



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 4283/1
File Number: 2011/002490
Duration of Permit: From 20 June 2011 to 20 June 2013

PERMIT HOLDER

Giuseppe Delfino and Santina Delfino

LAND ON WHICH CLEARING IS TO BE DONE

Lot 35 on Deposited Plan 235117, Queenwood

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 1 hectare of native vegetation within the area hatched yellow on attached Plan 4283/1.

CONDITIONS

1. 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.

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;

weeds means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.

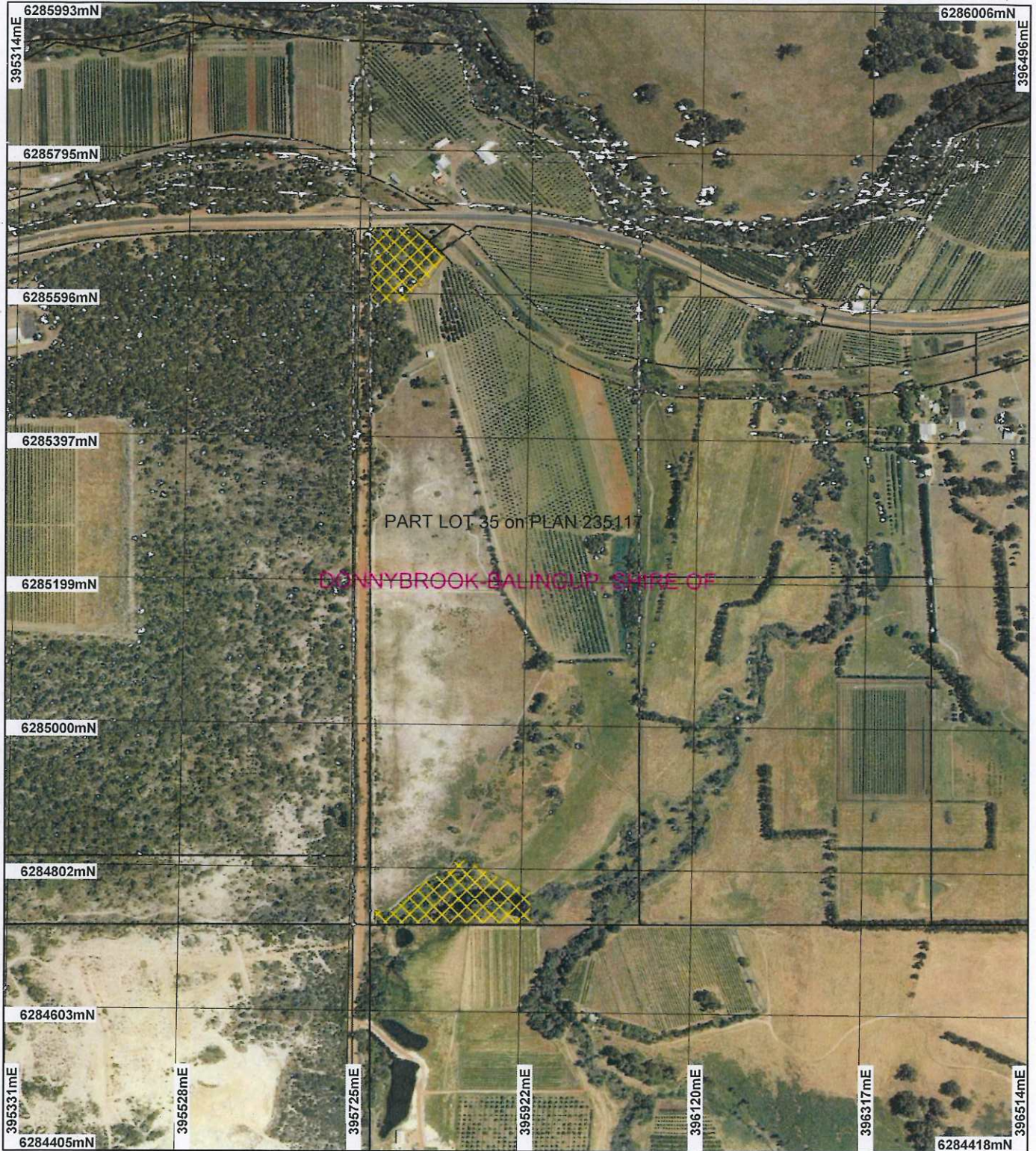
A handwritten signature in black ink, appearing to be "K. Faulkner", written over a horizontal line.

Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

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

26 May 2011

Plan 4283/1



LEGEND

Local Government Authorities

Clearing Instruments

Areas Approved to Clear

Cadastral
Donnybrook 50cm
Orthomosaic - Landgate
2004



Scale 1:7000
(Approximate when reproduced at A4)

Geocentric Datum Australia 1994

Note: the data in this map have not been projected. This may result in geometric distortion or measurement inaccuracies.

K Faulkner Date 26/5/11
K Faulkner

Officer with delegated authority under Section 20 of the Environmental Protection Act 1986

Information derived from this map should be confirmed with the data custodian acknowledged by the agency acronym in the legend.



Department of Environment and Conservation

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1. Application details

1.1. Permit application details

Permit application No.: 4283/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Guiseppe and Santina Delfino

1.3. Property details

Property: PART LOT 35 ON PLAN 235117 (House No. 439 DONNYBROOK-BOYUP BROOK QUEENWOOD 6239)
PART LOT 35 ON PLAN 235117 (House No. 439 DONNYBROOK-BOYUP BROOK QUEENWOOD 6239)
Local Government Area: Shire of Donnybrook- Balingup

1.4. Application

Clearing Area (ha)	Method of Clearing	For the purpose of:
0.5	Mechanical Removal	Building or Structure
0.5	Mechanical Removal	Dam construction or maintenance

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 26 May 2011

2. Site Information

2.1. Existing environment and information

2.1.1. Description of the native vegetation under application

Vegetation Description	Clearing Description	Vegetation Condition	Comment
Beard Vegetation Associations: 3 - Medium forest; jarrah-marri	The proposal is to clear 1 hectare of native vegetation within the Shire of Donnybrook-Balingup for the purpose of dam expansion (0.5ha) and construction of a house and shed (0.5ha). The northern section is in a good to very good condition, whilst the southern section has already been partially cleared and ranged from good to degraded condition (Keighery, 1994).	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The vegetation condition was determined from a DEC site inspection (02/05/11)
Mattiske Vegetation Complexes: Kirup - Open forest to woodland of Eucalyptus marginata subsp. marginata-Corymbia calophylla-Banksia attenuata-Xylomelum occidentale on sandy slopes in the humid zone.	The overstorey of the southern area under application is comprised of flooded gums (Eucalyptus rudis) which are primarily located along the outer edge of the riparian vegetation. The understorey was primarily Taxandria linearifolia with some Callistachys lanceolata and the groundcover consisted of various sedge species dominated by Lepidosperma tetraquetrum as well as L. longitudinal, Baumea preissii, Pteridium esculentum and Persicaria prostrate. There is also an area of introduced blackberry plants. Normally there is an area of wetland but due to a very dry winter in 2010, this area is now dry with grass covering the ground.	to Good: Structure significantly altered by multiple disturbance; retains basic structure/ability to regenerate (Keighery 1994)	
Mumballup- Open forest of Eucalyptus patens-Corymbia calophylla on slopes and woodland of Eucalyptus rudis-Melaleuca raphiophylla on lower valley floor in the humid zone.		to Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery 1994)	
Hedde Vegetation Complex: Williams-Avon-Brockman-Mumballup- no data.	The overstorey of the northern area under application is regrowth marri (Corymbia calophylla) while the understorey is sparse and made up of Persoonia longifolia, Xanthorrhoea		

preissii, X. gracilis and Hakea lissocarpa. The ground is predominantly bare with some X. gracilis plants and some small herbs.

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**

This proposal is to clear 1 hectare of native vegetation within the Shire of Donnybrook-Balingup for the purpose of dam expansion (0.5ha) and construction of a house and shed (0.5ha).

This proposal is to clear 1 hectare of native vegetation within the Shire of Donnybrook-Balingup for the purpose of dam expansion (0.5ha) and construction of a house and shed (0.5ha).

The native vegetation within the two application areas range from 'degraded' to 'very good' condition with the northern 0.5ha section in a good to very good condition and the southern 0.5ha section in a good to degraded condition (Keighery, 1994). The vegetation is predominantly open forest to woodland of jarrah (*Eucalyptus marginata* subsp. *marginata*), marri (*Corymbia calophylla*), banksia (*Banksia attenuata*) and woody pear (*Xylomelum occidentale*) (Shepherd 2009, Western Australian Herbarium, 1998-).

