



CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS

Area Permit Number: 5160/1

File Number: 2011/006890

Duration of Permit: From 28 September 2012 to 28 September 2014

PERMIT HOLDER

Shire of Ravensthorpe

LAND ON WHICH CLEARING IS TO BE DONE

Lot 547 on Deposited Plan 93465, HOPETOUN

AUTHORISED ACTIVITY

The Permit Holder shall not clear more than 6.1 hectares of native vegetation within the area hatched yellow on attached Plan 5160/1.

CONDITIONS

1. Flora management

- (a) Prior to undertaking any clearing authorised under this Permit, the area shall be inspected for the presence of rare flora listed in the *Wildlife Conservation (Rare Flora) Notice* and *priority flora*.
- (b) Where rare flora or *priority flora* are identified in relation to condition 1(a) of this Permit, the Permit Holder shall ensure that:
 - (i) no clearing occurs within 50 metres of identified rare flora, unless approved by the CEO; and
 - (ii) no clearing of identified rare flora occurs unless approved under section 23F(2) of the *Wildlife Conservation Act 1950*.
 - (iii) no clearing of identified *priority flora* occurs unless approved by the CEO; and
 - (iv) no clearing occurs within 10 metres of identified *priority flora*, unless approved by the CEO.

2. Fauna management

- (a) Prior to undertaking any clearing authorised under this Permit, the area(s) shall be inspected by a *fauna specialist* for the presence of *Leipoa ocellata* (Malleefowl) mounds.
- (b) Where *Leipoa ocellata* (Malleefowl) mounds are identified in relation to condition 2(a) of this Permit, the Permit Holder shall ensure that no clearing occurs within 50 metres of the identified *Leipoa ocellata* (Malleefowl) mounds, unless approved by the CEO.

3. Dieback and weed control

- (a) 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*:
 - (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
 - (ii) shall only move soils in *dry conditions*;
 - (iii) ensure that no *dieback* or *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
 - (iv) restrict the movement of machines and other vehicles to the limits of the areas to be cleared.
- (b) At least once in each 12 month period for the term of this Permit, the Permit Holder must remove or kill any *weeds* growing within areas cleared under this Permit.

4. Management plan

The Permit Holder must implement and adhere to the Fitzgerald River National Park Improvement Project Road Upgrades Environmental Management Plan Revision 3 in relation to areas authorised to be cleared in accordance with this permit.

5. Records must be kept

The Permit Holder must maintain the following records for activities done pursuant to this Permit:

- (a) In relation to flora management pursuant to condition 1 of this Permit:
 - (i) the location of each rare and/or *priority* flora species recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees; and
 - (ii) the species name of each rare and/or *priority* flora identified.
- (b) In relation to fauna management pursuant to condition 2 of this Permit, the location of each *Leipoa ocellata* (Malleefowl) mound recorded using a Global Positioning System (GPS) unit set to Geocentric Datum Australia 1994 (GDA94), expressing the geographical coordinates in Eastings and Northings or decimal degrees.

6. Reporting

- (a) The Permit Holder must provide to the CEO on or before 30 June of each year, a written report:
 - (i) of records required under condition 5 of this Permit; and
 - (ii) concerning activities done by the Permit Holder under this Permit between 1 January and 31 December of the preceding year.
- (b) Prior to 28 June 2014, the Permit Holder must provide to the CEO a written report of records required under condition 5 of this Permit where these records have not already been provided under condition 6(a) of this Permit.

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;

fauna specialist means a person with training and specific work experience in fauna identification or faunal assemblage surveys of Western Australian fauna;

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;

priority flora means those plant taxa described as priority flora classes 1, 2, 3 or 4 in the *Department's Declared Rare and Priority Flora List for Western Australia* (as amended);

Wildlife Conservation (Rare Flora) Notice means those plant taxa gazetted as rare flora pursuant to section 23F(2) of the *Wildlife Conservation Act 1950* (as amended); and

weed/s 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*.

