



# Clearing Permit Decision Report

## 1. Application details

### 1.1. Permit application details

Permit application No.: 5875/1  
Permit type: Purpose Permit

### 1.2. Proponent details

Proponent's name: Southern Cross Pipelines Australia Pty Ltd

### 1.3. Property details

Property: Goldfields Gas Pipeline Agreement Act 1994  
Pipeline Licence No 24  
Local Government Area: Shires of Roebourne, Meekatharra, Ashburton, Wiluna, Leonora, Menzies, East Pilbara and the City of Kalgoorlie-Boulder  
Colloquial name: Goldfields Gas Pipeline Project

### 1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
2,000		Mechanical Removal	Pipeline access, operations and maintenance

### 1.5. Decision on application

Decision on Permit Application: Grant  
Decision Date: 16 January 2014

## 2. Site Information

### 2.1. Existing environment and information

#### 2.1.1. Description of the native vegetation under application

**Vegetation Description** Beard vegetation associations have been mapped for the whole of Western Australia. There are 35 Beard vegetation associations located within the application area (GIS Database):

**Beard vegetation association 9:** Medium woodland; coral gum (*Eucalyptus torquata*) & goldfields blackbutt (*E. le soufii*);

**Beard vegetation association 10:** Medium woodland; red mallee group;

**Beard vegetation association 18:** Low woodland; mulga (*Acacia aneura*);

**Beard vegetation association 20:** Low woodland; mulga mixed with *Allocasuarina cristata* & *Eucalyptus* sp.;

**Beard vegetation association 28:** Open low woodland; mulga;

**Beard vegetation association 29:** Sparse low woodland; mulga, discontinuous in scattered groups;

**Beard vegetation association 39:** Shrublands; mulga scrub;

**Beard vegetation association 82:** Hummock grasslands, low tree steppe; snappy gum over *Triodia wiseana*;

**Beard vegetation association 84:** Hummock grasslands, open low tree & mallee steppe; marble gum & mallee (*Eucalyptus youngiana*) over hard spinifex *Triodia basedowii* between sandhills;

**Beard vegetation association 93:** Hummock grasslands, shrub steppe; kanji over soft spinifex;

**Beard vegetation association 103:** Hummock grasslands, shrub steppe; snakewood over soft spinifex & *Triodia wiseana*;

**Beard vegetation association 107:** Hummock grasslands, shrub steppe; mulga and *Eucalyptus kingsmillii* over hard spinifex;

**Beard vegetation association 109:** Hummock grasslands, shrub steppe; *Eucalyptus youngiana* over hard spinifex;

**Beard vegetation association 111:** Hummock grasslands, shrub steppe; *Eucalyptus gamophylla* over hard spinifex;

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

**Beard vegetation association 162:** Shrublands; snakewood scrub;

- Beard vegetation association 163:** Shrublands; Eremophila and cassia dwarf scrub;
- Beard vegetation association 169:** Shrublands; mulga & minnieritchie scrub;
- Beard vegetation association 175:** Short bunch grassland - savanna/grass plain (Pilbara);
- Beard vegetation association 181:** Shrublands; mulga & snakewood scrub;
- Beard vegetation association 204:** Succulent steppe with open scrub; scattered mulga & *Acacia sclerosperma* over saltbush & bluebush;
- Beard vegetation association 228:** Shrublands; *Acacia quadrimarginea* scrub;
- Beard vegetation association 389:** Succulent steppe with open low woodland; mulga over saltbush;
- Beard vegetation association 468:** Medium woodland; salmon gum & goldfields blackbutt;
- Beard vegetation association 483:** Hummock grasslands, mixed sandplain - open mallee over sparse dwarf shrubs with spinifex; red mallee & mixed sparse dwarf shrubs over *Triodia basedowii*;
- Beard vegetation association 484:** Shrublands; jam thicket;
- Beard vegetation association 529:** Succulent steppe with open low woodland; mulga & sheoak over bluebush;
- Beard vegetation association 540:** Succulent steppe with open low woodland; sheoak over saltbush;
- Beard vegetation association 555:** Hummock grasslands, mallee steppe; red mallee over spinifex, *Triodia scariosa*;
- Beard vegetation association 601:** Mosaic: Sedgeland; various sedges with very sparse snakewood / Hummock grasslands, shrub-steppe; kanji over soft spinifex
- Beard vegetation association 603:** Hummock grasslands, sparse shrub steppe; *Acacia bivenosa* over hard spinifex;
- Beard vegetation association 605:** Hummock grasslands, shrub steppe; *Acacia pachycarpa* & waterwood over soft spinifex;
- Beard vegetation association 620:** Hummock grasslands, shrub steppe; snakewood over soft spinifex;
- Beard vegetation association 676:** Succulent steppe; samphire; and
- Beard vegetation association 1294:** Medium woodland; coral gum.

