

# Wilpinjong Woody Weed Control Works

## July 2014



Prepared for Peabody Wilpinjong



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## Overview

Control of Willow species along the Goulburn River in Peabody owned land was carried out over 4 days of July 2014. The weed control took place on the week of the 14<sup>th</sup> of July, 2014. Weed control did not take place on Wednesday the 16<sup>th</sup> of July, due to the wet weather.

The main aim of the control works carried out was to reduce the number of willows along the Goulburn River without causing erosion to the banks. To achieve this, the river was split in to twenty three, 500 metre sections. For every 500 metres treated, a buffer of 500 metres was left. These methods were in conjunction with the guidelines for the clearing of exotic trees and dead native trees on state protected land as provided by the NSW government to reduce environmental harm. Also, in accordance with the guidelines, only up to 2.5km were treated on either bank within the land owned by Peabody.

Map 1 shows the 500 metre sections that the area of the Goulburn River was divided into to ensure use of buffer zones with the treatment areas.

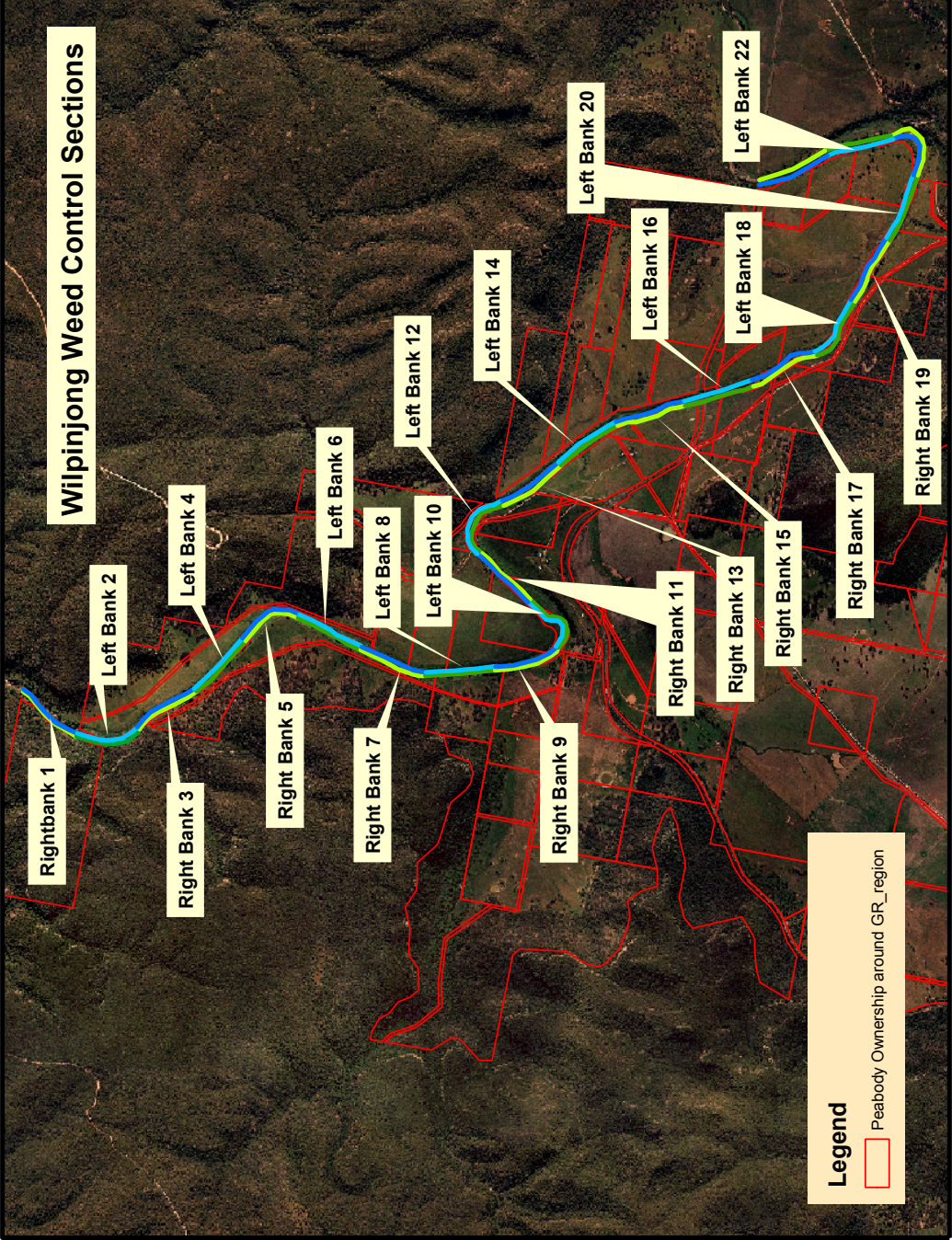