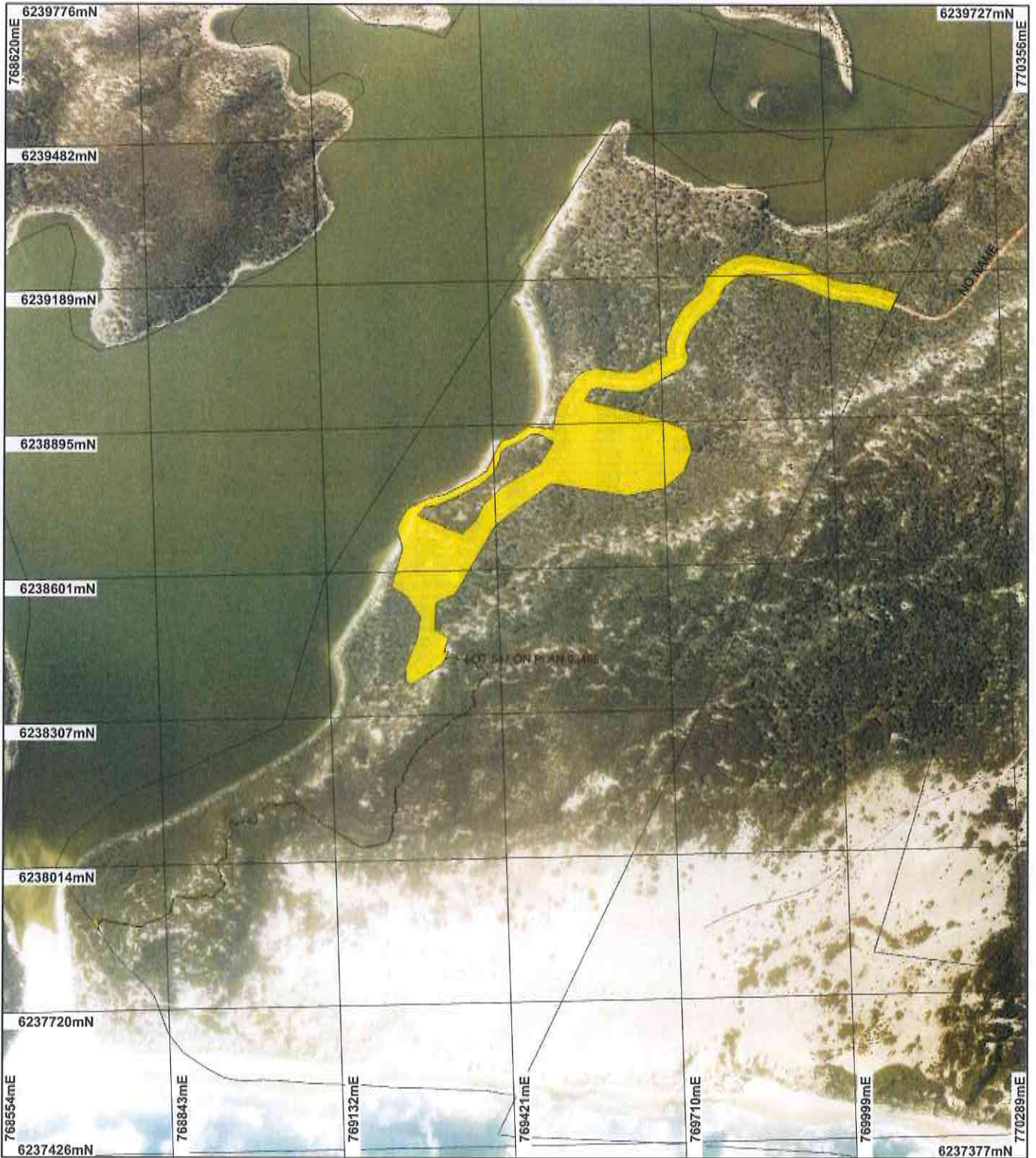


M Warnock
MANAGER, COMPLIANCE AND AUDIT SECTION
NATIVE VEGETATION CONSERVATION BRANCH

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

6 September 2012

Plan 5160/1



LEGEND

- Road Centrelines**
Cadastre for labelling
- Freehold
 - Crown Reserve
 - State Forest / Timber Reserve
 - Marine Park (cont)

- Crown Lease
- Lease / Reserve
- Lease on State Forest / Timber Reserve
- Public Roads
- Unallocated Crown Land
- Water

- Clearing Instruments**
- Areas Applied to Clear
 - Areas Subject to Conditions
 - Areas Approved to Clear
- Cocanarup 50cm Orthomosaic - Landgate 2008**



Scale 1:10309
 (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.

