

#### CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number: CPS 5535/1

Permit Holder: Department of Mines and Petroleum (WA)

**Duration of Permit:** 31 May 2013 – 31 May 2018

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 geotechnical investigations.

# 2. Land on which clearing is to be done

Lot 144 on Deposited Plan 27731, Allanson Lot 145 on Deposited Plan 27731, Allanson

Lot 146 on Deposited Plan 27731, Allanson

Ferguson Road reserve (PIN 1234797), Collie

Unnamed road reserve (PIN 1234801), Mungalup

## 3. Area of Clearing

The Permit Holder must not clear more than 1 hectare of native vegetation within the area shaded yellow on attached Plan 5535/1.

# 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

This Permit authorises the Permit Holder to clear native vegetation for activities to the extent that the Permit Holder has the right to access land under the *Land Administration Act 1997* or any other written law.

# 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. Dieback and weed control

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

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

# 9. 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 shaded yellow on Plan 5535/1.

# DEFINITIONS

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

dieback means the effect of Phytophthora species on native vegetation;

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

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

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;

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

watercourse has the meaning given to it in section 3 of the Rights in Water and Irrigation Act 1914; weed/s means any plant -

- (a) that is declared under section 37 of the Agriculture and Related Resources Protection Act 1976;
   or
- (b) published in the Department of Environment and Conservation Regional Weed Assessments, regardless of ranking; or
- (c) not indigenous to the area concerned.

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.

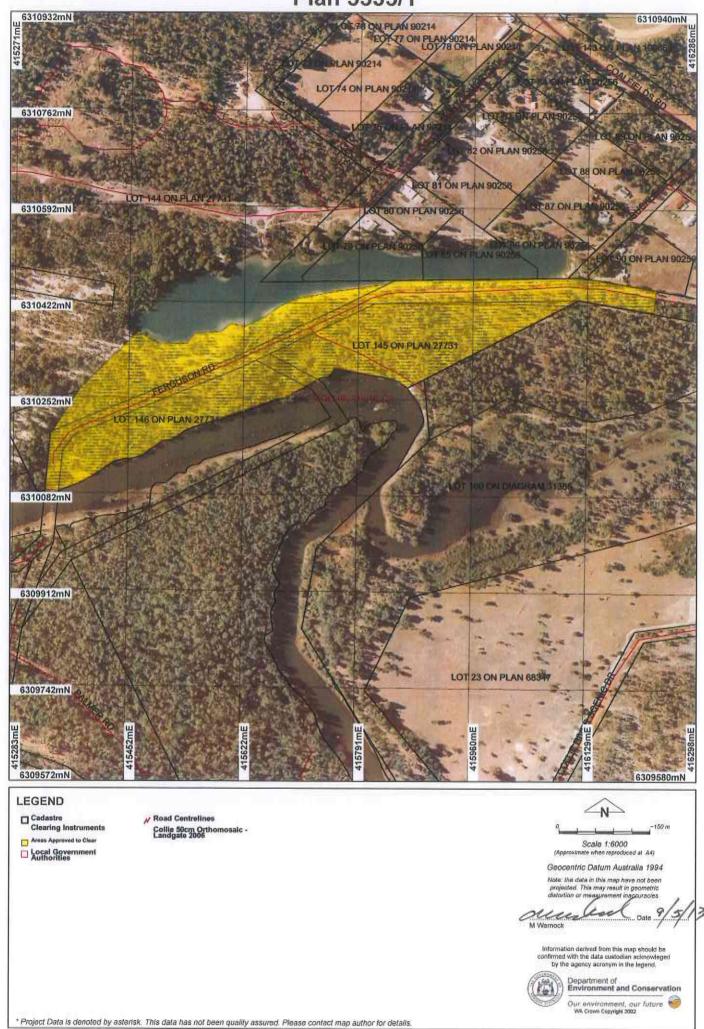
Audled M Warnock MANAGER

NATIVE VEGETATION CONSERVATION BRANCH

Officer delegated under Section 20 of the Environmental Protection Act 1986

9 May 2013

# Plan 5535/1





# **Clearing Permit Decision Report**

# 1. Application details

1.1. Permit application details

Permit application No.:

5535/1

Permit type:

Purpose Permit

1.2. Proponent details

Proponent's name:

Department of Mines and Petroleum

1.3. Property details

Property:

