



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 6740/1
File Number: DER2015/002006
Duration of Permit: From 30 April 2016 to 30 April 2018

PERMIT HOLDER

Steven Ross Boucaut

LAND ON WHICH CLEARING IS TO BE DONE

Lot 801 on Deposited Plan 42400, Furnissdale

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 0.164 hectares of native vegetation within the area hatched yellow on attached Plan 6740/1.

CONDITIONS

1. Drainage management

The Permit Holder shall not cause or allow the discharge of sediments or stormwater, from within the area permitted to be cleared under this permit, into the adjoining wetland vegetation.

2. 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) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
- (c) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.

3. Conservation covenant

Prior to 24 March 2017, the Permit Holder shall:

- (a) give a conservation covenant under section 30B of the *Soil and Land Conservation Act 1945* setting aside the *covenant area* for the protection and management of vegetation in perpetuity; and
- (b) provide to the CEO a copy of the executed conservation covenant.

DEFINITIONS

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

Covenant area means the area of land cross-hatched red on attached Plan 6740/1;

dieback means the effect of *Phytophthora* species on native vegetation;

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; and

weed/s means any plant -

- (a) that is a declared pest under section 22 of the *Biosecurity and Agriculture Management Act 2007*; or
- (b) published in a Department of Parks and Wildlife Regional Weed Rankings Summary, regardless of ranking; or
- (c) not indigenous to the area concerned.



Reuben Gregor
ACTING SENIOR MANAGER
CLEARING REGULATION

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

31 March 2016

Plan 6740/1



Legend

- Roads
- LGA
- Cadastre
- Virtual Mosaic (LGATE-V001)
- Areas approved to clear
- Area to be placed under conservation covenant



1:609

MGA 94
Geocentric Datum of Australia 1994

.....Date.....
Reuben Gregor

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





1. Application details

1.1. Permit application details

Permit application No.: 6740/1
Permit type: Area Permit

1.2. Applicant details

Applicant's name: Mr Steven Ross Boucaut

1.3. Property details

Property: LOT 801 ON PLAN 42400, FURNISSDALE
Colloquial name:
Local Government Authority: MURRAY, SHIRE OF
DER Region: Greater Swan
DPaW District: SWAN COASTAL
LCDC: DANDALUP MURRAY
Localities: FURNISSDALE

1.4. Application

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

1.5. Decision on application

Decision on Permit: Grant
Application:
Decision Date: 31 March 2016

Reasons for Decision:

The clearing application has been assessed against the clearing principles, planning instruments and other matters in accordance with s51O of the *Environmental Protection Act 1986*, and it has been concluded that the proposed clearing is at variance to clearing principle (a), (e) and (f), may be at variance to principle (i) and is not likely to be at variance to the remaining clearing principles.

Through assessment it has been determined that the clearing will lead to the loss of 1.48 hectares of native vegetation that occurs within a conservation category wetland and a significant remnant of vegetation that contains high biodiversity representing a highly cleared vegetation association, in a highly cleared area.

The applicant has amended the application from 0.3 hectares to 0.164 hectares which has reduced the impact to wetland vegetation and potential rare flora and threatened ecological community habitat. In addition, planning approval from the Shire of Murray is not required. These factors have been taken into consideration in the decision to grant a clearing permit.

To mitigate the significant environment impact identified above, and in accordance with the WA Environmental Offset Policy, Environmental Offsets Guidelines and other relevant policies and guidelines, prior to the 31 March 2017, the permit holder shall give a conservation covenant under section 30B of the *Soil and Land Conservation Act 1945* setting aside a covenant area within Lot 801 on deposited plan 42400, Furnissdale, for the protection and management of vegetation in perpetuity; and provide to the CEO a copy of the executed conservation covenant.

