

18 October 2019

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Attention: Stephen O'Donoghue
Director – Resource & Energy Assessments

Dear Mr O'Donoghue,

**RE: ADDENDUM TO THE VICKERY EXTENSION PROJECT BIODIVERSITY ASSESSMENT
REPORT AND BIODIVERSITY OFFSET STRATEGY**

In response to comments from the Biodiversity and Conservation Division – Department of Planning, Industry and Environment on the Vickery Extension Project Environmental Impact Statement, the species polygon for the Squirrel Glider has been revised to include three polygons of Vegetation Community 2 (NA185, Plant Community Type [PCT] 101) along the Project rail spur. The three polygons equate to 1.3 hectares. The revised quantification of potential habitat for the Squirrel Glider along the Project rail spur is provided in Table 1.

Table 1
Vegetation Types Representing Potential Habitat for Squirrel Glider in the BAR Footprint
Associated with the Project Rail Spur

#	Community	Biometric Vegetation Type	Squirrel Glider Potential Habitat (ha)
2	Poplar Box Woodland on Alluvial Clay Soils	NA185	1.3
3	Pilliga Box – Poplar Box Shrubby Woodland	NA324	1.2
8	River Red Gum Riparian Tall Woodland	NA193	1
Total			3.5
Credit Requirement			77

Figure 24 from the BARBOS (Resource Strategies, 2018) has been updated to include the revised species polygon for the Squirrel Glider and is presented in Attachment A of this Addendum (Figure A1).

The BBAM calculator for the Project rail spur has been updated with the revised species polygon for the Squirrel Glider. Revised Squirrel Glider species polygon shapefiles are also provided with this Addendum. The updated credit obligation for the Squirrel Glider is 77 species credits (i.e. an increase of 29 credits). Table 2 provides a summary of the Project Species Credit Requirements for the Squirrel Glider.

Table 2
Project Species Credit Requirements for the Squirrel Glider

Species	Credit Requirement		
	Mine Site	Project Rail Spur	Total
Squirrel Glider (<i>Petaurus norfolcensis</i>)	1,595 (for clearance of 72.5 ha)	77 (for clearance of 3.5 ha)	1,672 (for clearance of 76 ha)

The final biodiversity credit report for the Project rail spur (previously Attachment F in the BARBOS) is included in Attachment B of this Addendum.

Regards

RESOURCE STRATEGIES PTY LTD



JAMIE GLEESON

Environmental Manager - Senior Ecologist

Attachment A: Updated Squirrel Glider Species Polygon – Project Rail Spur

Attachment B: Updated Biodiversity Credit Report (Project Rail Spur)

ATTACHMENT A

UPDATED SQUIRREL GLIDER SPECIES POLYGON – PROJECT RAIL SPUR



LEGEND

- Approximate Extent of Approved Mine
- Biodiversity Assessment Report Development Site Footprint
- Squirrel Glider

Potential Habitat

- 2 Poplar Box Woodland on Alluvial Clay Soils (NA185)
- 3 Pilliga Box — Poplar Box Shrubby Woodland (NA324)
- 4 White Box — Silver-leaved Ironbark Shrubby Open Forest (NA349)
- 5 Narrow-leaved Ironbark — White Box Shrubby Forest (NA311)
- 8 River Red Gum Riparian Tall Woodland (NA193)

Source

- (1) Future Ecology (2018)
- (4) Niche (2013)
- (6) OEH (2017)
- (10) Kendall&Kendall Ecological Services (2011)

Source: Orthophoto - Department of Land and Property Information, Aerial Photography (July 2011); FloraSearch (2018)



VICKERY EXTENSION PROJECT
Squirrel Glider Potential Habitat -
Project Rail Spur

Figure A1

ATTACHMENT B

UPDATED BIODIVERSITY CREDIT REPORT (PROJECT RAIL SPUR)

Biodiversity credit report



This report identifies the number and type of biodiversity credits required for a major project.