ROAD RESERVE (COLLIE 6225)

LOT 145 ON PLAN 27731 (Lot No. 145 FERGUSON ALLANSON 6225) LOT 146 ON PLAN 27731 (Lot No. 146 FERGUSON ALLANSON 6225)

ROAD RESERVE (MUNGALUP 6225)

LOT 144 ON PLAN 27731 (Lot No. 144 COALFIELDS ALLANSON 6225)

Local Government Area:

Colloquial name:

Shire of Collie

1.4. Application

Clearing Area (ha)

No. Trees

Method of Clearing

For the purpose of:

Mechanical Removal

Geotechnical investigations

1.5. Decision on application

Decision on Permit Application:

**Decision Date:** 

9 May 2013

# 2. Site Information

# 2.1. Existing environment and information

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

#### Vegetation Description

Beard Vegetation Association: 3 - Medium forest; jarrah-marri (Shepherd et al. 2001).

Heddle Vegetation Complex: Muja Complex - Open Woodland of Melaleuca preissiana - B. Littoralis, Yarri (E. Patens) dominate moister areas, woodland of Banksia spp. on drier areas (Heddle et al. 1980).

Mattiske Vegetation Complex: Muja Complex - Open woodland of Melaleuca preissiana - Banksia littoralis - Banksia ilicifolia with some Eucalyptus patens on moister sites, s24 Banksia spp. on drier sites of valley floors in the subhumid zone (Mattiske & Havel 1998).

#### Clearing Description

The application is to clear up to one hectare of native vegetation within a 12 hectare footprint. The proposed clearing occurs with Lots 144, 145 and 146 on Deposited Plan 27731 (Reserves 23032 and 47126), Allanson, Ferguson Road reserve, Collie and an unnamed road reserve, Mungalup, and is for the purpose of geotechnical investigations.

The vegetation under application is a Eucalyptus marginata, Corymbia calophylla forest with E. Rudis, with an understorey of Taxandria linearifolia, Xanthorrhoea preissil, Macrozamia riedlei, Hypocalymma angustifolium, Acacia pulchella, Pteridium esculentum, Adenanthos obovatus and other small herbaceous species and sedges (DEC 2013a).

#### Vegetation Condition

Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994).

To

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

#### Comment

Vegetation description and condition were determined through aerial imagery and a Department of Environment and Conservation site inspection (DEC 2013a).

# 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 application is to clear up to one hectare of native vegetation within a 12 hectare footprint. The proposed clearing occurs with Lots 144, 145 and 146 on Deposited Plan 27731 (Reserves 23032 and 47126), Allanson, Ferguson Road reserve, Collie and an unnamed road reserve, Mungalup, and is for the purpose of geotechnical investigations.

The vegetation under application is a Eucalyptus marginata, Corymbia calophylla forest with E. Rudis, with an understorey of Taxandria linearifolia, Xanthorrhoea preissii, Macrozamia riedlei, Hypocalymma angustifolium, Acacia pulchella, Pteridium esculentum, Adenanthos obovatus and other small herbaceous species and sedges (DEC 2013a). The vegetation is in good to very good (Keighery 1994) condition.

The applicant has advised that clearing of native vegetation will be minimal and investigations will be conducted

in previously disturbed areas and on bare ground where possible (Department of Mines and Petroleum 2013). The applicant has advised that no large trees or significant stands of vegetation will be impacted (DMP 2013).

There are numerous priority flora recorded within the local area (10 kilometre radius). There are two records of a priority four flora species occurring within the application area. A Department of Environment and Conservation (DEC) site inspection identified several individuals of this species (DEC 2013a). This species has a large geographic distribution, with 12 known populations of which eight are within conservation estates. The loss of individuals through the proposed clearing is likely to have minimal impact on the conservation status of this species (DEC 2013b). The applicant will be advised to avoid clearing this species where possible.

There are no priority ecological communities within the local area (10 kilometre radius).

The application area occurs in an area of vegetation identified under the Greater Bunbury Regional Scheme as the Collie River ecological link, a Riverine Ecological Linkage (EPA 2003). This same linkage is identified in the South West Regional Ecological Linkages (SWREL) (Molloy et al. 2009). Under the SWREL Project the adjacent vegetation has a proximity value of 1a to this linkage, meaning the vegetation has an edge touching, or is less than 100 metres from, a linkage axis line (Molloy et al. 2009).