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
Mapped vegetation association Mosaic:	Beard 1000: Medium	The proposed clearing of 0.164 hectares of native vegetation within Lot	Very Good; Vegetation structure altered; obvious signs of disturbance (Keighery, 1994).
			The condition of the vegetation under application was established through a site inspection by the Department of Environment Regulation on 25 September

forest; jarrah-marri / 801 on Deposited
Low woodland; Plan 42400, To
banksia / Low forest; Furnissdale is for the
teatree (Melaleuca spp.) (Shepherd et al. 2001) purpose of constructing a house and shed.

Mapped Heddle
vegetation complex:
Vasse Complex:
Closed scrub fringing
woodland and open
forest (Heddle et al.
1980)

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

2015 (DER 2015).

The vegetation under application consists of *Casuarina obesa* over sedges and herbs in a very good to good (Keighery 1994) condition (DER, 2015). Small areas in the southern portion of the application area in a good (Keighery, 1994) condition contained a broad leaf weed in the understory (DER, 2015).

3. Assessment of application against clearing principles

(a) Native vegetation should not be cleared if it comprises a high level of biological diversity.

Comments Proposed clearing is at variance to this Principle

A letter was sent to the applicant on 15 December 2015 stating that the proposed clearing of 0.3 hectares is likely to impact on rare and priority flora habitat and native vegetation growing in association with a threatened ecological community (TEC) and conservation category wetland (CCW). A flora survey was requested to establish the presence of the TEC and rare and priority flora within the application area. In addition, planning approval from the Shire of Murray was outstanding. The applicant amended the application area on 22 January 2016 from 0.3 hectares down to 0.164 hectares, avoided rare flora habitat and provided a larger buffer to the mapped TEC. The following assessment is for the amended area of 0.164 hectares.

The vegetation under application consists of *Casuarina obesa* over sedges and herbs in a very good to good (Keighery, 1994) condition (DER, 2015). Small areas in the southern portion of the application area in a good (Keighery, 1994) condition contained a broad leaf weed in the understory (DER, 2015).

Three priority flora species have been recorded within the local area (10 kilometre radius) of the application area including *Dillwynia dillwynioides* (P3), *Eryngium* sp. *Ferox* (P3) and *Grevillea manglesii* subsp. *ornithopoda* (P2). Parks and Wildlife (2015) advised that given the condition of the vegetation under application and the vegetation type it is likely that the application area supports these priority flora species. Given the small area proposed to be cleared, the proposed clearing is unlikely to impact on significant habitat for these species.

Two rare orchid species have been recorded within the local area of the proposed clearing. The preferred habitat for these species does not occur within the application area. Given this and the relatively small area proposed to be cleared (0.164 hectares) the proposed clearing is unlikely to impact on significant habitat for rare flora.

The majority of the application area (0.114 hectares) is mapped as a CCW. CCWs support a high level of ecological attributes and functions and are of highest priority for preservation (Waters and Rivers Commission, 2001). The wetland within the application area is located within the Peel-Harvey Estuary consanguineous suite (natural wetland group). Only 1.6 per cent of the floodplain within this suite is identified as conservation category. It is likely that the application area retains important representative values of floodplain in the Peel-Harvey Estuary suite (Parks and Wildlife, 2015a).

The application area is contiguous with the floodplain of the Serpentine River and has been assessed for future consideration for inclusion in the Peel-Yalgorup Ramsar site which is located one kilometre south and is hydrologically connected to the area under application. Floodplain systems support components, processes and ecosystem services that are currently recognised as important under the Ramsar convention. The Serpentine River and associated floodplains provide an important ecological linkage to Goerup and Black Lakes which are further up-stream with the Peel Estuary (Parks and Wildlife, 2015a).

The application area occurs within the Peel Regionally Significant Natural Area (PRSNA) under the Environmental Protection Authority's (EPA) Environmental Protection Bulletin No 12 (2013) which identified PRSNA's as having significant flora, vegetation and landform values (EPA, 2013).

