GOVERNMENT OF
WESTERN AUSTRALIA

CLEARING PERMIT

Granted under section 51E of the Environmental Protection Act 1986

PERMIT DETAILS
Area Permit Number: CPS 3703/1
File Number: DEC14626
Duration of Permit: From 11 April 2011 to 11 April 2013

PERMIT HOLDER
Lawrence George and Helen Mary McDonald trading as Exmouth Quarries and Concrete

LAND ON WHICH CLEARING IS TO BE DONE
LOT 323 ON PLAN 52823 (EXMOUTH 6707)
LOT 322 ON PLAN 52823 (EXMOUTH 6707)

AUTHORISED ACTIVITY
The Permit Holder shall not clear more than 2.1 hectares of native vegetation within the area hatched yellow on attached Plan 3703/1.

CONDITIONS

1. **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*:
      (i) clean earth-moving machinery of soil and vegetation prior to entering and leaving the area to be cleared;
      (ii) ensure that no *weed*-affected soil, *mulch*, *fill* or other material is brought into the area to be cleared; and
      (iii) 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.

2. **Wind erosion management**
   The Permit Holder shall not clear native vegetation unless construction works begin within 4 weeks of the clearing being undertaken.

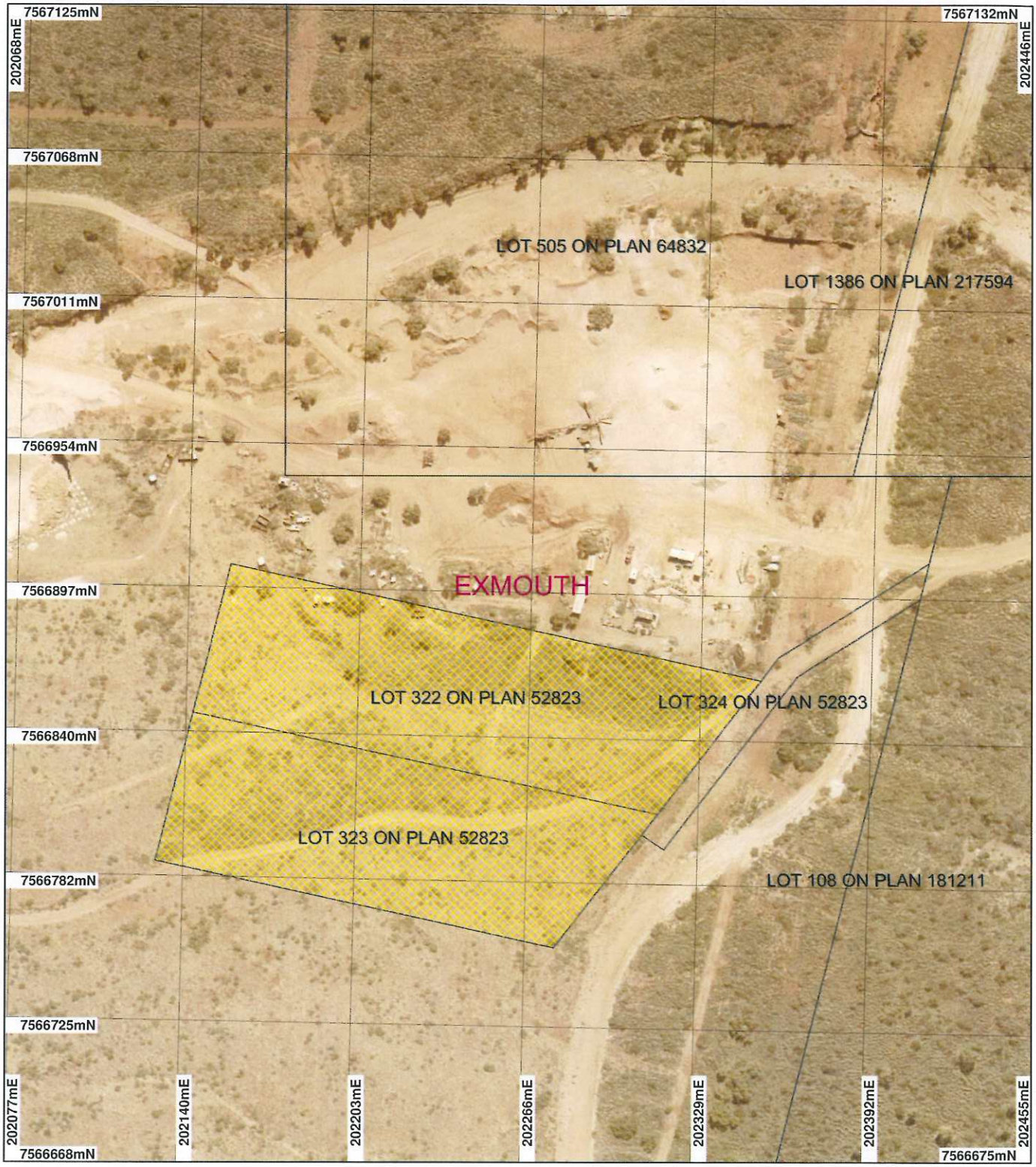
DEFINITIONS
The following meanings are given to terms used in this Permit:
fill means material used to increase the ground level, or fill a hollow;
mulch means the use of organic matter, wood chips or rocks to slow the movement of water across the soil surface and to reduce evaporation; and
weed/s means 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