M Warnock Date *6/9/12*
 M Warnock

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.: 5160/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Shire of Ravensthorpe

1.3. Property details

Property: LOT 547 ON PLAN 93465 (HOPETOUN 6348)
Local Government Area: Shire of Ravensthorpe
Colloquial name:

1.4. Application

| Clearing Area (ha) | No. Trees | Method of Clearing | For the purpose of: |
|--------------------|-----------|--------------------|---------------------|
| 6.1 | | Mechanical Removal | Recreation |

1.5. Decision on application

Decision on Permit Application: 6 September 2012
Decision Date: Grant

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 Beard vegetation association 47 is described as shrublands; tallerack mallee-heath (Shepherd et al. 2001). | The proposal is to clear up to 6.1 hectares of native vegetation within Lot 547 on Deposited Plan 93465, Hopetoun, for the purpose of recreation, walk trail and road construction. The vegetation under application consists of: Melaleuca cuticularis shrubland adjacent to Hamersley inlet (riparian) (Craig 2010). Eucalyptus utilis, Eucalyptus conglobata ssp. perata woodland on consolidated limestone (Craig 2010). Melaleuca lanceolata, Melaleuca nesophila, Acacia rostellifera, Scaevola crassifolia scrub thicket on dune sand (Craig 2010). | Excellent: Vegetation structure intact; disturbance affecting individual species, weeds non-aggressive (Keighery 1994) | The condition of the vegetation has been assessed through a flora survey (Craig 2010) and aerial photography (Cocanarup 50cm Orthomosaic - Landgate 2008). |

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 at variance to this Principle

The proposed clearing is for the upgrade of Hamersley Drive, construction of a new camping area, and upgrade of recreation facilities within a Shire of Ravensthorpe reserve. This reserve is adjacent to the Fitzgerald National Park which is undergoing road and recreational upgrades. Main Roads Western Australia (MRWA) will be carrying out the road works and Department of Environment and Conservation (DEC) will be undertaking the recreational works.

Fitzgerald National Park is known to contain a very high plant species richness and has the most native mammal species than any other conservation reserve in the south west of Western Australia (Chapman 2009).

The vegetation under application occurs adjacent to the Fitzgerald National Park and consists of three vegetation types; Melaleuca cuticularis shrubland adjacent to Hamersley inlet (riparian), Eucalyptus utilis, Eucalyptus conglobata ssp. perata woodland on consolidated limestone and Melaleuca lanceolata, Melaleuca

nesophila, *Acacia rostelifera*, *Scaevola crassifolia* scrub thicket on dune san. All vegetation types are in excellent (Keighery 1994) condition (Craig 2010).

A flora survey of the road portion of the area under application (northern portion) undertaken between January and April 2010 did not identify any rare or priority flora in or near the area (Craig 2010). However, there is a record of the Priority 4 orchid *Corybas limpidus* near the campsite area under application. As the flora survey did not include this area and was not done in spring, the area under application may provide habitat for this species.

The flora survey of the road portion identified a small population of *Brachyloma preissii* which is widespread but has not been previously recorded within the Fitzgerald National Park and represents a significant outlier population. It also is unusual as it is a white flowering form (Craig 2010).

The proponent has advised that a spring flora survey of the area under application will occur in the near future and that populations of significant flora will be avoided where possible (DEC 2012).

Given the above, it is considered that the area under application comprises a high level of biological diversity and is at variance to this Principle.

Methodology

References

- Chapman (2009)
- Craig (2010)
- Keighery (1994)
- DEC (2012)
- GIS Databases
- SAC Bio datasets (2 August 2012)

(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 may be at variance to this Principle

Numerous conservation significant fauna have been recorded within the local area (10 km radius).

Carnaby's Cockatoo (*Calyptorhynchus latirostris*) ('Rare of Likely to become Extinct' under Wildlife Conservation Act 1950 (WC Act)) have been observed in large numbers near the area under application and evidence of Chuditch (*Dasyurus geoffroi*) ('Rare of Likely to become Extinct' under WC Act) has been seen in close proximity to the area under application at the Hamersley Inlet mouth (DEC 2012, Chapman 2009).

