattered) of <i>Acacia pyrifolia</i>, <i>A. bivenosa</i> over scattered tall (<2%) <i>Ehretia saligna</i>, <i>Acacia inaequilatera</i>.</p>	<p>good condition. A single fire event has occurred (5 yrs) but vegetation is recovering well.</p>		<p>occurred at the rocky knoll on the edge of the drainage line. the area has been burnt within the past 5-8 years.</p>
<p>HHg2 - Tall annual herbland of <i>Sida sp</i>(sterile) over open hummock grassland (10-30%) <i>Triodia wiseana</i> with scattered to very open (<2% - 5% 1-2m) shrubland of <i>Acacia inaequilatera</i>, <i>A. bivenosa</i>.</p>			
<p>PSm1 - Shrubland (10-30% 1-2 m) of <i>Acacia xiphophylla</i> over mixed tussock and hummock grassland of <i>Eragrostis xerophila</i>, and <i>Triodia wiseana</i>.</p>	<p>PSm1 - Vegetation of fair condition includes the existing powerline area. Vegetation in good condition exists on either side of this powerline track with invasion of buffel grass (<20%).</p>	<p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)</p>	<p>PSm1 - The vegetation is located at the north-west portion of the kV line alignment in the outer reaches of 7 Mile Creek with alluvial red-brown silts and sparse to moderate stony mantle. The vegetation is disturbed in part by the existing powerline track but also by the invasion of buffel grass.</p>
<p>HHg3 - Hummock grassland of <i>Triodia wiseana</i> with scattered shrubs of <i>Acacia pyrifolia</i>, <i>A. inaequilatera</i>.</p>	<p>HHg3 - Vegetation is in fair condition and is located within the existing powerline track. The vegetation located on either side of this track is in good condition with no buffel grass but is recovering from a single fire event.</p>		<p>HHg3 - The vegetation is located towards the eastern end of the alignment, 127 m west of the powerline on very gently undulating slopes with dense stony mantle. The vegetation is recovering from a burn event 5-8 years ago.</p>
<p>HSh1 - Open low shrubland (2-10% 1m) of <i>Acacia orthocarpa</i>, <i>Acacia bivenosa</i>, <i>Inigofera monophylla</i> over hummock grassland of <i>Triodia wiseana</i>.</p>	<p>HSh1 - Vegetation located within the existing powerline track is in fair condition. Vegetation along either side of the track is in good condition with isolated buffel along track and recovering from single fire event.</p>		<p>HSh1 - Vegetation located at the eastern end of the alignment on a lower hill slope with stony mantle of red-brown stones and shale and white-grey quartz. The vegetation is disturbed by the existing powerline track and was burnt within the last 5-8 years.</p>
<p>DWt1 - Low woodland (10-30% <5m) of <i>Corymbia hamersleyana</i> over low mixed shrubland (10-30% 1-2m) of <i>Acacia bivenosa</i>, <i>Ehretia saligna</i>, <i>Gossypium australe</i> over tussock grassland of <i>Cenchrus ciliaris</i> with <i>Triodia epactia</i>.</p>	<p>DWt1 - Although buffel grass dominates grassland along drainage line, there is good species diversity. There is evidence of a single fire event.</p>	<p>Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)</p>	<p>Vegetation is located 940 m east of Madigan Road in a broad drainage zone between hill rises. Vegetation is disturbed by existence of buffel grass.</p>
<p>PSh1 - Low shrubland (10-30% 1-2m) of <i>Acacia bivenosa</i> over hummock grassland of <i>Triodia wiseana</i>/<i>T. epactia</i>. There are scattered tall <i>Acacia inaequilatera</i> over annual herbland of <i>Trichodesma zeylanicum</i>.</p>	<p>PSh1 - The vegetation is highly disturbed with multiple tracks and previous scraping activity.</p>	<p>Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)</p>	<p>The vegetation occurs at the southern end of the alignment extending both east and west of Madigan Road. Vegetation in degraded condition is on plains with red-brown colluvial silts scattered small stones to stony mantle with areas of stony scald. The first 300 m on the eastern side of Madigan road is disturbed by several tracks and an area of shallow scrape.</p>
<p>Beard vegetation association 589: Mosaic: Short bunch grassland - savannah / grass plain (Pilbara) / Hummock grasslands, grass steppe; soft spinifex.</p>	<p>Vegetation Association 589 occurs primarily to the west of Madigan Road. Vegetation along the length of the alignment was healthy although approximately one third of the alignment traverses the Roebourne Plains tussock grasslands and these were dormant at the time of the survey. Vegetation condition was variable and</p>	<p>Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)</p>	<p>The description of vegetation under application was obtained from a survey report provided as supporting information by the proponent, prepared by Astron Environmental, June 2007.</p>

compromised by manmade disturbances such as tracks, soil movement and invasion of buffel grass resultant from these disturbances and in particular from 7 Mile Creek at the western most end of the alignment. On the other hand, the eastern most end of the alignment had been burnt within the last 5 years. the hummock grassland on the previously burnt hills was recovering. The 300 m section of the alignment to the east of Madigan Road was highly disturbed by off road vehicle tracks and by soil movement (scrapping).

