



Roads &
Maritime

Woolgoolga to Ballina Pacific Highway Upgrade Phased Resource Reduction for Koala Laws Point – phase 1

July 2017

Woolgoolga to Ballina Pacific
Highway Upgrade Phased
Resource Reduction for Koala –
Laws Point phase 1 report.



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Cover Photo: Adult koala, Munro Wharf Road control site.

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1. Introduction

The Woolgoolga to Ballina (W2B) Pacific Highway Upgrade Koala Management Plan proposed a staged approach to clearing in two koala hotspots in Section 10 of the upgrade. Koala hot-spots are situated at Laws Point and Wardell Road. The staged approach is referred to as ‘phased resource reduction’ (PRR) and involves the gradual reduction of food resources by ring-barking and collaring trees to facilitate the voluntary movement of koalas into adjacent habitat. The PRR method aims to reduce stress-induced impacts associated with clearing activities for the new alignment. The project also involves population surveys to monitor koala numbers throughout the PRR process. Due to logistical issues the PRR program has been staged with work commencing at Laws Point prior to Wardell Road. Sandpiper Ecological (Sandpiper) has been contracted by Pacific Complete to implement the PRR program.

The program includes five phases:

- Phase 1 (Wks 1-3): Tag and map all trees to be collared/ring-barked and undertake six population surveys.
- Phase 2 (Wks 4-5): Collar 40%, ring-bark 20% of trees with continuous canopy to feed trees, ring-bark non-collared trees (DBH 100-300mm), and conduct two population surveys.
- Phase 3 (Wks 6-7): Collar a further 40% of trees, continue ring-barking non-collared trees (DBH 100-300mm), and conduct two population surveys.
- Phase 4 (Wks 8-10): Collar the remaining 20% of trees, finalise ring-barking, and conduct two population surveys.
- Phase 5 (Wks 11-17): Following clearing of the hotspot site undertake eight population surveys.

The following report details the results of Phase 1 of the PRR program at the Laws Point hotspot site.

2. Study area

Laws Point is located approximately five kilometres south west of the town of Wardell on the New South Wales north coast. Access to the site is via Back Channel Road following the northern bank of the Richmond River. The study site stretches north from the Richmond River for one kilometre and encompasses chainages 146 000 to 147 000 of the Woolgoolga to Ballina (W2B) Pacific Highway Upgrade. The survey area includes the subject site – section of W2B alignment between the abovementioned chainages, and study area – vegetation adjoining the subject site that contains 12, 1km long koala survey transects.

3. Methods

3.1 Limit of clearing survey

Northern Rivers Land Solutions (NRLS) was subcontracted by Sandpiper Ecological Surveys to delineate the Limit of Clearing (LoC) within the subject site. The LoC boundary was marked with timber stakes positioned at 50m intervals on straight sections and at each change of direction. Each stake was numbered numerically and labelled with the chainage. Sandpiper staff completed the demarcation of the LoC with the installation of bunting tied to star pickets.

3.2 Koala population survey transects

Twelve 1km transects were marked using a handheld GPS to enable staff to follow the pre-determined transects. Transects were identified in the Koala Management Plan and their location uploaded to ArcGIS and transferred to MotionX or a Garmin GPS62. Pink flagging tape with reflective tape was tied to trees along each transect. The spacing of flagging tape was dependent on vegetation with the key determinant being visibility from one marker to the next. To reduce confusion between transects red and silver reflective tape was alternated between transects and the transect number written on the tape. Start and end points of each transect were marked with two pieces of flagging tape.

3.2 Tree mark-up

3.2.1 Habitat trees

Habitat trees are defined as any living or dead tree containing arboreal or basal hollows, fissures, decorticating bark, nests, dreys and termitaria with hollows. For the purpose of this assessment, only trees with obvious hollows that are likely to be used by scansorial fauna or possums were delineated. Habitat trees were identified by an ecologist and marked with red and white plastic tape and white spray paint (Plate 1). Habitat trees marked as part of early works near Back Channel Road were re-assessed against the abovementioned criteria. In some cases these trees were not re-marked and subsequently contain old habitat tree markings and new collared tree markings. Data collected



included date of mark-up, tree species, habitat tree number, coordinates (easting & northings GDA 94), Diameter at Breast Height (DBH), circumference, hollow size (small 10-50mm; medium 51-150mm; large 151-300mm and very large >300mm), number and type (i.e. branch, trunk or spout).

Plate 1: Habitat trees were marked with white paint and red and white tape. The LoC boundary is delineated with orange bunting.

3.2.2 Collared trees

Collared trees included any trees within the LoC that had a DBH equal to, or greater than, 300mm (RMS 2016). Collared trees were also marked in areas of retained vegetation, that is, vegetation within the LoC boundary that has been identified for retention. Collared trees were marked with orange flagging tape and an orange paint ring along with the letter 'C' and tree number spray painted on the trunk (Plate 2). Data collected on each collared tree included date of mark-up, tree species, tree number, coordinates (easting and northing GDA 94), Diameter at Breast Height (DBH), circumference and the number of co-dominant stems.



Plate 2: Collared trees were marked using orange paint and orange tape. The tree in Plate 2 forms continuous canopy with a koala feed tree and will be collared and ring-barked. The addition of yellow rings and pink tape signify this tree as one that will be collared and ring-barked.

3.2.3 Ring-barked trees

Ring-barked trees had a DBH between 100mm and 300mm (RMS 2016) were not within 10m of the LoC boundary, or within an area of retained vegetation, or within the bridge design exclusion zone. Ring-barked trees were marked with yellow spray-paint (Plate 3). No data were collected for ring-barked trees apart from a count of total numbers.



Plate 3: Trees that will be ring-barked only were marked with yellow paint rings. Plate 3 shows two ring-barked trees and one tree that will be collared and ring-barked.

3.2.4 Trees with continuous canopy to feed trees

The project brief specified that “... a percentage of trees that are identified to aid koala movement through the canopy onto collared food trees will also be ring-barked to induce de-foliation.” The requirement was further defined as “it is proposed that approximately 20% of trees within each hot-spot, that form continuous canopy with neighbouring food trees, be ring-barked.” Food trees were those identified in a previous study (see RMS 2016) and included primary feed tree species in Ballina Shire (BSC 2016). At Laws Point, primary feed trees consisted of tallowwood (*Eucalyptus microcorys*) on high nutrient soils, forest red gum (*E. tereticornis*), swamp mahogany (*E. robusta*), and the forest red gum/swamp mahogany hybrid *E. patentinervis*.

Feed tree locations were uploaded from ArcGIS to a handheld GPS. All feed trees within the LoC boundary were subsequently visited and the number of trees with continuous canopy counted. Trees with continuous canopy were then tallied and 20% determined. To maximise the effectiveness of this component it was decided that all trees with continuous foliage around identified feed trees should be ring-barked until the 20% threshold was reached. Trees to be collared and ring-barked were marked using the collaring procedure stated above with the addition of yellow paint rings and pink tape to signify ring-barking (Plates 2 and 3). Data collected on each collared and ring-barked tree included; date of marking, tree species, tree number, coordinates, Diameter at Breast Height (DBH) and circumference.

3.3 Koala population monitoring

3.3.1 Koala surveys

Three diurnal and three nocturnal koala population monitoring surveys were conducted in phase 1. Nocturnal surveys preceded diurnal surveys, which were conducted on the following day. Two teams of three people (i.e. six transects per team) sampled all 12 transects within one survey session. Each team consisted of one person walking the transect centre line flanked by a person 20m away on each side. Nocturnal surveys were conducted with handheld spotlights (Led Lenser P14) and all personnel were equipped with binoculars for both nocturnal and diurnal surveys. Each 1km transect took approximately 45minutes to complete. Surveys were conducted on 23 and 24 March, 18 and 19 April and 26 and 27 April 2017.

Data recorded during each survey included; date, survey number, observer names, start and end time, temperature range, cloud cover, wind, rain and moon phase. Data collected on each koala observed included: date, time, transect number, coordinates (easting & northing GDA 94), tree species including DBH, temperature, weather, sex, breeding status, and health (i.e. signs of conjunctivitis or wet bottom). Each tree with a koala was marked with red and white tape so it could be re-located the following day.

3.3.2 Scat collection

Koala scats were collected at Laws Point (impact site) and Tucki Tucki (control site) following each diurnal survey. At Laws Point, each tree containing a koala, or where a koala was recorded the previous night, was revisited and a search conducted for fresh koala scats. Fresh scats were identified by their colour (paler green) and presence of a moist coating. Scats were subsequently collected from the same number, and if possible same sex ratio, of koalas at Tucki Tucki. The Tucki Tucki site was visited on the afternoon following the diurnal koala survey at Laws Point and trees containing suitable koalas were marked. These trees were revisited the following morning and fresh scats collected. Where possible between five and six scats were collected from each tree and scat collection was conducted during dry weather. Scat collection on 24 and 25 March was affected by rain.

Data collected at each scat collection site included; location (easting & northing GDA 94), tree species, weather (temperature, cloud cover, rainfall), time since last sunny day, tree size, koala behaviour, koala health, date, and observer. Scats were collected with a toothpick and placed immediately into a Styrofoam block positioned in a plastic container (Plate 4). Scats were then stored in a cool dry location.



Plate 4: Scats being collected at the Tucki Tucki control site.

4. Results

4.1 Tree mark-up

4.1.1 Habitat trees

Only trees containing obvious arboreal hollows, dreys and termitaria with hollows were recorded. A total of 43 habitat trees were marked. These trees had an average DBH of 0.93m and average circumference of 2.90m (Table 1, Appendix 1). All habitat trees had a DBH greater than 300mm and will have a collar installed between 0.7 and 1.3m above ground. Habitat trees were distributed throughout the site with the exception of the area around the house (chainage 146200 to 146380) and northern end (chainage 146900 to 147000) (Figures 1a – 1c).

4.1.2 Collared trees

A total of 583 trees were identified and marked for collaring (Table 1; Appendix 1). Of these, 48 had co-dominant trunks, ranging in number from two to six, and the total number of trunks to be collared at Laws Point is 655. Average DBH was 0.51m and average circumference was 1.59m. The cumulative circumference of collared trees is 1121m.

Thirty-four species of tree were marked for collaring, with the most abundant species being blackbutt (111 individuals), red mahogany (91 individuals), pink bloodwood (91 individuals), swamp box (64 individuals), brush box (48 individuals), and hard corkwood (41 individuals) (Table 2). Collared trees occurred throughout the site with exception of the northern end where only three collared trees were recorded between chainages 146900 and 147000 (Figures 1a – 1c).

4.1.3 Ring-barked trees

A total of 452 trees with a DBH between 100 and 300mm were marked for ring-barking. The 10m boundary and retained vegetation exclusion zone and bridge design exclusion zone has reduced the number of trees to be ring-barked.

4.1.4 Trees with continuous canopy

Twenty-eight koala feed trees were recorded within the alignment, including 25 tallowwood, and three forest red gums. Six feed trees were midstorey trees and these were subsequently excluded from the assessment as they are not part of the canopy. Fifty trees had continuous canopy with the remaining feed trees, which means a total of 10 trees need to be ring-barked to satisfy the 20% threshold. Feed trees selected for ring-barking were number 28 (2 adjacent trees), number 43 (4 adjacent trees) and number 56a (4 adjacent trees). Feed tree number 56a had continuous canopy with five trees but one was situated within 10m of the LoC boundary. Several feed trees were excluded from consideration as they were situated within 10m of the LoC or retained vegetation boundary. Trees to be collared and ring-barked are situated within the central section of the site, primarily between chainages 146500 and 146600 (Figure 1b).

