

Appendix A

EPBC Act Approval



Approval

West Erregulla 3D onshore seismic survey and appraisal drilling exploration program, Western Australia (EPBC 2013/7054)

This decision is made under sections 130(1) and 133 of the *Environment Protection and Biodiversity Conservation Act 1999*.

Proposed action

person to whom the approval is granted Warrego Energy Pty Ltd

proponent's ACN (if applicable) 98 133 046 787

proposed action The project will consist of a three-dimensional (3D) onshore seismic survey (West Erregulla 3D Seismic Survey) and an appraisal well (the West Erregulla-2 Appraisal Well) in the West Erregulla Field, Western Australia [See EPBC Act referral 2013/7054].

Approval decision

Controlling Provision	Decision
Listed threatened species and communities (sections 18 & 18A)	Approved

conditions of approval

This approval is subject to the conditions specified below.

expiry date of approval

This approval has effect until 1 January 2025

Decision-maker

name and position Tony Bigwood
Acting Assistant Secretary
North, West and Offshore Assessment Branch

signature

date of decision

19 February 2014

Conditions attached to the approval

Conditions

Project Area

1. The **project area** is the area depicted in Attachment 1. Attachment 2 depicts the **conceptual project development footprint**.
2. The person taking the action must provide a **final project footprint** to the **department** within 1 month of the completion of all project activities..

Project Activities

3. The **person taking the action** must conduct the **3D seismic survey** entirely within Exploration Permit (EP) 469 within the **project area**.
4. Within 1 month of the completion of each **project activity**, the **person taking the action** must publish a report and maps verifying compliance with the conditions of this notice on their website for a period of at least 3 months. The **department** must be notified within one week of the information being placed on their website.
5. The person taking the action will be permitted one drill well for the purposes of exploration (appraisal gas well). If the well is unsuccessful the drill hole must be backfilled and plugged in accordance with the Western Australian Schedule of Onshore Petroleum Exploration and Production Requirements 1991, all **infrastructure** be removed and rehabilitated. If the well is successful and the **person taking the action** decides to progress with field development, a wellhead may be installed and left on the ground to contain the well, and the drill pad and **drilling infrastructure** left in-situ.
6. The **person taking the action** must advise the **department** within 1 month of the completion of **drilling** if the well and the pad and **drilling infrastructure** are to be left in-situ.

Disturbance limits

7. No more than 70 ha of native vegetation can be disturbed as a result of the **project activities** within the **project area** for the life of the project.

Pre-clearance Surveys

8. The person taking the action must ensure **surveying information** is used that accurately locates and demarcates all areas of disturbance (from source lines, receiver points, drill pad and access tracks) and identifies areas which need to be avoided (including individual threatened flora species, and large tree species that may be utilised for foraging and roosting by the Carnaby's Black Cockatoo where possible) during **vegetation clearance**.
9. The **person taking the action** must engage a **suitably qualified person** to identify and record any individuals of the Shield-backed Trapdoor Spider, Black Rugose Trapdoor Spider (*Idiosoma nigrum*), found during **pre-clearance surveys**. The **person taking the action** must notify the **department** in writing within 1 month of any individuals being

sighted, providing observations and GPS location(s) of the sighting.

Vegetation clearance

10. The person taking the action must ensure that:

- a. **Vegetation clearing** must be undertaken outside the **growth periods** for the Star Sun Orchid (*Thelymitra stellata*), and the Sandplain Duck Orchid (*Paracaleana dixonii*).
- b. **Vegetation clearing** along access tracks and 3D seismic survey source lines must not be scraped to **bare earth**.
- c. Known locations of Star Sun Orchid (*Thelymitra stellata*), the Sandplain Duck Orchid (*Paracaleana dixonii*), Yandanooka Mallee (*Eucalyptus crispate*), and Scaly Butt Mallee (*Eucalyptus leprophloia*) should be avoided (i.e. deviations to source lines, receiver points and access tracks should be made to avoid sensitive areas).
- d. If otherwise unknown locations of **EPBC Act** listed threatened species are identified during project activities, the **person taking the action** must record individuals and notify the **Department** in writing within 1 week of any individuals being sited, providing observations and GPS location(s) of the sited.
- e. The drill pad, access tracks and borrow pits should be located to avoid locations of threatened flora and, where possible, located on previously disturbed land.

