

Report on Matters of National Environmental Significance: Yebna North 4 Well Pad and Access Track

Introduction

The purpose of the assessment survey was to identify any Matters of National Environmental Significance - Listed Threatened Species, Listed Migratory Species and Listed Ecological Communities as a part of assessing the proposed location of "Yebna North 4" well pad and associated access track. This is in accordance with conditional approval issued by the Minister for Sustainability, Environment, Water, Populations and Communities (SEWPaC) (Commonwealth Minister) to the Gladstone Liquefied Natural Gas Project (the GLNG Project) under the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) on 22 October 2010.

Site Location

The Site is located on private land (Lot 1 Plan AB81) in the Fairview Project Area, 60 km north-east of Injune. The site is located within Petroleum Lease 232. See also Appendix 1: Site Map.

Methodology

The assessment consisted of the following:

- Desktop of ecological databases; and
- Field survey of the Site.

An explanation of these activities is outlined in the following sections.

Desktop assessment

The following sources were reviewed for the desktop component of the assessment.

Protected Matters Search Tool

The search was conducted of the Environmental Protection Biodiversity and Conservation Act 1999 Protected Matters Search Tool (DSEWPaC 2013a) on 3rd September 2013. A 10km buffer was used around the coordinate -25.64297, 149.13648.

Significant Species Management Plan

The Significant Species Management Plan (RPS Australia East 2012) was reviewed to determine species likely to be present in the project area.

Field Assessment

The Project supervisor (Vanessa Keogh) was approved by the Commonwealth Department of Sustainability and Environment, Water, Populations and Communities (DSEWPaC) in writing on the 16th August 2012 for the purposes of undertaking terrestrial fauna surveys and site assessments.

The field assessment described in this report was undertaken on 1st September 2013 by Lincoln Smith and Tom Claridge. All aspects of the project including field survey and reporting were conducted under the supervision of Vanessa Keogh (Project Supervisor).

During this survey, assessment of fauna habitat was undertaken during a walking traverse of the proposed area of disturbance and a 20m buffer from this area (Map 1).

Opportunistic fauna observations were made and recorded with locations of any EPBC listed fauna recorded using a Garmin GPS Map 62s. Observations on habitat features in the area were made and recorded. This information was used to assess the likelihood of significant species inhabiting the area as shown in Appendix 1.

Quaternary vegetation assessments were undertaken at locations representative of the vegetation types present at the site.

Results & Discussion

Listed Threatened Ecological Communities

The results of the desktop and field assessments for Threatened Ecological Communities are shown in Table 1.

Table 1. Desktop and Field assessment of Listed Threatened Ecological Communities

KEY: CE = Critically Endangered; E = Endangered; M=Migratory; V = Vulnerable.

		Desktop Assessment	Field Assessment	
Name	EPBC Status	Likelihood of occurrence	Community detected	Comment
Brigalow (Acacia harpophylla dominant and co-dominant)	E	No result	No	An assessment of vegetation was undertaken. No Threatened Ecological Communities were detected. There are not expected to be any adverse impacts on Threatened Ecological Communities.
Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions	E	Community may occur within the search area	No	
Natural Grasslands of the Queensland Central highlands and northern Fitzroy Basin	E	No result	No	
The Community of Native Species Dependent on Natural Discharge of Groundwater from the Great Artesian Basin	E	No result	No	
Semi-evergreen vine thickets of the Brigalow Belt (North and South) and Nandewar Bioregions	E	Community likely to occur within the search area	No	
Weeping Myall Woodlands	E	Community likely to occur within the search area	No	

Listed Threatened Species - Flora

The results of the desktop and field assessments for Listed Threatened Flora Species are shown in Table 2.

Table 2. Desktop and Field assessment of Listed Threatened Species - Flora.

KEY: CE = Critically Endangered; E = Endangered; V = Vulnerable.