## Schedule

The weed control works were carried out on the 14<sup>th</sup>, 15<sup>th</sup>, 17<sup>th</sup> and 18<sup>th</sup> of July, 2014. Table 1 shows when the weed control works were carried out and the number of personnel days that occurred in that month.

2014	Total	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Control Months													
No. of personnel days	18							18					

Table 1 schedule of operations





Map 1 Weed control sections of Peabody owned land along the Goulburn River.



## Methodology

Stem injection was the main method used to control willow however, the cut and paint method was also used with any small saplings.

Undiluted Nufarm Weedmaster Duo was used as the controlling herbicide for the Willows. The active ingredient for Weedmaster Duo is Glyphosate which is currently a registered product in NSW for the control of Willows.

## Weeds treated

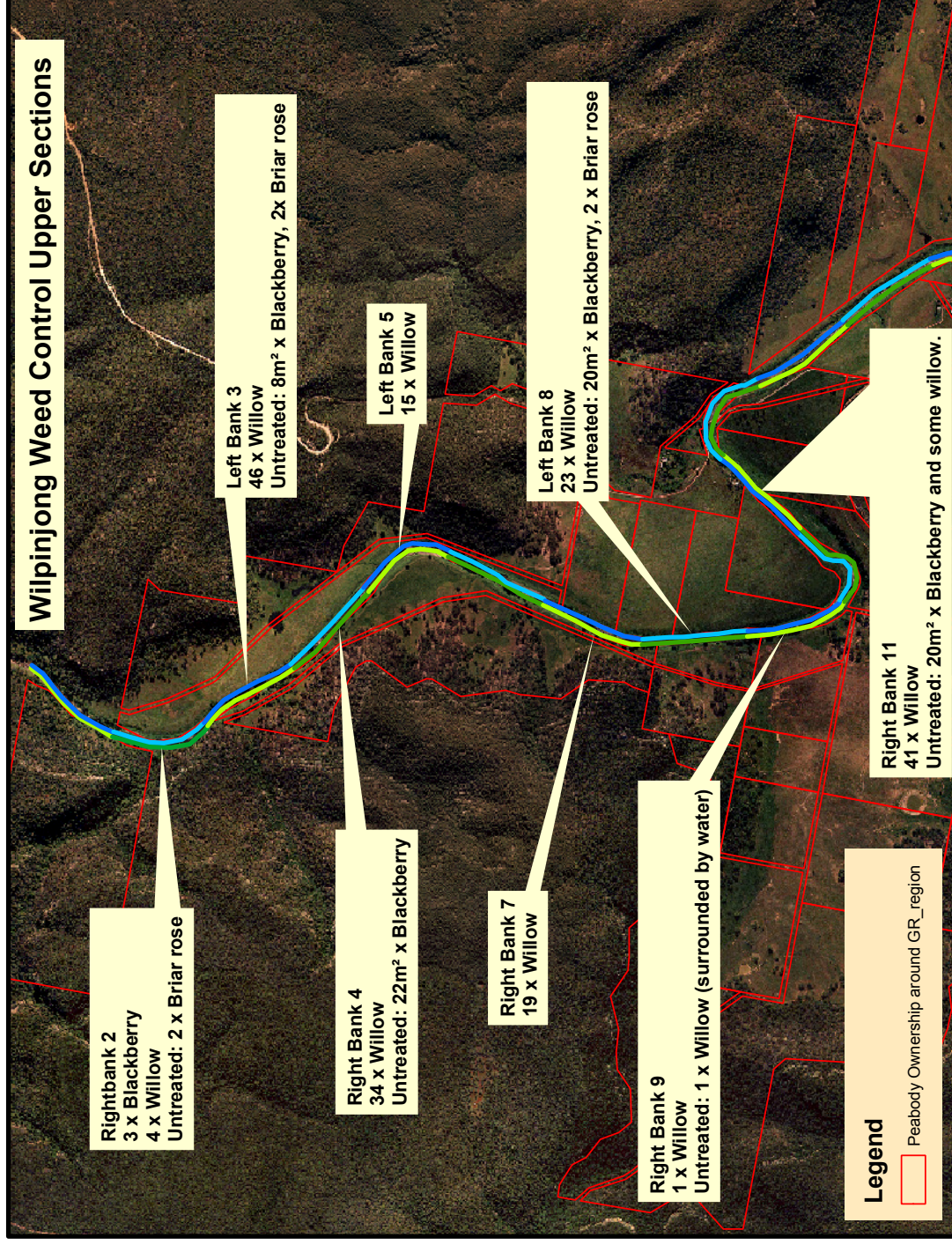
Two weed species were treated during this control works. Willow species were the main target of the weed control works and small growths of blackberry were also treated. Large patches of blackberry and briar rose plants were left untreated, but were noted for future reference. The briar rose and large patches of blackberry were noted rather than controlled as they require different treatment methods and timing to that of the willow.