A level 1 flora and vegetation survey conducted by Outback Ecology (2012) during 3 to 8 October 2011 identified 23 vegetation communities within the Pilbara section of the application area:

**Boonamichi Well MLV Survey area**

1 - *Acacia rhodophloia* and *Grevillea berryana* Scattered Tall Shrubland over *Eremophila longifolia* Shrubland over mixed Scattered Low Shrubs including *Acacia pyrifolia* var. *pyrifolia* and *Acacia tetragonophylla* over Scattered Tussock Grasses and Herbs.

**NEWMAN LATERAL MLV**

1 - *Acacia aneura* Low Open Woodland over *Acacia synchronicia* and *Acacia bivenosa* Open Shrubland over \**Cenchrus ciliaris* Open Tussock Grassland;

2 - *Acacia aneura* and *Corymbia hamersleyana* Scattered Low Trees over \**Cenchrus ciliaris* Tussock Grassland. 3 *Eucalyptus victrix* Scattered Trees over *Acacia pyrifolia* (*Acacia citrinoviridis*, *Acacia synchronicia*, *Acacia wanyu*) Open Shrubland over \**Cenchrus ciliaris* Tussock Grassland;

3 - *Eucalyptus leucophloia* subsp. *leucophloia* Low Open Woodland over *Acacia bivenosa* Scattered Shrubs over *Triodia wiseana* Hummock Grassland. Small flow lines within this vegetation association supported *Petalostylis labicheoides*, *Acacia bivenosa* and *A. ancistrocarpa* Tall Open Scrub;

4 - *Acacia aneura* Scattered Tall Shrubs over *Acacia synchronicia*, *A. tetragonophylla* Scattered Shrubs over \**Cenchrus ciliaris* Tussock Grassland and *Triodia wiseana* Open Hummock Grassland;

5 - Quartz and ironstone pebble veneer flat on east side of track supporting mixed species Low Shrubland and Herbland;

6 - *Corymbia hamersleyana* Open Woodland over *Acacia tetragonophylla*, *A. aneura*, *A. inaequilatera* Tall Open Shrubland over *Triodia biflora* and *Triodia epactia* Hummock Grassland;

7 - *Acacia inaequilatera*, *A. tetragonophylla* and *Eremophila fraseri* Scattered Tall Shrubs over *Tribulus suberosus* Scattered Low Shrubs over *Triodia biflora* (*Triodia wiseana*) Hummock Grassland;

8 - *Eucalyptus leucophloia* Scattered Low Trees over *Eucalyptus gamophylla* Scattered Low Mallee's over *Acacia tetragonophylla*, *A. inaequilatera*, *A. synchronicia*, *A. bivenosa* Shrubland over *Triodia wiseana* Hummock Grassland;

9 - *Acacia aneura* Low Open Forest over *Eremophila forrestii*, *Exocarpos aphyllus* Open Shrubland over *Triodia epactia* and *T. biflora*;

10 - *Acacia pruinocarpa*, *A. synchronicia* Scattered Tall Shrubs over *Hakea lorea*, *Acacia tetragonophylla* Scattered Shrubs over *Maireana planifolia*, *Salsola tragus*, *Solanum lasiophyllum*, *Ptilotus exaltatus* Low Shrubland and Herbland;

11 - *Eucalyptus socialis* Scattered Low Trees over *Acacia synchronicia* Scattered Tall Shrubs over *Triodia wiseana* Hummock Grassland;

12 - *Acacia citrinoviridis* and *A. pteraneura* Tall Open Scrub over \**Cenchrus ciliaris* Tussock Grassland;

13 - *Senna artemisioides* subsp. *oligophylla* x *helmsii* and *S. artemisioides* subsp. *helmsii* Low Shrubland over *Ptilotus exaltatus* and *Salsola tragus* Scattered Herbs;

14 - *Eucalyptus xerothermica* and *Acacia aneura* Scattered Low Trees over *Acacia coriacea* subsp. *pendans* Scattered Tall Shrubs over *Senna artemisioides* Scattered Shrubs over \**Malvastrum americanum* Open Herbland;

15 - *Acacia aneura* Scattered Tall Shrubs to Tall Shrubland over *Acacia synchronicia* Scattered Shrubs to Tall Shrubland over patchy *Senna glutinosa* subsp. x *luerssenii* Open Shrubland;

16 - *Acacia citrinoviridis* and *Corymbia candida* Open Forest over *Acacia coriacea* subsp. *pendans* Tall Open Shrubland over *Acacia tetragonophylla* Scattered Shrubs over *Themeda triandra* Open Tussock Grassland and \**Malvastrum americanum* Open Herbland;