Beard vegetation association 157: Hummock grasslands, grass steppe; hard spinifex *Triodia wiseana*.

Vegetation Association 157 occurs primarily to the East of Madigan road with a small extension to the west of the road.

Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)

See comments for Beard Association 589 above.

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 area proposed to be cleared includes low hill rises and drainage features, and associated with this variation, 11 vegetation associations were identified within six broad vegetation types. A total of 8 vascular plants representing 27 families and 65 genera were recorded within the project area during a flora survey conducted in June 2007 (Astron Environmental, 2007). This diversity in flora species is believed to be an underestimate due to the senescence of ephemeral and some annual species (Astron Environmental, 2007). Four environmental weeds were recorded during the survey. The vegetation along the length of the proposed power line was healthy although variable, with the condition of vegetation reduced by the general fragmentation of the area due to the presence of Madigan Road, the Wastewater Treatment Pond track, the existing Power Line and track, off road vehicle tracts and non-specific soil disturbance (Astron Environmental, 2007). The vegetation associations, described by Beard, within the area under application have approximately 100% of their original extent remaining (Shepherd et al, 2006).

The proponent has stated that management strategies will be adopted as specified in the permit application for CPS 1749/1 (Woodside, 2007), which included an intention to undertake regular monitoring of vegetation communities in good to very good condition outside of the area under application to ensure that weed infestation does not cause condition decline in these areas (SKM 2007). It is unlikely that this proposal will impact on the representativeness of these vegetation associations, therefore it is unlikely that this proposal is at variance to this principle.

Methodology

Astron Environmental (2007)
SKM (2007)
Shepherd et. al. (2006)
Woodside (2007)

(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

A fauna habitat assessment conducted for Woodside's proposed Gap Ridge Accommodation Village (GRAV), which is located to the north of the clearing application area, identified that the GRAV site may represent suitable habitat for the Lakeland Downs mouse (*Leggadina lakedownensis*, P4) and Skink (*Notoscincus butleri*, P4) (SKM 2007). There is one record of a Priority Fauna species, the Western Pebble Mouse, within 10 kilometres of the area under application (GIS Database). This observation was recorded in 1979. This species constructs mounds that are most common on spurs and lower slopes of rocky hills. A plan of the proposed power line (Astron Environmental, 2007) and contours of the local area indicate that the powerline will be constructed on relatively flat land to the north of what appears to be a ridge. The area proposed to be cleared does not appear to include suitable habitat for this species should it still be present in the local area.

The assessment of the GRAV site concluded that non-threatened but locally significant fauna may use the habitats under application, however these are unlikely to be specifically dependent on the vegetation under application (SKM 2007) and therefore it is unlikely that this proposal is at variance to this principle.

Methodology Astron Environmental (2007)
SKM (2007)
GIS Database:
- SAC Biodatasets - DEC, 21/08/07

(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 16 records of four species of Declared Rare or Priority flora within the local area (10 kilometre radius) (GIS database). One of these species is the Declared Rare Flora *Drummondita ericoides*. Astron Environmental (2007) identified a further eight Priority Flora species that they believe could potentially occur within the project area.

A flora survey was conducted on June 8 2007, with a limitation of the survey being that it was conducted "within the limitations of the 'dry' season" (Astron Environmental, 2007). No Declared Rare or Priority flora species were identified within the vegetation under application as a result of a survey commissioned by the proponent. Therefore it is unlikely that this proposal is at variance to this principle.

Methodology Astron Environmental (2007)
GIS Database
- SAC Biodatasets - DEC 21/8/07

(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 recorded occurrences of Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) within the local area (10 kilometre radius) (GIS Database). The nearest recorded Ecological Community is the "Stygofauna of freshwater aquifers of the Pilbara Region, Millstream type" PEC, which is located approximately 97 kilometres south-south-west of the clearing application area. As no TECs or PECs have been identified within the local area or greater area (50 kilometre radius), this proposal is unlikely to be at variance to this Principle.

Methodology GIS Database
- SAC Biodatasets - DEC, 21/08/07

(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 State Government is committed to the national Objectives and Targets for Biodiversity Conservation, which includes a target that prevents the clearance of ecological communities with an extent below 30% of that present pre-European settlement (Department of Natural Resources and Environment, 2002).

The vegetation of the area applied to clear consists of Beard Vegetation Association 589 and 157 (Hopkins et al., 2001).