These linkages provide an important corridor for the dispersal of native fauna as well as consisting of significant breeding and foraging habitat for local fauna. A buffer protecting the vegetation along the Collie River will assist in maintaining the integrity of this linkage.

The disturbance caused by the proposed clearing will increase the risk of weeds and dieback being introduced into adjacent vegetation as well as vegetation within the application area that will not be cleared. Weed and dieback management practices will assist in mitigating this risk.

Given the application area contains priority flora and occurs within an ecological linkage, the proposed clearing may contain a high level of biodiversity. Therefore, the proposed clearing may be at variance to this principle.

#### Methodology

References:

DEC 2013a

**DEC 2013b** 

**DMP 2013** 

EPA 2003

Keighery 1994

Molloy et al. 2009

GIS Databases:

- Collie 50cm Orthomosaic Landgate 2006
- SAC Biodatasets
- SWREL axis lines

# (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 are numerous fauna species of conservation significance within the local area (10 kilometre radius) (DEC 2007-).

The local area (10 kilometre radius) provides habitat to Carnaby's Cockatoo (Calyptorhynchus latirostris; rare or likely to become extinct, Wildlife Conservation Act 1950; endangered, Environment Protection and Biodiversity Conservation Act 1999), Forest Red-tailed Black-Cockatoo (Calyptorhynchus banksii subsp. Naso; rare or likely to become extinct, Wildlife Conservation Act 1950; vulnerable, Environment Protection and Biodiversity Conservation Act 1999) and Baudin's Cockatoo (Calyptorhynchus baudinii; rare or likely to become extinct, Wildlife Conservation Act 1950; vulnerable, Environment Protection and Biodiversity Conservation Act 1999) (DEC, 2007-).

Other threatened species recorded within the local area (10 kilometre radius) include the Chuditch/ Western Quoll (Dasyurus geoffroii), Western Ringtail Possum (Pseudocheirus occidentalis), Quokka (Setonix brachyurus) and Southern Brush-tailed Phascogale (Phascogale tapoatafa subsp. Tapoatafa) (DEC 2007-).

The vegetation under application is a Eucalyptus marginata, Corymbia calophylla forest with E. Rudis, with an understorey of Taxandria linearifolia, Xanthorrhoea preissii, Macrozamia riedlei, Hypocalymma angustifolium, Acacia pulchella, Pteridium esculentum, Adenanthos obovatus and other small herbaceous species and sedges (DEC 2013a). The vegetation under application may provide habitat for the above-mentioned species.

The application area occurs in an area of vegetation identified under the Greater Bunbury Regional Scheme as the Collie River ecological link, a Riverine Ecological Linkage (EPA 2003). This same linkage is identified in the South West Regional Ecological Linkages (SWREL) (Molloy et al. 2009). Under the SWREL Project the adjacent vegetation has a proximity value of 1a to this linkage, meaning the vegetation has an edge touching, or is less than 100 metres from, a linkage axis line (Molloy et al. 2009).

These linkages provide an important corridor for the dispersal of native fauna as well as consisting of significant breeding and foraging habitat for local fauna. A buffer protecting the vegetation along the Collie River will assist in maintaining the integrity of this linkage.

The application area is within close proximity to Collie State Forest and Westralia Conservation Park. Given the extent of the surrounding vegetation, vegetation that is removed is unlikely to be significant habitat for fauna species.

The applicant has advised that clearing will be minimised and investigations will be conducted on previously disturbed areas and bare ground where possible (DMP 2013). The applicant has advised that no large trees or significant stands of vegetation will be impacted (DMP 2013).

Given the significant remnants of vegetation surrounding the application area, the proposed clearing is not likely to be at variance to this principle.

#### Methodology

References:

DEC 2007-

DEC 2013a

**DMP 2013** 

EPA 2003

Molloy et al. 2009

GIS Databases:

- Collie 50cm Orthomosaic Landgate 2006
- DEC Tenure
- SWREL axis lines

### (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 is one rare flora species mapped within the local area (10 kilometre radius). The closest record of this species is located approximately 9.6 kilometres from the application area. This record is located on the same mapped vegetation type as the application, but not on the same soil type.