		Desktop Assessment	Field Assessment	
Name	EPBC Status	Likelihood of occurrence	Species detected	Comment
<i>Acacia wardellii</i> Thornby Range Wattle	V	No result	No	This species was not detected during the field assessment.
<i>Bertya opponens</i> Coolabah Bertya	V	No result	No	This species was not detected during the field assessment.
<i>Cadellia pentastylis</i> Ooline	V	Species or species habitat may occur within area	No	This species was not detected during the field assessment.

		Desktop Assessment	Field Assessment	
Name	EPBC Status	Likelihood of occurrence	Species detected	Comment
<i>Commersonia argentea</i>	Not listed	n/a	No	<i>Commersonia argentea</i> was removed from the Environment Protection and Biodiversity Conservation Act 1999 list of threatened species on 23 May 2013. The species was not detected during the field assessment.
<i>Dichanthium queenslandicum</i> King Bluegrass	E	No result	No	This species was not detected during the field assessment.
<i>Dichanthium setosum</i> Bristly Bluegrass	V	No result	No	This species was not detected during the field assessment.
<i>Eucalyptus virens</i> Shiny-leaved Ironbark	V	No result	No	This species was not detected during the field assessment.
<i>Homopholis belsonii</i> Belson's panic	V	No result	No	This species was not detected during the field assessment.
<i>Macrozamia fearnsidei</i> Curly Zamia	Not listed	n/a	No	<i>Macrozamia fearnsidei</i> was removed from the Environment Protection and Biodiversity Conservation Act 1999 list of threatened species on 15 May 2013. The species was not detected during the field assessment.
<i>Swainsona murrayana</i> Slender darling pea	V	No result	No	This species was not detected during the field assessment.
<i>Tylophora linearis</i>	E	Species or species habitat likely to occur within area	No	This species was not detected during the field assessment.
<i>Xerothermella herbacea</i>	E	No result	No	This species was not detected during the field assessment.

Listed Threatened Species - Fauna

The results of the desktop and field assessments for Listed Threatened Fauna Species are shown in Table 3.

Table 3. Desktop and Field assessment of Listed Threatened Species - Fauna

KEY: CE = Critically Endangered; E = Endangered; V = Vulnerable.

		Desktop Assessment	Field Assessment		
Name	EPBC Status	Likelihood of occurrence	Species detected	Likelihood of occurrence	Habitat Suitability and potential impacts <i>Habitat descriptions based on GLNG CSG Fields Significant Species Management Plan (RPS Australia East 2012) unless otherwise noted.</i>
Invertebrates					
<i>Adclarkia dawsonensis</i> Boggomoss Snail	CE	No result	No	Moderate	Species is known to inhabit drainage lines. A drainage line is present at the site however the species is dependant on well developed leaf litter which maintains a moist microclimate. This feature was not present within the assessment area.
Birds					
<i>Erythrotriorchis radiatus</i> Red Goshawk	E	Species or species habitat likely to occur within area	No	Moderate	Suitable habitat present - woodland near watercourse with mature trees for nesting. No mature trees will be disturbed by the proposed activity. It is not expected that there will be direct impacts on this species. Any indirect impacts such as noise and dust will be mitigated via internal approval conditions. Indirect impacts are expected to be minimal, short-term and recoverable.