Beard Association 589 is described as follows; Mosaic: Short bunch grassland - savanna / grass plain (Pilbara) / Hummock grasslands, grass steppe; soft spinifex (*T. pungens*). Beard vegetation association 589 has approximately 100% of its pre-European extent remaining within the Pilbara IBRA region (Shepherd et al., 2006).

The area under application also consists of Beard Association 157 (Hopkins et al., 2001) which is described as follows; Hummock grasslands, grass steppe; hard spinifex *Triodia wiseana*. Beard vegetation association 157 has approximately 100% of its pre-European extent remaining within the Pilbara IBRA region with 17.6% existing in IUCN Class I-IV Reserves (Shepherd et al., 2006).

The Biodiversity Audit of the Pilbara (McKenzie et al., 2003) classifies the Roebourne Plains coastal grassland, which occurs along a section of the alignment (near 7 Mile Creek) approximately 1.2 kilometres in length, as being part of an ecosystem at risk, of vulnerable status with a declining condition rating (Astron Environmental, 2007). According to a study conducted in the early 1990's the vegetation within the project area is relatively widespread both locally and within the Pilbara region along the coastal plains (Astron Environmental, 2007). The Horseflat land system is well represented from Regnard Bay to Balla Balla (Astron Environmental, 2007).

Having said this, the aforementioned study and a second study also conducted in the early 1990's indicated that there is increasing pressure on the Roebourne Plains coastal grassland and Sherlock Station areas from industry (Astron 2007). The Roebourne Plains coastal grassland, including those near 7 Mile Creek is listed as "ecosystems at risk" according to McKenzie et al., (2003). Further, it is not protected in any reserve and therefore is a high priority for its conservation (Astron 2007).

The approximate width of the proposed power line re-alignment is 50 metres. As the section of the proposed power line that is classified as "Roebourne plains coastal grassland" is approximately 1.2 kilometres in length, it is estimated that approximately 6ha of this vegetation community that is an 'ecosystem at risk' is proposed to be cleared. Given the extent of remnant vegetation within the local area, this approximate 6ha area is not considered to be a significant remnant in an extensively cleared area. Additionally, the proponent has stated that management strategies will be adopted as specified in the permit application for CPS 1749/1 (Woodside, 2007), which included an intention to undertake regular monitoring of vegetation communities in good to very good condition outside the area under application to ensure that weed infestation does not cause condition decline in these areas (SKM, 2007). Such strategies will limit the further degradation of areas of the Roebourne plains coastal grassland 'ecosystem at risk' that is adjacent to the application area.

Methodology Department of Conservation and Land Management (2002)
Department of Natural Resources and Environment (2002)
Hopkins et al. (2001)
Shepherd et al. (2006)
SKM (2007)
Astron 2007
Woodside (2007)

(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 area applied to be cleared spans between two non-perennial watercourses (GIS Database). The western end of the application area intersects 7 Mile creek which is described as a "major drainage line" (Astron Environmental, 2007). 7 Mile Creek is known to flow during times of heavy rainfall events such as cyclones, but otherwise remains dry for most of the year (DEC North West Region, pers. obs.). The eastern end of the application area also intersects a shallow relatively broad drainage line that occurs between lower hill rises (Astron Environmental, 2007). Another very shallow drainage line occurs along the toe of a low hill rise and runs along the alignment for some distance (Astron Environmental, 2007).

As the application area includes native vegetation that is growing in, or in association with, an environment associated with a watercourse, the proposed clearing is at variance to this Principle. To help minimise the impacts on those environments, a condition will be imposed to minimise clearing.

Methodology Astron Environmental (2007)
GIS Database;
- Hydrography, Linear (Medium Scale, 250K GA)
- Hydrography, Linear (Coarse Scale, 1M 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

Development of the area under application may result in limited wind and water erosion, predominantly during the construction phase of the project.

Stony soil and loamy soil is described as having low to variable potential for soil degradation in terms of structure decline, acidification and erosion (Schoknecht 2002).

The area under application is mapped as having no known Acid Sulphate Soil risk (GIS Database).

Given the nature of the soil present within the area under application has a low to variable potential for land degradation, this proposal is unlikely to be at variance to this principle.

