

| 1. Application deta | S | | |
|---------------------------|---|---------------------------------------|--|
| 1.1. Permit applica | ion details | | |
| Permit application No.: | 5899/3 | | |
| Permit type: | Purpose Permit | | |
| 1.2. Proponent det | ile | | |
| Proponent's name: | Warrego Energy Pty Ltd | | |
| · | | | |
| 1.3. Property detai | | | |
| Property: | Petroleum Exploration Permit 469 | | |
| Local Government Area: | Shire of Mingenew and Shire of Three Springs | | |
| Colloquial name: | West Erregulla Exploration Program | | |
| 1.4. Application | | | |
| Clearing Area (ha) | No. Trees Method of Clearing For the purpose of: | | |
| 70 | Mechanical Removal Seismic Survey and Appraisal Well | | |
| - | | | |
| 1.5. Decision on ap | | | |
| Decision on Permit Applie | | | |
| Decision Date: | Grant | | |
| 2. Site Information | | | |
| z. Site mormation | | | |
| 2.1. Existing enviro | nment and information | | |
| 2.1.1. Description of t | e native vegetation under application | | |
| Vegetation Description | Beard vegetation associations have been mapped for the whole of Western Australia. Two associations are located within the application area (GIS Database): | Beard vegetation | |
| | Beard vegetation association 49: Shrublands; mixed heath; and Beard vegetation association 379: Shrublands; scrub-heath on lateritic sandplain in the central Geraldton Sandplain Region (GIS Database). A Level 2 flora and vegetation survey was conducted over the application area by Woodman Environmental Consulting (Woodman) (2013). The survey included an initial reconnaissance visit (15 September 2011), a detailed survey over spring in 2011 (26 to 30 September, 24 to 27 October and 20 to 26 November) and another detailed survey over spring in 2012 (10 to 13 September and 2 to 5 October) which identified 14 vegetation types (VT) within the application area: | | |
| | | | |
| | VT 1a: Mid open forest of <i>Eucalyptus accedens</i> over mid open shrubland dominated by <i>Gastrolobium spinosum</i> , Olearia rudis and Anthocercis genistoides over low open forbland and rushland dominated by <i>Calandrinia</i> <i>calyptrata</i> , <i>Calandrinia corrigioloides</i> , <i>Millotia myosotidifolia</i> , <i>Trachymene pilosa</i> and <i>Conostylis aculeata</i> subsp. <i>breviflora</i> on grey sand on mid slopes; | | |
| | VT 1b: Mid open forest of <i>Eucalyptus accedens</i> over low open shrubland dominated by <i>Ga</i> and <i>Dodonaea divaricata</i> over low open forbland of mixed species including <i>Goodenia bera manglesii</i> , <i>Podolepis lessonii</i> and <i>Acanthocarpus canaliculatus</i> on grey-brown sandy or classiopes; | ardiana, Rhodanthe | |
| | VT 2: Mid open forest of <i>Eucalyptus accedens</i> or low open forest <i>E. loxophleba</i> subsp. <i>loxo</i> shrubland dominated by <i>Rhagodia preissii</i> subsp. <i>preissii</i> and <i>Melaleuca acutifolia</i> on greyb flats and slopes; | | |
| | VT 3: Occasional mid woodland of <i>Eucalyptus accedens</i> over mid shrubland dominated by <i>marginata</i> and <i>M. acutifolia</i> over low isolated mixed shrubs and sedges including <i>Acacia en Lepidosperma</i> sp. A2 Inland Flat (G.J. Keighery 7000) on pink-brown or white clay loams of | icksoniae and | |
| | VT 4: Tall closed to open shrubland dominated by <i>Allocasuarina campestris</i> or occasionally subsp. <i>neurophylla</i> over mid open shrubland and sedgeland of mixed species including <i>Gre Melaleuca radula, Melaleuca concreta, Thryptomene</i> sp. Mingenew (Diels & Pritzel 332) (P <i>monostachya</i> and <i>Thryptomene racemulosa</i> on grey-brown sand, sandy loam or clay loam, granitic pebbles, on slopes and flats adjacent to seasonal creeks; | evillea biternata, 3), Ecdeiocolea | |
| | VT 5: Tall closed shrubland to shrubland dominated by <i>Allocasuarina campestris</i> with occar <i>Acacia neurophylla</i> subsp. <i>neurophylla</i> and <i>Melaleuca viminea</i> subsp. <i>viminea</i> over sparse sedgeland of mixed species including <i>Ecdeiocolea monostachya</i> and <i>Thryptomene racemu</i> forbland and grassland of mixed introduced species including <i>*Ehrharta longiflora</i> and <i>Ursin</i> grey or brown sandy or clay loams within and on the banks of seasonal creeks; | low shrubland and losa over open | |
| | | Faye I | |