This species occurs in Jarrah forest on lateritic clay/loam soils (DEC 2009). The soil over the application area is mapped as having chief soils of leached sand, often containing ironstone gravel (Northcote et al. 1960-1968). Given the unsuitable soil type, this rare flora species is unlikely to occur within the application area.

Therefore, the proposed clearing is not likely to be at variance to this principle.

# Methodology

References:

**DEC 2009** 

Northcote et al. 1960-1968

GIS Databases:

- SAC Biodatasets
- Soils, Statewide

# (d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of a threatened ecological community.

#### Comments

#### Proposal is not likely to be at variance to this Principle

There are no threatened ecological communities (TEC) within the local area (10 kilometre radius). The vegetation under application is unlikely to be representative of any TEC.

Therefore, the proposed clearing is not likely to be at variance to this principle.

#### Methodology

GIS Databases:

- SAC Biodatasets

# (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

Aerial photography indicates the local area (10 kilometre radius) is approximately 80 percent vegetated.

The IBRA Bioregion (Jarrah Forest) and the local government agency (Shire of Collie) retain approximately 55 percent and 83 percent of their respective pre-European extents (Government of Western Australia 2013).

The application area is mapped as Beard Vegetation Association 3, which retains approximately 1 641 272 hectares (69 percent) of its pre-European extent within the Jarrah Forest IBRA Bioregion.

The application area is mapped as Heddle Vegetation Complex Muja and Mattiske Vegetation Complex Muja, which both retain approximately 61 percent of their pre-European extents.

The national objectives and targets for biodiversity conservation in Australia has a target to prevent clearance of ecological communities with an extent below 30 percent of that present pre-1750, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).

The mapped Beard Vegetation Association, Heddle Vegetation Complex and Mattiske Vegetation Complex all retain greater than 30 percent of their pre-European extents.

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

	Pre-European (ha)	는 이번 경험에 없으면 되어요. 그렇게 하게 되는 것이 되어 있다면 되었다. () 하지 않는 다른		Extent in DEC Managed Lands (%)
IBRA Bioregion*	(IIa)	(ha)	(%)	Managed Lands (70)
Jarrah Forest	4 506 657	2 473 560	55	68
Shire*				
Shire of Collie	170 198	141 304	83	89
Beard Vegetation Assoc	iation in Bioregion*			
3	2 390 592	1 641 272	69	80
Heddle Vegetation Comp	olex**			
Muja Complex	10 522	6 441	61	43
Mattiske Vegetation Con	nplex***			
Muja Complex	10 201	6 228	61	44
* Government of Western	n Australia 2013	OT TOWNS	110-410-5	Termital.
** Heddle et al. 1980				

# Methodology

References:

Commonwealth of Australia 2001 Government of Western Australia 2013

Heddle et al. 1980 Mattiske and Havel 1998

\*\*\* Mattiske and Havel 1998

GIS Databases:

- Collie 50cm Othormosaic Landgate 2006
- Heddle Vegetation Complexes
- Mattiske Vegetation Complexes
- NLWRA, Current extent of Native Vegetation
- Pre-European Vegetation

# (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.

#### Comments

# Proposal is at variance to this Principle

The proposed clearing is located between the Collie River and Black Diamond Lake (a water-filled mine void) and extends to the edge of both watercourses. During a DEC site inspection, riparian vegetation was observed (DEC 2013a).

Given the above, the proposed clearing is at variance to the proposed clearing.

The applicant has advised that clearing will be minimised and investigations will be conducted on previously disturbed areas and bare ground where possible (DMP 2013). A 30 metre buffer will be placed along the Collie River to prevent clearing riparian vegetation.

#### Methodology

References: DEC 2013a DMP 2013 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 is not likely to be at variance to this Principle

The soil mapped over the application area is Cb44, which Northcote et al. (1960 - 1968) describes as the Collie basin area, generally flat to strongly undulating land with many sandy flats and swamps: chief soils seem to be leached sands in the lower and more swampy sites, often containing ironstone gravels, on flat to gently sloping areas.

The mean annual rainfall of the application area is 1100 mm. The application area has a relatively flat topography, ranging from 165 to 180 metres elevation.

The main land degradation risk associated with this sandy soil type is wind erosion. However, the presence of gravel within the soil reduces the likelihood of wind erosion. Given the porous nature of the soil, significant water erosion through rainfall is unlikely to occur.

