

Monday, November 22, 2010

Anna Timbrell
Environmental Planning Officer
Major Infrastructure Assessments
Department of Planning
GPO Box 39, Sydney NSW 2001

Dear Anna,

Re: Project 07_0023, Section 75W Modification

Please find enclosed a S75W modification form for the Narrabri Coal Seam Gas Utilisation Project comprising a request to modify CoA 2.34. As discussed in our meeting of 19 November, I have identified a means by which an appropriate vegetation offsets package can be achieved for the project; however the finalisation of the management agreement and funding arrangement could take up to August 2011 to complete.

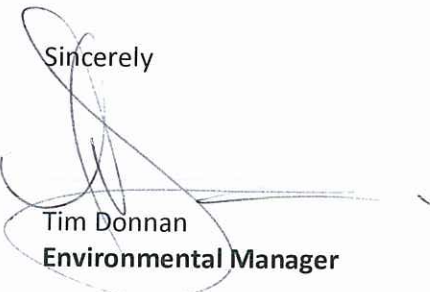
Key steps in the process and the timing of each provides the basis for this estimate:

- Field surveying of both the impact and offset site – 1st and 2nd week of February 2011
- Reporting and compilation of data into NSW DECCW Biobanking calculator – 4th Week February 2011
- DECCW verification process – March 2011
- Drafting of management agreement with LPMA 3rd and 4th Week March 2011
- Drafting of funding arrangement with NWLHPA – 1st and 2nd Week April
- Finalisation of management agreement and funding arrangement – 4th Week April
- Execution of management agreement and funding arrangement – May 2011

While confident of obtaining finalised agreements generally on this timeframe, I am mindful that a number of steps rely upon the completion of assessments by external organisations including DECCW. To account for potential delays and protracted negotiations with stakeholders, ESG commits to providing evidence of agreement execution before the end of August 2011.

Please contact me if you require any further information

Sincerely



Tim Donnan
Environmental Manager



UNIDEL
ENERGY AND INFRASTRUCTURE

Potential Environmental Offsets for Narrabri Coal Seam Gas Utilisation Project

Eastern Star Gas Ltd

ESG001-ENV-RPG-0001

A	Issued for Review	DC	SF	SF	18 MAY 10
Rev	Description	Originator	Reviewed	Approved	Date

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1.0 INTRODUCTION

The purpose of this desktop assessment was to identify offset options in the vicinity of Narrabri for the Narrabri Coal Seam Gas Utilisation Project. This desktop assessment involved:

- Review of available local flora mapping and data
- Liaisons with relevant personnel from the Department of Environment, Climate Change and Water (DECCW) and Catchment Management Authorities (CMA)
- Identification of local properties with the required characteristics and extent.

This desktop assessment identified a number of suitable offset sites for Eastern Star Gas Ltd (ESG) consideration.

According to the NSW Biobanking Scheme it is preferential that offsets occur in close proximity to and contains the same vegetation as that which is cleared during the proposed development. However, DECCW is willing to negotiate the implementation of offsets located further away if the proposed offset contains vegetation communities of higher conservation value than the vegetation to be cleared.

This assessment has considered potential offsets of the same vegetation type in the vicinity of Narrabri as well as offsets of higher conservation value in surrounding catchments.

2.0 ABBREVIATIONS

2.1 Abbreviations

CMA	Catchment Management Area
DECCW	Department of Environment, Climate Change and Water
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i>
ESG	Eastern Star Gas
LPMA	Land and Property Management Authority
NCSGUP	Narrabri Coal Seam Gas Utilisation Project
TSC Act	<i>Threatened Species Conservation Act 1995 (NSW)</i>

3.0 METHODOLOGY

Vegetation mapping undertaken by the DECCW, available through the Land and Property Management Authority (LPMA) Spatial Information Exchange, was used to identify potential offset sites. This mapping was cross referenced with individual collection records from Plant Net (NSW Herbarium records) to verify that key species were present in the target vegetation communities.

As a result of the initial desktop assessment two areas of suitable offset sites have been identified. These include:

- Sites within the vicinity of Narrabri (e.g. Jacks Creek) that match the vegetation communities to be cleared during the proposed development

- Vegetation communities of high conservation value on public land in the Border Rivers-Gwydir CMA.

Rapid roadside review of all potential offset sites within the Jacks Creek area were undertaken by experienced Offset and Restoration Ecologist, David Carr. These preliminary observations confirmed that the vegetation communities were broadly as mapped.

The Border Rivers-Gwydir Catchment Management Authority was also contacted to determine whether there were potential offset sites in the southern regions of this CMA (just north of Narrabri).

4.0 RESULTS

4.1 Potential Offsets in the Narrabri Vicinity

The properties listed in Table 1 and illustrated in Figure 1 contain potential offset sites situated in close proximity to the proposed development. These sites, which are located in the Jacks Creek area, contain vegetation that is the same or similar to the vegetation to be cleared during the proposed development.

The listed properties are generally (if not completely) privately owned.