17 - *Eucalyptus victrix* and *Eucalyptus camaldulensis* Open Woodland to Tall Open Woodland over *Eucalyptus candida*, *Corymbia hamersleyana*, *Acacia citrinoviridis* and *A. coriacea* subsp. *pendans* Low Woodland to Low Open Forest over *Acacia tetragonophylla* Scattered Tall Shrubs over *Triodia biflora* Very Open Hummock Grassland;

18 - *Acacia aneura*, *A. pruinocarpa* and *Hakea lorea* Tall Open Shrubland over *Acacia ancistrocarpa* Open Shrubland over *Triodia wiseana* Hummock Grassland;

19 - *Acacia aneura* and *A. pruinocarpa* Scattered Low Trees over *Grevillea berryana* and *Acacia paraneura* Scattered Tall Shrubs over *Eremophila fraseri*, *Acacia tetragonophylla* and *Exocarpos aphyllus* Scattered Shrubs. Quartz and ironstone pebbles scattered on surface;

20 - *Acacia aneura*, *A. citrinoviridis*, *A. pruinocarpa* Scattered Low Trees over *Eremophila fraseri* and *Acacia rhodophloia* Scattered Shrubs over *Triodia epactia* Hummock Grassland;

21 - *Eucalyptus victrix* Tall Open Woodland over *Acacia citrinoviridis*, *A. aneura*, *Corymbia candida* Open Forest over \**Setaria verticillata* Grassland and \**Bidens bipinnata* and \**Malvastrum americanum* Herbland; and

22 - *Eucalyptus victrix* Scattered Low Trees over *Acacia aneura* and *A. citrinoviridis* Tall Shrubland over *Themeda triandra* Open Tussock Grassland and *Triodia epactia* Very Open Hummock Grassland.

#### **NEWMAN LATERAL OFF-BAY 1**

1. *Acacia pruinocarpa* Low Open Woodland over *Acacia synchronicia*, *Acacia tetragonophylla* Tall Open Shrubland over *Aristida contorta*, *Eulalia aurea*, *Eriachne aristidea* Scattered Tussock Grasses.

#### **NEWMAN LATERAL OFF-BAY 2**

1. *Acacia pruinocarpa* and *Acacia ancistrocarpa* Tall Shrubland (regrowth) over Scattered Shrubs.

#### **NEWMAN LATERAL OFF-BAY 3**

1. *Acacia pteraneura* Low Open Woodland over *Acacia ayersiana*, *Acacia tetragonophylla* and *Grevillea berryana* Tall Open Shrubland over *Eremophila exilifolia* Scattered Low Shrubs over *Triodia epactia* Open Hummock Grassland.

#### **NEWMAN SCRAPER STATION**

1. Vegetation association 1: *Acacia aneura* and *A. pruinocarpa* Low Woodland over *Acacia tetragonophylla* Scattered Shrubs both on red-brown sandy loam plains; and

2. Vegetation association 2: *Acacia ayersiana* Low Woodland over *Acacia tetragonophylla* and *Psydrax suaveolens* Scattered Shrubs over *Triodia epactia* Very Open Hummock Grassland.

#### **PARABURDOO COMPRESSOR STATION**

1. *Acacia xiphophylla* Scattered Tall Shrubs over *Frankenia setosa* Low Open Shrubland over *Triodia longiceps* Scattered Hummock Grassland; and

2. *Acacia xiphophylla* Scattered Tall Shrubs over mixed Scattered Low Shrubs.

#### **TUREE CREEK SCRAPER STATION**

1. *Acacia aneura*, *Grevillea berryana* and *Acacia pruinocarpa* Low Open Forest over *Eremophila* sp. Shrubland in undefined flow lines;

2. *Acacia aneura* Low Woodland over *Acacia rhodophloia* Tall Open Shrubland over *Eremophila forrestii* subsp. *forrestii* Shrubland in damplands;

3. *Acacia aneura* and *A. ayersiana* Low Woodland over *Eremophila forrestii* subsp. *forrestii* and *E. fraseri* Open

Shrubland on hardpan plains;

4. *Acacia aneura* Low Open Woodland over *Senna artemisioides* and *Acacia synchronicia* Open Shrubland over *Aristida contorta* Very Open to Open Tussock Grassland; and

5. *Acacia aneura* and *Acacia tetragonophylla* Tall Open Shrubland over *Senna artemisioides* and *Acacia synchronicia* Shrubland over *Triodia epactia* Open Hummock Grassland on a low rise.