17 March 2011

Plan 3703/1



LEGEND

- Cadastre
- Clearing Instruments
- Areas Approved to Clear
- Local Government Authorities

Exmouth Townsite 20cm Orthomosaic - Landgate 2003

N

0 ~62 m

Scale 1:2090
(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 17/3/11

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.: 3703/1
Permit type: Area Permit

1.2. Proponent details

Proponent's name: Lawrence George and Helen Mary McDonald trading as Exmouth Quarries and Concrete

1.3. Property details

Property: LOT 323 ON PLAN 52823 (EXMOUTH 6707)
LOT 322 ON PLAN 52823 (EXMOUTH 6707)
Local Government Area: Shire of Exmouth
Colloquial name:

1.4. Application

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

1.5. Decision on application

Decision on Permit Application: Grant
Decision Date: 17 March 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 Association: 663: Hummock grasslands, shrub steppe; waterwood over soft spinifex (Shepherd, 2009)	Vegetation proposed to be cleared consists of 2.1 hectares of tussock grasses and shrubs with some loss of species (Exmouth Quarries & Concrete, 2010). The area under application has been subjected to past disturbances, with a vehicular track and several other minor tracks bisecting the area. Several large pieces of debris appear to be scattered within the northern portion of the site. Overall, the vegetation under application is considered to be in very good (Keighery, 1994) condition.	Very Good: Vegetation structure altered; obvious signs of disturbance (Keighery, 1994)	Vegetation condition was determined from aerial photography and information supplied by the applicant (Exmouth Quarries & Concrete, 2010).

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 proposal is to clear 2.1 hectares (ha) of native vegetation for the purpose of constructing a concrete batching plant and limestone block manufacturing plant, within the Shire of Exmouth. Information provided by the applicant describes the vegetation under application as consisting mainly of perennial tussock grasses and shrubs, with a partial loss of species (Exmouth Quarries & Concrete, 2010). The vegetation under application is considered to be in very good (Keighery, 1994) condition, however some parts of the applied area show signs of disturbance, with several tracks traversing the area.

The application area is within the boundary of the Cape Range and adjacent Coastal Plain which is an approximately 182,600ha area on the Register of National Estate. This is an area of natural value and is an Environmentally Sensitive Area. The proposed clearing of 2.1ha is not likely to significantly impact the value of this area. Soil disturbance and removal of native vegetation increases the risk of weeds being introduced or spread to the application area and surrounding environment. As the application area is within the Cape Range and adjacent Coastal Plain conservation area soil disturbance the minimisation of weed introduction and spread is of high importance. Weed management conditions will minimise this risk.

The local area (10km radius) has approximately 90% native vegetation cover, with approximately 2500ha held

in secure land tenure in the local area (Cape Range National Park).

A number of priority flora are known to exist within the local area (10km radius). The Priority 4 flora species Brachychiton obtusilobus was identified in the area under application during a site inspection conducted by the applicant in December 2009 (Exmouth Quarries & Concrete, 2010). The closest mapped record of this species is 4.8km to the north of the applied area, within the same vegetation and soil complexes as the vegetation proposed to be cleared. Given the large amount of suitable habitat that remains in the local area, the proposed clearing of 2.1ha is unlikely to have a significant impact on this species.

The critically endangered Cameron's Cave Troglobitic Community is located 1.5km north-northeast, with its buffer zone extending to within 450m, of the area under application. The vegetation proposed to be cleared is not considered necessary habitat for the maintenance of the Cameron's Cave Troglobitic Community.

Given the above, the vegetation under application is unlikely to comprise a high level of biological diversity at a local or regional scale and the proposed clearing is not likely to be at variance with this principle.