There are twenty nine known records of nine species of threatened fauna within the local area (10km radius), including four mammalian species, five bird species and one invertebrate (DEC 2007-). Three of the four mammals and three of the five bird species are listed as rare or likely to become extinct (DEC 2007-) however no suitable nesting habitats for these species occur within the application areas (DEC, 2011).

The local area is approximately 60% vegetated with approximately 62% of the identified vegetation associations pre-European extent remaining (Shepherd 2009).

No priority ecological communities occur within a 10km radius. Three priority flora occur within the 3km of the proposed clearing- *Acacia semitrullata* (priority 4), *Caustis* sp. *Boyanup* (priority 3) and *Tetratheca parvifolia* (priority 3) although the site inspection revealed only *Tetratheca parvifolia* (P3) occurring within the local area.

Given the above, the proposal is unlikely to be at variance to this principle.

Methodology DEC (2011)
DEC (2007-)
Aerial survey using GIS Viewer
Keighery (1994)
Shepherd (2009)
GIS Databases:
-NWLRA, Current Extent of Native Vegetation
-Donnybrook 50cm Orthomosaic - Landgate 2004
SAC Bio Datasets (Accessed 11/04/11)

(b) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the maintenance of, a significant habitat for fauna indigenous to Western Australia.

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

The two 0.5ha areas proposed to be cleared are surrounded by similar native vegetation and occur in a local area (10kms) that is approximately 60% vegetated but only approximately 5-10% of native vegetation remains on the property.

A total of ten conservation significant species have been recorded in the local area (10 km radius) including *Calyptorhynchus banksii* subsp. *naso* (Forest Red-tailed Black-Cockatoo), *Calyptorhynchus baudinii* (Baudin's Cockatoo), *Calyptorhynchus latirostris* (Carnaby's Cockatoo), *Falco peregrinus* (Peregrine Falcon), *Tyto novaehollandiae* subsp. *novaehollandiae* (Masked Owl), *Pachysaga strobila* (cricket), *Dasyurus geoffroii* (Western Quoll, Chuditch), *Macropus irma* (Western Brush Wallaby), *Phascogale tapoatafa* subsp. *ssp.* (Brush-tailed Phascogale) and *Pseudocheirus occidentalis* (Western Ringtail Possum) (DEC, 2007-)

Due to the lack of any hollow-bearing trees within both the southern and northern application areas (DEC, 2011), the vegetation under application is not likely to be significant habitat for black cockatoos.

No suitable habitat for western ringtail possums occurs within both applied areas, however a number of southern brown bandicoot (quenda) diggings were observed in the grey sandy soil of the northern area during a DEC site inspection. Despite this, any southern brown bandicoots in the northern applied area should not be impacted due to the close proximity of suitable habitat to the west and southwest of the applied area.

Due to the lack of suitable habitat for species of conservation significance within the application areas and the small scale of the clearing (1ha), the proposal is unlikely to be at variance to this principle.

Methodology Keighery (1994)
Threatened Fauna Habitats (2007)
DEC (2011)
DEC (2007-)
-SAC Bio Datasets (Accessed 11/4/11)

(c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.

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

No known rare flora species have been found to occur within the local area (10 km radius) of the area under application therefore the proposed clearing is not likely to be at variance to this Principle.

Methodology SAC Bio Datasets (Accessed 11/4/11)
DEC (2011)

(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 were no known records of threatened ecological communities recorded within a 10km radius of the area under application.

Given this fact, the proposal is not likely to be at variance to this principle.

Methodology SAC Bio Databases- TEC_PEC Buffer (11/4/2011)
- DEC Site Inspection (02/05/11)

(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 two 0.5ha areas of vegetation under application are described as Beard vegetation association 3 of which there is 69% (1, 659, 963ha) and 67% (62, 881ha) of pre-European extent remaining in the IBRA Bioregion of Jarrah Forest and the Shire of Donnybrook- Balingup respectively (Shepherd, 2009).