A mapped federally listed Threatened Ecological Community (TEC), described as 'subtropical and temperate coastal saltmarsh' occurs approximately 80 meters from the application area. Areas of samphire that occurred within the original application area have been removed.

Given that the application area may contain habitat suitable for priority flora species, is in predominately very good (Keighery, 1994) condition and occurs within a conservation category wetland, it is likely to contain a high level of biodiversity. The proposed clearing is at variance to this Principle.

To address the significant residual impacts the proposed clearing will have on biodiversity the applicant has committed to placing a conservation covenant over 0.34 hectares of land adjacent to the application area. The area proposed to be placed under a conservation covenant contains wetland vegetation in similar condition to the application area and is likely to contain habitat for priority and rare flora and support a TEC.

Methodology References:
-Parks and Wildlife (2015)
-Parks and Wildlife (2015a)
-Keighery (1994)
-Waters and Rivers Commission (2001)
-DER (2015)
-EPA (2013)
GIS Databases
-SAC bio datasets (February 2016)
-Hydrography, linear
-Geomorphic Wetland Database

(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 Proposed clearing is not likely to be at variance to this Principle

The vegetation under application consists of *Casuarina obesa* over sedges and herbs in a very good to good (Keighery, 1994) condition (DER, 2015). Small areas in the southern portion of the application area in a good (Keighery, 1994) condition contained a broad leaf weed in the understory (DER, 2015).

Within the local area (10 kilometre radius) 25 migratory waterbird species have been recorded (Parks and Wildlife 2007-).

A site inspection conducted by the Department of Environment Regulation observed tracks belonging to a water bird adjacent to the application area (DER, 2015).

Given the presence of floodplain vegetation occurring within the application area and close proximity to the Serpentine River, it is likely for the application area to provide suitable habitat for many migratory shorebirds species (Parks and Wildlife, 2015a). However, given the relatively small size of the proposed clearing (0.164 hectares) it is not likely for the application area to contain significant habitat for conservation significant fauna.

The proposed clearing is not likely to be at variance to this Principle.

Methodology References:
-DER (2015)
-Parks and Wildlife (2015a)
-Parks and Wildlife (2007-)
-Keighery (1994)

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

Comments Proposed clearing is not likely to be at variance to this Principle

Two rare orchid species have been recorded within the local area (10 kilometre radius). One of the species flowers between September and October and is found in sandy clay soil in winter wet swamps amongst dense native sedges and scattered shrubs and paperbarks (*Melaleuca* species) (Brown et al. 1998). The other flowers in November to December and is found in low-lying depressions in peaty and sandy clay swamps that contain water into summer (Brown et al. 1998). Both of these species are ranked Vulnerable under the Wildlife Conservation Act 1950.

The vegetation under application consists of *Casuarina obesa* over sedges and herbs in a very good to good (Keighery, 1994) condition (DER, 2015). Small areas in the southern portion of the application area in a good (Keighery, 1994) condition contain a broad leaf weed in the understory (DER, 2015). Areas of *Melaleuca* over wetland sedges have been removed from the application area.

Given the relatively small area of proposed clearing (0.164 hectares) and that areas of *Melaleuca* over wetland sedges have been removed from the application area, it is not likely that the application area will support rare flora.

The proposed clearing is not likely to be at variance to this Principle.

Methodology References:
-DER (2015)
-Keighery (1994)
-Brown et al. (1998)
GIS Databases:
-Sac Bio datasets (February 2016)

(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 Proposed clearing is not likely to be at variance to this Principle

The closest threatened ecological community (TEC) occurs approximately 80 metres north west of the

application area and consists of the Commonwealth listed TEC 'Subtropical and Temperate Coastal Saltmarsh'. This TEC is listed as Vulnerable under the Environmental Protection and Biodiversity Conservation Act 1999.

A site inspection conducted by the Department of Environment Regulation identified samphire occurring within Lot 801 but outside of the proposed clearing area (DER, 2015).