Methodology

References:
Exmouth Quarries & Concrete, 2010
Keighery, 1994
GIS Databases:
- DEC Managed Lands & Waters - DEC 28/10/09
- Exmouth Townsite 20cm Orthomosaic - Landgate 2003
- Evapotranspiration, Area Actual - BOM 30/09/01
- Groundwater Salinity, statewide - DoW 13/07/06
- Hydrogeographic Catchments, Catchments - DoW 01/06/07
- Hydrogeology, statewide - DoW 13/07/06
- Hydrography, linear - DoW 13/7/06
- Rainfall, Mean Annual - BOM 30/09/01
- Pre-European vegetation - DA 01/01
- SAC Biodatasets - 04/03/11
- Soils, Statewide - 30/11/99

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

Comments

Proposal is not likely to be at variance to this Principle

There are numerous mapped records of threatened stygofaunal and troglofaunal species in the local area (10km radius) and the vegetation under application occurs on the same soil type as these records. The closest known threatened fauna occurrences are the stygofaunal blind cave eel (Ophisternon candidum) and blind gudgeon (Milyeringa veritas), mapped as occurring 800m southeast of the area under application. Critically endangered troglofaunal species Cameron's cave pseudoscorpion (Indohya damocles), Cameron's cave millipede (Stygiochiropus peculiaris) have been recorded 1.3km north-northeast and 1.5km northeast of the area under application, respectively, however these species are endemic to Cameron's Cave (CALM, 2001). The endangered Eastern Cape Range bamazomus (Bamazomus subsolanus) and lance-beaked cave shrimp (Stygiocaris lancifera) are among other threatened subterranean species recorded in the local area. As the proposed clearing is relatively small (2.1ha) and unlikely to have water drainage impacts (DoW, 2010a) it is considered not likely to impact on the Cameron's Cave communities. Due to the distance between the application area and the short ranged nature of stygo and troglo fauna, it is considered that the vegetation under application is not necessary for the maintenance of habitat for the recorded communities.

The migratory Atlantic yellow-nosed albatross (Thalassarche chlororhynchos) is listed as vulnerable and was recorded 2.5km east-southeast of the area under application. The area proposed to be cleared may contain vegetation suitable for nesting by this species, however due to its distance from the coast (1.4km) low relief and large amount of suitable habitat that remains in the local area, the vegetation under application is not considered to be significant habitat for this species.

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

Methodology

References:
CALM, 2001
DoW, 2010a
GIS Databases:
- Exmouth Townsite 20cm Orthomosaic - Landgate 2003
- Pre-European vegetation - DA 01/01
- SAC Biodatasets - 04/03/11
- Soils, Statewide - 30/11/99

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

Comments

Proposal is not likely to be at variance to this Principle

There are no known records of rare flora in the local area (10km radius) and as such the proposed clearing is not likely to be at variance to this principle.

Methodology

GIS Databases:
- Exmouth Townsite 20cm Orthomosaic - Landgate 2003
- Pre-European vegetation - DA 01/01
- SAC Biodatasets - 04/03/11
- Soils, Statewide - 30/11/99

(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 is one known Threatened Ecological Community (TEC) in the local area (10km radius). The critically endangered Cameron's Cave Troglobitic Community is located approximately 1.5km north-northeast, with its buffer zone extending to within 450m, of the area under application.

As the area under application is not within the buffer of a TEC and the vegetation is not considered necessary habitat for the maintenance of the Cameron's Cave Troglobitic Community, the proposed clearing is not likely to be at variance to this clearing principle.

Methodology

GIS Databases:
- Exmouth Townsite 20cm Orthomosaic - Landgate 2003
- Pre-European vegetation - DA 01/01
- SAC Biodatasets - 04/03/11
- Soils, Statewide - 30/11/99

(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 proposed to be cleared is well represented in the surrounding area. The Shire of Exmouth retains approximately 99% of its pre-European vegetation extent (Shepherd, 2009). The area under application is mapped as containing Beard Vegetation Association 663, of which approximately 95% of the pre-European extent remains in the Carnarvon IBRA bioregion (Shepherd, 2009).

	Pre-European (ha)	Current extent (ha)	Remaining (%)	% In reserves DEC Managed Land
IBRA Bioregion				
Carnarvon*	8,382,609	8,349,861	99	11
Shire of Exmouth*	649,315	642,217	99	44
Beard Vegetation Association within IBRA Bioregion*				
663	29,060	27,632	95	23 (6,331ha)

* (Shepherd, 2009)

The continued clearing of native vegetation may have cumulative impacts on areas of remnant vegetation in the local area (Submission, 2010). The local area is well vegetated, retaining approximately 90% native vegetation cover. As such the area proposed to be cleared is not considered to be significant as a remnant of native vegetation.