Date of report: 18/10/2019

Time: 12:00:40PM

Calculator version: v4.0

Major Project details

Proposal ID:	0056/2018/4749MP
Proposal name:	VEP (Rail)
Proposal address:	Blue Vale Road Gunnedah NSW 2380
Proponent name:	Whitehaven Coal Limited
Proponent address:	Blue Vale Road Gunnedah NSW 2380
Proponent phone:	0267497821
Assessor name:	James Gleeson
Assessor address:	PO Box 1842 BRISBANE NSW 4064
Assessor phone:	07 3871 3144
Assessor accreditation:	0056

Summary of ecosystem credits required

Plant Community type	Area (ha)	Credits created
Poplar Box - White Cypress Pine shrub grass tall woodland of the Pilliga - Warialda region, Brigalow Belt South Bioregion	4.00	124.00
Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion	22.00	1,381.00
River Red Gum riparian tall woodland / open forest wetland in the Nandewar Bioregion and Brigalow Belt South Bioregion	2.70	40.00
Total	28.70	1,545

Credit profiles

1. Poplar Box - White Cypress Pine shrub grass tall woodland of the Pilliga - Warialda region, Brigalow Belt South Bioregion, (NA324)

Number of ecosystem credits created

124

IBRA sub-region

Liverpool Plains (Part B)

Offset options - Plant Community types	Offset options - IBRA sub-regions
Poplar Box - White Cypress Pine shrub grass tall woodland of the Pilliga - Warialda region, Brigalow Belt South Bioregion, (NA324) Dirty Gum - Buloke - White Cypress Pine - ironbark shrubby woodland on deep sandy soils in the Liverpool Plains region of the Brigalow Belt South Bioregion, (NA135) Pilliga Box - White Cypress Pine - Buloke shrubby woodland in the Brigalow Belt South Bioregion, (NA179) Red Ironbark - Brown Bloodwood shrubby woodland of the Brigalow Belt South Bioregion, (NA189) White Cypress Pine - Bullock - ironbark woodland of the Pilliga area of the Brigalow Belt South Bioregion, (NA227) Buloke - White Cypress Pine woodland on outwash plains in the Pilliga Scrub and Narrabri regions, Brigalow Belt South Bioregion, (NA265)	Liverpool Plains (Part B) and any IBRA subregion that adjoins the IBRA subregion in which the development occurs

2. Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion, (NA185)

Number of ecosystem credits created	1,381
IBRA sub-region	Liverpool Plains (Part B)

Offset options - Plant Community types	Offset options - IBRA sub-regions
Poplar Box - Yellow Box - Western Grey Box grassy woodland on cracking clay soils mainly in the Liverpool Plains, Brigalow Belt South Bioregion, (NA185) Brigalow - Belah open forest / woodland on alluvial often gilgaied clay from Pilliga Scrub to Goondiwindi, Brigalow Belt South Bioregion, (NA117)	Liverpool Plains (Part B) and any IBRA subregion that adjoins the IBRA subregion in which the development occurs

3. River Red Gum riparian tall woodland / open forest wetland in the Nandewar Bioregion and Brigalow Belt South Bioregion, (NA193)

Number of ecosystem credits created	40
IBRA sub-region	Liverpool Plains (Part B)

Offset options - Plant Community types	Offset options - IBRA sub-regions
River Red Gum riparian tall woodland / open forest wetland in the Nandewar Bioregion and Brigalow Belt South Bioregion, (NA193)	Liverpool Plains (Part B) and any IBRA subregion that adjoins the IBRA subregion in which the development occurs

Summary of species credits required

Common name	Scientific name	Extent of impact Ha or individuals	Number of species credits created
Regent Honeyeater	Anthochaera phrygia	4.50	346
Koala	Phascolarctos cinereus	5.70	148
Squirrel Glider	Petaurus norfolcensis	3.50	77