GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

Purpose Permit number:	CPS 4195/1
Permit Holder:	West Australian Rifle Association Inc
Duration of Permit:	6 June 2011 to 6 June 2016

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 developing the Pinjar Shooting Complex.

2. **Land on which clearing is to be done**
   Lot 5607 on Plan 208673 (Pinjar 6078)
   Lot 14201 on Plan 221176 (Pinjar 6078)

3. **Area of Clearing**
   The Permit Holder must not clear more than 48.3 hectares of native vegetation within the area hatched yellow on attached Plan 4195/1.

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 power to clear native vegetation for those activities under the *Conservation and Land Management Act 1984* 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

(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.

9. Records to be kept

The Permit Holder must maintain the following records in relation to the clearing of native vegetation authorised under this Permit:

(a) the location where the clearing occurred, 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;
(b) the date that the area was cleared; and
(c) the size of the area cleared (in hectares).

10. 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 9 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 6 March 2016, the Permit Holder must provide to the CEO a written report of records required under condition 9 of this Permit where these records have not already been provided under condition 10(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;

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;

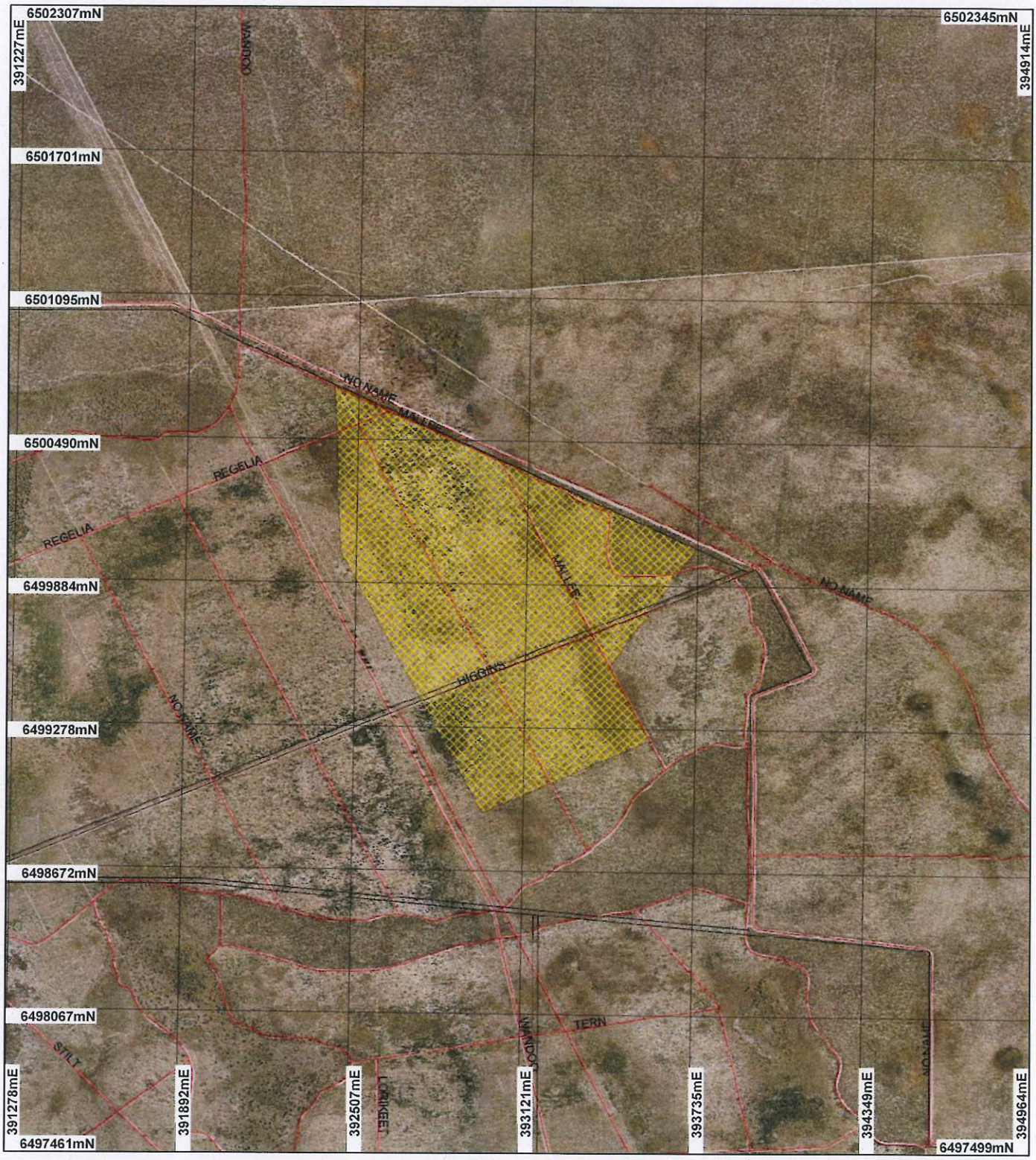
weed/s means a species listed in Appendix 3 of the "Environmental Weed Strategy" published by the Department of Conservation and Land Management (1999), and plants declared under section 37 of the *Agriculture and Related Resources Protection Act 1976*.