Environmental Management

- 11. The person taking the action** must prepare and submit an **Environment Management Plan** for the **3D seismic survey** to the **WA Department of Mines and Petroleum** for approval. The approved **Environment Management Plan** must be provided to the **Department** within 2 weeks of approval.
- 12. The Environment Management Plan** must address impacts of **project activities** associated with the **3D seismic survey** to **EPBC Act** listed threatened species and must include avoidance, mitigation and management measures to address these impacts.
- 13. The person taking the action** must not commence the **3D seismic survey** unless the **Environment Management Plan** has been approved by the **WA Department of Mines and Petroleum**. The **Environment Management Plan** for the **3D seismic survey** must be implemented.
- 14. If the person taking the action** proceeds with the **appraisal drilling program**, the **person taking the action** must prepare and submit an **Environment Management Plan** for the **appraisal drilling program** to the **WA Department of Mines and Petroleum** for approval. The approved **Environment Management Plan** must be provided to the **Department** within 2 weeks of approval.
- 15. The Environment Management Plan** must address impacts of **project activities** associated with the **appraisal drilling program** to **EPBC Act** listed threatened species and must include avoidance, mitigation and management measures to address these impacts.
- 16. The person taking the action** must not commence the **appraisal drilling program** unless the **Environment Management Plan** has been approved by the **WA Department of Mines and Petroleum**. The **Environment Management Plan** for the **appraisal drilling**

program must be implemented.

Offsets

17. To offset the loss of habitat for the **Carnaby's Black Cockatoo**, within 12 months of the date of this approval, the **person taking the action** must provide written evidence to the **Department** that a legally binding **conservation covenant** has been registered over the **offset area** identified as the Proposed Offset Area at Attachment A. The **conservation covenant** must provide for the protection of no less than 543 ha of **Carnaby's Black Cockatoo** foraging habitat.
18. The **person taking the action** must prepare and submit an Offset Plan for the **offset area** within 1 month of **commencement of project activities**. The Offset Plan must include, but not limited to:
- a. A textual description and map clearly defining the location and boundaries of the **offset area**, as specified in this condition, which must be accompanied with the **offset attributes and shapefile**;
 - b. Milestones and objectives of the Offset Plan;
 - c. Details of **rehabilitation** measures for **offset area**. These details should include but not be limited to, commencement timeframes, species to be utilized, stocking rates, measures to be utilized to ensure success, success targets, contingency measures in the case of not meeting targets and monitoring requirements;
 - d. Details of management measures for the **offset area** including measures to exclude weeds, third party access, intrusion of agricultural activities/practices and feral animals from **offset area**;
 - e. Timeframes for the implementation and completion of the above measures or strategies;
 - f. Details of monitoring, reporting and contingency measures if performance indicators are not met; and
 - g. Roles and responsibilities of personnel associated with implementing each of the above measures.
19. If condition 17 cannot be met, **the person taking the action** must provide another parcel or parcels of land similar to the **offset area** for approval in writing by the **Department**.
20. The **Offset Plan** must be implemented.

Rehabilitation

21. The **person taking the action** must prepare and submit an **Rehabilitation Plan** detailing rehabilitation actions and monitoring criteria for the project area to the **WA Department of Mines and Petroleum** for approval. The approved **Rehabilitation Plan** must be provided to the **Department** within 2 weeks of approval.
22. The **Rehabilitation Plan** must be implemented.
23. The **proponent taking the action** must commence **rehabilitation** monitoring 1 month after completion of **project activities** and then annually for a minimum of 2 years or until monitoring has shown all **rehabilitation** criteria provided in the **Rehabilitation Plan** have

been met.

