

11 May 2012

Geoffrey Cox
Managing Director
Crighton Properties Pty Ltd
PO Box 3369
Tuggerah, NSW, 2259

RIVERSIDE REPOSE TO SUBMISSION: EPA (THREATENED FLORA SURVEY EFFORT)

Dear Geoff

Cumberland Ecology
PO Box 2474
Carlingford Court 2118
NSW Australia
Telephone (02) 9868 1933
Mobile 0425 333 466
Facsimile (02) 9868 1977
Web: www.cumberlandecology.com.au

The purpose of this letter is to provide additional information in relation to the Environment Protection Authority (EPA) submission for the Riverside Tea Gardens project following a meeting held on 8 May 2012. This letter provides additional information regarding flora survey effort.

Numerous flora surveys have been undertaken within the project area since 1988. The most recent surveys were undertaken by Conacher Environmental Group (2005, 2007, 2008), Cumberland Ecology (2009, 2010) and GHD (2011). EPA has requested that survey effort be summarised for the following threatened flora species:

- *Callistemon linearifolius*;
- *Cryptostylis hunteriana*;
- *Lindernia alsinoides*; and
- *Tetradlea juncea*.

Table 1 below lists the dates flora surveys were undertaken within the project area in relation to the flowering periods of these species, as described within the Royal Botanic Gardens PlantNet database. **Table 1** indicates that threatened flora surveys have been undertaken within the flowering periods of *Callistemon linearifolius*, *Cryptostylis hunteriana* and *Tetradlea juncea*. Cumberland Ecology has recorded *Lindernia alsinoides* flowering at other times of the year (including December at Heatherbrae), as such the surveys undertaken within the project area are considered to have been taken at an appropriate time to detect this species.

The surveys undertaken within the project area have been undertaken at suitable times of the year to detect all these species. Surveys have been undertaken across the major habitats of the project area by Conacher Environmental Group, Cumberland Ecology and GHD. Despite the presence of suitable habitat for these species, none have been recorded within the project area.

Table 1 Survey effort in relation to selected threatened flora species

Survey Dates	Threatened Flora Species and Flowering Period			
	<i>Callistemon linearifolius</i>	<i>Cryptostylis hunteriana</i>	<i>Lindernia alsinoides</i>	<i>Tetratheca juncea</i>
January (5 days) <i>Cumberland Ecology: 13-15/01/2010</i> <i>Conacher: 12/01/2007, 22/01/2008</i>	X	X		
February (5 days) <i>Cumberland Ecology: 10/02/2010</i> <i>Conacher: 5/02/2007, 12-14/02/2008</i>	X	X		
March (7 days) <i>Conacher: 10/03/2007, 19/03/2007, 10-14/03/2009</i>				
April				
May (1 day) <i>Conacher: 7/05/2008</i>				
June				
July (1 day) <i>Conacher: 17/07/2007</i>				X
August (2 days) <i>13/08/2005, 15/08/2007</i>				X
September (3 days) <i>1/09/2005, 6-7/09/2007</i>	X			X
October (3 days) <i>GHD: 10-11/10/2011, 13/10/2011</i>	X			
November	X		X	
December (3 days) <i>Cumberland Ecology: 14-16/12/2009</i>	X	X		

If you have any queries, please don't hesitate to contact myself or Katrina Wolf on (02) 9868 1933.

Yours sincerely



David Robertson
Director
david.robertson@cumberlandecology.com.au