#### YARRALLOOLA COMPRESSOR STATION

1. *Acacia xiphophylla* Scattered Tall Shrubs over *Triodia epactia* Scattered to Hummock Grassland;

2. *Acacia citrinoviridis* Tall Shrubland over *Triodia epactia* Hummock Grassland;

3. *Acacia ancistrocarpa*, *A. trachycarpa* and *A. citrinoviridis* Tall Shrubland over mixed Scattered Low Shrubs over *Triodia epactia* Hummock Grassland); and

4. *Corymbia candida* Scattered Low Trees over *Acacia aneura* Low Open Woodland over *Acacia ancistrocarpa* and *A. citrinoviridis* Scattered Tall Shrubs over *Triodia epactia* Hummock Grassland.

\* denotes weed species

#### Clearing Description

Goldfields Gas Pipeline.

Southern Cross Pipelines Australia Pty Ltd proposes to clear up to 2,000 hectares of native vegetation within a total boundary of approximately 4,500 hectares for the purposes of pipeline access, operation and maintenance. The project spans along a 1,377 kilometre long pipeline which is located across the Shires of Roebourne, Meekatharra, Ashburton, Wiluna, Leonora, Menzies, East Pilbara and the City of Kalgoorlie-Boulder.

#### Vegetation Condition

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

To:

Completely Degraded: No longer intact; completely/almost completely without native species (Keighery, 1994).

#### Comment

The vegetation condition was assessed during a survey undertaken by Outback Ecology (2012).

Clearing of native vegetation is predominately through rolling and slashing, but pruning to a minimum of 300 millimetres may also occur, as may mulching (to be left in situ), and selective removal of larger trees (APA Group, 2013).

### 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 area occurs within the Coolgardie, Murchison, Gascoyne and Pilbara Interim Biogeographic Regionalisation of Australia (IBRA) bioregions (GIS Database). The Coolgardie bioregion is characterised by granite rocky outcrops, low greenstone hills, laterite uplands and broad plains. Numerous salt lakes also occur through the bioregion (Bastin & ACRIS, 2008). The Coolgardie bioregion covers the interzone between mulga and spinifex country, and eucalypt environments (Bastin & ACRIS, 2008). The Murchison bioregion is characterised by low hills and mesas separated by flat colluvium and alluvial plains. Vegetation is predominantly low mulga woodlands (Bastin & ACRIS, 2008). The Gascoyne bioregion is characterised by low, rugged ranges and broad, flat valleys. The vegetation is dominated by open mulga low woodlands (Bastin & ACRIS, 2008). The Pilbara bioregion is characterised by vast coastal plains and inland mountain ranges with cliffs and deep gorges. Vegetation is predominantly mulga low woodlands or snappy gum over bunch and hummock grasses (Bastin & ACRIS, 2008).

The application area is within a pipeline easement with a width of 30 metres that runs for 1,377 kilometres, with sparsely grown vegetation of a "good" to "completely degraded" condition (Keighery, 1994; GIS Database). Land within the pipeline easement was originally cleared to construct the Goldfields Gas pipeline. Since then, the majority of the land has been used for pastoral grazing with parts of the area covered by grasses such as Spinifex. The total amount of clearing will be 2,000 hectares over a 10 year permit period. Clearing will be predominately rolling, however slashing and pruning may also be undertaken. The majority of the clearing works will not be ground disturbing and therefore root stock will be maintained (APA Group, 2013).

A level 1 flora and vegetation survey conducted by Outback Ecology (2012) during 3 to 8 October 2011 identified 23 vegetation communities within the Pilbara section of the application area. A total of 223 native taxa were recorded within the survey area (Outback Ecology, 2012). There were no Threatened Flora species, Priority Flora species, Priority Ecological Communities or Threatened Ecological Communities recorded during the survey (Outback Ecology, 2012).

There were no flora or vegetation surveys conducted over the remaining application area. According to available databases there are no known records of Threatened or Priority Flora species, Threatened Ecological Communities or Priority Ecological Communities within the application area or within a 5 kilometre radius of the application area (DPaW, 2013; GIS Database).

There were several weed species identified during the flora and vegetation survey of the Pilbara section of the application area (Outback Ecology, 2012). Three of these species; Saffron Thistle (*Carthamus lantanus*), Mexican Poppy (*Argemone Mexicana*) and Thornapples (*Datura* sp.), are listed as a 'Declared Plant' species under the *Biosecurity and Agriculture Management Act 2007* by the Department of Agriculture and Food. Weeds have the potential to significantly change the dynamics of a natural ecosystem and lower the biodiversity of an area. Potential impacts to the biodiversity as a result of the proposed clearing may be minimised by the implementation of a weed management condition.