Map 2 and Map 3 show each section treated, what species were treated and observed and the amount of each species in those sections. The total amount of species treated and observed can be seen in Table 2.

Both willow and blackberry are on the weeds of national significance (WONS) listings for Australia, making their control important for the health of the Australian environment. Briar rose is listed as a class 4 noxious weed in NSW and are required to be managed in a way that reduces its number, spread and reproduction.

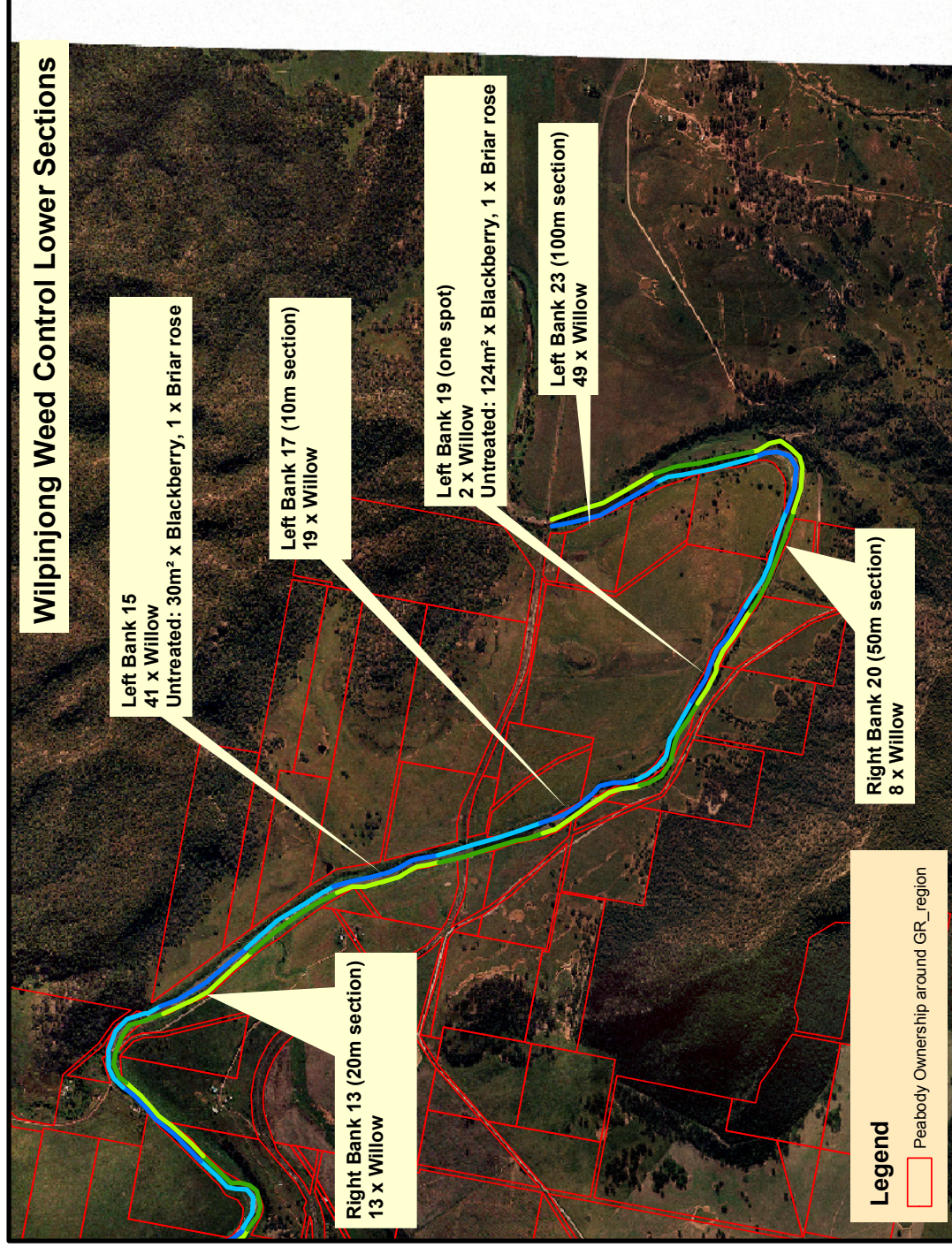
Species	Treated	Observed
Willow	315	4
Blackberry	3	224m <sup>2</sup>
Briar rose	0	8