Malleefowl (*Leipoa ocellata*) ('Rare of Likely to become Extinct' under the WC Act), Western Whipbird (*Phosphodes nigrogularis obereni*) (Priority 4 under WC Act) and the Western Brush Wallaby (*Macropus irma*) (Priority 4 under WC Act) have also been observed within the Hamersley Inlet area and near the area under application (DEC 2012, Chapman 2009).

The area under application is surrounded by the Fitzgerald National Park which is considered to contain similar habitat to the area under application. Therefore, the proposed clearing is unlikely to have a significant impact on fauna habitat. However, given that the area under application contains habitat for threatened fauna species, the proposed clearing may be at variance to this Principle.

Fauna management measures including the identification and avoidance of Malleefowl mounds will reduce the impact of the proposed clearing on significant fauna habitat.

Methodology

References

- Chapman (2009)
- DEC (2012)
- GIS Databases
- SAC Bio datasets
- Nature Map

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

Comments

Proposal may be at variance to this Principle

The vegetation under application occurs in an excellent (Keighery 1994) condition and a number of rare flora have been recorded within the adjacent Fitzgerald River National Park.

A flora survey of the road portion of the area under application (northern portion) undertaken between January and April 2010 did not identify and rare flora in or near the area (Craig 2010).

However, given the excellent condition of the vegetation, that the recreational clearing sites within the area under application have not been surveyed and that the flora survey conducted of the road clearing area was not done during spring, the area under application may contain habitat for rare flora species.

The proponent has advised that a spring flora survey of the area under application will occur in the near future (DEC 2012).

Methodology References
 -DEC (2012)
 -Keigehry (1994)
 -Craig (2010)
 GIS Databases
 -SAC Bio datasets (2 August 2012)

(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 mapped Threatened Ecological Communities within a 10km radius. The closet TEC is Central Barren Ranges Eucalyptus acies mallee heath, occurring 17.1 km west of the application area.
 Given the distance to the nearest TEC, the area under application is not likely to be necessary for the maintenance of this TEC. Therefore, the proposed clearing is not likely to be at variance to this principle.

Methodology GIS Databases
 -SAC Bio datasets (3 August 2012)

(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 vegetation under application is mapped as Beard vegetation association 47, of which there is approximately 35% of pre-European extent remaining (Government of Western Australia 2011).
 The Beard vegetation association retains more than the threshold level (30%) recommended in the National Objectives Targets for Biodiversity Conservation, below which species loss appears to accelerate exponentially at an ecosystem level (Commonwealth of Australia 2001).
 The application areas do not occur within an extensively cleared landscape as approximately 60% remains in the local area (10 km radius) and 62% remaining in the Shire of Ravensthorpe. Therefore, the proposal is not likely to be at variance to this principle.

| | Pre-European (ha) | Current Extent Remaining (ha) | Remaining (%) | Extent in DEC Managed Lands (%) |
|--|-------------------|-------------------------------|---------------|---------------------------------|
| IBRA Bioregion* Esperance Plains | 2,899,950 | 1,489,289 | 51.4 | 54 |
| Shire* Shire of Ravensthorpe | 982,188 | 609,443 | 62 | 30.9 |
| Beard Vegetation Association in Bioregion* 47 | 959,937 | 338,256 | 35.2 | 51.5 |

*Government of Western Australia (2011)

Methodology References
 -Government of Western Australia (2011)
 -Commonwealth of Australia (2001)
 GIS Databases
 -Pre-European vegetation
 - NLWRA, Current Extent of Native 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 area under application is adjacent to the Hamersley Inlet estuary.
 A portion of the area under application consists of Melaleuca cuticularis shrubland adjacent to Hamersley inlet which is considered to be riparian vegetation (Craig 2010).
 The proposed clearing includes vegetation growing in association with a wetland and is therefore at variance to this clearing principle.

Methodology References

-Craig (2010)
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

Chief soils of the area under application consist of shallow sandy soils with rock outcrops and various shallow soils at the higher elevations (Northcote et al. 1960-68). There is a risk of wind erosion on this type of soils.