Methodology Schoknecht, N. (June 2002)
GIS Database;
- Acid Sulfate Soil Risk Map - Pilbara Coastline (DEC)
- Topographic Contours, Statewide - DOLA 12/09/02

(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 likely to be at variance to this Principle

There are no conservation areas within a 10km radius of the application area. The nearest DEC-managed reserve (and Environmentally Sensitive Area) is located approximately 18 kilometres from the area under application, and consists of islands within the Dampier Archipelago (GIS Database). The nearest DEC managed lands are the Millstream-Chichester National Park, approximately 43.5km southeast of the application area (GIS Database). Based on the large distance to the nearest conservation reserve, this proposal is unlikely to have an impact on any conservation area. Therefore, the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Dataset

- Ramsar wetlands (CALM February 2003)
- System 1-5 and 7-12 Areas (DOE June 1995)
- CALM Managed Lands and Waters (CALM July 2005)
- Clearing Regulations - Environmentally Sensitive Areas (DOE May 2005)
- Covenant sites (DEC 2007)
- Land for Wildlife sites (DEC 2007)

(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 intersects two non-perennial streamlines, and a shallow drainage line runs along the proposed alignment for some distance (Astron Environmental, 2007). These drainage systems have seasonal flows following heavy rainfall events (DEC North West Region, pers. obs.). Given that the vegetation in some areas is in poor condition (Astron Environmental, 2007), and comprises shrubs and grasses (rather than deep-rooted trees), it is unlikely that the removal of this vegetation will cause deterioration in the quality of surface or underground water. The application area is not within a Public Drinking Water Source Area, catchment or wetland and clearing will not cause significant sedimentation, erosion or turbidity impacts to local watercourses. Given the above, this proposal is not likely to be at variance to this principle.

- Methodology** Astron Environmental (2007)
 GIS Database;
- Hydrology, linear - DOE 1/02/04;
 - Lakes 250K - GA;
 - Rivers 250K - GA;
 - EPP Areas - DEP 06/95;
 - EPP Lakes - DEP 28/07/03;
 - ANCA Wetlands - CALM 08/01;
 - Ramsar Wetlands - CALM 21/10/02;
 - Hydrographic Catchments - Catchments DoE 3/4/03
 - Lakes 250K - GA;
 - Rivers 250K - GA;

(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 at variance to this Principle

Rainfall in the area is low and erratic (Astron 2007). The mean annual rainfall for the area is 300mm and with an evaporation point potential of 3200mm (GIS Database), there is little chance of flooding or inundation. The area consists of a combination of rocky hill slopes and sandy/gravelly plains of which approximately 50% is greater than 20 meters above sea level and the other 50% is greater than 10 meters above sea level (GIS Database) and therefore excess water will drain out of the area through drainage channels and 7 Mile Creek to lower lying areas. Clearing of the vegetation in the area applied to clear will have no influence on the likelihood or intensity of flooding. Therefore the proposal is not at variance to this principle.

- Methodology** Astron Environmental (2007)
 GIS Databases;
- Evapotranspiration, Point Potential - BOM 30/09/01
 - Rainfall, Mean Annual - BOM 30/09/01
 - Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

A Native Title Claim exists over a greater area encompassing the clearing application area.

Several Aboriginal Sites of Significance intersect the clearing application area.

The Department of Water have advised that the subject property lies within a proclaimed area under the Rights in Water and Irrigation Act 1914. Any taking or diversion of surface water in this proclaimed area for purposes other than domestic and/or stock watering is subject to licence by the Department of Water. Also any interference with the beds or banks of a watercourse in this proclaimed area will require a permit from the Department of Water (DOW, 2007).

- Methodology** DOW, 2007
 GIS Database;
- Aboriginal Sites of Significance - DIA
 - Native Title Claims - DLI

4. Assessor's comments

Purpose	Method Applied	area (ha)/ trees	Comment
Building or Structure	Mechanical Removal	16.23	Re-location of power line. Assessment of this proposal has found that it may be at variance to Principle (f), is not at variance to Principle (j), and not likely to be at variance to the remaining principles.

5. References

- Astron Environmental (2007). Gap Ridge Accommodation Village kV Power Alignment: Vegetation and Flora Survey. Prepared for Foster Wheeler Worley Parsons, June 2007.
- Department of Conservation and Land Management (2002) A Biodiversity Audit of Western Australia's 53 Biogeographical Subregions.
- 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.
- Department of Water (2007). Advice received 7th August 2007. (TRIM ref DOC32087)
- Keighery, B.J. (1994) Bushland Plant Survey: A Guide to Plant Community Survey for the Community. Wildflower Society of WA (Inc). Nedlands, Western Australia.
- Schoknecht, N. (June 2002) Soil Groups of Western Australia - A simple guide to the main soils of Western Australia (Edition 3). Technical Report No. 246. Department of Agriculture 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.
- Shepherd, D.P., Beeston, G.R. and Hopkins, A.J.M. (2001a) Native Vegetation in Western Australia, Extent, Type and Status. Resource Management Technical Report 249. Department of Agriculture, Western Australia (updated 2005).
- Sinclair Knight Merz (26 February 2007) Gap Ridge Accommodation Village - Area Permit Application Supporting Information. Prepared for Woodside Energy Ltd, Western Australia (Refer to CPS 1749, TRIM ref: DOC17826)
- Woodside Energy Ltd (2007). Cover Letter submitted with clearing permit application. Signed by S. Carney.

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)