Table 2 Weed species treated and observed



Map 2 Upper sections of weed control along the Goulburn River.





Map 3 Lower sections of weed control along the Goulburn River.



## Observations

There are still many willows that were untreated within the buffer zones and several due to being unreachable from the river banks in the treatment sections, these will be treated in future control expeditions.

Large quantities of established blackberry were recorded along the river, as well as small amounts of briar rose.

## Recommendations

As willows are a persistent invasive species and are of national significance it is recommended that weed control works and follow up treatments are continued in this area to suppress this species.

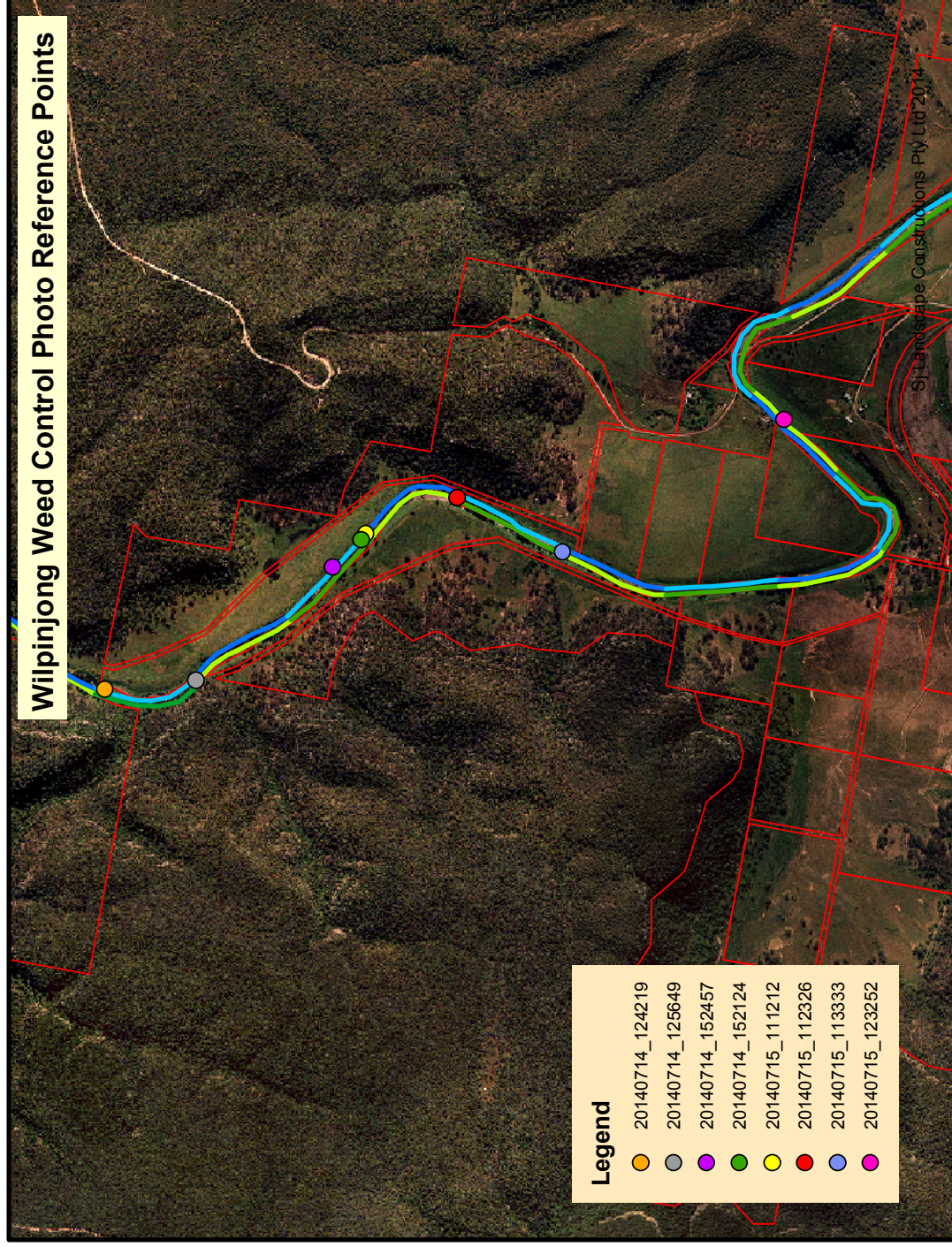
Methods to control willow that is unreachable from the river bank should be considered, such as use of a canoe.