The vegetation under application is described as the Kirup and Mumballup Mattiske vegetation complexes of which there is 62% (2137ha) and 14% (373ha) of pre-European extent remaining respectively (Mattiske, 1998). The Mumballup vegetation complex is below the Commonwealth's 30% threshold (Commonwealth of Australia 2001, EPA 2000) however given this small amount of this vegetation type proposed to be cleared (0.5ha) it is unlikely to negatively impact on the representation of this vegetation type in the bioregion. The majority of the northern 0.5ha area under application is vegetated by the Kirup vegetation complex, with approximately 10% vegetated by the Mumballup vegetation complex (approximately 0.05ha). While the majority of the southern 0.5ha area under application is vegetated by the Mumballup vegetation complex (approximately 0.45ha) with approximately 10% vegetated by the Kirup vegetation complex

The vegetation under application is also described by Heddle as the Williams-Avon-Brockman-Mumballup vegetation complex, of which 22% (3, 715ha) of pre-European extent remains (Heddle, 1980). This is also below the Commonwealth's 30% threshold (Commonwealth of Australia 2001, EPA 2000).

The 1ha area under application is located within the Shire of Donnybrook, of which there is 58.4% (90, 998ha) of pre-European vegetation extent remaining. In addition, there is approximately 60% of pre-European vegetation remaining within a 10km radius of the proposed clearing.

In summary, the area under application is not a significant remnant in the local area due to its small size (1ha) and connectivity to much larger areas of surrounding bushland. Therefore, the proposal is not considered likely to be at variance to this Principle.

Methodology EPA (2000)
Shepherd (2009)
Mattiske (1998)
Heddle (1980)
GIS Databases:
-Interim Biogeographic Regionalisation of Australia
-NWLRA, Current Extent of Native Vegetation
SAC Bio Datasets (Accessed 11/04/11)

(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 southern application area of 0.5ha is to expand an existing dam which occurs on the south west corner of the property and is along a tributary of the Thompson Brook. Thompson Brook, a major perennial tributary of the Preston River, runs 70 metres east of the southern area proposed to be cleared for the dam expansion. In addition, the Preston River is located 220 metres northeast of the northern 0.5ha area proposed to be cleared for construction of a house and shed.

A site visit undertaken by DEC identified approximately 0.17ha of riparian vegetation surrounding the dam within the southern 0.5ha area under application. The understorey was identified as primarily *Taxandria linearifolia* with some *Callistachys lanceolata*, and the groundcover was identified as consisting of various sedge species dominated by *Lepidosperma tetraquetrum* as well as *L. longitudinal*, *Baumea preissii*, *Pteridium esculentum* and *Persicaria prostrate* (DEC, 2011). These species are considered wetland or watercourse dependant.

Given that 0.17ha of the proposed clearing in the southern 0.5ha area is of vegetation growing in association with a watercourse, the proposed clearing is at variance to this Principle.

Methodology DEC (2011)
GIS Databases:
-Hydrography linear,
-Rivers

(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 two 0.5ha areas under application can be generally described as occurring within a terraced valley with steep side slopes (Northcote et al., 1960-68). Chief soils within the areas under application are described as neutral and acidic red earths with associated flat mid-terrace remnants of acid yellow earths with low dunes of sands and some deep sand areas on lower terraces (Northcote et al., 1960- 68).

The areas under application are associated with a low groundwater salinity (50-100mg/L), medium annual rainfall (~1000mm) and low relief topography (approximately a 5% incline).

The proposed clearing of 1ha poses a low risk of land degradation in the form of water and wind erosion due to the small proposed area of clearing, low salinity and flat topography of the area.

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

Methodology Northcote et al. (1960- 68)
GIS Databases:
-Topography, statewide
-Rainfall, mean annual
-Groundwater salinity
-Soils, statewide

(h) Native vegetation should not be cleared if the clearing of the vegetation is likely to have an impact on the environmental values of any adjacent or nearby conservation area.

Comments Proposal may be at variance to this Principle

The closest conservation reserve to the area under application is an unnamed Nature Reserve, vested with the Conservation Commission for the conservation of flora and fauna, occurring 500m south of the southern 0.5ha area under application. The Wellington State Forest covers an area of approximately 200, 000ha and occurs 3.8km north of the northern 0.5ha area under application and an unnamed Timber Reserve occurs 5km southwest of the southern 0.5ha applied area.