Based on aerial imagery and the vegetation survey over the Pilbara section of the application area, no critical habitat for any conservation significant fauna species was identified within the application area (APA, 2013; GIS Database). A large number of faunal habitats were identified along the pipeline, however impacts to faunal habitats will be minimal due to previous clearing and the scale and nature of the proposed clearing (GIS Database).

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

**Methodology** APA Group (2013)  
Bastin & ACRIS (2008)  
DPaW (2013)  
Keighery (1994)  
Outback Ecology (2012)  
GIS Database:  
- IBRA WA (Regions - Subregions)  
- Kalgoorlie 50cm Orthomosaic - Landgate 2006  
- Leonora 1.4m Orthomosaic - Landgate 2003  
- Menzies 1.4m Orthomosaic - Landgate 2003  
- Newman 1.4m Orthomosaic - Landgate 2003  
- Paraburdoo 50cm Orthomosaic - Landgate 2004  
- Pre-European vegetation  
- Sir Samuel 50cm Orthomosaic - Landgate 2005  
- Threatened Ecological Sites Buffered

**(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**  
There was no fauna survey conducted over the application area. Based on aerial imagery and the vegetation survey over the Pilbara section of the application area, no critical habitat for any conservation significant fauna species was identified within the application area (APA, 2013; Outback Ecology, 2012; GIS Database). The landforms and habitats found within the application area appear to be well represented in the across the regional landscape (GIS Database).

The application area is within a pipeline easement which has been previously cleared for the establishment of the Goldfields Gas Pipeline and used as a pastoral grazing area. It is therefore not considered an area that comprises of significant habitat for fauna (APA Group, 2013).

The proposed clearing of 2,000 hectares of native vegetation over a 10 year period, distributed over a 1,377 kilometre long application area of approximately 4,500 hectares is not likely to impact critical feeding or breeding habitat for any conservation significant fauna species.

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

**Methodology** APA Group (2013)  
Outback Ecology (2012)  
GIS Database:  
- Kalgoorlie 50cm Orthomosaic - Landgate 2006  
- Leonora 1.4m Orthomosaic - Landgate 2003  
- Menzies 1.4m Orthomosaic - Landgate 2003  
- Newman 1.4m Orthomosaic - Landgate 2003  
- Paraburdoo 50cm Orthomosaic - Landgate 2004  
- Sir Samuel 50cm Orthomosaic - Landgate 2005

**(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**  
According to available databases, there are no records of Threatened Flora within the application area (GIS Database). A search of the Department of Parks and Wildlife's Threatened and Priority Flora databases identified no Threatened Flora species as occurring within 5 kilometres of either side along the application area (DPaW, 2013).

Outback Ecology (2012) conducted a level 1 vegetation survey of the Pilbara section of the application area during 3 to 8 October 2011. No Threatened Flora was recorded within the survey area.

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

**Methodology** DPaW (2013)  
Outback Ecology (2012)  
GIS Database:  
- Threatened and Priority Flora List

**(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**

A search of the available databases showed that there are no known Threatened Ecological Communities situated within 5 kilometres of the application area (GIS Database).

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

**Methodology** GIS Database:  
- Threatened Ecological Sites Buffered

**(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 at variance to this Principle**

The application area falls within the Eastern Goldfields, Murchison, Gascoyne and Pilbara IBRA bioregions (GIS Database) in which approximately 95% or more of the pre-European vegetation still exists (Government of Western Australia, 2013). The vegetation within the application area is recorded as Beard vegetation associations 9, 10, 18, 20, 28, 29, 39, 82, 84, 93, 103, 107, 109, 111, 157, 162, 163, 169, 175, 181, 204, 228, 389, 468, 483, 484, 529, 540, 555, 601, 603, 605, 620, 676 and 1294 (GIS Database).

The above Beard vegetation associations retain approximately 95% or above of their pre-European extent in both their states and bioregions (Government of Western Australia, 2013). The area proposed to be cleared is not a significant remnant of native vegetation.

Based on the above, the proposed clearing is not at variance to this Principle.

**Methodology** Government of Western Australia (2013)  
GIS Database  
- IBRA WA (Regions - Sub Regions)  
- 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 not likely to be at variance to this Principle**

According to available databases, there are no watercourses or wetlands within the application area, although the application area does intersect a number of tributaries (GIS Database). According to aerial imagery, vegetation types associated with the drainage lines are considered to be common and widespread within the subregion (GIS Database). The proposed clearing of 2,000 hectares of native vegetation within a 30 metre corridor over 1,377 kilometres is unlikely to have a significant impact on the drainage associated vegetation types within the local or regional area.

