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**Ecosure data of *Eucalyptus raveretiana* and
Brigalow Threatened Ecological Community (TEC)**

July 2021

SMEC

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1 Introduction and methodology

Ecosure was engaged by SMEC to help survey within the Limestone Creek area for the proposed Rockhampton Ring Road:

- the location of the tree species *Eucalyptus raveretiana*
- the extent of the Brigalow (*Acacia harpophylla* dominant and co-dominant) threatened ecological community (Brigalow TEC).

The presence of *Eucalyptus raveretiana* and Brigalow TEC had first been identified in the Aecom report *Flora and wetlands technical report Rockhampton Ring Road – Business Case* in 2020.

Eucalyptus raveretiana is listed as a vulnerable species under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act)

Brigalow TEC is listed as a threatened (endangered) ecological community under the EPBC Act and is defined by:

- the presence of a brigalow dominated regional ecosystem (RE) including RE 11.3.1 *Acacia harpophylla* and/or *Casuarina cristata* open forest on alluvial plains
- vegetation in which *Eucalyptus harpophylla* is dominant or co-dominant.
- vegetation that has not been comprehensively cleared in the past 15 years
- vegetation that has less than 50% cover in exotic perennial species
- patches of vegetation greater than 0.5 ha.

Senior Botanist Geoffrey Sinclair (a suitably qualified botanist under the Queensland Protected Plant framework) from Ecosure and Surveyor Raj Muth from Masters Surveying assessed the area on 5 July 2021.

The location of *Eucalyptus raveretiana* were identified and confirmed by Geoffrey Sinclair and then surveyed by Raj Muth.

The boundary of the Brigalow TEC was identified and confirmed by Geoffrey Sinclair, and then surveyed by Raj Muth. The boundary of the Brigalow TEC meeting EPBC Act requirements was determined by:

- vegetation that met RE 11.3.1, i.e. was dominated by *Eucalyptus harpophylla* or *Casuarina cristata* on an alluvial plain.
- vegetation which *Eucalyptus harpophylla* was dominant or co-dominant
- tree height of *Eucalyptus harpophylla* that was 4 metres or greater – *Eucalyptus harpophylla* is a slow growing tree, taking around 10 years to reach 2 m height. A tree height of 4 m would not have been cleared in the past 15 years.
- a canopy cover greater than 50% - therefore ensuring perennial weeds are less than 50% cover

- vegetation patches greater than 0.5 ha.


2 Results



2.1 *Eucalyptus raveretiana* data



Photographs with the approximate location of some of the *Eucalyptus raveretiana* trees are included in Table 1.



Accurate locations of *Eucalyptus raveretiana* will be supplied by Masters Surveying.


Table 1: Photographs of *Eucalyptus raveretiana*

File name	Longitude	Latitude	Easting	Northing	
IMG_1371.JPG	150.512	-23.3158	245571	7419334	

IMG_1372.JP G	150.5115	- 23.3155	245515. 8	7419365	
IMG_1373.JP G	150.5123	-23.315	245597. 6	7419421	

IMG_1374.JP G	150.512	- 23.3151	245562	7419406	
IMG_1378.JP G	150.5114	- 23.3156	245501. 9	7419350	

<p>IMG_1379.JP G</p>	<p>150.5114</p>	<p>- 23.3156</p>	<p>245501. 9</p>	<p>7419350</p>	
<p>IMG_1380.JP G</p>	<p>150.5114</p>	<p>- 23.3157</p>	<p>245508. 4</p>	<p>7419337</p>	

IMG_1381.JPG G	150.5114	- 23.3158	245507	7419333	
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2.2 Brigalow TEC data



Photographs with the approximate location of the Brigalow TEC community is included in Table 2. A map of the photograph locations, with the original location of Brigalow TEC is included in Figure 1.

The accurate boundary of the Brigalow TEC extent will be supplied by Masters Surveying. It is noted that based on the site photographs the extent of Brigalow TEC is larger than was first identified in the Aecom Report.

Table 2: Photographs with locations of Brigalow TEC

File name	Longitude	Latitude	Easting	Northing	Photo
IMG_1383.JPG	150.494	-23.325	243738.8	7418286	
IMG_1384.JPG	150.4942	-23.3251	243762.4	7418268	

IMG_1385 .JPG	150.4942	-23.3251	243762. 4	7418268	
IMG_1386 .JPG	150.4947	-23.3238	243813. 1	7418410	

<p>IMG_1387 .JPG</p>	<p>150.4947</p>	<p>-23.3238</p>	<p>243813. 1</p>	<p>7418410</p>	
<p>IMG_1388 .JPG</p>	<p>150.4945</p>	<p>-23.3235</p>	<p>243793. 6</p>	<p>7418453</p>	