Removing riparian vegetation could lead to soil erosion along the banks of watercourses. A buffer of 30 metres along the Collie River will reduce the likelihood of water erosion along this watercourse. A wall along the southern edge of Black Diamond Lake will prevent water erosion along this watercourse.

The proposed clearing is likely to be minimal, with vegetation remaining around isolated investigation sites (DMP 2013). The proposed clearing is not likely to cause appreciable land degradation.

Therefore, the application is not likely to be at variance to this principle.

#### Methodology

References:

DMP 2013

Northcote et al. 1960-1968

GIS Databases:

- Mean annual rainfall
- 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 is not likely to be at variance to this Principle

There are numerous DEC managed lands within the local area (10 kilometre radius).

The application area is located approximately 600 metres from Westralia Conservation Park. A small area of the proposed clearing is directly adjacent to Collie State Forest. A buffer of 30 metres along the Collie River will prevent this vegetation from being cleared. The rest of Collie State Forest is separated from the application area by the Collie River and previously cleared areas.

The application area occurs in an area of vegetation identified under the Greater Bunbury Regional Scheme as the Collie River ecological link, a Riverine Ecological Linkage (EPA 2003). This same linkage is identified in the South West Regional Ecological Linkages (SWREL) (Molloy et al. 2009). Under the SWREL Project the adjacent vegetation has a proximity value of 1a to this linkage, meaning the vegetation has an edge touching, or is less than 100 metres from, a linkage axis line (Molloy et al. 2009).

These linkages provide an important corridor for the dispersal of native fauna as well as consisting of significant breeding and foraging habitat for local fauna. A buffer protecting the vegetation along the Collie River will assist in maintaining the integrity of this linkage.

Given that clearing will occur on small patches of vegetation, the proposed clearing is unlikely to fragment the vegetation remnant it occurs within. However, the disturbance caused by the proposed clearing will increase the risk of weeds and dieback being introduced into the adjacent vegetation. Weed and dieback management practices will assist in mitigating this risk.

Therefore, the proposed clearing is not likely to be at variance to this principle.

#### Methodology

References:

EPA 2003

Molloy et al. 2009

GIS Databases:

- Collie 50cm Othormosaic Landgate 2006
- DEC Tenure
- Hydrography, Linear
- SWREL axis lines

# (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 proposed clearing is located between the Collie River and Black Diamond Lake (a water-filled mine void) and extends to the edge of both watercourses.

Removing vegetation along the Collie River could lead to sedimentation within the watercourse and would impact water quality. A buffer of 30 metres along the Collie River will reduce the likelihood of the proposed clearing impacting on surface water quality. A wall along the southern edge of Black Diamond Lake will prevent impacts to the surface water along this watercourse.

The groundwater salinity within the application area is mapped as 500-1000 milligrams per litre of total dissolved solids. This level of salinity is considered marginal. Given that the removal of vegetation is likely to be minimal and large stands of vegetation will remain, the proposed clearing is unlikely to increase groundwater salinity.

Therefore, the proposed clearing is not likely to be at variance to this principle.

#### Methodology

GIS Databases:

- Groundwater Salinity, Statewide
- Hydrography, Linear

# (j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.

#### Comments

# Proposal is not likely to be at variance to this Principle

The application area has been mapped as soil type Cb44, which Northcote et al. (1960 - 1968) describes as the Collie basin area, generally flat to strongly undulating land with many sandy flats and swamps: chief soils seem to be leached sands in the lower and more swampy sites, often containing ironstone gravels, on flat to gently sloping areas.

Given the relatively small area of proposed clearing, the porous nature of the soil mapped over the application area and the surrounding vegetation, the proposed clearing is not likely to increase the incidence or intensity of flooding.

Therefore, the proposed clearing is not likely to be at variance to this principle.

#### Methodology

References:

Northcote et al. 1960-1968

GIS Databases:

- Soils, Statewide

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

#### Comments

The proposed clearing is to allow for geotechnical investigations and soil sampling at the properties under application. Black Diamond Lake is a water-filled mine void which is used by the public for recreation. The applicant wishes to improve the safety of the area as a result of previous injuries and fatalities to members of the public. The applicant requires investigations and sampling to occur in order to progress management options to reduce the hazard potential of the site (DMP 2013).

The Shire of Collie has provided the applicant with authority to access Lot 145 on Plan 27731 (Reserve 47126), Allanson, Ferguson Road reserve, Collie and an unnamed road reserve, Mungalup (Shire of Collie 2013).