Department of Agriculture and Food Western Australia's spatial mapping has mapped the majority of the application area, excluding the south eastern corner (approximately 0.05 hectares), as having a high risk of water erosion, waterlogging, flooding and phosphorous export. The majority of the application area also has a very high saline risk or is currently saline (DAFWA, 2015).

The proposed clearing may impact the adjoining TEC by altering the hydrology resulting in water erosion and increased turbidity of surface water of the TEC. However, given the relatively small area proposed to be cleared (0.164 hectares), this impact is considered to be relatively small scale and short term.

The proposed clearing is not likely to be at variance to this Principle.

Methodology References:
 -DAFWA (2015)
 -DER (2015)
 GIS Databases
 -Sac bio datasets (February 2016)

(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 Proposed clearing is at variance to this Principle

The vegetation under application is mapped as Beard vegetation association 1000 and Heddle vegetation complex, Vasse complex which have 25 per cent and 32 per cent of their pre-European vegetation extent remaining, respectively, within the Swan Coastal Plain bioregion (Government of Western Australia 2014, Parks and Wildlife 2015b).

Aerial imagery indicates that the local area (10 kilometre radius) is approximately 20 per cent vegetated. The application area is considered to occur within a highly cleared landscape.

The State Government is committed to the National Objectives and Targets for Biodiversity Conservation which includes a target that prevents the clearance of ecological communities with an extent below 30 per cent of that present pre-European settlement, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia, 2001). The mapped Beard vegetation association within the application area retains less than 30 per cent of its pre-European vegetation extent.

The application area occurs within the Peel Regionally Significant Natural Area (PRSNA) under the Environmental Protection Authority's (EPA) Environmental Protection Bulletin No 12 (2013) which identified PRSNA's as having significant flora, vegetation and landform values (EPA, 2013).

The application area contains a conservation category wetland, may contain suitable habitat for priority flora and is considered to contain a high level of biodiversity. Therefore the application area is considered to be a significant remnant of native vegetation. The proposed clearing is at variance to this Principle.

To address the significant residual impacts the proposed clearing will have on a significant remnant in a highly cleared area, the applicant has committed to placing a conservation covenant over 0.34 hectares of land adjacent to the application area. The area proposed to be placed under a conservation covenant contains wetland vegetation in similar condition to the application area and is likely to represent the highly cleared Beard vegetation association 1000.

	Pre-European (ha)	Current Extent (ha)	Remaining (%)	Extent in Parks and Wildlife Managed Lands (%)
IBRA Bioregion**				
Swan Coastal Plain	1,501,222	580,697	39	37
Shire**				
Shire of Murray	170,584	89,032	52	83
Beard Vegetation Association in Bioregion**				
1000	94,175	23,873	25	19
Heddle Vegetation Association*				

Methodology References:
 -Commonwealth of Australia (2001)
 -Government of Western Australia (2014)**
 - Parks and Wildlife (2015b)*
 -EPA (2013)
 GIS Databases:
 -NLWRA, Current extent of Native Vegetation
 -Pre-European Vegetation
 -SAC Bio datasets (February 2016)

(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 Proposed clearing is at variance to this Principle

The application area occurs 260 metres east of the Serpentine River and 0.111 hectares of the 0.164 hectare area under application is mapped as a conservation category floodplain wetland. This wetland is the floodplain of Serpentine River which is a direct tributary to the Peel-Harvey Estuary. The remaining 0.053 hectares of the application area occurs within the buffer to this wetland.

A site inspection conducted by the Department of Environment Regulation identified *Casuarina obesa* over sedges and herbs in a very good to good (Keighery 1994) condition (DER 2015). This vegetation type represents wetland vegetation.

CCWs support a high level of ecological attributes and functions and are of highest priority for preservation (Waters and Rivers Commission, 2001). The wetland within the application area is located within the Peel-Harvey Estuary consanguineous suite (natural wetland group). Only 1.6 per cent of the floodplain within this suite is identified as conservation category. It is likely that the application area retains important representative values of floodplain in the Peel-Harvey Estuary suite (Parks and Wildlife, 2015a).