<p>IMG_1389 .JPG</p>	<p>150.4941</p>	<p>-23.3234</p>	<p>243749. 6</p>	<p>7418463</p>	
<p>IMG_1390 .JPG</p>	<p>150.4941</p>	<p>-23.3239</p>	<p>243753. 7</p>	<p>7418406</p>	

IMG_1392 .JPG	150.4939	-23.324	243735. 2	7418392	
IMG_1393 .JPG	150.494	-23.3241	243740. 3	7418380	

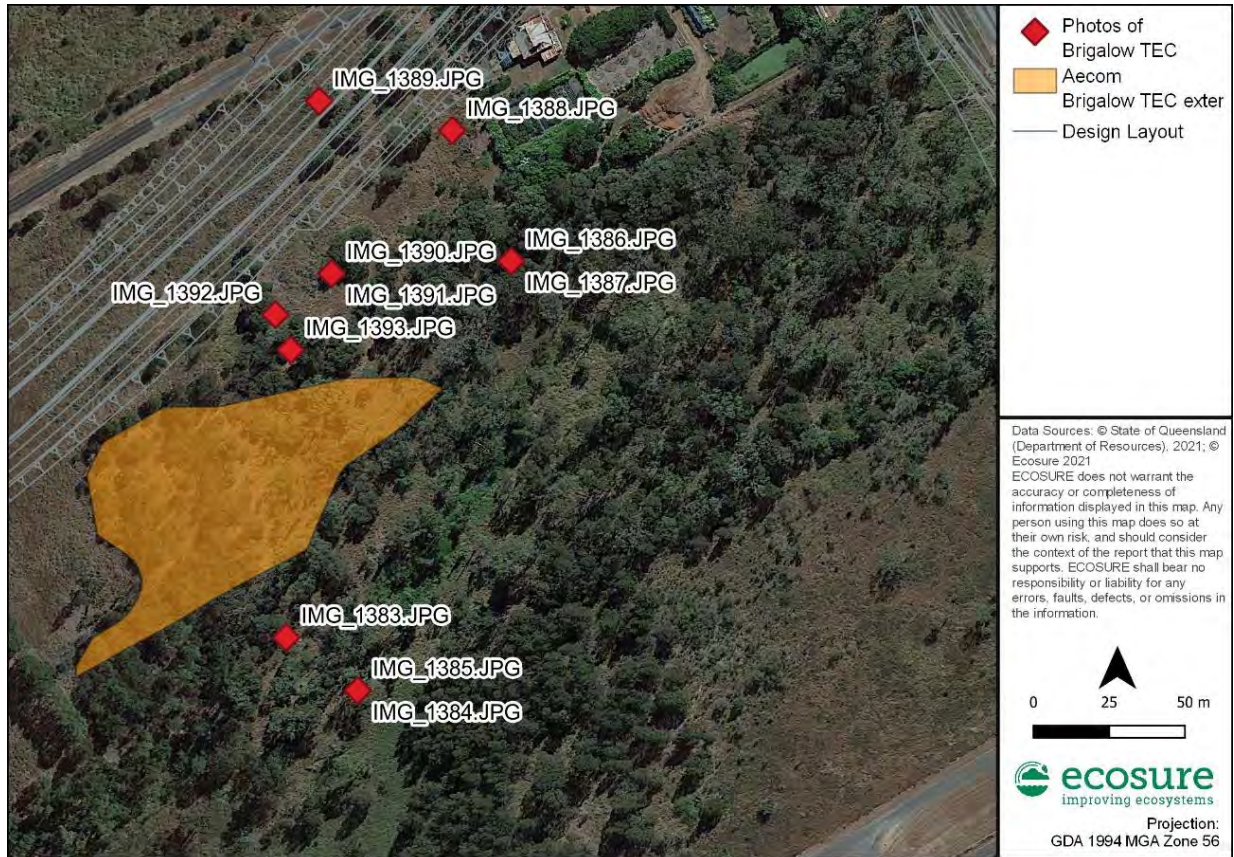


Figure 1: Map showing the location of the extent of Brigalow TEC as identified by Aecom, and the location of photographs of Brigalow TEC

Revision History

Revision No.	Revision date	Details	Prepared by	Reviewed & Approved by
00	8/7/2021	Ecosure data of <i>Eucalyptus raveretiana</i> and Brigalow TEC	Geoffrey Sinclair, Senior Botanist	Heather Richards, Senior Environmental Scientist

Distribution List

Copy #	Date	Type	Issued to	Name
1	8/7/2021	Electronic	SMEC	Melissa Zulpo
2	8/7/2021	Electronic	Ecosure	Administration

Citation: Ecosure, 2021, *Ecosure data of Eucalyptus raveretiana and Brigalow TEC*, Report to SMEC, Publication Location – Rockhampton

Report compiled by Ecosure Pty Ltd

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PR5788-RE.Protected plants and Brigalow TEC update 2021 June

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