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

**Methodology** GIS Database:  
- Geodata, Lakes  
- Hydrography, Linear  
- Kalgoorlie 50cm Orthomosaic - Landgate 2006  
- Leonora 1.4m Orthomosaic - Landgate 2003  
- Menzies 1.4m Orthomosaic - Landgate 2003  
- Newman 1.4m Orthomosaic - Landgate 2003  
- Paraburdoo 50cm Orthomosaic - Landgate 2004  
- Sir Samuel 50cm Orthomosaic - Landgate 2005

**(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 is broadly mapped as the Carnegie, Kirgella, Marmion, Deadman, Yowie, Gransal, Mink, Rainbow, Yandil, Wilson, Monitor, Bullimore, Sherwood, Desdemonia, Windara, Jundee, Dural, Thomas, Durlacher, Three Rivers, Jaminde, Divide, Augustus, Nooingnin, Ford, Prairie, Turee, Kooline, Rocklea, Ashburton, Stuart, Cane, Spearhole, Gundockerta, Bandy, Hospital, Barwidgee, Illaara, Wyarri, Mitchel, Leonora, Waguin, Ranch, Glengarry, Sunrise, Table, River, Sturt, Cyclops, Violet, Cunyu, Lorna, Yelma, Yanganoo, Tiger, Ararak, Frederick, Warri, George, Collier, Charley, Laterite, Egerton, Cadgie, Kunderong, Edward, Dollar, Ethel, Paraburdoo, Cheela, Boolgeeda, Capricorn, Urandy, Robe, Houndstooth, Sherlock, Calcrete, Newman, Nanutarra, Peedamulla, Horseflat and Elimunna land systems (GIS Database).

Southern Cross Pipelines Pty Ltd has proposed to clear 2,000 hectares of native vegetation over a 10 year period, distributed over a 1,377 kilometre long application area of approximately 4,500 hectares (APA Group, 2013). Clearing of native vegetation is predominately through rolling and slashing, but pruning to a minimum of 300 millimetres may also occur, as may mulching (to be left in situ), which will ensure soil is not removed (APA Group, 2013). The proposed clearing is not likely to result in large areas of disturbed or open land. Given the nature and scale of the proposed activities, the clearing is not likely to result in appreciable land degradation.

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

**Methodology** APA Group (2013)  
GIS Database:  
- Rangeland Land System Mapping

**(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 traverses through the Wanjarri Nature Reserve and the Goongarrie Nature Reserve (GIS Database).

The proponent has stated that the proposed clearing will be excluded from Department of Parks and Wildlife (DPaW) managed lands (APA Group, 2013). Advice from DPaW (2014) is that there has been no consultation with DPaW regarding access within DPaW managed land. Potential impacts to conservation areas as a result of the proposed clearing may be minimised by the implementation of a condition that restricts the amount of clearing in DPaW managed land.

Based on the above, the proposed clearing is may be at variance to this Principle.

**Methodology** APA Group (2013)  
DPaW (2014)  
GIS Database:  
- DEC Tenure

**(i) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause deterioration in the quality of surface or underground water.**

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

A small section of the application area is located within the Newman Water Reserve Public Drinking Water Source Area (PDWSA) (GIS Database). This PDWSA has been assigned a Priority 1 rating under the Water Source Protection Classification system. Clearing activities are only acceptable provided activities are carried out in accordance with DoW's water quality protection guidelines (DoW, 2013). Clearing for the maintenance of an existing pipeline is not likely to impact on the quality or quantity of water in the Newman Water Reserve PDWSA.

The application area is also located within the proclaimed Pilbara, East Murchison and Goldfields groundwater areas under the *Rights in Water and Irrigation Act 1914* (GIS Database). Any groundwater extraction and/or taking or diversion of surface water for the purpose other than domestic and/or stock watering is subject to licence by the Department of Water.

Any clearing proposed within the application area clearing area is likely to avoid low-lying areas where possible or clearing will occur along the existing pipeline corridor where impact has already occurred (APA Group, 2013). Clearing of native vegetation is predominately through rolling and slashing, but pruning to a minimum of 300 millimetres may also occur, as may mulching (to be left in situ) therefore not disturbing the soil surface (APA Group, 2013). The clearing of vegetation as a result of this proposal is therefore unlikely to result in any further deterioration in surface or groundwater quality in the local area.

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

**Methodology** APA Group (2013)  
DoW (2013)  
GIS Database:  
- Geodata, Lakes  
- Hydrography, Linear  
- Public Drinking Water Source Areas  
- RIWI Act, Groundwater Areas  
- Groundwater 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 areas lies across zones with low rainfall and any surface water within the application area is likely to only remain for short periods following significant rainfall events (Bastin & ACRIS, 2008). The linear nature of the proposed clearing is unlikely to cause or exacerbate flooding in the area (APA Group, 2013).