General

24. Within 7 days after the commencement of the action, the **person taking the action** must advise the **Department** in writing of the actual date of **commencement**.
25. The **person taking the action** must maintain accurate records substantiating all activities associated with or relevant to the conditions of approval, including measures taken to implement the **Environment Management Plan(s) for 3D Seismic Survey and Appraisal Drilling Program** (if applicable) and **Rehabilitation Plan** required by this approval, and make them available upon request to the **Department**. Such records may be subject to audit by the **Department** or an independent auditor in accordance with section 458 of the **EPBC Act**, or used to verify compliance with the conditions of approval. Summaries of audits will be posted on the **Department's** website. The results of audits may also be publicised through the general media.
26. Within three months of every 12 month anniversary of the commencement of the action, the **person taking the action** must publish a report on their website addressing compliance with each of the conditions of this approval, including implementation of any **management plans** as specified in the conditions. Documentary evidence providing proof of the date of publication and non-compliance with any of the conditions of this approval must be provided to the **Department** at the same time as the compliance report is published.
27. Upon the direction of the **Minister**, the **person taking the action** must ensure that an independent audit of compliance with the conditions of approval is conducted and a report submitted to the **Minister**. The independent auditor must be approved by the **Minister** prior to the commencement of the audit. Audit criteria must be agreed to by the **Minister** and the audit report must address the criteria to the satisfaction of the **Minister**.
28. If the **person taking the action** varies an approved **Environment Management Plan**, the person taking the action must provide to the department a revised **Environment Management Plan** within 2 weeks of the **WA Department of Mines and Petroleum's** approval. The varied activity shall not commence until the **WA Department of Mines and Petroleum** has approved the varied **Environment Management Plan** in writing. If the **WA Department of Mines and Petroleum** approves the revised **Environment Management Plan**, that **Environment Management Plan** must be submitted to the department within 2 weeks of the **WA Department of Mines and Petroleum's** approval and implemented in place of the **Environment Management Plan** originally approved.
29. If the **Minister** believes that it is necessary or convenient for the better protection of an **EPBC Act** listed threatened species to do so, the **Minister** may request that the **person taking the action** make specified revisions to an **Environment Management Plan** specified in the conditions and in consultation with the **WA Department of Mines and Petroleum**. The **person taking the action** must comply with any such request. The **person taking the action** must submit the revised **Environment Management Plan** for the **WA Department of Mines and Petroleum's** written approval and submit to the department within 2 weeks of this approval. The revised approved **Environment Management Plan** must be implemented. Unless the **WA Department of Mines and Petroleum** has approved the revised **Environment Management Plan**, then the **person taking the action** must continue to implement the **Environment Management Plan** originally approved, as specified in the conditions.

30. If, at any time after 12 months from the date of this approval, the **person taking the action** has not substantially commenced the action, then the person taking the action must not substantially commence the action without the written agreement of the **Minister**.
31. Unless otherwise agreed to in writing by the **Minister**, the **person taking the action** must publish all approved **management plans** referred to in these conditions of approval on their website. Each **management plan** must be published on the website within 1 month of being approved.

Definitions:

3D Survey Operations means setting out the signal retrieval network along receiver lines, creating sound waves along the source lines, collecting data and vehicle movements.

Bare earth means land lacking the usual or appropriate level of vegetation, including root stock and tubers, as a result of human activity.

Commencement means preparatory works such as clearing vegetation to begin construction.

Conceptual project development footprint means the project development footprint described and submitted as part of the referral documentation and may be revised in consideration of known threatened species that need to be avoided and will be provided to the **Department** prior to each of the **project activities** substantially commencing.

Construction includes any preparatory works required to be undertaken including clearing vegetation, the erection of any onsite temporary structures and the use of heavy duty equipment for the purpose of breaking the ground for buildings or infrastructure. Specifically, this project will establish two borrow pits, drill pad containing a drill rig, site office, turkey's nest dam, diesel generators, fuel storage tanks, refuelling area, lined cuttings and mud sump, flare pit (if required), and chemical storage area.