VT 6: Open woodland of *Eucalyptus loxophleba* subsp. *loxophleba* over mid closed shrubland dominated by *Melaleuca marginata* over sparse forbland of mixed species including *Rhodanthe polycephala* on greybrown clay on slopes above seasonal creeks;

VT 7a: Mid mallee woodland to isolated mallees of *Eucalyptus conveniens* or mid open shrubland of *Allocasuarina campestris* over low shrubland and sedgeland of mixed species frequently dominated by *Ecdeiocolea monostachya* and *Melaleuca aspalathoides*, or occasionally *M. tinkeri, Hakea auriculata* or *Hakea lissocarpha*, on gravelly grey or brown clay loams or sands, usually with laterite on or near the surface, on slopes and crests;

VT 7b: Mid mallee woodland to isolated mallees of *Eucalyptus conveniens* or mid open shrubland of *Allocasuarina campestris* over low shrubland and sedgeland of mixed species dominated by *Banksia carlinoides, Ecdeiocolea monostachya, Hakea incrassata, Hibbertia hypericoides* and *Melaleuca aspalathoides* on gravelly grey or brown clay loams or sands, usually with laterite on or near the surface, on slopes and crests;

VT 8: Mid mallee woodland to isolated mallees of *Eucalyptus conveniens* over mid shrubland to open shrubland dominated by *Allocasuarina campestris* over low shrubland and sedgeland of mixed species dominated by *Ecdeiocolea monostachya, Hakea auriculata, Melaleuca radula, M. aspalathoides* and *Banksia fraseri* var. *fraseri* on gravelly grey or brown clay loams usually over massive laterite on breakaway tops, ridges and lateritic rises;

VT 9: Mid to low open shrubland of Allocasuarina campestris, Melaleuca concreta and Melaleuca marginata over low shrubland dominated by Melaleuca tinkeri and occasionally Gastrolobium plicatum over low shrubland and forbland dominated by Stylidium torticarpum (P3), Leucopogon sp. Yandanooka (M. Hislop 2507) and Micromyrtus rogeri (P1) on gravelly pink-brown or white-grey clay or clay loam over decaying laterite on breakaway tops and slopes;

VT 10: Mid sparse to open shrubland of mixed species including *Calothamnus quadrifidus* subsp. *angustifolius*, *Grevillea biformis* subsp. *biformis* and *Banksia attenuata* over low shrubland and sedgeland of mixed species dominated by *Ecdeiocolea monostachya*, *Melaleuca leuropoma*, *Daviesia divaricata* subsp. *divaricata* ms, *Mesomelaena pseudostygia* and *Banksia shuttleworthiana* on yellow-brown or occasionally grey sand on slopes and valley floors;

VT 11: Mid sparse to open shrubland of *Allocasuarina campestris* and *Grevillea biformis* subsp. *biformis* over low shrubland and sedgeland dominated by *Hakea circumalata, Lepidobolus preissianus* subsp. *preissianus, Mesomelaena pseudostygia* and *M. stygia* subsp. *deflexa* (P3) on yellow or yellow-brown sand or sandy loam on mid to upper slopes;

VT 12: Occasional mid sparse to open shrubland of *Allocasuarina campestris* and *Grevillea biformis* subsp. *biformis* over low shrubland and sedgeland dominated by *Beaufortia elegans, Hibbertia hypericoides* and *Ecdeiocolea monostachya* on grey or brown sand or sandy loam on mid to upper slopes;