Given the size of the area to be cleared (2,000 hectares over 1,377 kilometres) compared to the sizes of the five catchment areas the application area intersects (Peter Creek catchment area -123,289 hectares; Robe River catchment area - 757,138 hectares; Cane River catchment area - 265,981 hectares; Fortescue River catchment area - 1,860,784 hectares, Ashburton River catchment area - 7,877,743 hectares, Gascoyne River catchment area - 8,039,088 hectares, Lake Carnegie catchment area - 6,867,525 hectares, Lake Carey catchment area - 11,378,213 hectares and Raeside-Ponton catchment area - 11,589,532 hectares) (GIS Database) it is not likely that the proposed clearing will lead to an appreciable increase in run off, and subsequently cause or exacerbate the incidence or intensity of flooding.

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

**Methodology** APA Group (2013)  
Bastin & ACRIS (2008)  
GIS Database:  
- Hydrographic Catchments - Catchments  
- Hydrography, Linear

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

**Comments**

There are several Native Title claims over the area under application (GIS Database). However, the mining tenure has been granted in accordance with the future act regime of the Native Title Act 1993 and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the Native Title Act 1993.

There are several registered Aboriginal Sites of Significance within the application area (GIS Database). It is the proponent's responsibility to comply with the Aboriginal Heritage Act 1972 and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment Regulation (formerly the Department of Environment and Conservation) and the Department of Water, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

The clearing permit application was advertised on 25 November 2013 by the Department of Mines and Petroleum inviting submissions from the public. No submissions were received to the proposed clearing.

**Methodology** GIS Database:  
- Aboriginal Sites of Significance  
- Native Title Claims - Registered with the NNTT  
- Native Title Claims - Filed at the Federal Court  
- Native Title Claims - Determined by the Federal Court

**4. References**

- APA Group (2013) Application for a Clearing Permit (Purpose Permit), Goldfields Gas Pipeline Operations Supporting Documentation. Internal Document, October 2013.
- Bastin, G & ACRIS Management Committee (Bastin & ACRIS) (2008) Rangelands 2008 - Taking the Pulse. Published on behalf of the ACRIS Management Committee by the National Land & Water Resources Audit, Canberra.
- Department of Parks and Wildlife (DPaW) (2013) NatureMap Department of Parks and Wildlife, viewed 30 December 2013 <<http://naturemap.dec.wa.gov.au>>.
- Department of Parks and Wildlife (DPaW) (2014) Advice Regarding CPS 5875/1 - DPaW managed land. Internal Document, January 2014.



Department of Water (DoW) (2013) Advice regarding clearing permit application CPS 5617/1, Department of Water, 27 June 2013.

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.

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

Outback Ecology (2012) Goldfields Gas Pipeline Pilbara Facilities - Level 1 Vegetation and Flora Survey. Prepared for APA Group, February 2012.

## 5. Glossary

### Acronyms:

<b>BoM</b>	Bureau of Meteorology, Australian Government
<b>CALM</b>	Department of Conservation and Land Management (now DEC), Western Australia
<b>DAFWA</b>	Department of Agriculture and Food, Western Australia
<b>DEC</b>	Department of Environment and Conservation, Western Australia
<b>DEH</b>	Department of Environment and Heritage (federal based in Canberra) previously Environment Australia
<b>DEP</b>	Department of Environment Protection (now DEC), Western Australia
<b>DIA</b>	Department of Indigenous Affairs
<b>DLI</b>	Department of Land Information, Western Australia
<b>DMP</b>	Department of Mines and Petroleum, Western Australia
<b>DoE</b>	Department of Environment (now DEC), Western Australia
<b>DoIR</b>	Department of Industry and Resources (now DMP), Western Australia
<b>DOLA</b>	Department of Land Administration, Western Australia
<b>DoW</b>	Department of Water
<b>EP Act</b>	Environmental Protection Act 1986, Western Australia
<b>EPBC Act</b>	Environment Protection and Biodiversity Conservation Act 1999 (Federal Act)
<b>GIS</b>	Geographical Information System
<b>ha</b>	Hectare (10,000 square metres)
<b>IBRA</b>	Interim Biogeographic Regionalisation for Australia
<b>IUCN</b>	International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union
<b>RIWI Act</b>	Rights in Water and Irrigation Act 1914, Western Australia
<b>s.17</b>	Section 17 of the Environment Protection Act 1986, Western Australia
<b>TEC</b>	Threatened Ecological Community

### Definitions:

{Atkins, K (2005). *Declared rare and priority flora list for Western Australia, 22 February 2005*. Department of Conservation and Land Management, Como, Western Australia} :-