Table 1: Data summary for trees marked as part of the Phased Resource Reduction Project at Laws Point. NR = not recorded. RB = ring-barked.

Type	Total species	Total trees	Total co-dominant trunks	Total Trunks	Average DBH (m)	Average circumference (m)
Habitat tree	10	43	0	43	0.93 (SD 0.29; n 43)	2.90 (SD 0.90; n 43)
Collared	34	583	48	655	0.51 (SD 0.19; n 583)	1.59 (SD 0.58; n 583)
Collar & RB	5	10	0	10	0.47 (SD 0.09; n=7)	1.47 (SD 0.29; n 7)
Ring-bark (DBH 100-300mm)	NR	452	NR	452	NR	NR

Table 2: Type and number of tree species to be collared, Laws Point. * = introduced species.

Scientific name	Common name	Collared (>300mm)	Habitat Trees	Collared & ringbarked
<i>Acacia sp.</i>	Wattle	1		
<i>Allocasuarina torulosa</i>	Forest oak	1		
<i>Araucaria heterophylla</i> *	Norfolk pine	3		
<i>Callistemon salignus</i>	Willow Bottlebrush	4		
<i>Callitris columellaris</i>	Coastal cypress	5		
<i>Cinnamomum camphora</i> *	Camphor laurel	12		
<i>Commersonia bartramia</i>	Brown Kurrajong	3		
<i>Corymbia gummifera</i>	Red bloodwood	1	1	
<i>Corymbia intermedia</i>	Pink bloodwood	91		2
<i>Delonix regia</i> *	Poinciana	4	1	
<i>Elaeocarpus reticulatus</i>	Blueberry ash	1		
<i>Endiandra sieberi</i>	Hard corkwood	41		
<i>Eucalyptus acmenoides</i>	White mahogany	8		
<i>Eucalyptus bancroftii</i>	Bancroft's red gum	1		
<i>Eucalyptus microcorys</i>	Tallowwood	15	2	2
<i>Eucalyptus pilularis</i>	Blackbutt	92	19	2
<i>Eucalyptus resinifera</i>	Red mahogany	83	8	1
<i>Eucalyptus siderophloia</i>	Grey Ironbark	32		
<i>Eucalyptus signata</i>	Scribbly gum	2	1	
<i>Eucalyptus tereticornis</i>	Forest Red Gum		3	
<i>Eucalyptus spp.</i>		5		
<i>Grevillea robusta</i>	Silky oak	4		
<i>Jacaranda mimosifolia</i> *	Jacaranda	2		
<i>Koelreuteria elegans</i> *	Chinese Rain tree	3		
<i>Livistona australis</i>	Cabbage palm	1		
<i>Lophostemon confertus</i>	Brush box	47	1	
<i>Lophostemon suaveolens</i>	Swamp box	60	4	3
<i>Mangifera sp.</i> *	Mango tree	5		
<i>Melaleuca quinquenervia</i>	Broad-leaved paperbark	9	1	
<i>Melaleuca sieberi</i>	Sieber's Paperbark	2	1	
<i>Melaleuca spp.</i>		1		
<i>Pinus spp.</i> *	Pine tree	9		
<i>Spathodea campanulata</i>	African tulip	8		
<i>Stenocarpus sinuatus</i>	Fire wheel tree	1		
<i>Toona ciliata</i>	Red Cedar	2		
	Stag	20	1	
	Rainforest spp.	3		

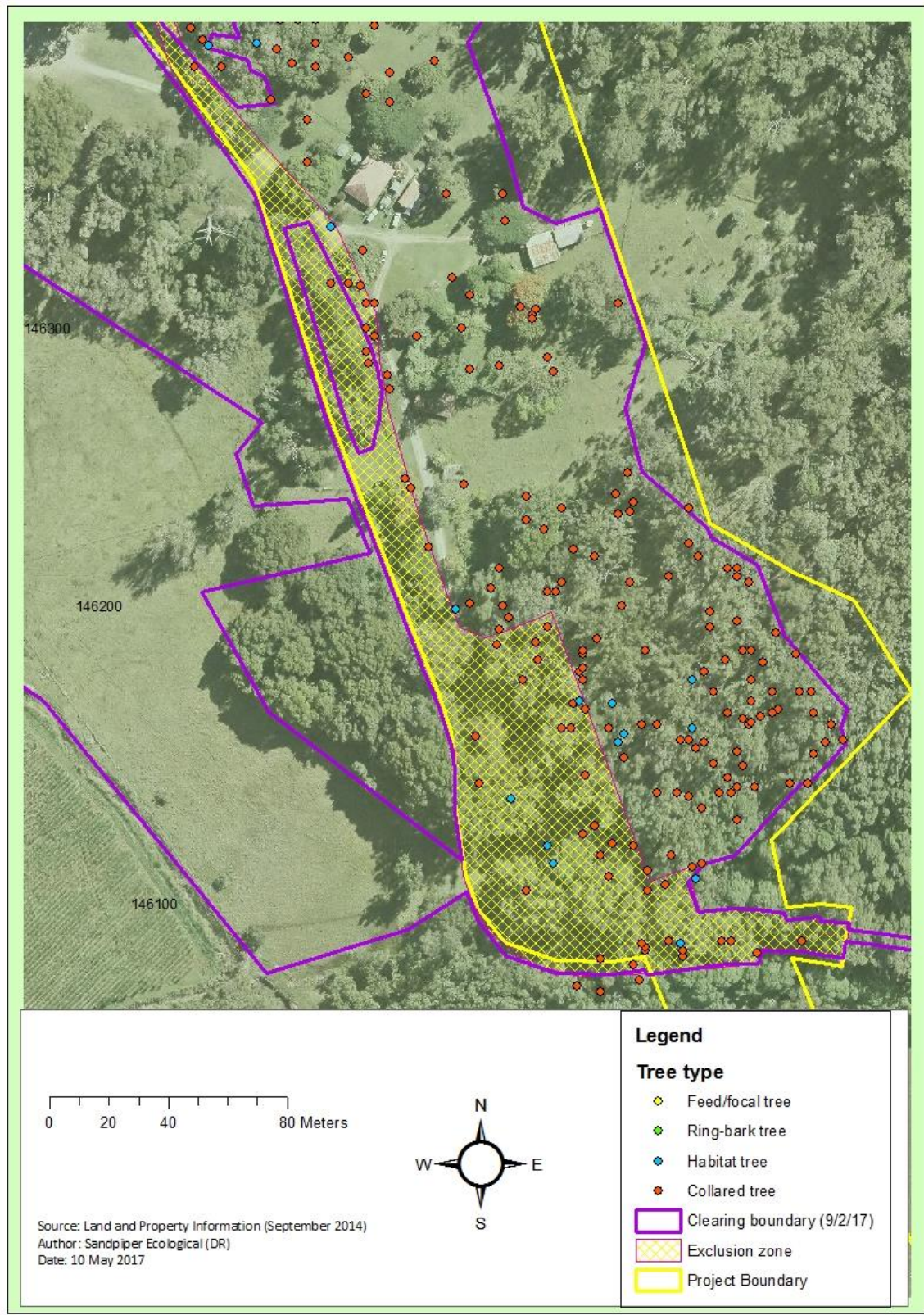


Figure 1a: Distribution of collared trees (DBH >300mm), habitat trees, and collared and ring-barked trees within the Laws Point site.

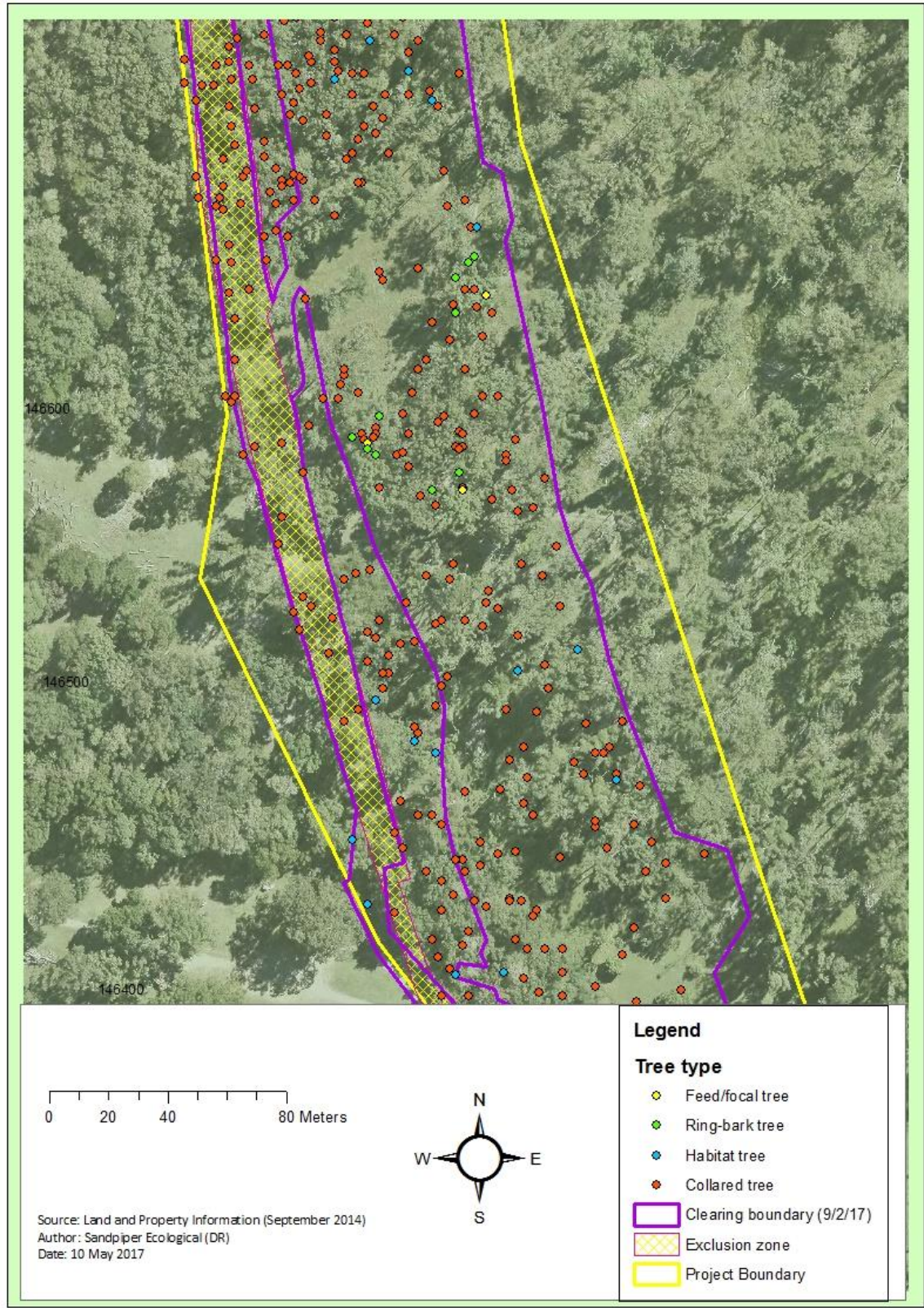


Figure 1b: Distribution of collared trees (DBH >300mm), habitat trees, and collared and ring-barked trees within the Laws Point site.