VT 13a: Low open woodland of *Eucalyptus todtiana* over mid to low shrubland of mixed species dominated by *Allocasuarina humilis, Banksia scabrella* (P4), *Calothamnus sanguineus, Eremaea beaufortioides var. microphylla, Melaleuca* aff. *leuropoma* and *Hibbertia hypericoides* over low shrubland and sedgeland of mixed species including *Banksia dallanneyi* subsp. *media, Conostylis canteriata, Mesomelaena pseudostygia* and *Caustis dioica* on grey or brown sand on lower and mid slopes;

VT 13b: Low open woodland of *Eucalyptus todtiana* over mid to low shrubland of mixed species dominated by *Allocasuarina humilis, Calothamnus sanguineus, Hakea trifurcata, Hibbertia hypericoides* and *Melaleuca leuropoma* over low shrubland and rushland of mixed species including *Banksia dallanneyi* subsp. *media, Conostylis aculeata* subsp. *breviflora* and *Conostylis canteriata* on grey, brown or yellow sand on flats, in depressions and on slopes; and

VT 14: Low open shrubland dominated by *Calothamnus quadrifidus* subsp. *angustifolius, Banksia carlinoides,* Hakea lissocarpha and Verticordia densiflora over low open shrubland, sedgeland and forbland dominated by Dampiera teres (broad-leaf variant), Jacksonia angulata, Harperia lateriflora, Opercularia vaginata and Melaleuca trichophylla on greybrown sands, sandy loams and clay loams in minor drainage lines and on flats.

C: Cleared Land

Areas where no native vegetation was present due to human disturbance (predominantly paddocks) were mapped as 'Cleared Land'. A total of 3,099.26 hectares of Cleared Land was mapped in the application area.

Clearing Description

Comment

scription West Erregulla Exploration Program. Warrego Energy Pty Ltd proposes to clear up to 70 hectares of native vegetation within a total boundary of approximately 8,575 hectares for the purpose of a seismic survey and appraisal well. The project is located approximately 41 kilometres south of Dongara, in the Shire of Mingenew and Three Springs.

Vegetation Condition Pristine: No obvious signs of disturbance (Keighery ,1994);

To:

Degraded: Structure severely disturbed; regeneration to good condition requires intensive management (Keighery, 1994).

The vegetation condition was assessed during a survey undertaken by Woodman (2013).

Four appeals were received against the decision of the Department of Mines and Petroleum (DMP) to grant a clearing permit (CPS 5899/1) to Warrego Energy Limited on 30 January 2014.

On 9 April 2014, the Minister for Environment allowed the appeals to the extent that additional conditions be applied to the clearing permit as follows:

- outlining steps to be followed by the Permit Holder to minimise the risk of introduction and spread of dieback;
 - clearing methodology is specified in the permit;

- the rehabilitation requirement is amended to reflect the clearing methodology for the seismic lines and the appraisal well and to ensure third party access is prevented to survey lines and access tracks;
- to avoid clearing, minimise clearing and reduce impacts of clearing on environmental values; and
- to require the Permit Holder to adhere to the commitments in their Environmental Management Plan.

Pursuant to section 110 of the *Environmental Protection Act 1986*, DMP amended CPS 5899/1 on 11 April 2014 to give effect to the Minister's appeal decision.

An application to amend CPS 5877/2 was received on 8 December 2016 to extend the duration of the permit from 22 February 2017 to 30 April 2019, due to the appraisal well drilling program being delayed. The amount of native vegetation proposed to clear remains the same.

3. Assessment of application against clearing principles

Comments

Warrego Energy Pty Ltd has applied to amend CPS 5899/2 to extend the duration of the permit from 22 February 2017 to 30 April 2019.

The proposed amendment is unlikely to result in any significant additional environmental impacts. The environmental impacts will not change and the assessment of the clearing principles is consistent with the assessments in the previous clearing permit decision reports CPS 5899/1 and CPS 5899/2.

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

Comments

There are two Native Title claims over the area under application (Department of Aboriginal Affairs, 2017). The claim WC1997/072 was registered with the National Native Title Tribunal on 12 December 2011. The claim WC2004/002 was registered with the National Native Title Tribunal on 2 March 2005. The petroleum tenure has been granted in accordance with the future act regime of the *Native Title Act 1993* and the nature of the act (i.e. the proposed clearing activity) has been provided for in that process, therefore the granting of a clearing permit is not a future act under the *Native Title Act 1993*.