Conservation covenant is a promise contained in a deed to land or real estate which is binding upon the current owner and all future owners. It defines the limitations, conditions or restrictions on the use of that land that have been put in place for the purpose of protecting and enhancing the natural, cultural and/or scientific values of certain land.

Decommissioning means the same as **demobilisation**.

Demobilisation means the removal of any infrastructure used to undertake the project activities, except which is required under the WA Schedule of Onshore Petroleum Exploration and Production Requirements 1991.

Department means the Australian Government Department administering the *Environment Protection and Biodiversity Conservation Act 1999*.

Drilling means establishing an exploration well at depths of 3,000 to 4,000m to conduct well testing using water based muds to drill the entire well, bentonite (spud mud) used to drill the upper section (0 to 500 m) and potassium chloride-polymer used to drill the remainder of the well. Sized calcium carbonate will be added to the drilling fluids to prevent lost circulation during drilling.

Drill pad will include two borrow pits and a drill rig that includes a site office, turkey's nest dam, diesel generators, fuel storage tanks, refuelling area, lined cuttings and mud sump, flare pit (if required) and chemical storage area.

Environment Management Plan means the Environment Plan(s) required under the Western Australian *Petroleum and Geothermal Energy Resources Act 1967* and the *Petroleum and Geothermal Energy Resources (Environment) Regulations 2012* (PGER (E) Regulations) for the **3D seismic survey** and the **appraisal drilling program**.

EPBC Act means the *Environment Protection and Biodiversity Conservation Act 1999*.

Flaring means the burning off of any raw natural gas released from the appraisal well (if required) within a flare pit constructed on the drill pad. A tank will be installed directly below the flare stack to collect and contain any material not burnt at the flare stack such as produced liquids (oil and/or mud).

Final Project Footprint means the final line design completed as part of the **3D Seismic Survey** and location of the activities described under the **appraisal drilling program**.

Growth periods for the Star Sun Orchid (*Thelymitra stellata*), and the Sandplain Duck Orchid (*Paracaleana dixonii*) are between May and November.

Infrastructure means any equipment or structures brought into the project area that support the project activity including the drill rig, site office, diesel generators, diesel fuel storage tanks, hygiene stations, flare pit tank.

Management Plans means the **Environment Management Plan** and the **Rehabilitation Plan**.

Minister means the Minister administering the *Environment Protection and Biodiversity Conservation Act 1999* and includes a delegate of the Minister.

Project Area means the area depicted in Attachment 1 and is the subject of this approval.

Project activity means:

- a. **3D seismic survey**, and includes:
 - i. **Pre-clearance surveys**;
 - ii. **site preparation** (including vegetation clearance);
 - iii. **3D survey operations** (including mobilisation of machinery and equipment);
and
 - iv. **Demobilisation and rehabilitation**.
- b. **Appraisal Drilling program**, and includes:
 - i. **Drilling** and well testing;
 - ii. **Site preparation** (including **vegetation clearance** and **drill pad**)
 - iii. **Flaring** and construction of a flare pit (if required);
 - iv. **Construction**; and
 - v. **Demobilisation and rehabilitation**.

Offset attributes must be in the form of an excel file ('.xls') capturing relevant attributes of the offset area, including the EPBC reference ID number, the physical address of the offset site, coordinates of the boundary points in decimal degrees, the EPBC protected matters that the offset compensates for, any additional EPBC protected matters that are benefiting from the offset, and the size of the offset in hectares.

Offset area means the portions of freehold land that are largely covered with remnant native vegetation close by and to the northwest of the proposed action as shown in Attachment A.

Pre-clearance surveys means surveys which are required to be completed prior to **vegetation clearance**.

Surveying information means the flora and vegetation survey information submitted as part of the referral documentation undertaken by Woodman Environmental Consulting Pty Ltd September 2013, pre-clearance surveys and Condition 10 (d).

Site preparation means for the 3D seismic survey project activities, preparing source lines and access tracks for the appraisal drilling program the drilling activity.