The application area is contiguous with the floodplain of the Serpentine River and has been assessed for future consideration for inclusion in the Peel-Yaigorup Ramsar site which is located one kilometre south and is hydrologically connected to the area under application. Floodplain systems support components, processes and ecosystem services that are currently recognised as important under the Ramsar convention and the Serpentine River and associated floodplains provide an important ecological linkage to Goerup and Black Lakes which are further up-stream with the Peel Estuary (Parks and Wildlife, 2015a).

EPA Guidance Statement 33 recommends that wetlands that are to be protected require a minimum 50 metre buffer to protect their values. Buffers provide a barrier for wetlands to weed invasion and other edge effects caused by clearing or the end land use and protect the hydrology, ecological process and functions of wetlands. The application area includes 0.111 hectares within the mapped wetland and 0.053 within the 50 metre buffer and is therefore inconsistent with Guidance Statement 33 (Parks and Wildlife, 2015a).

Given the occurrence of wetland vegetation within the application the proposed clearing is at variance to this Principle. In all cases where projects may cause unavoidable loss of wetland attributes or function, the Environmental Protection Authority (EPA) recommends that compensatory actions are implemented (EPA, 2008).

To address the significant residual impacts the proposed clearing will have on a CCW, the applicant has committed to placing a conservation covenant over 0.34 hectares of land adjacent to the application area. The area proposed to be placed under a conservation covenant contains wetland vegetation in similar condition to the application area.

Methodology References:
 -Parks and Wildlife (2015a)
 -DER (2015)
 -EPA (2008)
 -Keighery (1994)
 -Waters and Rivers Commission (2001)
 GIS Databases
 -RAMSAR wetlands
 -Geomorphic wetland database
 -Hydrography, linear

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

Comments Proposed clearing is not likely to be at variance to this Principle

The application area is mapped within the Vase V1 Phase soil sub-system which is described as 'Saline tidal flats composed of grey, black and brown foetid muds and humic sandy clays with locally common shell and limestone fragments' (DAFWA, 2015).

The application area occurs 260 metres east of the Serpentine River and 0.111 hectares of the 0.164 hectare area under application is mapped as a conservation category floodplain wetland.

The Department of Agriculture and Food Western Australia's spatial mapping has mapped the majority of the application area, excluding the south eastern corner (approximately 0.05 hectares), as having a high risk of water erosion, waterlogging, flooding and phosphorous export. The majority of the application area also has a very high saline risk or is currently saline (DAFWA, 2015).

Given the high risk of water erosion the proposed clearing may cause soil erosion and subsequent turbidity of the nearby Serpentine River and wetland in which the proposed clearing occurs. However given the relatively small size of the proposed clearing (0.164 hectares), the risk of appreciable land degradation in the form of water erosion and turbidity is considered low.

The application area is mapped as having a high risk of phosphorous export as the soils mapped within the application area have a low capacity to retain phosphorus. Phosphorus within these soils can leach into the water table and flow into adjacent water bodies. The proposed clearing of deep-rooted native vegetation is likely to result in increased phosphorus loss from the soil profile contributing to eutrophication of Serpentine River. However, given the relatively small size of the proposed clearing (0.164 hectares) for the purpose of constructing a house and shed, this risk is considered to be small scale and short-term.

Given the above, the proposed clearing is not likely to cause appreciable land degradation and is not likely to be at variance to this Principle.

Methodology References:
-DAFWA (2015)
GIS Databases
-Hydrography, linear
-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 Proposed clearing is not likely to be at variance to this Principle

The nearest conservation area is the Peel-Yalgorup Ramsar site occurring one kilometre south of the application area.