There are no registered Aboriginal Sites of Significance within the application area (Department of Aboriginal Affairs, 2017). It is the proponent's responsibility to comply with the *Aboriginal Heritage Act 1972* and ensure that no Aboriginal Sites of Significance are damaged through the clearing process.

It is the proponent's responsibility to liaise with the Department of Environment Regulation, Department of Parks and Wildlife, and the Department of Water, to determine whether a Works Approval, Water Licence, Bed and Banks Permit, or any other licences or approvals are required for the proposed works.

It is noted that the proposed clearing may impact on a protected matter under the *Environment Protection and Biodiversity Conservation Act 1999* (the EPBC Act). The proponent may be required to refer the project to the (Federal) Department of Environment for environmental impact assessment under the EPBC Act. The proponent is advised to contact the Department of Environment for further information regarding notification and referral responsibilities under the EPBC Act.

Four appeals were received against the decision of the Department of Mines and Petroleum (DMP) to grant a clearing permit (CPS 5899/1) to Warrego Energy Pty Ltd on 30 January 2014.

On 9 April 2014, the Minister for Environment allowed the appeals to the extent that additional conditions be applied to the clearing permit as follows:

- outlining steps to be followed by the Permit Holder to minimise the risk of introduction and spread of dieback;
- clearing methodology is specified in the permit;
- the rehabilitation requirement is amended to reflect the clearing methodology for the seismic lines and the appraisal well and to ensure third party access is prevented to survey lines and access tracks;
- to avoid clearing, minimise clearing and reduce impacts of clearing on environmental values; and
- to require the Permit Holder to adhere to the commitments in their Environmental Management Plan.

Pursuant to section 110 of the *Environmental Protection Act 1986*, DMP amended CPS 5899/1 to give effect to the Minister's appeal decision.

Methodology Department of Aboriginal Affairs (2017)

4. References

Department of Aboriginal Affairs (2017) Aboriginal Heritage Enquiry System. Government of Western Australia, http://maps.dia.wa.gov.au/AHIS2/. (Accessed 10 January 2017).

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

Woodman Environmental Consulting Pty Ltd (Woodman) (2013) West Erregulla Project - Flora and Vegetation Assessment. Report prepared for Warrego Energy Pty Ltd, September 2013.

5. Glossary

Acronyms:

| BoM DAA DAFWA DEC | Bureau of Meteorology, Australian Government Department of Aboriginal Affairs, Western Australia Department of Agriculture and Food, Western Australia Department of Environment and Conservation, Western Australia (now DPaW and DER) |
|----------------------------|--|
| DEE | Department of the Environment and Energy, Australian Government |
| DER DMP | Department of Environment Regulation, Western Australia Department of Mines and Petroleum, Western Australia |
| DRF | Declared Rare Flora |
| DoE | Department of the Environment, Australian Government (now DEE) |
| DoW | Department of Water, Western Australia |
| DPaW | Department of Parks and Wildlife, Western Australia |
| DSEWPaC | Department of Sustainability, Environment, Water, Population and Communities (now DEE) |
| EPA | Environmental Protection Authority, Western Australia |
| EP Act | Environmental Protection Act 1986, Western Australia |
| EPBC Act | Environment Protection and Biodiversity Conservation Act 1999 (Federal Act) |
| GIS | Geographical Information System |
| ha | Hectare (10,000 square metres) |
| IBRA | Interim Biogeographic Regionalisation for Australia |
| IUCN | International Union for the Conservation of Nature and Natural Resources – commonly known as the World Conservation Union |
| PEC | Priority Ecological Community, Western Australia |
| RIWI Act | Rights in Water and Irrigation Act 1914, Western Australia |
| TEC | Threatened Ecological Community |

Definitions:

{DPaW (2015) Conservation Codes for Western Australian Flora and Fauna. Department of Parks and Wildlife, Western Australia}:-

T Threatened species:

Published as Specially Protected under the *Wildlife Conservation Act 1950,* listed under Schedules 1 to 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora (which may also be referred to as Declared Rare Flora).