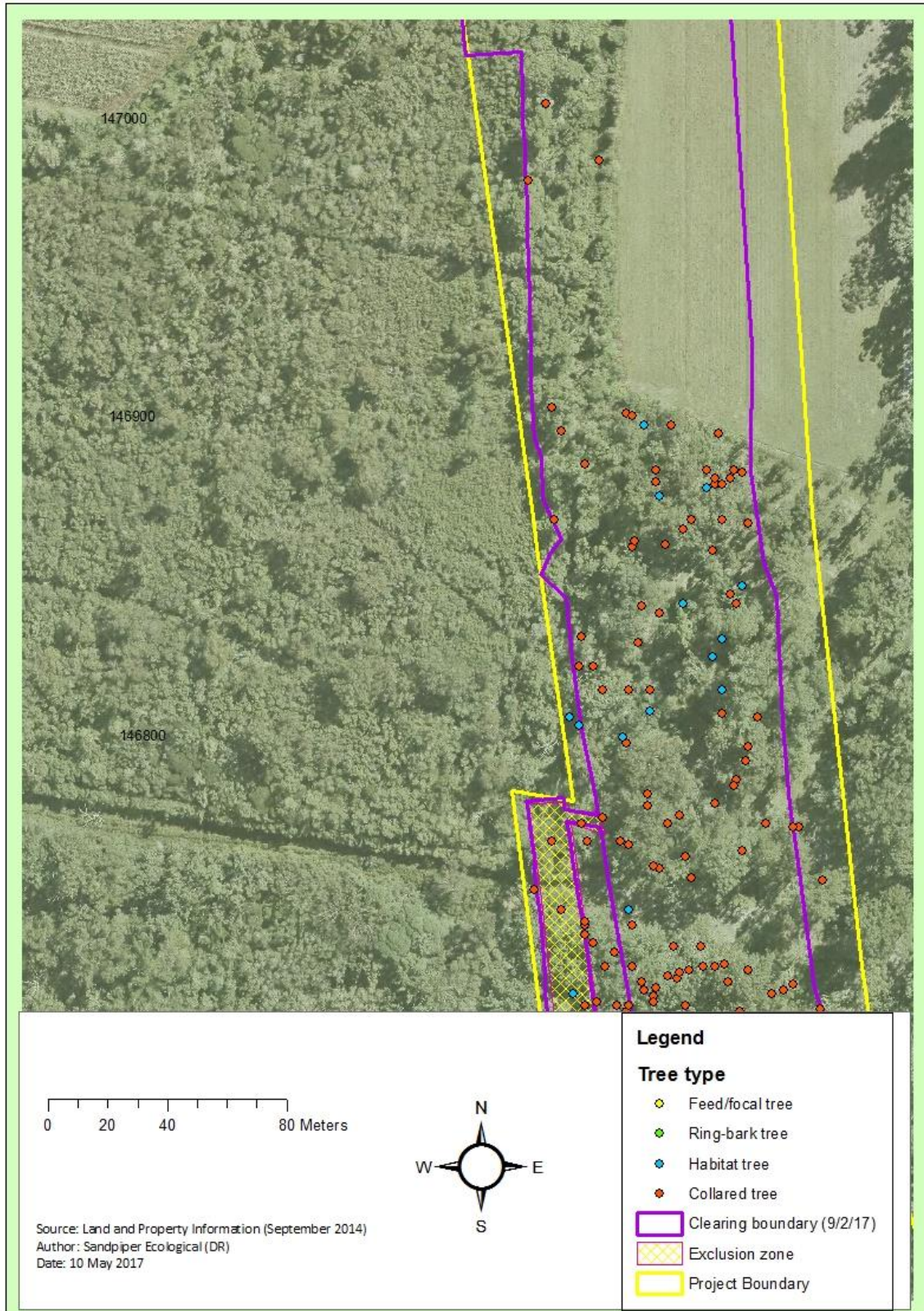


Figure 1c: Distribution of collared trees (DBH >300mm), habitat trees, and collared and ring-barked trees within the Laws Point site.

4.2 Koala population monitoring

4.2.1 Koala population surveys

Sixteen koala records were obtained during the Phase 1 (baseline) population surveys (Table 3). Five each during surveys one and three, and six during survey two. Twelve records were obtained at night and four during the day. Transect 11, situated near the eastern edge of the study area, had the highest number of records with five, followed by transect 4 (4 records), transect 10 (2 records), and transect 5 (2 records). Transects 3, 8 and 9 each had single records. Transect 5, and part of transect 4, are situated within the upgrade corridor. Four records (K4, K9, K11, and K15) were inside the upgrade corridor. Two of these (K11 & K15) are suspected to be the same individual. K9, K11, and K15 were situated in retained vegetation and K4 was just inside the LoC boundary.

Ten individuals have been identified as female, three as male, and three undetermined. Distinguishing individuals was difficult but one juvenile (late back young) has been recorded on three occasions at transect 11, two individuals (K11/K15 and K13/K16) were recorded in the same trees on transects 5 and 4 respectively during the day and night surveys on 26 and 27 April, and two records of a female at transect 10 on 23 and 24 March are suspected to be the same individual. All individuals sighted have been healthy and no ear tags have been recorded.

Koalas have been recorded in two clusters, one situated centrally on the western side of the site and one situated near the south-eastern corner of the site (Figure 2). Koalas have been recorded opportunistically on two occasions, one in the central part of the site near the eastern LoC boundary, and in the southeast, near Ken Laws house (D. Rohweder pers obs). Weather conditions during koala population surveys are presented in Table A3, Appendix A.

Table 3: Koala records obtained during the Phase 1 (baseline) koala surveys at Laws Point. Pr = probable identification; po = possible identification.

Date	Record No.	Time (D/N)	Transect	Tree sp.	Sex	Breeding	Health
23/3/2017	K1	2050 (N)	11	Forest red gum		No	Dry bottom
23/3/2017	K2	2115 (N)	10	Forest red gum		No	Dry bottom
23/3/2017	K3	2234 (N)	9	Tallowwood	F(pr)	No	Dry bottom; robust, healthy
23/3/2017	K4	2128 (N)	4	Tallowwood	M(pr)	No	Dry bottom; robust, healthy
24/3/2017	K5 (po K2)	1240 (D)	10	Forest red gum	F	No	Dry bottom; clear eyes
18/4/2017	K6	1805 (N)	11	Forest red gum	F	No	Dry bottom; robust, healthy
18/4/2017	K8	1805 (N)	11	Forest red gum	F	No	Dry bottom; healthy; late back young
18/4/2017	K10	2230 (N)	8	Small-fruited grey gum	F	No	Dry bottom; healthy
18/4/2017	K7	2114 (N)	3	Swamp mahogany		No	Good
18/4/2017	K9	2118 (N)	4	Forest red gum	F(po)	No	Dry bottom
19/4/2017	K12 (po K8)	1020 (D)	11	Forest red gum	F	No	Dry bottom; healthy; prob. Late back young
26/4/2017	K14 (po K8)	1750 (N)	11	Forest red gum	F	No	Dry bum; healthy
26/4/2017	K11	1907 (N)	5	Tallowwood	M(pr)	No	Dry bum
26/4/2017	K13	2000 (N)	4	Pink bloodwood	F	No	Dry bum
27/4/2017	K15 (prK11)	1144 (D)	5	Tallowwood	M(pr)	No	Dry bum; Injured L eye
27/4/2017	K16 (prK13)	NR (D)	4	Pink bloodwood	F	No	Dry bum

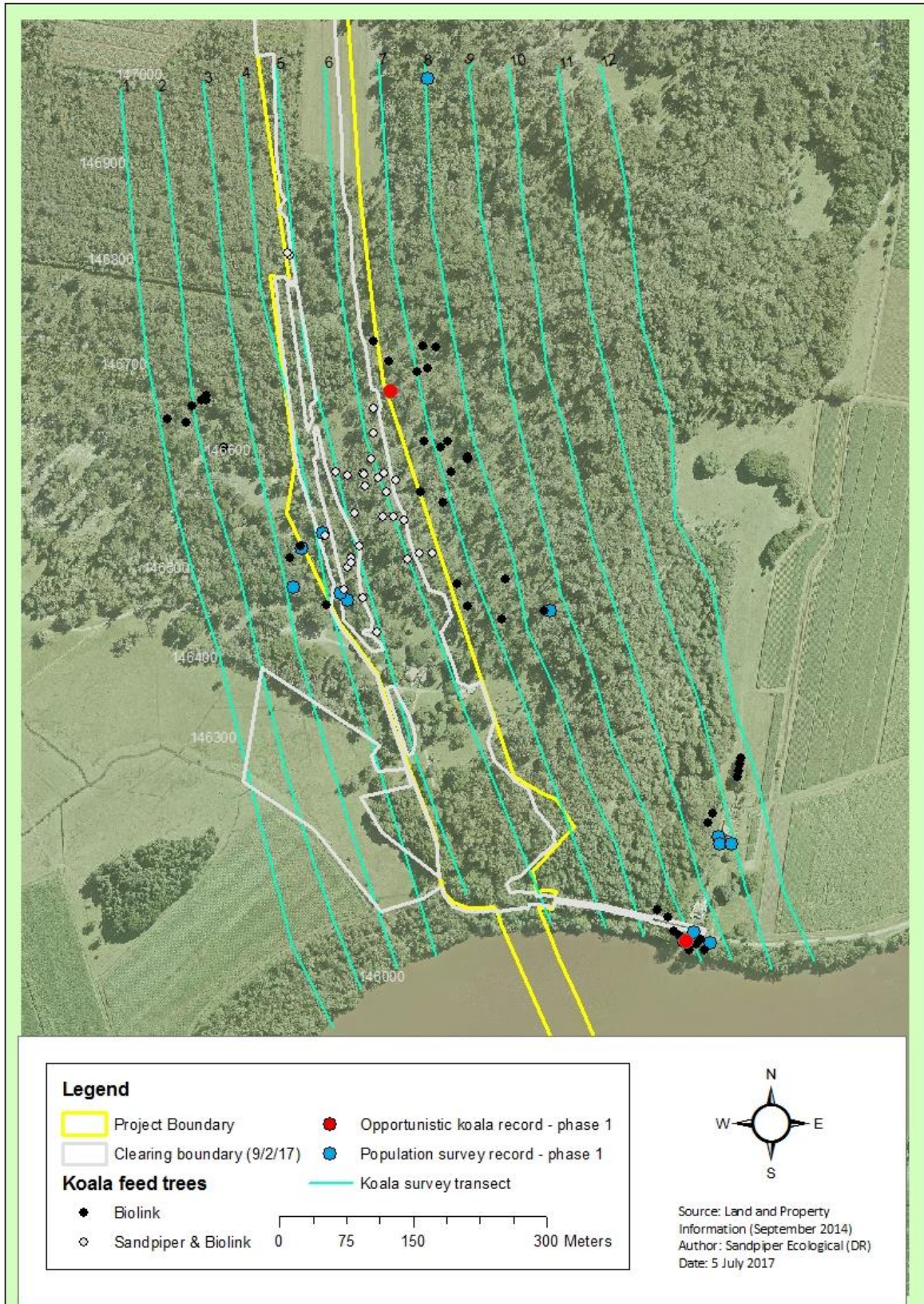


Figure 2: Distribution of koala records obtained during phase 1 (baseline) surveys at the Laws Point site.

4.2.2 Scat Collection

Scats have been collected from 18 koalas, nine at the impact site and nine at the control site. Three individuals have been sampled at each location following each day/night survey (Table A4, Appendix A). Scats collected during the first sample period (24/25 March 2017) were rain affected with approximately 10mm of rain prior to collection. Between 3 and 6 scats have been collected for each sample.