Kelly Faulkner
MANAGER
NATIVE VEGETATION CONSERVATION BRANCH

Officer delegated under Section 20
of the Environmental Protection Act 1986

12 May 2011

Plan 4195/1



LEGEND

Clearing Instruments

- Areas Approved to Clear
- Road Centrelines
- Cadastre

Perth Metropolitan Area
North 20cm Orthomosaic - Landgate 2007

N

0 ~625 m

Scale 1:21525
(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 of measurement inaccuracies.

K. Faulkner Date 12/5/11

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 acknowleged by the agency acronym in the legend.

Department of Environment and Conservation

Our environment, our future

Department of Environment and Conservation

Clearing Permit Decision Report

1. Application details

1.1. Permit application details

Permit application No.: 4195/1
Permit type: Purpose Permit

1.2. Proponent details

Proponent's name: West Australian Rifle Association Incorporated

1.3. Property details

Property: LOT 5607 ON PLAN 208673 (House No. 399 NEAVES PINJAR 6078)
LOT 14201 ON PLAN 221176 (PINJAR 6078)
Local Government Area: City of Wanneroo and Shire of Chittering
Colloquial name: State Forest 65

1.4. Application

Clearing Area (ha)	No. Trees	Method of Clearing	For the purpose of:
48.3		Mechanical Removal	Building or Structure

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 12 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
The area under application is mapped as Beard vegetation association 949 and Heddle vegetation complex Bassendean Complex North. 949 - Low woodland; banksia (Shepherd, 2009). Bassendean Complex - North: Vegetation ranges from a low open forest and low open woodland of Banksia species Eucalyptus todtiana (Pricklybark) to low woodland of Melaleuca species and sedgelands which occupy the moister sites (Heddle et al, 1980).	The application area was historically a Pine plantation which was cleared approximately 15 years ago. The area under application is now open woodland, consisting predominantly of Pinus pinaster, Xanthorrhoea preissii, Adenanthos cuneatus (Wooly Bush), Kunzea sp. and Nuytsia floribunda. Also observed were Macrozamia riedlei, pig face, Banksia sp and Myrtaceous shrub (Thryptomene/Baeckea). The area under application contains limited species diversity dominated with regrowth Pinus pinaster.	Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery 1994)	The condition of the vegetation under application was determined via a site inspection (DEC, 2011a) and through digital imagery (Perth Metropolitan Area North 20cm Orthomosaic - Landgate 2007).

3. Assessment of application against clearing principles

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

Comments

Proposal is not likely to be at variance to this Principle

The West Australian Rifle Association propose to clear up to 48.3 hectares of native vegetation within State Forest 65 for the purpose of constructing an international rifle range. A total of 18.1 hectares will be totally cleared for structures, drainage and roads, the remaining area will be thinned and cut back to less than 30cm.

The area under application was historically a pine plantation. The pines were harvested approximately 15 years ago. The area is now open woodland dominated by Pinus pinaster, Xanthorrhoea preissii, Adenanthos cuneatus, Nuytsia floribunda and Hakea sp.

In November 2000, Landcare Services Pty Ltd conducted a Flora and Vegetation assessment over the application area and identified 66 flora taxa, 11 of which were introduced. This survey did not identify any rare or priority flora.

The local area surrounding the application area is highly vegetated containing approximately 90 per cent vegetation.

The application area is unlikely to represent an area of higher biodiversity value when compared to representative vegetation in a local and regional context.

Considering the above the proposed clearing is not likely to be at variance to this Principle.