Threatened fauna is that subset of 'Specially Protected Fauna' declared to be 'likely to become extinct' pursuant to section 14(4) of the Wildlife Conservation Act.

Threatened flora is flora that has been declared to be 'likely to become extinct or is rare, or otherwise in need of special protection', pursuant to section 23F(2) of the Wildlife Conservation Act.

The assessment of the conservation status of these species is based on their national extent and ranked according to their level of threat using IUCN Red List categories and criteria as detailed below.

CR Critically endangered species

Threatened species considered to be facing an extremely high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 1 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

EN Endangered species

Threatened species considered to be facing a very high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 2 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

VU Vulnerable species

Threatened species considered to be facing a high risk of extinction in the wild. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 3 of the Wildlife Conservation (Specially Protected Fauna) Notice for Threatened Fauna and Wildlife Conservation (Rare Flora) Notice for Threatened Flora.

EX Presumed extinct species

Species which have been adequately searched for and there is no reasonable doubt that the last individual has died. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 4 of the Wildlife Conservation (Specially Protected Fauna) Notice for Presumed Extinct

Fauna and Wildlife Conservation (Rare Flora) Notice for Presumed Extinct Flora.

IA Migratory birds protected under an international agreement

Birds that are subject to an agreement between the government of Australia and the governments of Japan (JAMBA), China (CAMBA) and The Republic of Korea (ROKAMBA), and the Bonn Convention, relating to the protection of migratory birds. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 5 of the Wildlife Conservation (Specially Protected Fauna) Notice.

CD Conservation dependent fauna

Fauna of special conservation need being species dependent on ongoing conservation intervention to prevent it becoming eligible for listing as threatened. Published as Specially Protected under the *Wildlife Conservation Act 1950,* in Schedule 6 of the Wildlife Conservation (Specially Protected Fauna) Notice.

OS Other specially protected fauna

Fauna otherwise in need of special protection to ensure their conservation. Published as Specially Protected under the *Wildlife Conservation Act 1950*, in Schedule 7 of the Wildlife Conservation (Specially Protected Fauna) Notice.

P Priority species

Species which are poorly known; or

Species that are adequately known, are rare but not threatened, and require regular monitoring. Assessment of Priority codes is based on the Western Australian distribution of the species, unless the distribution in WA is part of a contiguous population extending into adjacent States, as defined by the known spread of locations.

P1 Priority One - Poorly-known species:

Species that are known from one or a few locations (generally five or less) which are potentially at risk. All occurrences are either: very small; or on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, road and rail reserves, gravel reserves and active mineral leases; or otherwise under threat of habitat destruction or degradation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes. Such species are in urgent need of further survey.

P2 Priority Two - Poorly-known species:

Species that are known from one or a few locations (generally five or less), some of which are on lands managed primarily for nature conservation, e.g. national parks, conservation parks, nature reserves and other lands with secure tenure being managed for conservation. Species may be included if they are comparatively well known from one or more locations but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes. Such species are in urgent need of further survey.

P3 Priority Three - Poorly-known species:

Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

P4 Priority Four - Rare, Near Threatened and other species in need of monitoring:

(a) Rare. Species that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These species are usually represented on conservation lands.

(b) Near Threatened. Species that are considered to have been adequately surveyed and that are close to qualifying for Vulnerable, but are not listed as Conservation Dependent.

(c) Species that have been removed from the list of threatened species during the past five years for reasons other than taxonomy.

Principles for clearing native vegetation:

- (a) Native vegetation should not be cleared if it comprises a high level of biological diversity.
- (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.
- (c) Native vegetation should not be cleared if it includes, or is necessary for the continued existence of, rare flora.
- (d) Native vegetation should not be cleared if it comprises the whole or a part of, or is necessary for the

Page 5

maintenance of a threatened ecological community.

- (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.
- (f) Native vegetation should not be cleared if it is growing in, or in association with, an environment associated with a watercourse or wetland.
- (g) Native vegetation should not be cleared if the clearing of the vegetation is likely to cause appreciable land degradation.
- (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.
- (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.
- (j) Native vegetation should not be cleared if clearing the vegetation is likely to cause, or exacerbate, the incidence or intensity of flooding.