5. Discussion

Baseline koala population surveys confirm the presence of several koalas in proximity to the W2B upgrade corridor at Laws Point. To date, all but one record has been outside the proposed clearing footprint, although three koala records were situated within retained vegetation inside the project boundary. The record situated within the LoC boundary and those within retained vegetation are all within the possible clearing exclusion area being considered as part of detailed design changes for the Richmond River bridge. Several koala records have occurred near the central western boundary and a koala was recorded opportunistically near the central eastern boundary. These records broadly correlate with a cluster of tallowwoods (*Eucalyptus microcorys*) and forest red gums (*E. tereticornis*) that occur on a raised sand ridge extending from the base of the north-south aligned eastern ridge through the central part of the subject site and adjoin floodplain swales containing broad-leaved paperbark, red mahogany and *Eucalyptus patentinervis*.

Preliminary evidence suggests that koalas are most likely to occur in the central section of the subject site, although baseline surveys show that several individuals are using habitat outside the upgrade corridor. Whilst the pattern of habitat use may change between seasons the results suggest that forest adjoining the alignment contains several primary feed trees that are used by local koalas.

Mapping of feed trees provided to RMS by a third party (Biolink), which was part of a submission to the Ballina Koala Plan (see Figure 2), does not provide a complete indication of the actual distribution and abundance of this resource in the study area (i.e. the area covered by survey transects). For example, numerous tallowwoods are distributed across the ridge to the east of the upgrade corridor and swamp mahoganys, forest red gums, and hybrids between these species, occur within floodplain swales west of the upgrade corridor. Additional mapping of primary and secondary koala food trees within the study area would be required to provide an accurate indication of the foraging resource available.

In Ballina Shire, primary koala feed trees include forest red gum, swamp mahogany (*E. robusta*), tallowwood, and the swamp mahogany/forest red gum hybrid, *E. patentinervis*. Tallowwood is considered a secondary feed tree when it occurs on “low to medium soil landscapes” (BSC 2016). Importantly, the feed tree resource on both sides of the upgrade corridor (at Laws Point) includes both floodplain and hill-slope vegetation which will provide a varied food resource for local koalas. Connectivity between these areas will be critical in the long-term.

Data collected in Phase 1 is insufficient to enable any assessment of koala home range. Following Phase 1 surveys it is tentatively suggested that at least one adult (probable male) koala consistently uses a cluster of feed trees near the central western LoC boundary, and a sub-adult female consistently uses trees in the southeast corner of the study area. If the baseline data are considered an accurate indication of koala habitat use in autumn/early winter then the initial collaring of trees may have only minor impact on koalas as most individuals are using resources outside the alignment.

Movement of koalas into and through the subject site is expected over the course of the PRR program. The initial collaring of 40% of trees and ring-barking of trees (in Phase 2) is predicted to cause a slight reduction in food availability and may have a subtle influence on koala behaviour in the subject site.

5.1 Recommendations

1. The PRR process should proceed as planned with collaring and ring-barking commencing on 22 May.
2. To maximise the rate of defoliation ring-barking will need to be very thorough and include substantial removal of bark, cambium and sap wood.
3. Commencing collaring in the central section of the site in Phase 2 and progressively moving towards the edges in Phases 3 and 4 will improve effectiveness and reduce impacts on koalas. By progressively excluding trees outwards from the centre of the alignment over a period of 4 weeks koalas will have some opportunity to adjust their behaviour. This is preferable to exclusion of all or the majority of feed trees during a single phase.
4. To improve robustness of the collar and ring-bark method the proportion of ring-barked trees should be increased to 50% of the total trees that have a continuous canopy with identified feed trees. This would increase the number of ring-barked and collared trees to 25. The ability to achieve 50% will be constrained by the number of feed trees situated in retained vegetation and within 10m of the LoC boundary.

6. References

BSC (2016). *Ballina Shire Koala Management Strategy*. Report prepared by Ballina Shire Council in association with Biolink Ecological Consultants and the Ballina Shire Comprehensive Koala Plan of Management Project reference Group.

RMS (2016). *Woolgoolga to Ballina – Brief for Phased Resource Reduction for Koalas, Section 10*. Roads and Maritime Services, New South Wales Government.

RMS (2016). *Woolgoolga to Ballina Pacific Highway Upgrade, Koala Management Plan, Sections 1-11*. New South Wales Roads and Maritime Services.

Table A1: Collared trees identified in the Laws Point study area.

Date	Observer	Tree number	Species	Easting	Northing	DBH (mm)	Circumference (m)	Notes
10/3/17	NP/SR	20	Acacia sp.	0542562	6793070	320	1.01	
17/3/17	GM/SR	175	African tulip	542664	6792653	465	1.46	Codominant x 2
27/3/17	GM/SR	179	African tulip	542670	6792580	420	1.32	
27/3/17	GM/SR	184	African tulip	542693	6792570	730	2.29	
27/3/17	GM/SR	185	African tulip	542698	6792569	378	1.19	
27/3/17	GM/SR	186	African tulip	542697	6792567	424	1.33	
27/3/17	GM/SR	187	African tulip	542697	6792566	806	2.53	
27/3/17	GM/SR	192	African tulip	542644	6792571	896	2.81	Codominant x 4
5/5/17	GM/SR	482	Allocasuarina torulosa	542502	6792959	312	0.98	
13/3/17	DR/SR	43	Eucalyptus spp.	542585	6792918	547	1.72	
17/3/17	GM/SR	88	Blackbutt	542618	6792826	437	1.37	
10/3/17	NP/SR	2	Blackbutt	0542549	6793168	610	1.90	
10/3/17	NP/SR	3	Blackbutt	052542	6793175	605	1.89	
10/3/17	NP/SR	4	Blackbutt	0542552	6793163	474	1.49	
10/3/17	NP/SR	5	Blackbutt	0542552	6793165	450	1.42	
10/3/17	NP/SR	6	Blackbutt	0542557	6793165	435	1.37	
10/3/17	NP/SR	7	Blackbutt	0542554	6793163	520	1.57	
10/3/17	NP/SR	10	Blackbutt	0542563	6793150	397	1.25	
10/3/17	NP/SR	11	Blackbutt	0542544	6793151	740	2.32	
10/3/17	NP/SR	12	Blackbutt	0542541	6793148	370	1.16	
10/3/17	NP/SR	14	Blackbutt	0542559	6793123	630	1.97	
10/3/17	NP/SR	15	Blackbutt	0542557	6793126	480	1.28	
10/3/17	NP/SR	16	Blackbutt	0542566	6793085	385	1.22	
10/3/17	NP/SR	17	Blackbutt	0542554	6793086	418	1.32	
10/3/17	NP/SR	18	Blackbutt	0542563	6793075	364	1.14	
10/3/17	NP/SR	19	Blackbutt	054569	6793075	610	1.90	
10/3/17	NP/SR	21	Blackbutt	0542559	6793064	365	1.14	
10/3/17	NP/SR	22	Blackbutt	0542558	6793062	456	1.44	
10/3/17	NP/SR	23	blackbutt	542599	6793049	390	1.23	
13/3/17	DR/SR	27	blackbutt	542542	6793038	497	1.55	
13/3/17	DR/SR	28	blackbutt	542552	6793056	427	1.35	
13/3/17	DR/SR	30	blackbutt	542533	6793034	350	1.1	
13/3/17	DR/SR	31	Blackbutt	542531	6793035	395	1.25	
13/3/17	DR/SR	47	Blackbutt	542587	6792885	548	1.72	
13/3/17	DR/SR	48	Blackbutt	542595	6792884	565	1.78	
13/3/17	DR/SR	52	Blackbutt	542586	6792873	633	1.98	
13/3/17	DR/SR	55	Blackbutt	542575	6792863	649	2.04	
13/3/17	DR/SR	67	Blackbutt	542561	6792843	985	3.09	Codominant trunk x 2
13/3/17	DR/SR	71	Blackbutt	542549	6792858	992	3.12	
17/3/17	GM/SR	86	Blackbutt	542589	6792842	326	1.03	
17/3/17	GM/SR	91	Blackbutt	542607	6792822	565	1.77	
17/3/17	GM/SR	97	Blackbutt	542581	6792817	737	2.32	Codominant trunk x 2
17/3/17	GM/SR	101	Blackbutt	542587	6792797	828	2.6	
17/3/17	GM/SR	108	Blackbutt	542591	6792778	1023	3.21	
17/3/17	GM/SR	111	Blackbutt	542569	6792770	657	2.07	
17/3/17	GM/SR	115	Blackbutt	542599	6792788	633	1.99	
17/3/17	GM/SR	117	Blackbutt	542623	6792783	623	1.96	
17/3/17	GM/SR	118	Blackbutt	542618	6792763	600	1.89	
17/3/17	GM/SR	120	Blackbutt	542640	6792735	780	2.45	
17/3/17	GM/SR	134	Blackbutt	542628	6792730	721	2.27	
17/3/17	GM/SR	144	Blackbutt	542650	6792722	850	2.67	
17/3/17	GM/SR	147	Blackbutt	542639	6792701	772	2.43	
17/3/17	GM/SR	149	Blackbutt	542652	6792693	620	1.95	
17/3/17	GM/SR	150	Blackbutt	542659	6792696	452	1.43	
27/3/17	GM/SR	218	Blackbutt	542727	6792469	1181	3.71	
27/3/17	GM/SR	219	Blackbutt	542730	6792477	985	3.09	
27/3/17	GM/SR	264	Blackbutt	542734	6792429	300	0.96	
27/3/17	GM/SR	265	Blackbutt	542723	6792428	490	1.54	
28/3/17	GM/SR	267	Blackbutt	542711	6792436	785	2.46	
28/3/17	GM/SR	270	Blackbutt	542707	6792428	382	1.2	
28/3/17	GM/SR	271	Blackbutt	5427689	6792436	437	1.38	
28/3/17	GM/SR	274	Blackbutt	542728	6792418	768	2.41	
28/3/17	GM/SR	275	Blackbutt	542747	6792424	440	1.38	