Methodology References:
Landcare Services Pty Ltd (2000)

GIS database:
- SAC Biodatasets (accessed Feb 2011)
- Pre European Vegetation (DA 2001)

(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**
Conservation significant fauna recorded within the local area (10km radius) are; Leioproctus contrarius (bee), Hylaeus globuliferus (bee), Neelaps calonotos (Black-striped Snake), Calyptorhynchus latirostris (Carnaby's Black-cockatoo), Synemon gratiosa (Graceful Sunmoth), Isoodon obesulus fusciventer (Quenda) and Macropus irma (Western Brush Wallaby).

Five records of Carnaby's black cockatoo were recorded within the local area (10km radius). Carnaby's black cockatoo (Calyptorhynchus latirostris) is listed as endangered, with populations declining dramatically due to land clearing for agriculture in regional areas and for urban development around Perth (Shah, 2006). Clearing of feeding habitat on the Swan Coastal Plain poses a significant threat to the long term survival of Carnaby's black cockatoos (Shah, 2006).

Due to the degraded nature of the application area it contains very little foraging habitat for Carnaby's black cockatoo.

It is unlikely that the conservation status of any of the species listed above will be compromised by the proposed clearing due to the large intact remnant surrounding the application area which is in a better condition.

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

Methodology References:
Shah (2006)

GIS database:
- SAC Biodatasets (accessed Feb 2011)
- Pre European Vegetation (DA 2001)
- Swan Coastal Plain North 40cm Orthomosaic - Landgate 2005

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

Comments **Proposal is not likely to be at variance to this Principle**
Within the local area (10km radius) surrounding the application area the following rare flora were recorded; Caladenia huegelii, Darwinia foetida and Eucalyptus argutifolia. Caladenia huegelii was the only rare flora species recorded on the same vegetation and soil type. This record was identified 5.7kms south of the area under application.

Caladenia huegelii occurs in deep sandy soil in mixed woodland of jarrah and Banksia and tends to favour areas of lush undergrowth (Brown et al, 1998).

The area under application was historically a Pine plantation. The pines were harvested approximately 15 years ago and the area was left to regenerate. The area today is open woodland dominated by Pinus pinaster and contains very little undergrowth. Despite the favourable soil conditions (grey sand) on site, it is unlikely that Caladenia hugelii will occur within the application area due to its sparse undergrowth.

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

Methodology References:
Brown (1998)

GIS database:
- SAC Biodatasets (accessed Feb 2011)
- Pre European Vegetation (DA 2001)

(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

No threatened ecological communities (TEC) have been recorded within the application area, however within the local area eight records of the critically endangered TEC, Organic Mound Springs were recorded.

Organic Mound Springs TECs occur in a narrow range of ground water discharge at the boundary of 'bassendean sand' and 'guildford clay', along the edge of the Gnangara Mound. This area is approximately 7kms east of the application area, therefore it is unlikely that the area under application comprises of whole or part of, or is necessary for the maintenance of this TEC.

This application is not likely to be at variance to this clearing principle.

Methodology

GIS database:
- SAC Biodatasets (accessed Feb 2011)
- Pre European Vegetation (DA 2001)
- Swan Coastal Plain North 40cm Orthomosaic - Landgate 2005

(e) Native vegetation should not be cleared if it is significant as a remnant of native vegetation in an area that has been extensively cleared.

Comments

Proposal is not at variance to this Principle

	Pre-European (ha)	Current extent (ha)	Remaining (%)	In secure tenure (%)
IBRA Bioregion*				
Swan Coastal Plain	1,501,208	583,140	38.8	
City of Wanneroo*	67, 697	33, 638	49.7	47.7
Shire of Chittering	121 839	49, 576	40.7	7.14
Beard type in Bioregion 949*	209,983	122,677	58.4	49.4
Heddle vegetation complex**				
Bassendean - North	74,147	53,384	72.0	27.5

*Shepherd, 2009
** Heddle et al, 1980

The local area (10km radius) surrounding the proposed clearing site is well vegetated, containing approximately 90 per cent vegetation cover.

The vegetation types are well represented the area under application is not considered to be a significant remnant in a highly cleared landscape. It is noted that this area has previously been cleared for a pine plantation and very little native vegetation was observed during the site inspection (DEC, 2011a).

Given the above the application is not at variance to this clearing principle.