The Shire of Collie has advised they do no object to the proposed clearing and that the geotechnical investigations proposed do not constitute development and as such do not require planning approval to be issued under the Shire of Collier Local Planning Scheme No. 5 (Shire of Collie 2013).

The application area is located within the Collie River Irrigation District, a surface water area, and the Collie Groundwater Area, covered by the Rights in Water and Irrigation (RIWI) Act 1914. The Department of Water has not provided comment on this application in relation to the RIWI Act 1914.

The application area is located within a Zone D of the Wellington Dam Catchment Area, a Country Areas Water Supply Act 1947 area. The application area is located within an unassigned priority Public Drinking Water Source Area. The Department of Water has no objection to the proposed clearing (Dow 2013).

The application area is located within the Collie River Waugal area, an Aboriginal Site of Significance. The applicant will be notified of their responsibilities under the Aboriginal Heritage Act 1972.

The application area is located within a Native Title claim area determined by the Federal Court. The claimants

were given the opportunity to make comment on the application. The South West Aboriginal Land and Sea Council has advised that they would not be able to provide formal comment until 25 May 2013 (SWALSC 2013). The applicant will be advised of their obligations under the Native Title Act 1993.

No public submissions have been received in relation to this application.

#### Methodology

References:

DMP 2013 DoW 2013

Shire of Collie 2013 SWALSC 2013 GIS Databases:

- CAWS areas

- RIWI Act areas

- PDWS areas

#### 4. References

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra. DEC (2007 - ) NatureMap: Mapping Western Australia's Biodiversity. Department of Environment and Conservation. URL: http://naturemap.dec.wa.gov.au/. Accessed 05/04/2013.

DEC (2009) Rare Grevillea (Grevillea rara) Recovery Plan. Department of Environment and Conservation, Western Australia. DEC (2013a) Site Inspection Report for Clearing Permit Application CPS 5535/1. Site inspection undertaken 30/04/2013. Department of Environment and Conservation, Western Australia. DEC REF: A625655.

DEC (2013b) Advice regarding priority four flora species. Received 26/04/2013. Department of Environment and Conservation, Western Australia, DEC REF; A624892.

DMP (2013) Clearing Permit Application CPS 5535/1 - Geotechnical Investigations at Black Diamond Lake. Department of Mines and Petroleum, Western Australia. DEC REF: A608779.

DoW (2013) Response to Direct Interest Letter for Clearing Permit Application CPS 5535/1. Received 12/04/2013. Department of Water, Western Australia. DEC REF: A619582.

EPA (2003) Greater Bunbury Region Scheme, Bulletin 1108, Environmental Protection Authority, Western Australia, (2013), 2012 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis

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.

Heddle, E. M., Loneragan, O. W., and Havel, J. J. (1980) Vegetation Complexes of the Darling System, Western Australia. In Department of Conservation and Environment, Atlas of Natural Resources, Darling System, Western Australia.

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

Mattiske, E.M. and Havel, J.J. (1998) Vegetation Complexes of the South-west Forest Region of Western Australia. Maps and report prepared as part of the Regional Forest Agreement, Western Australia for the Department of Conservation and Land Management and Environment Australia.

Molloy, S, Wood, J, Hall, S, Wallrodt, S and Whisson G (2009) South Western Regional Ecological Linkages Technical report, Western Australian Local Government Association and Department of Environment and Conservation, Perth.

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., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249.

Department of Agriculture Western Australia, South Perth.

Shire of Collie (2013) Supporting information provided with Clearing Permit Application CPS 5535/1. Shire of Collie, Western Australia. DEC REF: A608779.

SWALSC (2013) Response to notification under the Native Title Act 1993. Received 19/04/2013. South West Aboriginal Land and Sea Council, Western Australia. DEC REF: A622420.

# 5. Glossary

Term Meaning

BCS Biodiversity Coordination Section of DEC

CALM Department of Conservation and Land Management (now BCS)

DAFWA Department of Agriculture and Food

DEC Department of Environment and Conservation
DEP Department of Environmental Protection (now DEC)

DoE Department of Environment DRF Declared Rare Flora

GIS Geographical Information System ha Hectare (10,000 square metres)

na Hectare (10,000 square metres)
TEC Threatened Ecological Community