Date	Observer	Tree number	Species	Easting	Northing	DBH (mm)	Circumference (m)	Notes
28/3/17	GM/SR	312	Blackbutt	542720	6792385	890	2.8	Codominant x 2
28/3/17	GM/SR	314	Blackbutt	542679	6792409	1157	3.63	
27/3/17	GM/SR	205	Blackbutt	542730	6792501	730	2.29	
27/3/17	GM/SR	210	Blackbutt	542766	6792479	534	1.68	
27/3/17	GM/SR	211	Blackbutt	542766	6792482	672	2.11	
27/3/17	GM/SR	214	Blackbutt	542779	6792460	690	2.17	
20/4/17	GM/MJ	367	Blackbutt	542570	6792982	700	2.20	
20/4/17	GM/MJ	368	Blackbutt	542560	6792986	630	1.97	
20/4/17	GM/MJ	370	Blackbutt	542567	6792976	470	1.47	
20/4/17	GM/MJ	371	Blackbutt	542578	6792995	1060	3.23	
20/4/17	GM/MJ	373	Blackbutt	542571	6792992	465	1.46	Codominant x 2
21/4/17	GM/MJ	401	Blackbutt	542523	6792940	785	2.47	
21/4/17	GM/MJ	425	Blackbutt	542524	6793001	626	1.98	
21/4/17	GM/MJ	432	Blackbutt	542507	6793049	370	1.20	
21/4/17	GM/MJ	436	Blackbutt	542536	6793049	932	2.93	
21/4/17	GM/MJ	437	Blackbutt	542529	6793059	460	1.45	Codominant x 2
21/4/17	GM/MJ	438a	Blackbutt	542529	6793055	416	1.31	Codominant x 2
21/4/17	GM/MJ	445	Blackbutt	542526	6793110	375	1.18	
21/4/17	GM/MJ	447	Blackbutt	542527	6793122	510	1.60	
21/4/17	GM/MJ	448	Blackbutt	542533	6793120	440	1.38	
21/4/17	GM/MJ	458	Blackbutt	542537	6793183	390	1.20	
5/5/17	GM/SR	468	Blackbutt	542497	6793043	823	2.59	
5/5/17	GM/SR/NP	512	Blackbutt	542536	6792828	1350	4.10	
5/5/17	GM/SR/NP	517	Blackbutt	542539	6792783	895	2.82	
5/5/17	GM/SR/NP	518	Blackbutt	542550	6792792	1020	3.20	
5/5/17	GM/SR/NP	519	Blackbutt	542550	6792792	745	2.35	
5/5/17	GM/SR/NP	520	Blackbutt	542554	6792794	990	3.11	
27/3/17	GM/SR	231	Blackbutt	542687	6792469	407	1.28	
27/3/17	GM/SR	233	Blackbutt	542689	6792465	472	1.48	
27/3/17	GM/SR	234	Blackbutt	542686	6792461	323	1	
27/3/17	GM/SR	235	Blackbutt	542685	6792456	369	1.16	
27/3/17	GM/SR	247	Blackbutt	542755	6792447	842	2.64	
27/3/17	GM/SR	249	Blackbutt	542768	6792454	640	2	
27/3/17	GM/SR	251	Blackbutt	542775	6792450	707	2.22	
27/3/17	GM/SR	252	Blackbutt	542771	6792444	549	1.72	
27/3/17	GM/SR	254	Blackbutt	542771	6792437	607	1.91	
27/3/17	GM/SR	255	Blackbutt	542774	6792432	535	1.68	Codominant x 2
27/3/17	GM/SR	257	Blackbutt	542768	6792431	468	1.46	
27/3/17	GM/SR	259	Blackbutt	542763	6792433	573	1.8	
28/4/17	GM/NP	464	Blueberry ash	52995	6800085	350	1.10	
20/4/17	GM/MJ	330	Brown kurrajong	542748	6792351	365	1.16	
20/4/17	GM/MJ	325	Brown kurrajong	5422731	6792351	480	1.50	Codominant x 2
20/4/17	GM/MJ	326	Brown kurrajong	5422731	6792351	440	1.38	
17/3/17	GM/SR	146	Brush box	542648	6792709	680	2.14	
27/3/17	GM/SR	232	Brush box	542683	6792475	386	1.22	
27/3/17	GM/SR	244	Brush box	542713	6792447	389	1.22	
27/3/17	GM/SR	258	Brush box	542770	6792429	529	1.66	
27/3/17	GM/SR	266	Brush box	542714	6792444	350	1.1	
28/3/17	GM/SR	292	Brush box	542768	6792415	468	1.47	
28/3/17	GM/SR	293	Brush box	542763	6792411	361	1.14	
28/3/17	GM/SR	294	Brush box	542764	6792406	446	1.4	
28/3/17	GM/SR	295	Brush box	542760	6792406	323	1.02	
28/3/17	GM/SR	296	Brush box	542766	6792408	372	1.17	Codominant x 3
28/3/17	GM/SR	297	Brush box	542766	6792397	583	1.83	
28/3/17	GM/SR	298	Brush box	542746	6792406	473	1.49	
28/3/17	GM/SR	299	Brush box	542750	6792405	600	1.88	
28/3/17	GM/SR	300	Brush box	542754	6792401	853	2.68	
28/3/17	GM/SR	301	Brush box	542739	6792406	896	2.82	
28/3/17	GM/SR	302	Brush box	542751	6792381	475	1.49	
28/3/17	GM/SR	303	Brush box	542754	6792382	355	1.12	
28/3/17	GM/SR	304	Brush box	542744	6792385	863	2.72	
28/3/17	GM/SR	305	Brush box	542736	6792380	382	1.2	
28/3/17	GM/SR	307	Brush box	542736	6792373	368	1.16	
28/3/17	GM/SR	308	Brush box	542731	6792388	665	2.09	
28/3/17	GM/SR	309	Brush box	542724	6792389	632	1.98	

Date	Observer	Tree number	Species	Easting	Northing	DBH (mm)	Circumference (m)	Notes
28/3/17	GM/SR	310	Brush box	542718	6792395	583	1.83	
28/3/17	GM/SR	311	Brush box	542714	6792392	695	2.18	
28/3/17	GM/SR	315	Brush box	542695	6792373	787	2.47	
20/4/17	GM/MJ	316	Brush box	542712	6792341	474	1.49	
20/4/17	GM/MJ	318	Brush box	542720	6792350	935	2.94	Stump ~ 4.5m
20/4/17	GM/MJ	320	Brush box	542731	6792348	927	2.92	
20/4/17	GM/MJ	323	Brush box	542735	6792353	350	1.09	
20/4/17	GM/MJ	324	Brush box	542735	6792354	675	2.13	
20/4/17	GM/MJ	329	Brush box	542748	6792353	300	0.92	
20/4/17	GM/MJ	331	Brush box	542761	6792356	702	2.20	
20/4/17	GM/MJ	332	Brush box	542764	6792356	482	1.51	
20/4/17	GM/MJ	333	Brush box	542764	6792356	448	1.41	
20/4/17	GM/MJ	334	Brush box	542773	6792352	428	1.34	
20/4/17	GM/MJ	335	Brush box	542788	6792356	526	1.66	
28/3/17	GM/SR	272	Brush box	542678	6792425	815	2.56	
28/3/17	GM/SR	276	Brush box	542752	6792421	494	1.55	
28/3/17	GM/SR	277	Brush box	542758	6792416	332	1.05	
28/3/17	GM/SR	284	Brush box	542792	6792433	468	1.47	
28/3/17	GM/SR	285	Brush box	542798	6792429	314	0.99	
28/3/17	GM/SR	286	Brush box	542796	6792423	353	1.11	
28/3/17	GM/SR	287	Brush box	542802	6792424	347	1.09	
28/3/17	GM/SR	288	Brush box	542792	6792792	403	1.26	
28/3/17	GM/SR	289	Brush box	542790	6792409	406	1.28	
28/3/17	GM/SR	313	Brush box	542723	6792378	585	1.84	
20/4/17	GM/MJ	390	Cabbage tree palm	542542	6792974	386	1.21	
20/4/17	GM/MJ	384	Callistemon salignus	542539	6792967	36	1.15	
20/4/17	GM/MJ	388	Callistemon salignus	542547	6792982	390	1.23	
21/4/17	GM/MJ	426	Callistemon salignus	542512	6792989	397	1.26	
17/3/17	GM/SR	99	Camphor laurel	542562	6792823	367	1.16	
27/3/17	GM/SR	224	Camphor laurel	542701	6792495	1500	4.71	Codominant X 4
27/3/17	GM/SR	225	Camphor laurel	542695	6792498	950	2.98	Codominant X 3
20/4/17	GM/MJ	317	Camphor laurel	542720	6792339	655	2.07	Codominant x 3
20/4/17	GM/MJ	319	Camphor laurel	542731	6792348	355	1.11	
20/4/17	GM/MJ	321	Camphor laurel	542733	6792343	337	1.05	Codominant x 4
20/4/17	GM/MJ	322	Camphor laurel	5422739	6792346	452	1.42	Codominant x 3
20/4/17	GM/MJ	327	Camphor laurel	542743	6792356	687	2.16	
20/4/17	GM/MJ	328	Camphor laurel	542734	6792355	450	1.42	Codominant x 2
5/5/17	GM/SR/NP	535	Camphor laurel	542565	6792760	370	1.16	
5/5/17	GM/SR/NP	557	Camphor laurel	542567	6792679	1235	3.87	
5/5/17	GM/SR/NP	558	Chinese rain tree	542580	6792670	300	0.94	
5/5/17	GM/SR/NP	563	Chinese rain tree	542583	6792651	450	1.42	
5/5/17	GM/SR/NP	564	Chinese rain tree	542592	6792651	540	1.71	
5/5/17	GM/SR/NP	513	Coastal cypress	542529	6792813	385	1.21	
5/5/17	GM/SR/NP	545	Coastal cypress	542581	6792749	330	1.04	
13/3/17	DR/SR	78	Coastal cypress	542518	6792890	593	1.86	
17/3/17	GM/SR	113	Coastal cypress	542585	6792759	380	1.19	
20/4/17	GM/MJ	348	Coastal cypress	542551	6792934	335	1.05	
21/4/17	GM/MJ	417	Endiandra sieberi	542539	6792997	310	0.97	
20/4/17	GM/MJ	342	Endiandra sieberi	542532	6792926	337	1.07	
20/4/17	GM/MJ	361	Endiandra sieberi	542534	6792963	307	0.97	
20/4/17	GM/MJ	362	Endiandra sieberi	542539	6792960	319	1.00	
20/4/17	GM/MJ	366	Endiandra sieberi	542558	6792980	425	1.34	
20/4/17	GM/MJ	369	Endiandra sieberi	542556	6792996	378	1.19	
20/4/17	GM/MJ	372	Endiandra sieberi	542575	6792993	325	1.02	
20/4/17	GM/MJ	376	Endiandra sieberi	542555	6793002	344	1.08	
20/4/17	GM/MJ	377	Endiandra sieberi	542552	6793001	304	0.96	
20/4/17	GM/MJ	378	Endiandra sieberi			341	1.08	Codominant x 2
20/4/17	GM/MJ	379	Endiandra sieberi	542543	6793000	345	1.10	
20/4/17	GM/MJ	381	Endiandra sieberi	542542	6792988	390	1.23	
20/4/17	GM/MJ	382	Endiandra sieberi	542551	6792976	392	1.23	
20/4/17	GM/MJ	387	Endiandra sieberi	542547	6792971	347	1.10	
21/4/17	GM/MJ	396	Endiandra sieberi	542527	6792931	365	1.15	
21/4/17	GM/MJ	400	Endiandra sieberi	542529	6792927	430	1.36	
21/4/17	GM/MJ	405	Endiandra sieberi	542511	6792967	440	1.39	
21/4/17	GM/MJ	407	Endiandra sieberi	542523	6792976	301	0.95	