<i>Geophaps scripta scripta</i> Squatter Pigeon	V	Species or species habitat likely to occur within area	No	High	Species has been recorded in the area in previous ecological assessments. Suitable habitat is present. All relevant site personnel including contractors shall be appropriately trained and made aware of the sensitive environments in which they will be working. Signs will be erected along the access track to indicate where particular care must be taken. There will be no direct impact on woodland vegetation. Given the mitigation measures and the small scale of new disturbance associated with the activity, any impacts on this species are expected to be minimal, short-term and recoverable.
<i>Neochmia ruficauda ruficauda</i> Star Finch	E	Species or species habitat likely to occur within area	No	Low	Not described in the GLNG significant species management plan. Habitat for this species occurs within the proposed area of disturbance however the species is considered unlikely to occur as the subspecies is possibly extinct (Garnett <i>et al.</i> 2011).
<i>Rostratula australis</i> Australian Painted Snipe	E	Species or species habitat may occur within area	No	Low	No wetlands present. Farm dam is present within the vicinity of the proposed activity however is unlikely to support this species as it lacks vegetation.
<i>Turnix melanogaster</i> Black-breasted Button Quail	V	No result	No	Low	No suitable habitat detected (Semi-evergreen vine thicket, low thickets or woodlands with a dense understorey).
Mammals					
<i>Chalinolobus dwyeri</i> Large-eared Pied Bat	V	Species or species habitat may occur within area	No	Moderate	Foraging habitat present (woodlands and adjoining non-remnant vegetation). Roosts absent (cavities, overhangs and caves). Given the small scale of the activity the impacts on this species are expected to be minimal, short-term and recoverable. Any indirect impacts such as noise and dust will be mitigated via internal approval conditions.
<i>Dasyurus hallucatus</i> Northern Quoll	E	Species or species habitat may occur within area	No	Moderate - High	Foraging habitat present (Eucalypt woodlands, shrublands or grasslands). Essential micro habitat such as large logs and rocky habitats are present but will not be directly impacted by the proposed activity. Any indirect impacts such as noise and dust will be mitigated via internal approval conditions. As such any impacts on this species are expected to be minimal, short-term and recoverable.
<i>Nyctophilus corbeni</i> South-eastern Longeared Bat	V	Species or species habitat may occur within area	No	High	Foraging habitat present (woodlands and adjoining non-remnant vegetation). Potential roost sites are present (trees with hollows and loose bark) but will not be directly impacted by the proposed activity. Any indirect impacts such as noise and dust will be mitigated via internal approval conditions. As such any impacts on this species are expected to be minimal, short-term and recoverable.
<i>Petrogale penicillata</i> Brush-tailed Rock-wallaby	V	Species or species habitat may occur within area	No	Low	Not described in the GLNG significant species management plan. Rockpiles and cliffs with numerous crevices and ledges is known habitat for this species (Menkhurst and Knight 2011). These features were not detected.
<i>Phascolarctos cinereus</i> (combined populations of Qld, NSW and the ACT) Koala	V	Species or species habitat may occur within area	No	High	Not described in the GLNG significant species management plan. Potential habitat present (Eucalyptus camaldulensis, E. populnea. E. melanophloia) but will not be directly impacted by the proposed activity. Any indirect impacts such as noise and dust will be mitigated via internal approval conditions. As such any impacts on this species are expected to be minimal, short-term and recoverable.
Reptiles					