Methodology

References:
DEC (2011a)
Shepherd (2009)
Heddle et al (1980)

GIS database:
- SAC Biodatasets (accessed Feb 2011)
- Local Government Authorities - DLI 8/07/04
- Pre European Vegetation (DA 2001)
- Swan Coastal Plain North 40cm Orthomosaic - Landgate 2005

(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

A conservation category wetland (CCW) and a resource enhanced wetland (REW) are both located within the boundary of the proposed rifle range. Clearing within these wetland areas will be limited to a 2 metre strip for perimeter fencing.

In February 2011 when the site inspection (DEC, 2011a) was conducted no water or dampland was observed within these wetland areas. The only evidence that these areas contained wetlands was the vegetation change. The wetland areas were dominated by Kunzea sp.

Although limited, vegetation removal is proposed within the CCW and REW areas, therefore this application is at variance to this clearing principle.

Methodology

References:
DEC (2011a)

GIS database:
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC 11/04/07
- Hydrography linear - DOW 13/7/06

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

Comments

Proposal may be at variance to this Principle

The chief soils within the area under application are leached sands (Northcote et al. 1960-68). The main land degradation risk with the identified soil type is wind erosion.

The proposal is to totally clear 18.1 hectares for structures, drainage and roads and the remaining vegetation will be cut back to below 30cm leaving the root structure in place. The proposal to cut back approximately 30 hectares, leaving the root structure in place will reduce the risk of wind erosion and water logging.

The wetland areas identified within the project area are mapped as having a high to moderate acid sulphate soil risk. Clearing within these wetland areas is minimal, however the soil disturbance caused by the clearing runs the risk of disturbing acid sulphate soil which may in turn cause appreciable land degradation. The remaining area under application has a moderate to low acid sulphate soil risk.

Given the above, this proposal may be at variance to this clearing principle.

Methodology

References:
Northcote et al (1960-68)

GIS database:
- Acid Sulfate Soil Risk Map, Swan coastal Plain - DEC 07/08/06
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC 11/04/07
- Hydrography linear - DOW 13/7/06
- SAC Biodatasets (accessed Feb 2011)
- Topographic contours statewide - DOLA and ARMY 12/09/02

(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 located within State Forest 65.

Three Bush Forever sites (Chittering Road Bushland (398) and Gnangara Plantation Bushland (450 and 452)) are located within the rifle range boundary. Bush Forever site 452 is within the boundary of the CCW wetland and site 450 is consistent with the boundary of the REW. The clearing proposed within the Bush Forever sites is for fence lines and is located within already disturbed areas (access tracks).

The disturbance caused by clearing will increase the occurrence of weeds. A weed and dieback condition will assist in mitigating the risk of weeds and pathogens spreading into the neighbouring conservation reserves.

Given the above this application is at variance to this clearing principle.

Methodology

GIS database:
- Bush Forever
- DEC Tenure

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

Comments

Proposal may be at variance to this Principle

The proposed clearing may increase sedimentation is surface water run off however the area under application has a low relief and contains sandy well drained soils which will reduce surface water run off, in addition

approximately 30 hectares of the area under application will retain 'cut back' vegetation which will further assist in reducing run off.

The area under application falls within the Gnangara Environmental Protection Policy (EPP) area, which is a priority one public drinking water source area. The proposed clearing site is mapped as comprising of high to moderate and moderate to low acid sulphate soil risk. The proposed clearing runs the risk of disturbing potential acid sulphate soils. If these soils are disturbed deterioration of surface water and groundwater quality may occur.

The proposal may be at variance to this clearing principle.

Methodology GIS database:
- Acid Sulfate Soil Risk Map, Swan coastal Plain - DEC 07/08/06
- Clearing Regulations, Environmentally Sensitive Areas (2009)
- Geomorphic Wetlands (Mgt Categories), Swan Coastal Plain - DEC 11/04/07
- Hydrography linear - DOW 13/7/06

(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

Given the sandy nature of the soils and the high percentage of surrounding vegetation this proposal is not likely to increase the incidence or intensity of flooding.

The proposal is not likely to be at variance to this clearing principle.

Methodology GIS database:
- SAC Biodatasets (accessed Feb 2011)
- Pre European Vegetation (DA 2001)
- Swan Coastal Plain North 40cm Orthomosaic - Landgate 2005

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

Comments

Department of Environment and Conservation's Property Unit has issued a draft lease (DEC, 2011b) to the West Australian Rifle Association to enable them to develop, operate and maintain a shooting complex within State Forest 65, Pinjar.