Given the above, and the relatively small (2.1ha) size of the area under application, the proposed clearing is unlikely to be at variance to this clearing principle.

Methodology

References:
Shepherd, 2009
Submission, 2010
GIS Databases:

- Exmouth Townsite 20cm Orthomosaic - Landgate 2003
- Pre-European vegetation - DA 01/01
- SAC Biodatasets - 04/03/11

(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 not likely to be at variance to this Principle

The area under application is located in close proximity to a number of mapped watercourses. Three minor, non-perennial watercourses are within close proximity to the applied area (100m north, 80m south and 170m west, respectively).

One ANCA wetland, a Cape Range Subterranean Waterway, is mapped 3.3km to the south of the area under application.

Vegetation proposed to be cleared appears not to be growing in association with any watercourses and is, therefore, considered not likely to be at variance to this principle.

Methodology

GIS Databases:
- ANCA, Wetlands - 26/03/99
- Exmouth Townsite 20cm Orthomosaic - Landgate 2003
- Hydrogeology, statewide - DoW 13/07/06
- Hydrography, linear - DoW 13/7/06
- RAMSAR, Wetlands - 15/10/09

(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

Chief soils are shallow loams on limestone with sands also overlying limestone and some red sand in dunes. As the application is within 1.4km of the coast and exposed to prevailing winds there may be a risk of wind erosion. Therefore, the proposed clearing may be at variance to this principle. The imposition of wind erosion management conditions is likely to minimise this risk.

Methodology

GIS Databases:
- Acid Sulfate Soils Risk Map, Pilbara Coastline - DEC 06/09/06
- Evapotranspiration, Area Actual - BOM 30/09/01
- Groundwater Salinity, statewide - DoW 13/07/06
- Hydrogeology, statewide - DoW 13/07/06
- Rainfall, Mean Annual - BOM 30/09/01
- Soils, Statewide - 30/11/99
- Topographic Contours, Statewide - DOLA 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 is not likely to be at variance to this Principle

The application area is within the boundary of the Cape Range and adjacent Coastal Plain which is an approximately 182,600ha area on the Register of National Estate. This is an area of natural value and is an Environmentally Sensitive Area. The incremental loss of native vegetation may have cumulative impacts on the natural value of the Cape Range and adjacent Coastal Plain, however, as the application area is in close proximity to the developed Exmouth townsite and the local area (10km radius) is highly vegetated, it is considered that the proposed clearing of 2.1ha is not likely to significantly impact the natural value of this Register of National Estate area.

There is an ANCA wetland, Cape Range Subterranean Waterway, 3.3km to the south of the area under application and the Cape Range National Park is located approximately 5.4km to the west of the application area. Due to the distances to these conservation areas and the large amount of remaining native vegetation in the local area (approximately 90%), it is considered unlikely that the vegetation under application provides a significant buffer or ecological linkage between conservation areas.

Soil disturbance and removal of native vegetation increases the risk of weeds being introduced or spread to the application area and surrounding environment. As the application area is within the Cape Range and adjacent Coastal Plain conservation area soil disturbance the minimisation of weed introduction and spread is of high importance. Weed management conditions will minimise this risk.

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

Methodology

GIS Databases:

- DEC Managed Lands & Waters - DEC 28/10/09
- Pre-European vegetation - DA 01/01
- Soils, Statewide - 30/11/99

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

Comments

Proposal is not likely to be at variance to this Principle

The proposed clearing is within the Coastal Hydrographic Catchment area and the Lyndon-Minilya Rivers Basin.

The vegetation under application is within an area covered by the Rights in Water and Irrigation Act 1914 (RIWI Act). The proposed clearing of native vegetation from this site is considered unlikely to have any significant impacts on the quantity or quality of water in the Pilbara River and Tributaries Surface Water RIWI Act Area (DoW, 2010a).

Given the above and the relatively small size (2.1ha) of the application area, the proposed clearing is considered not likely to be at variance to this principle.

Methodology

References:
DoW, 2010a
GIS Databases:
- Hydrogeographic Catchments, Catchments - DoW 01/06/07
- Hydrogeology, statewide - DoW 13/07/06
- Public Drinking Water Source Areas (PDWSAs) - DoW 07/02/06
- Rainfall, Mean Annual - BOM 30/09/01
- RIWI Act, Areas - DoW 05/04/02
- RIWI Act, Groundwater Areas - DoW 13/07/06
- RIWI Act, Irrigation Districts - DoW 13/07/06
- Soils, Statewide - 30/11/99
- Topographic Contours, Statewide - DOLA 12/09/02

(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

Due to the soil type and relatively small (2.1ha) size of the area proposed to be cleared, it is considered unlikely that the removal of native vegetation will increase the risk of flooding. For this reason it is considered that the proposed clearing is not likely to be at variance to this principle.