<i>Delma torquata</i> Collared Delma	V	Species or species habitat may occur within area	No	Moderate - High	General indicative habitat present (Eucalypt-dominated woodlands and open-forests, within remnant and disturbed habitats). It is found under rocks, logs and other ground cover. Essential Micro-habitat features are also present within the woodland areas (loose surface rocks, large logs, tussocks). These features are not expected to be directly impacted by the proposed activity as the woodland areas will not be directly impacted by the proposed activity. Any indirect impacts such as noise and dust will be mitigated via internal approval conditions. As such any impacts on this species are expected to be minimal, short-term and recoverable.
<i>Denisonia maculata</i> Ornamental Snake	V	Species or species habitat may occur within area	No	Low	The species is known to prefer woodlands and open forests associated with moist areas, particularly gilgai (melon-hole) mounds and depressions, but also lake margins and wetlands. While a drainage line and a farm dam are present at the site, it is not considered to be high-quality habitat for this species.
<i>Egernia rugosa</i> Yakka Skink	V	Species or species habitat may occur within area	No	Moderate-High	General indicative habitat present (Ironbark woodlands). Essential Micro-habitat features are also present within the woodland areas (large logs). These features are not expected to be directly impacted by the proposed activity as the woodland areas will not be directly impacted by the proposed activity. Any indirect impacts such as noise and dust will be mitigated via internal approval conditions. As such any impacts on this species are expected to be minimal, short-term and recoverable.
<i>Furina dunmali</i> Dunmall's Snake	V	Species or species habitat may occur within area	No	Moderate-High	General indicative habitat present (Eucalypt-dominated woodlands and open-forests, within remnant and disturbed habitats). It is found under rocks, logs and other ground cover. Essential Micro-habitat features are also present within the woodland areas (loose surface rocks, large logs, tussocks). These features are not expected to be directly impacted by the proposed activity. The woodland areas will not be directly impacted by the proposed activity. Any indirect impacts such as noise and dust will be mitigated via internal approval conditions. As such any impacts on this species are expected to be minimal, short-term and recoverable.
<i>Paradelma orientalis</i> Brigalow Scaly-foot	Not listed	n/a	No	n/a	<i>Paradelma orientalis</i> was removed from the Environment Protection and Biodiversity Conservation Act 1999 list of threatened species on 15 May 2013.
<i>Rheodytes leukops</i> Fitzroy River Turtle	V	Species or species habitat may occur within area	No	Low	No permanent water bodies are present.
Aquatic Fauna					
<i>Maccullochella peelii</i> Murray Cod	V	No result	No	Low	There are no main river channels or large tributaries present.

Listed Migratory Species

The results of the desktop and field assessments for Listed Migratory Species are shown in Table 4.

Table 4. Desktop and Field assessment of Listed Migratory Species

KEY: CE = Critically Endangered; E = Endangered; V = Vulnerable.

		Desktop Assessment		Field Assessment	
Name	EPBC Status	Likelihood of occurrence	Species detected	Likelihood of occurrence	Habitat Suitability and potential impacts
Migratory Birds					
<i>Habitat descriptions based on GLNG CSG Fields Significant Species Management Plan (RPS Australia East 2012) unless otherwise noted.</i>					

<i>Apus pacificus</i> Fork-tailed Swift	M	Species or species habitat likely to occur within area	No	Moderate	Not described in the GLNG significant species management plan. Known to occur over dry or open habitats, including riparian woodland (DSEWPaC 2013b). Such habitats are present in the area which this species may utilise during migration. There is not expected to be any direct impacts on any woodlands. associated with the proposed activities. Any indirect impacts such as noise and dust will be mitigated via internal approval conditions. As such any impacts on this species are expected to be minimal, short-term and recoverable.
<i>Ardea ibis</i> Cattle Egret	M	No result	No	Low	Good condition swampy woodlands, meadows or swamps present were not detected at the site. Active nesting sites were not detected.
<i>Ardea modesta</i> Great Egret	M	No result	No	Low	Good condition swampy woodlands, mangrove communities and active nesting sites were not detected.
<i>Gallinago hardwickii</i> Latham's Snipe	M	No result	No	Low	Open, freshwater wetlands with low, dense vegetation and active nesting sites were not detected.
<i>Haliaeetus leucogaster</i> White-bellied Sea Eagle	M	Species or species habitat may occur within area	No	Low	Remnant woodland nearby to rivers and inland lakes, tall trees near water, rocky cliffs and active nesting sites were not detected.
<i>Hirundo rustica</i> Barn Swallow	M	No result	No	Moderate	Woodlands, open country, pastures and farm crops are present in the area. The site lacks accessible artificial structures, such as barns, sheds and bridges for nesting. Active nesting sites were not detected. There is not expected to be any direct impacts on essential microhabitat features for this species. Any indirect impacts such as noise and dust will be mitigated via internal approval conditions. As such any impacts on this species are expected to be minimal, short-term and recoverable.
<i>Hirundapus caudactis</i> White-throated Needletail	M	Species or species habitat may occur within area	No	Low	Areas over forests, woodlands, pastoral areas, floodplains are present within the area. Active nesting sites were not detected. There is not expected to be any direct impacts on essential microhabitat features for this species. As such any impacts on this species are expected to be minimal, short-term and recoverable.
<i>Merops ornatus</i> Rainbow Bee-eater	M	Species or species habitat may occur within area	No	Moderate	Woodlands (including riparian woodlands), open country, pastures and farm crops are present in the area. The site lacks accessible artificial structures, such as barns, sheds and bridges for nesting. Active nesting sites were not detected. There is not expected to be any direct impacts on essential microhabitat features for this species.
<i>Monarcha melanopsis</i> Black-faced Monarch	M	No result	No	Low	Good condition swampy woodlands, mangrove communities and active nesting sites were not detected.
<i>Myiagra cyanoleuca</i> Satin Flycatcher	M	Species or species habitat likely to occur within area	No	Low - Moderate	Woodlands are present in the area which this species may utilise during migration. There is not expected to be any direct impacts on any woodlands associated with the proposed activities. Any indirect impacts such as noise and dust will be mitigated via internal approval conditions. As such any impacts on this species are expected to be minimal, short-term and recoverable.