Substantially commence means any project activity after vegetation clearing activities.

Suitably qualified person means a person with the requisite training and/or experience relating to the Shield-backed Trapdoor Spider, Black Rugose Trapdoor Spider (*Idiosoma nigrum*), or requisite training and/or experience in identifying specific habitat features or similar. Generally, the requisite training and experience will include tertiary qualifications in a suitable area of study (such as natural resources, environmental sciences, zoology or botany) and a minimum of five years of ecological field work experience, relating to the aforementioned species, their habitat or identification of specific habitat features at a minimum.

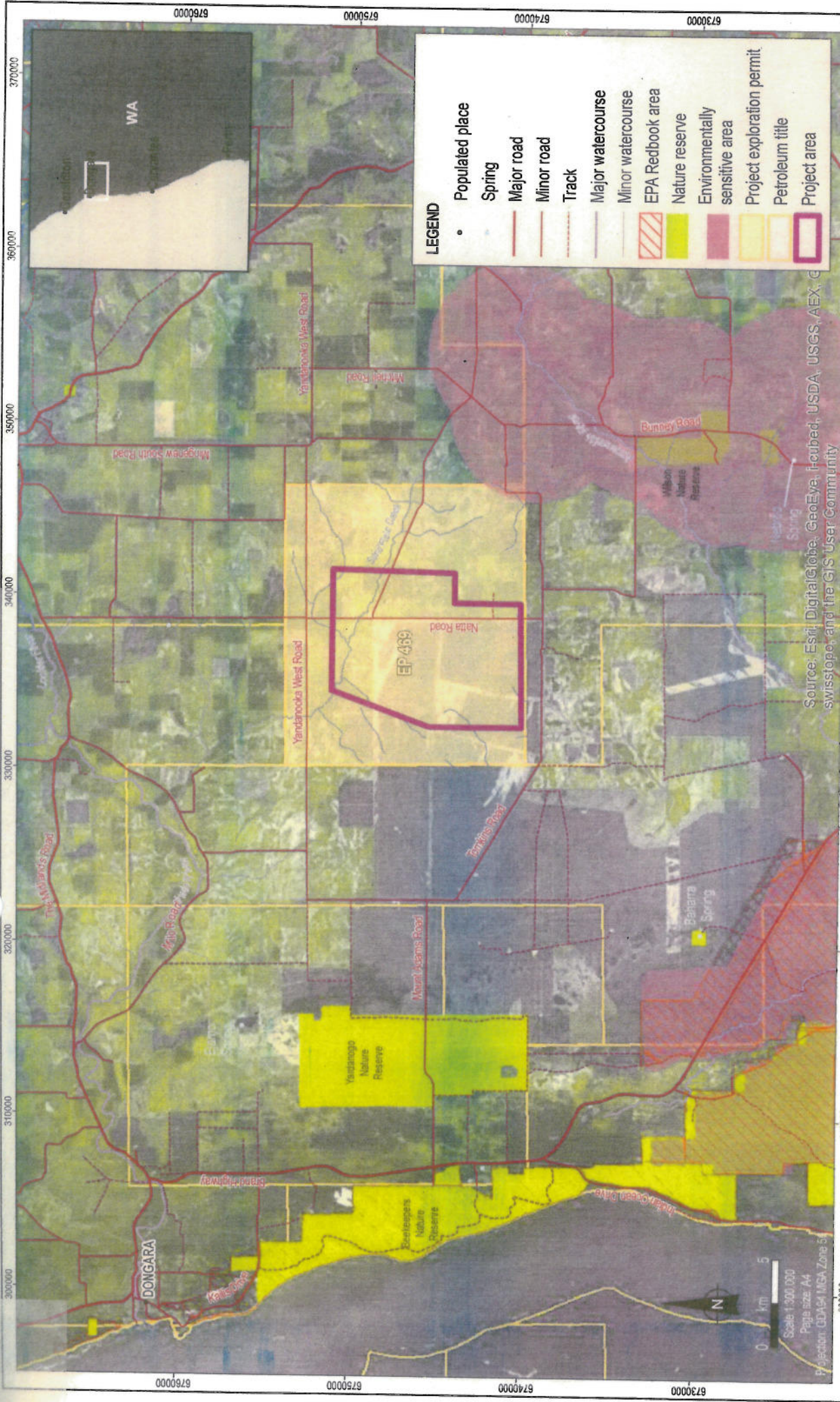
Shapefile means an ESRI Shapefile containing '.shp', '.shx' and '.dbf' files and other files capturing attributes of the offset area, including the shape, EPBC reference ID number and EPBC protected matters present at the relevant site. Attributes should also be captured in '.xls' format