Both areas under application are on the eastern outer edge of a larger remnant (approximately 700ha) that is connected to the unnamed Nature Reserve in the south through continuous vegetation. Given the close proximity of this neighbouring nature reserve the clearing may impact on the environmental values of this area through the increased potential for the intrusion of dieback or weed species.

Given the above, the proposed clearing may be at variance to this Principle. Dieback and weed management will mitigate impacts from the proposed clearing.

Methodology EPA (2009)
GIS Databases:
- DEC Tenure

- Donnybrook 50cm Orthomosaic - Landgate 2004
- NLWRA- Current Extent of Native Vegetation

(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 may be at variance to this Principle

A major perennial watercourse runs 70m east of the southern area under application. This watercourse runs into the Preston River, a major watercourse, occurring 220m northeast from the northern 0.5ha area under application. An existing dam (currently almost completely dry) also occurs on the property and occurs within the southern 0.5ha applied area along the same minor watercourse.

The Donnybrook Water Reserve occurs 4.8kms south west of the southern 0.5ha application area. Neither application area is within a Country Areas Water Supply (CAWS) Act area (the closest being 13kms away).

The groundwater within the area under application has low to medium salinity (>500 to 1000 mg/L). Given the small area to be cleared (1ha) and that the local area is ~60% vegetated; it is not expected for the proposed clearing to increase groundwater salinity.

However, it is considered that the southern proposed clearing (0.5ha) will cause temporary deterioration in surface water through sedimentation as the clearing involves removing vegetation from the banks of a minor watercourse which occurs within the area under application. Clearing of vegetation along and within this area will cause erosion of the watercourse banks and result in sedimentation of the surface water. This water has the potential to then flow downstream into the Preston River.

Therefore, the southern application area may be at variance to this Principle. The impact on surface water from the proposed clearing is considered to be short-term during the expansion of the dam.

- Methodology**
- DEC (2011)
 - GIS Databases
 - Hydrography, linear
 - Groundwater Salinity
 - CAWS Act
 - Hydrographic catchment

(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

A major perennial watercourse runs 70m to the east of the southern 0.5ha area under application. This watercourse runs into the Preston River, a major watercourse, occurring 220m northeast from the northern 0.5ha area under application.

Given the two small areas proposed to be cleared (0.5ha and 0.5ha) it is not considered for the proposed clearing to cause or exacerbate the incidence or intensity of flooding.

- Methodology**
- GIS Databases
 - Hydrography, linear
 - Rivers

Planning instruments, Native Title, Previous EPA decisions or other matters.

Comments

The two 0.5ha areas under application are zoned as intensive farming under the Town of Donnybrook's town planning scheme.

The proposed dam expansion and associated impacts are being addressed through approvals issued by the Department of Water (DoW). DoW issued a Permit to Obstruct or Interfere, as required for the proposed dam expansion, on 16 May 2011.

The applicant has not yet applied with the Shire of Donnybrook- Balingup for planning approval to build the house and shed although the Shire has informed DEC they have no objections to the application. This Shire planning approval is required before building commences.

The proponent has advised that the mature flooded gum (*Eucalyptus rudis*) trees in the southern 0.5ha application area to the southwest of the existing dam will most likely be retained (DEC, 2011).

- Methodology**
- DEC (2011)
 - GIS Databases:
 - Town Planning Scheme Zones

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 11/04/2011
- DEC (2007) DEC Fauna Habitat Notes.xls. February 2007. Department of Environment and Conservation, Western Australia.
- DEC (Year) Site Inspection Report for Clearing Permit Application CPS 4283/1, Lot 35 Boyup Brook Road Road, Queenwood. Site inspection undertaken 02/05/2011. Department of Environment and Conservation, Western Australia (TRIM Ref. DOC A394342).
- EPA (2009) Environmental Protection Bulletin No. 8: South West Regional Ecological Linkages, Environmental Protection Authority, Western Australia
- Hedde, 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., Wallrod, S. and Whisson, G. (2009) South West 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. (2009) Adapted from: Shepherd, D.P., Beeston, G.R., and Hopkins, A.J.M. (2001), Native Vegetation in Western Australia. Technical Report 249. Department of Agriculture Western Australia, South Perth.
- Western Australian Herbarium (1998-) FloraBase - The Western Australian Flora. Department of Environment and Conservation. <http://florabase.dec.wa.gov.au/> (Accessed 20/05/2011).

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
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)