Date	Observer	Tree number	Species	Easting	Northing	DBH (mm)	Circumference (m)	Notes
21/4/17	GM/MJ	409	Endiandra sieberi	542514	6792975	415	1.30	
21/4/17	GM/MJ	411	Endiandra sieberi	542530	6792983	445	1.40	
21/4/17	GM/MJ	412	Endiandra sieberi	542534	6792982	325	1.02	Codominant x 2
21/4/17	GM/MJ	413	Endiandra sieberi	542530	6792981	345	1.08	
21/4/17	GM/MJ	415	Endiandra sieberi	542531	6792991	335	1.06	Codominant x 3
21/4/17	GM/MJ	419	Endiandra sieberi	542536	6792998	350	1.10	
21/4/17	GM/MJ	427	Endiandra sieberi	542515	6793001	459	1.44	
21/4/17	GM/MJ	428	Endiandra sieberi	542518	6793006	453	1.42	
21/4/17	GM/MJ	429	Endiandra sieberi	542511	6793009	393	1.23	Codominant x 2
21/4/17	GM/MJ	430	Endiandra sieberi	542508	6793015	326	1.03	Codominant x 2
21/4/17	GM/MJ	434	Endiandra sieberi	542520	6793043	301	0.95	Codominant x 2
21/4/17	GM/MJ	461	Endiandra sieberi	5422534	6793176	382	1.20	
21/4/17	GM/MJ	462	Endiandra sieberi	542554	6793151	306	0.97	
5/5/17	GM/SR	470	Endiandra sieberi	542500	6793020	510	1.60	Codominant x 2
5/5/17	GM/SR	471	Endiandra sieberi	542508	6793016	317	1.00	Codominant x 2
5/5/17	GM/SR	472	Endiandra sieberi	542508	6793012	410	1.29	Codominant x 2
5/5/17	GM/SR	473	Endiandra sieberi	542512	67929996	465	1.46	Codominant x 4
5/5/17	GM/SR	480	Endiandra sieberi	542496	6792960	445	1.39	
5/5/17	GM/SR/NP	487	Endiandra sieberi	542523	6792935	410	1.30	
5/5/17	GM/SR/NP	527	Endiandra sieberi	542536	6792786	760	2.40	Codominant x 2
5/5/17	GM/SR/NP	539	Endiandra sieberi	542555	6792748	520	1.63	
21/4/17	GM/MJ	574	Endiandra sieberi	542524	6793015	400	1.25	Codominant x 4
5/5/17	GM/SR/NP	543	Eucalyptus spp.	542583	6792709	355	1.12	
5/5/17	GM/SR/NP	509	Eucalyptus spp.	542529	6792838	460	1.45	
5/5/17	GM/SR/NP	514	Eucalyptus spp.	542528	6792804	330	1.04	
5/5/17	GM/SR/NP	525	Eucalyptus spp.	542558	6792774	400	1.25	Codominant x 2
27/3/17	GM/SR	181	Fire wheel tree	542673	6792563	689	2.16	
28/3/17	GM/SR	273	Grey Ironbark	542715	6792412	542	1.7	
17/3/17	GM/SR	87	Grey Ironbark	542590	6792837	365	1.15	
17/3/17	GM/SR	90	Grey Ironbark	542608	6792839	488	1.54	
17/3/17	GM/SR	95	Grey Ironbark	542600	6792819	538	1.69	
17/3/17	GM/SR	102	Grey Ironbark	542610	6792797	580	1.83	
17/3/17	GM/SR	105	Grey Ironbark	542617	6792793	572	1.8	
17/3/17	GM/SR	107	Grey Ironbark	542597	6792776	435	1.37	
17/3/17	GM/SR	109	Grey Ironbark	542583	6792778	352	1.11	
17/3/17	GM/SR	116	Grey Ironbark	542609	6792773	500	1.57	
17/3/17	GM/SR	119	Grey Ironbark	542619	6792755	385	1.2	
17/3/17	GM/SR	123	Grey Ironbark	542638	6792733	350	1.1	
17/3/17	GM/SR	125	Grey Ironbark	542615	6792747	345	1.08	
17/3/17	GM/SR	126	Grey Ironbark	542605	6792748	455	1.43	
17/3/17	GM/SR	132	Grey Ironbark	542611	6792735	445	1.4	
17/3/17	GM/SR	133	Grey Ironbark	542635	6792733	424	1.33	
27/3/17	GM/SR	203	Grey Ironbark	542731	6792504	691	2.17	
27/3/17	GM/SR	204	Grey Ironbark	542726	6792500	486	1.53	
27/3/17	GM/SR	207	Grey Ironbark	542750	6792490	335	1.05	
27/3/17	GM/SR	212	Grey Ironbark	542770	6792477	411	1.3	
27/3/17	GM/SR	221	Grey Ironbark	542727	679246	718	2.25	
27/3/17	GM/SR	222	Grey Ironbark	542718	6792486	610	1.92	
27/3/17	GM/SR	228	Grey Ironbark	542707	6792477	780	2.45	
27/3/17	GM/SR	229	Grey Ironbark	542705	6792474	559	1.76	
27/3/17	GM/SR	237	Grey Ironbark	542698	6792457	486	1.53	
27/3/17	GM/SR	242	Grey Ironbark	542714	6792453	631	1.98	
27/3/17	GM/SR	243	Grey Ironbark	542714	6792448	335	1.06	
27/3/17	GM/SR	246	Grey Ironbark	542735	6792454	312	0.98	
27/3/17	GM/SR	263	Grey Ironbark	542739	6792429	578	1.82	
28/3/17	GM/SR	283	Grey Ironbark	542791	6792440	379	1.19	
27/3/17	GM/SR	190	Grey Ironbark	542718	679255	752	2.36	
5/5/17	GM/SR/NP	522	Grey ironbark	542571	6792784	390	1.22	
17/3/17	GM/SR	172	Jacaranda	542621	6792619	945	2.57	
27/3/17	GM/SR	195	Jacaranda	542702	679256	448	1.4	
13/3/17	DR/SR	36	Eucalyptus spp	542589	6792963	547	1.71	
17/3/17	GM/SR	166	Mango tree	542641	6792642	471	1.49	
17/3/17	GM/SR	170	Mango tree	542644	6792665	315	1	
17/3/17	GM/SR	171	Mango tree	542621	6792633	359	1.13	
17/3/17	GM/SR	173	Mango tree	542640	6792589	953	2.98	

Date	Observer	Tree number	Species	Easting	Northing	DBH (mm)	Circumference (m)	Notes
27/3/17	GM/SR	180	Mango tree	542676	6792574	465	1.48	
13/3/17	DR/SR	45	Mel quinquenervia	542599	679299	405	1.28	
17/3/17	GM/SR	140	Mel quinquenervia	542591	6792693	467	1.47	
17/3/17	GM/SR	158	Mel quinquenervia	542608	6792670	605	1.9	
20/4/17	GM/MJ	359	Mel quinquenervia	542553	6792956	375	1.18	
28/4/17	GM/NP	467	Mel saligna	542495	6793291	380	1.20	
10/3/17	NP/SR	8	Mel. quinquenervia	0542561	6793167	437	1.39	
10/3/17	NP/SR	9	Mel. quinquenervia	0542558	6793168	450	1.28	
5/5/17	GM/SR	477	Mel. quinquenervia	542496	6792968	505	1.59	
5/5/17	GM/SR/NP	550	Mel. quinquenervia	542590	6792697	495	1.56	
5/5/17	GM/SR/NP	559	Mel. quinquenervia	542592	6792673	510	1.60	
20/4/17	GM/MJ	383	Melaleuca sieberi	542547	6792967	388	1.22	
20/4/17	GM/MJ	357	Melaleuca sieberi	542544	6792949	310	0.98	
27/3/17	GM/SR	178	Melaleuca spp.	542668	6792608	673	2.11	
27/3/17	GM/SR	199	Norfolk Pine	542649	6792649	593	1.86	
27/3/17	GM/SR	176	Norfolk Pine	542687	6792608	390	1.23	
5/5/17	GM/SR/NP	573	Norfolk pine	542642	6792551	465	1.46	
17/3/17	GM/SR	148	Pink Bloodwood	542654	6792703	475	1.5	
13/3/17	DR/SR	24	Pink bloodwood	542580	6793048	385	1.24	
13/3/17	DR/SR	25	Pink bloodwood	542578	6793048	320	1.10	
13/3/17	DR/SR	32	Pink bloodwood	542544	6793031	385	1.2	
13/3/17	DR/SR	33	Pink bloodwood	542587	6792987	350	1.11	
13/3/17	DR/SR	42	Pink Bloodwood	542591	6792920	660	2.06	
13/3/17	DR/SR	53	Pink bloodwood	542591	6792863	380	1.20	
13/3/17	DR/SR	54	Pink Bloodwood	542578	6792866	495	1.55	
13/3/17	DR/SR	56	Pink Bloodwood	542573	6792855	456	1.43	
13/3/17	DR/SR	57	Pink Bloodwood	542570	6792848	360	1.13	
13/3/17	DR/SR	59	Pink Bloodwood	542572	6792830	362	1.14	
13/3/17	DR/SR	62	Pink bloodwood	542561	6792841	370	1.15	
13/3/17	DR/SR	63	Pink bloodwood	542556	6792841	328	1.02	
13/3/17	DR/SR	66	Pink bloodwood	542561	6792841	345	1.09	
13/3/17	DR/SR	68	Pink bloodwood	542555	6792855	350	1.1	
13/3/17	DR/SR	69	Pink bloodwood	542548	6792853	441	1.39	
13/3/17	DR/SR	70	Pink bloodwood	542543	6792853	433	1.36	
13/3/17	DR/SR	72	Pink bloodwood	542550	6792861	380	1.2	
17/3/17	GM/SR	79	Pink bloodwood	542602	6792854	429	1.35	
17/3/17	GM/SR	85	Pink bloodwood	542590	6792841	416	1.31	
17/3/17	GM/SR	93	Pink bloodwood	542605	6792834	302	0.95	Codominant trunk x 2
17/3/17	GM/SR	98	Pink bloodwood	542576	6792820	365	1.15	
17/3/17	GM/SR	103	Pink bloodwood	542609	6792815	420	1.32	
17/3/17	GM/SR	104	Pink bloodwood	542622	6792803	374	1.18	
17/3/17	GM/SR	106	Pink bloodwood	542598	6792784	413	1.3	
17/3/17	GM/SR	110	Pink bloodwood	542581	6792777	395	1.25	
17/3/17	GM/SR	112	Pink bloodwood	542586	6792792	463	1.46	
17/3/17	GM/SR	114	Pink bloodwood	542602	6792782	236	0.73	Codominant trunk x 2
17/3/17	GM/SR	121	Pink bloodwood	542644	6792744	310	0.98	
17/3/17	GM/SR	122	Pink bloodwood	542642	6792726	308	0.98	
17/3/17	GM/SR	124	Pink bloodwood	542632	6792743	375	1.18	
17/3/17	GM/SR	129	Pink bloodwood	542603	6792721	390	1.23	codominant x 2
17/3/17	GM/SR	130	Pink bloodwood	542606	6792731	390	1.22	
17/3/17	GM/SR	131	Pink bloodwood	542612	6792725	441	1.38	
17/3/17	GM/SR	135	Pink bloodwood	542631	6792726	325	1.02	
17/3/17	GM/SR	136	Pink bloodwood	542614	6792712	510	1.61	
17/3/17	GM/SR	138	Pink bloodwood	542602	6792699	486	1.53	
17/3/17	GM/SR	143	Pink bloodwood	542635	6792708	476	1.5	
17/3/17	GM/SR	145	Pink bloodwood	542635	6792710	400	1.26	
27/3/17	GM/SR	191	Pink bloodwood	542726	6792571	527	1.66	
27/3/17	GM/SR	201	Pink bloodwood	542729	6792514	640	2	
27/3/17	GM/SR	202	Pink bloodwood	542725	6792507	495	1.56	
27/3/17	GM/SR	206	Pink bloodwood	542750	6792502	397	1.25	
27/3/17	GM/SR	208	Pink bloodwood	542753	6792486	429	1.34	
27/3/17	GM/SR	209	Pink bloodwood	542763	6792482	311	0.98	
27/3/17	GM/SR	213	Pink bloodwood	542771	692468	317	1	
27/3/17	GM/SR	220	Pink bloodwood	542743	6792479	328	1.03	
27/3/17	GM/SR	223	Pink bloodwood	542711	6792488	423	1.33	