Table 1 - Location of Potential Offsets in the Jacks Creek area

Lot Number	DP	Latitude	Longitude
Dry sclerophyll forest – <i>Eucalyptus fibrosa</i> – <i>Callitris glaucophylla</i> – <i>E. creba</i> ¹			
13	757083	-30.442309	149.713415
2	834410	-30.443612	149.736885
29	757083	-30.428461	149.740810
1	834410	-30.451100	149.735902
452	1038294	-30.438835	149.791007
423	814332	-30.416791	149.781411
51	757114	-30.442312	149.810464
52	757114	-30.456689	149.811817
53	757114	-30.475595	149.798644
56	757114	-30.458206	149.830915
57	757114	-30.474405	149.827188
58	757114	-30.493362	149.817495
36	757114	-30.489014	149.790438
35	757114	-30.486137	149.767512
24	757083	-30.481092	149.718662
26	757083	-30.490360	149.714252
28	757083	-30.502889	149.718382
21	757083	-30.490021	149.690274
23	757083	-30.501444	149.687556
35	757114	-30.485050	149.766006

CLIENT:Eastern Star Gas

PROJECT:Offsets Identification

TITLE:Potential Offsets in the Narrabri vicinity

DATE:18 May 2010

DATA SOURCE:

1:250,000 Topographic raster copyright Geoscience Australia

SCALE:1:170,000(A3) GDA94 Lat/Long

6306

Kilometres

LEGEND

●

Lot Plan

DATE	AUTHOR	APPROVED	DOCUMENT NO.	REV.
18/05/2010	PR	SF	ESG-MAP-001-01	A

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Location Diagram

QUEENSLAND

NEW SOUTH WALES

WA

NT

SA

QLD

NSW

VIC

TAS

N

E

S

W

FOR INFORMATION ONLY

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36	757114	-30.488432	149.790651
37	757104	-30.500264	149.766908
38	757104	-30.503507	149.789379
39	757104	-30.516229	149.767831
40	757104	-30.519340	149.787912
37	757089	-30.450027	149.384214
38	757089	-30.451963	149.399352
39	757089	-30.448277	149.385756
44	757089	-30.483086	149.382305
Dry sclerophyll forest – <i>Eucalyptus blakelyi</i> – <i>Angophora floribunda</i> ²			
104	852566	-30.425711	149.694328

¹ Associated species include: *Acacia spp*, *E. dealbata*, *E. dwyeri*, *Allocasuarina luehmanii*

² Associated species include *E. populnea*, *Callitris glaucophylla*

4.2 Potential Offsets in Border Rivers-Gwydir CMA

According to the Border Rivers-Gwydir CMA there are a number of vegetation communities in the southern portion of this catchment that are likely to be suitable as offsets. These communities, listed as Endangered under both the EPBC and TSC Act, are of higher significance than the communities that are proposed to be cleared and include:

- Natural Grasslands, and
- Weeping Myall Woodlands.

The presence of these communities has been previously confirmed during detailed flora assessment undertaken by David Carr.

Table 2 – Location of Potential Offset Sites on Public Land in Border Rivers-Gwydir CMA

Vegetation community	Status (EPBC)	Latitude	Longitude	Name
Natural grassland on alluvial basalt	Endangered	30.2052	149.7297	Bald Hills TSR junction
Natural grassland on alluvial basalt	Endangered	30.1929	149.7181	Bald Hills TSR
Weeping myall woodland	Endangered	30.1258	149.785	Edgeroi west TSR
Weeping myall woodland	Endangered	30.1051	149.8324	Edgeroi east TSR

These potential offsite sites are located on Crown Land which is administered by the NSW Land and Property Management Authority (LPMA) and utilised by the Livestock Health and Pest Authority as Travelling Stock Routes (TSRs) (see Figure 2).

The LPMA has indicated that it may potentially make these (and other) sites available for vegetation offsetting purposes, in order to manage threats to the listed vegetation communities. These threats include unsustainable grazing and grassy weeds (notably

CLIENT:Eastern Star Gas

PROJECT:Offsets Identification

TITLE:Potential Offsets in Border Rivers-Gwydir CMA

DATE:18 May 2010

DATA SOURCE:

1:250,000 Topographic raster copyright Geoscience Australia

SCALE:1:125,000(A3) GDA94 Lat/Long

4204

Kilometres

LEGEND

Vegetation

Area of Stock Route

DATE	AUTHOR	APPROVED	DOCUMENT NO.	REV.
18/05/2010	PR	SF	ESG-MAP-001-02	A

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Location Diagram

QUEENSLAND

NEW SOUTH WALES

WA

NT

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SA

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VIC

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N

Z

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Coolatai grass and African love grass). These potential offset sites may offer a secure alternative to purchasing private land for offsets and will allow for high visibility offsets. Negotiations for using these sites can be based on NSW Biobanking methodology or via negotiations with LPMA.

5.0 CONCLUSION

There appears to be a number of suitable offset sites in the vicinity of the Project.

The options in this report are provided for ESG consideration (including in relation to sites that may have potential multi-purpose Project values and therefore be suitable for purchase).

If ESG identify one or more preferred offset site(s) from these options, Unidel would be pleased to:

- Undertake a detailed on-ground assessment to confirm the presence of appropriate offset characteristics
- Develop a draft offset proposal for submission to DECCW for in principle approval, prior to progressing any particular offset further (e.g. prior to land purchase or entering into LPMA negotiations).

6.0 REFERENCES

Land and Property Management Spatial Information Exchange, available at (<http://imagery.maps.nsw.gov.au/VEG>).