Given the relatively small area (6.1ha) proposed to be cleared, it is not considered for the proposed clearing to cause appreciable land degradation in the form of soil erosion.

An environmental management plan has been developed for this project which outlines management measures to be put in place during clearing to prevent soil erosion including clearing immediately prior to construction of facilities and rehabilitating areas that are no longer required for the purpose of the clearing (MRWA 2011).

Methodology

References
-MRWA (2011)
-Northcote et al. (1960-68)
GIS Databases
-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 area under application is directly adjacent to and is connected through continuous vegetation to the Fitzgerald River National Park.

The proposed clearing may cause the introduction of weeds and spread of dieback within the area under application and in to the adjacent conservation area. Weed and dieback management practices will reduce these identified risks.

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

The proposed clearing within the area under application is part of a much larger project to upgrade roads and camping facilities within the Fitzgerald River National Park to be conducted by Main Roads Western Australia (MRWA) and DEC. An environmental management plan has been developed for this project which outlines management measures to be put in place during clearing to prevent the spread of weeds and dieback (MRWA 2011).

Methodology

References
-MRWA (2011)
GIS Databases
-DEC Managed Lands

(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 groundwater salinity within the application area is 3000 - 7000 milligrams per litre of Total Dissolved Solids. This level of groundwater salinity is considered to be moderately saline to saline. The local area (10km radius) is highly vegetated with approximately 60% pre-European vegetation remaining. Given the large amount of vegetation remaining in the local area no significant change in groundwater salinity is likely to occur.

The area under application is adjacent to the Hamersley Inlet estuary. A portion of the area under application consists of *Melaleuca cuticularis* shrubland adjacent to Hamersley inlet which is considered to be riparian vegetation (Craig 2010). The disturbance caused by the clearing is likely to increase sedimentation levels in the Hamersley Inlet however impacts will be short term and localised.

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

Methodology

References
-Craig (2010)
GIS Databases
-Hydrography, linear
-NLWRA, Current Extent of Native Vegetation

(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 area under application is adjacent to the Hamersley Inlet estuary.

A portion of the area under application consists of Melaleuca cuticularis shrubland adjacent to Hamersley inlet which is considered to be riparian vegetation (Craig 2010).

Given the small size of the proposed clearing (6.1 hectares) and that the local area (10 km radius) is highly vegetated with 60% of pre-European vegetation remaining, the proposed clearing is not considered likely to cause or exacerbate the incidence of flooding.

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

Methodology References
-Craig (2010)
GIS Databases
-Hydrography, linear
- NLWRA, Current Extent of Native Vegetation

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

Comments
The area under application is zoned recreation under the Shire of Ravensthorpe Town Planning Scheme Zone. The Shire of Ravensthorpe holds a management order over the reserve for the purpose of camping.

The application area is within an Aboriginal Site of Significance. It is the responsibility of the applicant to ensure they are compliant with the Aboriginal Heritage Act 1972.

Methodology GIS Databases
- Aboriginal Sites of Significance

4. References

Chapman A (2009) Faunal Considerations for Proposed Upgrade of Hamersley Drive From East Mt Barren to Hamersley Inlet in Fitzgerald River National park, Western Australia. Report prepared for Main Roads Western Australia. DEC Ref A534835

Commonwealth of Australia (2001) National Objectives and Targets for Biodiversity Conservation 2001-2005, Canberra.

Craig G F (2010) Fitzgerald River National park Improvement Project Culham Inlet to Hamersley Inlet vegetation and Flora. Report prepared for Main Roads Western Australia. DEC ref A532039

DEC (2012) Impact Evaluation Checklist Fitzgerald River National Park Improvement Project. Hamersley Inlet. Department of Environment and Conservation. DEC ref A 532037

Government of Western Australia (2011); 2011 Statewide Vegetation Statistics incorporating the CAR Reserve Analysis (Full Report). 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.

MRWA (2011) Environmental Management Plan Fitzgerald River National Park Improvement Project Road Upgrades. Main Roads Western Australia Great Southern Region and Department of Environment and Conservation South Coast Region. DEC ref A 532037

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.

5. Glossary

| Term | Meaning |
|-------|--|
| 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 |