It is also recommended that in future treatments blackberry (WONS listed) and briar rose (Noxious weed – class 4) are also targeted.

The continuation of weed control works and follow ups will decrease the impact of invasive species and encourage the growth of native plants.

<b>Date</b>	<b>Photo No.</b>	<b>GPS/Location</b>	<b>Description</b>
14/07/2014	20140714_124219 Figure 1	Lat: - 32.302894592285156 Long: 150.02236938476563	Looking downstream from the northern end of Section 2
14/07/2014	20140714_125649 Figure 2	Lat: - 32.30707550048828 Long: 150.02334594726563	Looking downstream from the northern end of section 3
14/07/2014	20140714_152457 Figure 3	Lat: - 32.31230163574219 Long: 150.0283966064453	Looking up stream from the centre of section 4
14/07/2014	20140714_152124 Figure 4	Lat: - 32.31322479248047 Long: 150.02981567382813	Looking upstream from the southern end of section 4
15/07/2014	20140715_111212 Figure 5	Lat: - 32.3133544921875 Long: 150.0298309326172	Looking downstream from northern end of section 5
15/07/2014	20140715_112326 Figure 6	Lat: - 32.31725311279297 Long: 150.03184509277344	Looking upstream from the southern end of section 5
15/07/2014	20140715_113333 Figure 7	Lat: - 32.32115936279297 Long: 150.02935791015625	Looking downstream from the northern end of section 7
15/07/2014	20140715_123252 Figure 8	Lat: - 32.33000564575195 Long: 150.0353546142578	Looking downstream from the centre of section 11
15/07/2014	20140715_104355 Figure 9	Lat: - 32.329917907714844 Long: 150.03482055664063	A patch of blackberry along the river side.
15/07/2014	20140715_133243 Figure 10	Lat: - 32.32963562011719 Long: 150.03652954101563	Briar rose found along the river

Table 3 Photo register



Map 4 Photo references for weed control works





Figure 1 Image 20140714\_124219: Looking downstream from northern end of section 2



Figure 2 Image 20140714\_125649: Looking downstream from the northern end of section 3





Figure 3 Image 20140714\_152457: Looking upstream from the centre of section 4



Figure 4 Image 20140714\_152124: Looking upstream from the southern end of section 4





Figure 5 Image 20140715\_111212: Looking downstream from the northern end of section 5



Figure 6 Image 20140715\_112326: Looking upstream from the southern end of section 5





Figure 7 Image 20140715\_113333: Looking downstream from the northern end of section 7



Figure 8 Image 20140715\_123252: Looking downstream from the centre of section 11





Figure 9 Image 20140715\_104355: Blackberry patch found along the Goulburn River



Figure 10 Image 20140715\_133243: Briar rose found along the Goulburn River