Date	Observer	Tree number	Species	Easting	Northing	DBH (mm)	Circumference (m)	Notes
27/3/17	GM/SR	226	Pink bloodwood	542695	6792506	658	2.06	Codominant x 3
27/3/17	GM/SR	230	Pink bloodwood	542702	6792474	333	1.05	
27/3/17	GM/SR	236	Pink bloodwood	542702	6792462	379	1.19	
27/3/17	GM/SR	238	Pink bloodwood	542699	6792451	377	1.18	
27/3/17	GM/SR	239	Pink bloodwood	542699	6792451	454	1.43	
27/3/17	GM/SR	241	Pink bloodwood	542714	6792454	395	1.24	
27/3/17	GM/SR	245	Pink bloodwood	542719	6792458	328	1.03	
27/3/17	GM/SR	253	Pink bloodwood	542778	6792440	334	1.05	
27/3/17	GM/SR	256	Pink bloodwood	542771	6792430	285	0.9	
27/3/17	GM/SR	260	Pink bloodwood	542758	6792440	325	1.02	
27/3/17	GM/SR	261	Pink bloodwood	542755	6792423	503	1.58	
27/3/17	GM/SR	262	Pink bloodwood	542750	6792424	437	1.37	
28/3/17	GM/SR	268	Pink bloodwood	542710	6792428	414	1.3	
28/3/17	GM/SR	278	Pink bloodwood	542766	6792420	300	0.94	
28/3/17	GM/SR	280	Pink bloodwood	542780	6792434	350	1.1	
28/3/17	GM/SR	290	Pink bloodwood	542784	6792409	368	1.15	
28/3/17	GM/SR	291	Pink bloodwood	542772	6792408	428	1.35	Codominant x 2
28/3/17	GM/SR	306	Pink bloodwood	542742	6792375	456	1.43	
20/4/17	GM/MJ	336	Pink bloodwood	542531	6792908	440	1.38	
20/4/17	GM/MJ	337	Pink bloodwood	542540	6792920	327	1.03	
20/4/17	GM/MJ	343	Pink bloodwood	542536	6792927	408	1.28	
20/4/17	GM/MJ	344	Pink bloodwood	542547	6792915	325	1.03	
20/4/17	GM/MJ	347	Pink bloodwood	542551	67927	404	1.27	
20/4/17	GM/MJ	374	Pink bloodwood	5422568	6792998	550	1.72	
21/4/17	GM/MJ	395	Pink bloodwood	542529	6792925	666	2.09	
21/4/17	GM/MJ	398	Pink bloodwood	542535	6792928	350	1.10	
21/4/17	GM/MJ	399	Pink bloodwood	542533	6792929	325	1.34	
5/5/17	GM/SR/NP	507	Pink bloodwood	542520	6792837	885	2.78	
5/5/17	GM/SR/NP	511	Pink bloodwood	542538	6792844	375	1.18	
5/5/17	GM/SR/NP	516	Pink bloodwood	5422536	6792794	460	1.45	
5/5/17	GM/SR/NP	524	Pink bloodwood	542574	6792771	360	1.23	
5/5/17	GM/SR/NP	526	Pink bloodwood	542546	6792779	300	0.95	Codominant x 2
5/5/17	GM/SR/NP	531	Pink bloodwood	542561	6792772	425	1.34	
5/5/17	GM/SR/NP	532	Pink bloodwood	542565	6792766	620	1.94	
5/5/17	GM/SR/NP	533	Pink bloodwood	542558	6792764	490	1.54	Codominant x 2
5/5/17	GM/SR/NP	536	Pink bloodwood	542565	6792760	570	1.78	
5/5/17	GM/SR/NP	537	Pink bloodwood	542563	6792755	400	1.25	
5/5/17	GM/SR/NP	538	Pink bloodwood	542550	6792744	590	1.85	
5/5/17	GM/SR/NP	542	Pink bloodwood	542575	6792740	385	1.21	
5/5/17	GM/SR/NP	548	Pink bloodwood	542569	6792717	620	1.94	
5/5/17	GM/SR/NP	551	Pink bloodwood	542587	6792685	450	1.42	
27/3/17	GM/SR	193	Pinus spp.	542648	6792547	443	1.39	
27/3/17	GM/SR	194	Pinus spp.	542649	6792542	415	1.3	
17/3/17	GM/SR	174	Poinciana	542649	6792639	504	1.58	Codominant trunk x 3
27/3/17	GM/SR	200	Poinciana	542662	6792489	499	1.56	
27/3/17	GM/SR	177	Poinciana	542688	6792599	455	1.43	Codominant trunk x 6
5/5/17	GM/SR/NP	565	Poinciana	542609	6792640	485	1.53	Codominant x 2
5/5/17	GM/SR/NP	566	Radiata pine	542629	6792578	685	2.15	
5/5/17	GM/SR/NP	567	Radiata pine	542639	6792577	475	1.49	
5/5/17	GM/SR/NP	568	Radiata pine	542635	6792578	635	2.00	
5/5/17	GM/SR/NP	569	Radiata pine	542641	6792571	415	1.31	
5/5/17	GM/SR/NP	570	Radiata pine	542641	6792563	625	1.97	
5/5/17	GM/SR/NP	570	Radiata pine	542644	6792560	490	1.54	
5/5/17	GM/SR/NP	572	Radiata pine	542641	6792555	438	1.38	
21/4/17	GM/MJ	435	Red bloodwood	542523	6793042	403	1.27	
27/3/17	GM/SR	188	Red Cedar	542702	6792553	446	1.4	
27/3/17	GM/SR	189	Red Cedar	542704	6792548	395	1.24	
10/3/17	NP/SR	1	Red Mahogany	0542553	6793180	390	1.23	Co-dominant trunks x 3
10/3/17	NP/SR	13	Red Mahogany	0542551	6793141	990	3.11	
13/3/17	DR/SR	26	Red mahogany	542561	6793040	990	3.1	
13/3/17	DR/SR	29	Red mahogany	542540	6793052	415	1.3	
13/3/17	DR/SR	34	Red mahogany	542572	6792970	446	1.4	
13/3/17	DR/SR	38	Red mahogany	542582	6792952	530	1.67	
13/3/17	DR/SR	39	Red mahogany	542561	6792943	445	1.40	
13/3/17	DR/SR	40	Red mahogany	542565	6792936	775	2.43	

Date	Observer	Tree number	Species	Easting	Northing	DBH (mm)	Circumference (m)	Notes
13/3/17	DR/SR	65	Red mahogany	542560	6792840	545	1.72	
13/3/17	DR/SR	74	Red mahogany	542575	6792897	590	1.85	
13/3/17	DR/SR	75	Red mahogany	542562	6792896	562	1.76	
13/3/17	DR/SR	77	Red Mahogany	542537	6792887	647	2.03	
20/4/17	GM/MJ	338	Red mahogany	542523	6792908	780	2.45	
20/4/17	GM/MJ	340	Red mahogany	542527	6792919	505	1.59	
20/4/17	GM/MJ	341	Red mahogany	542533	6792920	383	1.20	
20/4/17	GM/MJ	349	Red mahogany	542553	6792936	515	1.62	
20/4/17	GM/MJ	352	Red mahogany	542563	6792948	430	1.35	
28/4/17	GM/NP	463	Red mahogany	529985	6800085	440	1.37	Codominant x 3
20/4/17	GM/MJ	339	Red mahogany	542527	6792910	579	1.82	
20/4/17	GM/MJ	345	Red mahogany	542556	6792926	705	2.21	
20/4/17	GM/MJ	346	Red mahogany	542555	6792926	474	1.49	
20/4/17	GM/MJ	350	Red mahogany	542555	6792941	356	1.12	
20/4/17	GM/MJ	351	Red mahogany	542557	6792945	345	1.08	
20/4/17	GM/MJ	353	Red mahogany	542560	6792952	465	1.46	
20/4/17	GM/MJ	354	Red mahogany	542572	6792956	344	1.08	
20/4/17	GM/MJ	355	Red mahogany	542564	6792956	475	1.50	
20/4/17	GM/MJ	358	Red mahogany	542536	6792947	433	1.36	
20/4/17	GM/MJ	360	Red mahogany	542535	6792958	730	2.29	
20/4/17	GM/MJ	363	Red mahogany	542548	6792964	386	1.21	
20/4/17	GM/MJ	364	Red mahogany	542557	6792963	452	1.42	
20/4/17	GM/MJ	365	Red mahogany	542553	6792963	385	1.20	
20/4/17	GM/MJ	375	Red mahogany	542563	6793000	41	1.31	
20/4/17	GM/MJ	380	Red mahogany	542548	6793001	450	1.40	
20/4/17	GM/MJ	386	Red mahogany	542542	6792977	380	1.19	
20/4/17	GM/MJ	391	Red mahogany	542531	6792966	495	1.56	
20/4/17	GM/MJ	392	Red mahogany	542533	6792953	507	1.60	
20/4/17	GM/MJ	393	Red mahogany	542529	6792956	385	1.21	
20/4/17	GM/MJ	394	Red mahogany	542528	6792966	556	1.77	
21/4/17	GM/MJ	406	Red mahogany	542518	6792966	479	1.50	
21/4/17	GM/MJ	408	Red mahogany	542523	6792976	478	1.50	
21/4/17	GM/MJ	410	Red mahogany	542522	6792986	605	1.89	
21/4/17	GM/MJ	414	Red mahogany	542531	6792989	439	1.38	
21/4/17	GM/MJ	416	Red mahogany	542532	6792994	509	1.60	
21/4/17	GM/MJ	418	Red mahogany	542540	6792999	488	1.56	
21/4/17	GM/MJ	421	Red mahogany	542519	6792988	532	1.67	
21/4/17	GM/MJ	423	Red mahogany	542528	6792993	390	1.22	
21/4/17	GM/MJ	424	Red mahogany	542527	6792996	688	2.16	
21/4/17	GM/MJ	439	Red mahogany	542522	6793076	380	1.20	
21/4/17	GM/MJ	440	Red mahogany	542506	6793102	34	1.06	
21/4/17	GM/MJ	446	Red mahogany	542507	6793112	360	1.13	
21/4/17	GM/MJ	449	Red mahogany	542524	6793142	875	2.75	
21/4/17	GM/MJ	451	Red mahogany	542535	6793143	495	1.56	
21/4/17	GM/MJ	452	Red mahogany	542498	6793151	427	1.34	
21/4/17	GM/MJ	453	Red mahogany	542508	6793170	690	2.18	
21/4/17	GM/MJ	454	Red mahogany	542500	6793181	315	0.99	
21/4/17	GM/MJ	455	Red mahogany	542497	6793189	814	2.56	
21/4/17	GM/MJ	456	Red mahogany	542522	6793187	345	1.05	
21/4/17	GM/MJ	457	Red mahogany	542524	6793186	304	0.95	
21/4/17	GM/MJ	459	Red mahogany	542532	6793164	655	2.06	
21/4/17	GM/MJ	460	Red mahogany	542532	6793168	850	2.67	
28/4/17	GM/NP	465	Red mahogany	542489	6793265	560	1.76	
28/4/17	GM/NP	466	Red mahogany	542489	6793265	555	1.76	
5/5/17	GM/SR	475	Red mahogany	542511	6792972	382	1.20	
5/5/17	GM/SR	476	Red mahogany	542512	6792961	557	1.75	
5/5/17	GM/SR	478	Red mahogany	542507	6792966	726	2.28	
5/5/17	GM/SR	483	Red mahogany	542511	6792952	480	1.51	
5/5/17	GM/SR/NP	486	Red mahogany	542509	6792934	660	2.80	
5/5/17	GM/SR/NP	488	Red mahogany	542516	6792928	460	1.45	
5/5/17	GM/SR/NP	489	Red mahogany	542517	6792930	405	1.27	
5/5/17	GM/SR/NP	490	Red mahogany	542509	6792925	485	1.52	
5/5/17	GM/SR/NP	491	Red mahogany	542500	6792928	830	2.60	
5/5/17	GM/SR/NP	492	Red mahogany	542508	6792921	690	2.17	
5/5/17	GM/SR/NP	493	Red mahogany	542501	6792921	610	1.92	