Methodology

GIS Databases:
- Evapotranspiration, Area Actual - BOM 30/09/01
- Hydrogeology, statewide - DoW 13/07/06
- Pre-European vegetation - DA 01/01
- Rainfall, Mean Annual - BOM 30/09/01
- Soils, Statewide - 30/11/99
- Topographic Contours, Statewide - DOLA 12/09/02

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

Comments

The applicant holds a current lease (L427515) over Lots 322 and 323 on Plan 52823 (DEC Ref: A376957). The applicant removed Lot 324 on Plan 52823, Lot 108 on Plan 181211 and Lot 1386 on Plan 217594 from the application as these land parcels cover an existing road and no clearing is required.

The applied area is zoned 'Special Use' for a concrete batching plant and limestone block manufacturing plant (AA Use) and a caretaker's dwelling (IP Use) (DEC Ref: A376760).

The Shire of Exmouth granted planning approval for the proposal on 17 February 2011 (DEC Ref: A376754).

The vegetation under application is located within an area covered by the Rights in Water and Irrigation Act 1914 (RIWI Act) for the Pilbara River and Tributaries Surface Water Area and the Gascoyne Ground Water Area. The Department of Water advised that, as the area under application falls within mining tenement TR70/5980, there is no requirement to apply for a permit under the RIWI Act (DoW, 2010b). The applicant has advised that no surface or ground water will be taken for the clearing or the subsequent land use (DEC Ref: A307377).

Prior to a lease being signed for Lots 322 and 323, taking the native title interests of the properties under application, the application area was unallocated Crown land and native title notification was executed. A response was received from the claimant's representative body and concerns were raised in relation to the

possibility of registered or unregistered Aboriginal heritage sites of cultural significance being impacted by the proposed clearing. It was also noted that Aboriginal people continue to use native vegetation for bush tucker and medicine and that the Environmental Protection Act 1986 can give attention to matters of social nature, including traditional hunting activities, by providing for the retention of habitat for native fauna (Submission, 2010). The proponent was advised of their obligations under the Aboriginal Heritage Act 1972 (DEC Ref: A308758). A lease over the application area has since been signed by the applicant.

The applicant has advised that works approval (W4804/2010/1) has been received from DEC's Industry Regulation Branch (DEC Ref: A377873).

The assessment of this clearing permit application was conducted taking into account information the applicant provided in addition to information the Department of Environment and Conservation (DEC) obtained through consultation. It is noted that the species list provided with the application is not the product of a comprehensive vegetation survey and contains inaccuracies.

There are no registered Aboriginal Sites of Significance within the application area.

Methodology

References:
DoW, 2010b
Submission, 2010
GIS Databases:
- Aboriginal Sites of Significance - DIA 02/10
- Cadastre - Landgate 12/09
- Country Area Water Supply Act (Part IIA) Clearing Control Catchments - DoW 29/06/06
- Environmental Impact Assessments - EPA 08/03/05
- Native Title Claims - LA 2/5/07
- Public Drinking Water Source Areas (PDWSAs) - DoW 07/02/06
- RIWI Act, Areas - DoW 05/04/02
- RIWI Act, Groundwater Areas - DoW 13/07/06
- RIWI Act, Irrigation Districts - DoW 13/07/06
- Town Planning Scheme Zones - MFP 31/08/98

4. References

CALM (2001) Camerons Cave Troglobitic Community, Camerons Cave Millipede and Camerons Cave Psuedoscorpion Interim Recovery Plan No. 76. Available from https://www.dec.wa.gov.au/pdf/plants_animals/threatened_species/irps/tec/cameronscave_irp76.pdf Accessed on 27 May 2010

Department of Water (2010a) Rights in Water and Irrigation Act Advice - Pilbara River and Tributaries Surface Water Area. DoW Pilbara Region. DEC Ref: A304808

Department of Water (2010b) Rights in Water and Irrigation Act Advice - Gascoyne Ground Water Area. DoW Gascoyne Region. DEC Ref: A307184

Exmouth Quarries & Concrete (2010) Clearing permit application - supporting information. DEC Ref: A304103

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

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.

Submission (2010) Native title submission on behalf Gnulli People. Yamatji Marlpa Aboriginal Corporation. DEC Ref: A306068

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)