The application area is contiguous with the floodplain of the Serpentine River and has been assessed for future consideration for inclusion in the Peel-Yalgorup Ramsar site which is hydrologically connected to the area under application. Floodplain systems support components, processes and ecosystem services that are currently recognised as important under the Ramsar convention and the Serpentine River and associated floodplains provide important ecological linkage to Goegrup and Black Lakes which are further up-stream within the Peel Estuary (Parks and Wildlife, 2015a).

The application area is a part of a regionally significant north-south ecological linkage connecting the Goegrup Lake Nature Reserve occurring 3.7 kilometres north and the Peel-Yalgorup Ramsar site occurring one kilometre south (Molloy et al. 2009).

Given the relatively small size (0.164 hectares) of the proposed clearing, it is not likely for it to reduce the effectiveness of this ecological linkage or impact on the environmental values of the nearby conservation areas.

The proposed clearing is not likely to be at variance to this Principle.

Methodology References:
-Molloy et al. (2009)
-Parks and Wildlife (2015a)
GIS Databases
-Parks and Wildlife Managed lands
-RAMSAR wetlands

(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 Proposed clearing may be at variance to this Principle

The application area occurs 260 metres east of the Serpentine River and 0.111 hectares of the 0.164 hectare area under application is mapped as a conservation category floodplain wetland. This wetland is the floodplain of Serpentine River which is a direct tributary to the Peel-Harvey Estuary. The remaining 0.053 hectares of the application area occurs within the buffer to this wetland.

Department of Agriculture and Food Western Australia's spatial mapping has mapped the majority of the application area, excluding the south eastern corner (approximately 0.05 hectares), as having a high risk of water erosion and phosphorous export. The majority of the application area also has a very high saline risk or is currently saline (DAFWA, 2015).

Given the high risk of waterlogging and water erosion caused by a change in hydrology, the proposed clearing may cause soil erosion and subsequent increase in turbidity of surface water of the adjacent Serpentine River and surface water of the floodplain wetland in which the proposed clearing occurs within. However, this impact is considered to be short-term and minor given the relatively small size (0.164 hectares) of the proposed clearing.

The application area is mapped as having a high risk of phosphorous export as the soils mapped within the application area have a low capacity to retain phosphorus. Phosphorus within these soils can leach into the water table and flow into adjacent water bodies. The proposed clearing of deep-rooted native vegetation is likely to result in increased phosphorus loss from the soil profile contributing to eutrophication of Serpentine River. However this impact is considered to be short-term and minor given the relatively small size (0.164 hectares) of the proposed clearing.

Given the above, the proposed clearing may be at variance to this Principle.

Methodology References:
-DAFWA (2015)
-DER (2015)
GIS Databases
-Hydrography, linear
-Soils, 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 Proposed clearing is not likely to be at variance to this Principle

The application area occurs 260 metres east of the Serpentine River and 0.111 hectares of the 0.164 hectare area under application is mapped as a conservation category floodplain wetland. This wetland is the floodplain of Serpentine River which is a direct tributary to the Peel-Harvey Estuary. The remaining 0.053 hectares of the application area occurs within the buffer to this wetland.

The application area is mapped within the Vase V1 Phase soil sub-system which is described as 'Saline tidal flats composed of grey, black and brown foetid muds and humic sandy clays with locally common shell and limestone fragments' (DAFWA, 2015).

Department of Agriculture and Food Western Australia's spatial mapping has mapped the majority of the application area, excluding the south eastern corner (approximately 0.05 hectares), as having a high risk of waterlogging and flooding given the mapped soil type.

Given the relatively small area proposed to be cleared (0.164 hectares) it is not considered likely for the proposed clearing to exacerbate the incidence or intensity of flooding.

The proposed clearing is not likely to be at variance to this Principle.

Methodology References:
-DAFWA (2015)
GIS Databases
-Hydrography, linear
-Soils, statewide

Planning instruments and other relevant matters.