The West Australian Rifle Association has been granted $6.6 million in funding from the WA government to building the headquarters and rifle range.

The City of Wanneroo has advised that a development application has not yet been submitted.

The Shire of Chittering (2011) has advised that it has no objections to such applications however, development approval will need to be sought.

The area under application falls within the Gnangara Environmental Protection Policy (EPP) area. Given the area is within the EPP and is on Crown this application was referred to the Environmental Protection Authority (EPA) for comment. The EPA has advised that while the proposal raises a number of environmental issues, it is primarily concerns the clearing of native vegetation (EPA, 2011). The EPA (2011) has determined not to assess this proposal under Part IV of the EP Act and recommends that the proposal be dealt with under Part V Division 2 of the EP Act (clearing of native vegetation).

The area under application falls within the Gnangara Underground Water Pollution Control Area which is a Priority 1 Public Drinking Water Supply Area. Advice was sought from the Department of Water (DoW) on the potential impacts this proposal will have on water quality. DoW (2011) has advised that they are unable to support the application as the proposed land uses are considered incompatible with the principle of risk avoidance in priority 1 areas. Advice provided by Water and Rivers Commission in 2000 raised the same concerns however listed a number of conditions which should be added to the Lease to ensure water quality is protected. The lease which was prepared by DEC's Property Unit includes the recommended conditions on the lease therefore, DEC is of the opinion that issues relating to water quality can be managed.

The area under application contains three small Bush Forever sites (398, 452 and 450) and therefore, was referred to the Department of Planning (State Strategic Policy) for comment. The Department of Planning (2011) has advised that the establishment of a rifle range at this location may indirect negative impacts on the Bush Forever areas, such as the spread of weeds, rubbish dumping and accidental fire. As such, the following advice is provided;

- The road running alongside and through a portion of Bush Forever area 452 has previously been cleared, and further clearing for fencing is required. SSP has no objection to this, but recommends a wetland management plan be prepared for this site.

- SSP recommends that the fence proposed to be constructed through the CCW (Bush Forever area 450) be relocated to be outside the Bush Forever area, and outside a wetland buffer of 50m.
- The map provided for CPS 4195/1 shows an area of 398 to be cleared. This would not be supported as the proponent has not provided any justification for this clearing.

Maps provided by the applicant illustrate that the proposed fence lines within Bush Forever sites 450 and 398 are located in areas which have already been cleared for tracks. Within these three sites the only clearing which will need to occur is a small (less than 100m x 1.8m) area within Bush Forever site 398. DEC is of the opinion that negative impacts to these Bush Forever sites can be managed via Clearing Permit and Lease conditions.

Methodology

References:
DEC (2011b)
Department of Planning (2011)
DoW (2011)
EPA (2011)
Shire of Chittering (2011)
Water and Rivers Commission (2000)

GIS database:
- Clearing Regulations, Environmentally Sensitive Areas (2009)

4. References

Brown A., Thomson-Dans C. and Marchant N.(1998). Western Australia's Threatened Flora, Department of Conservation and Land Management, Western Australia.

DEC (2011a) Site Inspection Report for Clearing Permit Application CPS 4195/1, State Forest 65, Pinjar. Site inspection undertaken 28/02/2011. Department of Environment and Conservation, Western Australia (DEC Ref: A378480).

DEC (2011b) Draft Lease - Lease No 2162/97, Part of State Forest No 65. Department of Environment and Conservation, Western Australia (DEC Ref: A393420)

Department of Planning (2011) Advice for Clearing Permit Application CPS 4295/1, State Forest 65. State Strategic Policy, Western Australia (DEC Ref: A384716).

DoW (2011) Advice for Clearing Permit Application CPS 4295/1, State Forest 65. Department of Water, Western Australia (DEC Ref: A383305).

EPA (2011) Notice Under Section 39A(3) Environmental Protection Act 1986. Environmental Protection Authority, Western Australia (DEC Ref: A391050).

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.

Landcare Services Pty Ltd (2000) Flora and Vegetation Assessment - Proposed Rifle Range, Pinjar - October 200. Prepared for West Australian Rifle Association Inc.

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.

Shire of Chittering (2011) Advice for Clearing Permit Application CPS 4295/1, State Forest 65 (DEC Ref: A385586).

Water and Rivers Commission (2000) Advice provided for proposed lease for International Standard Full Bore Target Rifle Range - State Forest 65, Pinjar (DEC Ref: A385588).

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)