Rehabilitation means returning disturbed areas to a state similar to its condition prior to disturbance by project activities or other third party activities, or to a similar type and quality to the remnant native vegetation present in the area of the project.

Rehabilitation Plan means the Rehabilitation Plan that will be submitted to the **WA Department of Mines and Petroleum** for approval and as detailed in the **Environment Management Plan**.

Vegetation clearance means the cutting down, felling, thinning, logging, removing, killing, destroying, ringbarking or burning of native vegetation including the use of raised roller mulching techniques.

WA Department of Mines and Petroleum means the Western Australia department administering the *Petroleum and Geothermal Energy Resources Act 1967* (PGER Act)



LEGEND

- Populated place
- Spring
- Major road
- Minor road
- Track
- Major watercourse
- Minor watercourse
- ▨ EPA Redbook area
- Nature reserve
- Environmentally sensitive area
- Project exploration permit
- Petroleum title
- Project area

Scale 1:300,000
 Page size: A4
 Projection: ODA/MGA Zone 5

Source: Aerial photography, Warrego Energy, Petroleum title and pipeline from ODP, Crown reserves from Landgate, Nature reserves and environmentally sensitive areas from DEC, EPA Redbook data from DEC (downloaded from S.I.P. September 13, 2010), Roads, railways, powerlines and watercourses from GEODATA250K (original scale: 1:50,000) brought from ArcGIS online.

Date: 07.11.2013
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 File Name: 2034_04_V4_F001_GIS

coffey

Warrego Energy

West Erregulla Exploration Program

warrego energy

Project location and regional setting

Figure No: **1**



Source & Notes
 This figure is for illustrative purposes only and does not represent a final survey design layout.
 Seismic survey lines from Grocke Geophysical Exploration.
 Seismic survey area, project area and drilling site from Warrego Energy.
 Roads from GEODATA 250K (Optimum scale 1:250,000).
 Aerial imagery from Landgate WA (2011).

LEGEND

	Appraisal well		Minor road
	Borrow pit		Sealed road
	Camp		Track
	Source line		Potential firebreak
	Receiver line (no clearing required)		Environmentally sensitive area
	Access track		



VARIATION TO CONDITIONS ATTACHED TO APPROVAL

West Erregulla 3D onshore seismic survey and appraisal drilling exploration program, Western Australia (EPBC 2013/7054)

This decision to vary conditions of approval is made under section 143 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

Approved action

Person to whom the approval is granted	Warrego Energy Pty Ltd ABN: 98 133 046 787
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Approved action

A three-dimensional (3D) onshore seismic survey (West Erregulla 3D Seismic Survey) and an appraisal well (the West Erregulla-2 Appraisal Well) in the West Erregulla Field, Western Australia [See EPBC Act referral 2013/7054].

Variation

Variation of conditions of approval

The variation is:
Delete Condition 10a. Vegetation clearing must be undertaken outside the growth periods for the Star Sun Orchid (*Thelymitra steelata*), and the Sandplain Duck Orchid (*Paracaleana dixonii*).

Date of effect

This variation has effect on the date the instrument is signed

Person authorised to make decision

name and position	Dr Simon Banks Assistant Secretary West Assessment Branch
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Signature

Simon Banks

Date of decision

03/04/14