<i>Numenius minutus</i> Little Curlew	M	No result	No	Low	This species is a rare vagrant to the area. Good condition swampy woodlands, mangrove communities and active nesting sites were not detected.
<i>Rhipidura rufifrons</i> Rufous Fantail	M	Species or species habitat may occur within area	No	Low - Moderate	Riparian woodlands are present in the area which this species may utilise during migration. There is not expected to be any direct impacts on any woodlands associated with the proposed activities. Any indirect impacts such as noise and dust will be mitigated via internal approval conditions. As such any impacts on this species are expected to be minimal, short-term and recoverable.
<i>Symposiachrus trivirgatus</i> Spectacled Monarch	M	No result	No	Low	Suitable habitat for this species was not detected (understorey of mountain / lowland rainforests, densely wooded gullies and riparian vegetation, including mangroves).

Conclusion

Compliance with GLNG Project approvals, management plans, guidelines, and permits including the Significant Species Management Plan (RPS Australia East 2012) will ensure that impacts to ecological constraints identified within this report will be avoided and minimised where possible. In particular, only Limited Petroleum Activities will be undertaken and all clearing will be minimised to the area necessary and approved for safe operations. Further, measures such as dust suppression and erosion and sediment control will be put in place to mitigate potential impacts on the surrounding environment and all relevant site personnel including contractors shall be appropriately trained and made aware of the sensitive environs in which they will be working. As such any impacts on the surrounding environments are expected to be minimal, short-term and recoverable.

References

DSEWPaC (2013a). Species Profile and Threats Database (SPRAT). Department of Sustainability, Environment, Water, Population and Communities, Australian Government, Canberra. <http://www.environment.gov.au/cgi-bin/sprat/public/sprat.pl>

DSEWPaC (2013b). EPBC Protected Matters Search Tool. Department of Sustainability, Environment, Water, Population and Communities, Australian Government, Canberra. <http://www.environment.gov.au/epbc/pmst/index.html>

Garnett, S.J., Szabo, J.K. and Dutson, G. (2011) *The Action Plan for Australian Birds 2010*. CSIRO Publishing, Melbourne.

Menkhorst, P. and Knight, F. (2011) *A field guide to the Mammals of Australia*. Third edition. Oxford University Press, South Melbourne. Pp 136-137

RPS Australia East (2012) *Gladstone Liquefied Natural Gas Project, CSG Fields, Significant Species Management Plan*. Document Number 0200-GLNG-4.1.3-0003

Appendix 1

Site Map

Site Name: Yebna North 4
Lot/Plan: Lot 1 Plan AB81

Location: 55J 714486E, 7162123N