- P1** **Priority One - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations which are under threat, either due to small population size, or being on lands under immediate threat, e.g. road verges, urban areas, farmland, active mineral leases, etc., or the plants are under threat, e.g. from disease, grazing by feral animals, etc. May include taxa with threatened populations on protected lands. Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P2** **Priority Two - Poorly Known taxa:** taxa which are known from one or a few (generally <5) populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in urgent need of further survey.
- P3** **Priority Three - Poorly Known taxa:** taxa which are known from several populations, at least some of which are not believed to be under immediate threat (i.e. not currently endangered). Such taxa are under consideration for declaration as 'rare flora', but are in need of further survey.
- P4** **Priority Four – Rare taxa:** taxa which are considered to have been adequately surveyed and which, whilst being rare (in Australia), are not currently threatened by any identifiable factors. These taxa require monitoring every 5–10 years.
- R** **Declared Rare Flora – Extant taxa (= Threatened Flora = Endangered + Vulnerable):** taxa which have been adequately searched for, and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.
- X** **Declared Rare Flora - Presumed Extinct taxa:** taxa which have not been collected, or otherwise verified, over the past 50 years despite thorough searching, or of which all known wild populations have been destroyed more recently, and have been gazetted as such, following approval by the Minister for the Environment, after recommendation by the State's Endangered Flora Consultative Committee.

{Wildlife Conservation (Specially Protected Fauna) Notice 2005} [Wildlife Conservation Act 1950] :-

- Schedule 1** **Schedule 1 – Fauna that is rare or likely to become extinct:** being fauna that is rare or likely to become extinct, are declared to be fauna that is need of special protection.

- Schedule 2**    **Schedule 2 – Fauna that is presumed to be extinct:** being fauna that is presumed to be extinct, are declared to be fauna that is need of special protection.
- Schedule 3**    **Schedule 3 – Birds protected under an international agreement:** being birds that are subject to an agreement between the governments of Australia and Japan relating to the protection of migratory birds and birds in danger of extinction, are declared to be fauna that is need of special protection.
- Schedule 4**    **Schedule 4 – Other specially protected fauna:** being fauna that is declared to be fauna that is in need of special protection, otherwise than for the reasons mentioned in Schedules 1, 2 or 3.

{CALM (2005). *Priority Codes for Fauna*. Department of Conservation and Land Management, Como, Western Australia} :-

- P1**            **Priority One: Taxa with few, poorly known populations on threatened lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, active mineral leases. The taxa needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P2**            **Priority Two: Taxa with few, poorly known populations on conservation lands:** Taxa which are known from few specimens or sight records from one or a few localities on lands not under immediate threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, State forest, vacant Crown land, water reserves, etc. The taxa needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P3**            **Priority Three: Taxa with several, poorly known populations, some on conservation lands:** Taxa which are known from few specimens or sight records from several localities, some of which are on lands not under immediate threat of habitat destruction or degradation. The taxa needs urgent survey and evaluation of conservation status before consideration can be given to declaration as threatened fauna.
- P4**            **Priority Four: Taxa in need of monitoring:** Taxa which are considered to have been adequately surveyed, or for which sufficient knowledge is available, and which are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.
- P5**            **Priority Five: Taxa in need of monitoring:** Taxa which are not considered threatened but are subject to a specific conservation program, the cessation of which would result in the species becoming threatened within five years.

**Categories of threatened species (*Environment Protection and Biodiversity Conservation Act 1999*)**

- EX**            **Extinct:** A native species for which there is no reasonable doubt that the last member of the species has died.
- EX(W)**        **Extinct in the wild:** A native species which:  
 (a) is known only to survive in cultivation, in captivity or as a naturalised population well outside its past range; or  
 (b) has not been recorded in its known and/or expected habitat, at appropriate seasons, anywhere in its past range, despite exhaustive surveys over a time frame appropriate to its life cycle and form.
- CR**            **Critically Endangered:** A native species which is facing an extremely high risk of extinction in the wild in the immediate future, as determined in accordance with the prescribed criteria.
- EN**            **Endangered:** A native species which:  
 (a) is not critically endangered; and  
 (b) is facing a very high risk of extinction in the wild in the near future, as determined in accordance with the prescribed criteria.
- VU**            **Vulnerable:** A native species which:  
 (a) is not critically endangered or endangered; and  
 (b) is facing a high risk of extinction in the wild in the medium-term future, as determined in accordance with the prescribed criteria.
- CD**            **Conservation Dependent:** A native species which is the focus of a specific conservation program, the cessation of which would result in the species becoming vulnerable, endangered or critically endangered within a period of 5 years.