Comments A letter was sent to the applicant on 15 December 2015 stating that the proposed clearing of 0.3 hectares is likely to impact on rare and priority flora habitat and native vegetation growing in association with a TEC and CCW. A flora survey was requested to establish the presence of the TEC and rare and priority flora within the application area. In addition, planning approval from the Shire of Murray was outstanding. The applicant amended the application area on 22 January 2016 from 0.3 hectares down to 0.164 hectares, avoided rare flora habitat and provided a larger buffer to the mapped TEC.

To address the significant residual impacts the proposed clearing, the applicant verbally committed to placing a conservation covenant over 0.34 hectares of land adjacent to the application area. This area contains wetland vegetation in similar condition to the application area, is likely to represent the highly cleared Beard vegetation association 1000 and is likely to contain habitat for priority and rare flora and support a TEC.

Under the Shire of Murray's Town Planning Scheme, the application area is mapped as rural. The Shire of Murray has advised that the proposed house and any ancillary building such as an outbuilding is designated as a permitted use in the Rural zone and therefore the proposed dwelling and outbuildings are exempt from requiring planning approval (Shire of Murray 2016).

The applicant recently bought Lot 801 on Deposited Plan 42400, Furnissdale in early November 2015.

Parks and Wildlife (2015a) has advised that the end land use of a residential home is likely to increase the potential for contamination, eutrophication and sedimentation resulting from ground disturbing activities during and after construction and the use of garden fertilizers and other chemicals, leakages from on-site sewage treatment and the potential for altered hydrology resulting from garden establishment and maintenance. In addition, the end land use may result in increased and on-going disturbance to waterbirds that use the floodplain in which the application occurs.

A condition has been placed on the permit to ensure that discharge of sediments or stormwater, from within the area to be cleared, into the adjoining wetland vegetation is not permitted.

One Aboriginal Site of Significance is mapped over the application area. It is the applicant's responsibility to ensure that their responsibilities under the Aboriginal Heritage Act (1972) have been fulfilled.

Methodology References:
-Shire of Murray (2016)
-Parks and Wildlife (2015a)
GIS Databases
-Town Planning Scheme Zones
-Aboriginal Sites of Significance

4. References

- Brown A., Thomson-Dans C. and Marchant N. (1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.
- Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.
- DAFWA (2015) Land Degradation Mapping. <http://maps.agric.wa.gov.au/nrinfo/framesetup.asp>. Department of Agriculture and Food Western Australia. Accessed 24 November 2015
- DER (2015) Site Inspection Report for Clearing Permit Application CPS 6740/1 - Lot 801 on deposited plan 4200 Furnissdale - Steven Ross Boucaut. Site inspection undertaken 25 September 2015. Department of Environment Regulation, Western Australia (Ref. A983751).
- EPA (2008) Environmental Guidance for Planning and Development. Guidance Statement No. 33. Environmental Protection Authority. Western Australia.
- EPA (2013) Environmental Protection Bulletin No 12 Swan Bioplan – Peel Regionally Significant Natural Areas (PRSNA's). December 2010. Environmental Protection Authority.
- Government of Western Australia (2014) 2014 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). Current as of June 2014. WA Department of Parks and Wildlife, Perth.
- Heddie, 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.
- Molloy, S., Wood, J., Hall, S., Wallrod, S. and Whisson, G. (2009) South West Regional Ecological Linkages Technical Report, Western Australia 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.
- Parks and Wildlife (2007-) NatureMap: Mapping Western Australia's Biodiversity. Department of Parks and Wildlife. URL: <http://naturemap.dpaw.wa.gov.au/>.
- Parks and Wildlife (2015) Flora advice for clearing application CPS 6740/1 – Steven Boucaut – Lot 801 on Deposited Plan 424200 Furnissdale. Department of Parks and Wildlife. DER ref A984480
- Parks and Wildlife (2015a) Wetland advice for clearing application CPS 6740/1 – Steven Boucaut – Lot 801 on Deposited Plan 424200 Furnissdale. Department of Parks and Wildlife. DER ref A995558
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