Date	Observer	Tree number	Species	Easting	Northing	DBH (mm)	Circumference (m)	Notes
5/5/17	GM/SR/NP	494	Red mahogany	542515	6792919	315	0.97	
5/5/17	GM/SR/NP	495	Red mahogany	542507	6792918	350	1.10	
5/5/17	GM/SR/NP	496	Red mahogany	542509	6792917	420	1.32	
5/5/17	GM/SR/NP	497	Red mahogany	542512	6792899	330	1.04	
5/5/17	GM/SR/NP	498	Red mahogany	542511	6792905	580	1.82	
5/5/17	GM/SR/NP	499	Red mahogany	542507	6792900	445	1.40	
5/5/17	GM/SR/NP	500	Red mahogany	542524	6792900	820	2.58	
5/5/17	GM/SR/NP	501	Red mahogany	542511	6792889	600	1.91	
5/5/17	GM/SR/NP	504	Red mahogany	542513	6792866	965	3.03	
5/5/17	GM/SR/NP	508	Red mahogany	542516	6792834	555	1.74	
21/4/17	GM/MJ	433	Scribbly gum	542514	6793051	720	2.26	
27/3/17	GM/SR	182	Silky oak	542676	6792549	714	2.25	
27/3/17	GM/SR	183	Silky oak	542686	6792550	564	1.77	
27/3/17	GM/SR	196	Silky oak	542674	6792510	960	3.01	
27/3/17	GM/SR	197	Silky oak	542654	6792512	496	1.56	
17/3/17	GM/SR	127	Stag	542590	679277	1090	3.42	
27/3/17	GM/SR	216	Stag	542757	6792467	321	1.01	
28/3/17	GM/SR	269	Stag	542715	6792434	432	1.35	
20/4/17	GM/MJ	385	Stag	542538	6792969	391	1.24	
20/4/17	GM/MJ	389	Stag	542540	6792984	484	1.51	
21/4/17	GM/MJ	397	Stag	542525	6792923	320	1.00	
21/4/17	GM/MJ	402	Stag	542532	6792949	482	1.50	
21/4/17	GM/MJ	420	Stag	542538	6793008	395	1.25	
21/4/17	GM/MJ	422	Stag	542523	6792988	315	0.90	
27/3/17	GM/SR	227	Stag	542707	6792502	395	1.24	Codominant x 3
21/4/17	GM/MJ	431	Stag	542509	6793043	711	2.23	
21/4/17	GM/MJ	441	Stag	542511	6793102	604	1.90	
21/4/17	GM/MJ	442	Stag	542514	6793094	530	1.65	Codominant x 2
21/4/17	GM/MJ	443	Stag	542523	6793094	540	1.70	
21/4/17	GM/MJ	450	Stag	542525	6793144	770	2.40	
5/5/17	GM/SR	469	Stag	542491	6793027	487	1.53	
5/5/17	GM/SR	474	Stag	542508	6792988	413	1.30	
5/5/17	GM/SR	479	Stag	542506	6792959	675	2.12	
5/5/17	GM/SR	481	Stag	542500	6792954	338	1.06	
5/5/17	GM/SR/NP	534	Stag	542563	6792760	300	0.95	
13/3/17	DR/SR	35	Swamp box	542575	6792974	735	2.31	
13/3/17	DR/SR	37	Swamp Box	542579	6792957	950	2.98	
13/3/17	DR/SR	41	Swamp box	542584	6792930	463	1.46	
13/3/17	DR/SR	44	Swamp box	542593	6792911	525	1.65	
13/3/17	DR/SR	49	Swamp box	542594	6792890	510	1.6	
13/3/17	DR/SR	50	Swamp box	542591	6792890	368	1.15	Codominant x 2
13/3/17	DR/SR	51	Swamp Box	542580	6792879	520	1.63	
13/3/17	DR/SR	58	Swamp box	542572	6792841	358	1.12	
13/3/17	DR/SR	61	Swamp Box	542568	6792834	375	1.18	
13/3/17	DR/SR	73	Swamp box	542550	6792863	540	1.7	
13/3/17	DR/SR	76	Swamp box	542563	6792893	515	1.62	
17/3/17	GM/SR	81	Swamp box	542594	6792848	430	1.35	
17/3/17	GM/SR	82	Swamp box	542584	6792847	399	1.26	
17/3/17	GM/SR	83	Swamp box	542582	6792845	353	1.11	
17/3/17	GM/SR	137	Swamp box	542611	6792716	330	1.04	
17/3/17	GM/SR	139	Swamp box	542596	6792703	880	2.78	
17/3/17	GM/SR	141	Swamp box	542596	6792695	460	1.45	
17/3/17	GM/SR	142	Swamp box	542608	6792700	588	1.85	
17/3/17	GM/SR	151	Swamp box	542659	6792684	516	1.62	
17/3/17	GM/SR	152	Swamp box	542623	6792698	603	1.9	
17/3/17	GM/SR	153	Swamp box	542610	6792683	370	1.16	
17/3/17	GM/SR	154	Swamp box	542606	6792684	475	1.5	
17/3/17	GM/SR	155	Swamp box	542598	6792681	519	1.63	
17/3/17	GM/SR	156	Swamp box	542606	6792683	408	1.28	
17/3/17	GM/SR	157	Swamp box	542612	6792667	505	1.59	
17/3/17	GM/SR	159	Swamp box	542611	6792657	432	1.36	
17/3/17	GM/SR	160	Swamp box	542616	6792652	724	2.28	
17/3/17	GM/SR	161	Swamp box	542618	6792667	403	1.27	
17/3/17	GM/SR	162	Swamp box	542624	6792667	615	1.93	
17/3/17	GM/SR	163	Swamp box	542624	6792659	550	1.73	

Date	Observer	Tree number	Species	Easting	Northing	DBH (mm)	Circumference (m)	Notes
17/3/17	GM/SR	164	Swamp box	542624	6792651	634	1.99	
17/3/17	GM/SR	165	Swamp box	542635	6792654	620	1.94	
17/3/17	GM/SR	167	Swamp box	542615	6792680	462	1.45	
17/3/17	GM/SR	168	Swamp box	542614	6792678	846	2.66	
20/4/17	GM/MJ	356	Swamp box	542544	6792942	357	1.12	
21/4/17	GM/MJ	403	Swamp box	542520	6792951	428	1.02	
21/4/17	GM/MJ	404	Swamp box	542519	6792961	315	1.00	
21/4/17	GM/MJ	444	Swamp box	542530	6793094	310	0.97	
5/5/17	GM/SR	484	Swamp box	542512	6792945	461	1.45	
5/5/17	GM/SR	485	Swamp box	542513	6792939	400	1.25	
5/5/17	GM/SR/NP	502	Swamp box	542513	6792880	330	1.04	
5/5/17	GM/SR/NP	503	Swamp box	542512	6792852	340	1.07	
17/3/17	GM/SR	169	Swamp box	542648	6792674	593	1.86	
5/5/17	GM/SR/NP	505	Swamp box	542510	6792854	440	1.38	
5/5/17	GM/SR/NP	506	Swamp box	542513	6792854	305	0.92	
5/5/17	GM/SR/NP	510	Swamp box	542538	6792844	300	0.90	
5/5/17	GM/SR/NP	515	Swamp box	5422542	6792814	460	1.45	
5/5/17	GM/SR/NP	521	Swamp box	542559	6792795	395	1.24	
5/5/17	GM/SR/NP	523	Swamp box	542562	6792778	330	1.04	
5/5/17	GM/SR/NP	528	Swamp box	542533	6792781	415	1.30	Codominant x 2
5/5/17	GM/SR/NP	544	Swamp box	542575	6792712	410	1.28	
5/5/17	GM/SR/NP	546	Swamp box	542580	6792712	495	1.56	
5/5/17	GM/SR/NP	547	Swamp box	542570	6792701	405	1.28	
5/5/17	GM/SR/NP	553	Swamp box	542583	6792690	500	1.57	
5/5/17	GM/SR/NP	554	Swamp box	542578	6792693	495	1.54	
5/5/17	GM/SR/NP	555	Swamp box	542594	6792683	610	1.92	
5/5/17	GM/SR/NP	556	Swamp box	542583	6792680	450	1.42	
5/5/17	GM/SR/NP	560	Swamp box	542590	6792668	570	1.80	
5/5/17	GM/SR/NP	561	Swamp box	542582	6792664	610	1.92	
13/3/17	DR/SR	46	Tallowwood	542600	6792882	635	2	
13/3/17	DR/SR	60	Tallowwood	542570	6792835	794	2.49	
13/3/17	DR/SR	64	Tallowwood	542557	6792839	583	1.83	
17/3/17	GM/SR	80	Tallowwood	542597	6792854	677	2.12	
17/3/17	GM/SR	84	Tallowwood	542588	6792837	952	2.98	
17/3/17	GM/SR	89	Tallowwood	542614	6792816	635	2	
17/3/17	GM/SR	92	Tallowwood	542605	6792832	554	1.74	
17/3/17	GM/SR	94	Tallowwood	542589	6792836	683	2.15	
17/3/17	GM/SR	96	Tallowwood	542590	6792823	732	2.3	
17/3/17	GM/SR	100	Tallowwood	542578	6792793	540	1.7	
5/5/17	GM/SR/NP	530	Tallowwood	542545	6792767	840	2.65	Codominant x 2
5/5/17	GM/SR/NP	540	Tallowwood	542583	6792756	495	1.56	
5/5/17	GM/SR/NP	541	Tallowwood	542574	6792742	500	1.57	
5/5/17	GM/SR/NP	549	Tallowwood	542588	6792697	665	2.09	
5/5/17	GM/SR/NP	552	Tallowwood	542567	6792706	860	2.70	
5/5/17	GM/SR/NP	529	Unidentified rainforest	542535	6792775	405	1.27	Codominant x 2
5/5/17	GM/SR/NP	562	Unidentified rainforest	542586	6792660	305	0.98	
27/3/17	GM/SR	240	Unidentified rainforest	542694	6792444	323	1.01	
27/3/17	GM/SR	198	Unidentified spp	542656	6792509	525	1.65	
17/3/17	GM/SR	128	White mahogany	542591	6792720	1600	3.64	
27/3/17	GM/SR	215	White Mahogany	542771	6792454	320	1.01	
27/3/17	GM/SR	217	White Mahogany	542757	6792462	351	1.1	
27/3/17	GM/SR	248	White Mahogany	542762	6792451	523	1.64	
27/3/17	GM/SR	250	White Mahogany	542766	6792464	289	0.91	
28/3/17	GM/SR	279	White Mahogany	542778	6792433	595	1.87	
28/3/17	GM/SR	281	White Mahogany	542787	6792440	300	0.94	
28/3/17	GM/SR	282	White Mahogany	542786	6792453	362	1.13	

Table A2: Habitat trees identified in the Laws Point study area. s = small (10-50mm); m = medium (51-150mm); l = large (151-300mm); vl = very large (>300mm).

Tree no.	Tree Species	Easting	Northing	DBH (mm)	Circumference (m)	Branch	Trunk	Spout
H1	Blackbutt	542751	6792444	650	2.2	2s	1m	1m
H2	Blackbutt	542751	6792428	700	2.05	1m		1m
H3	Blackbutt	542756	672401	700	2.26			1l
H4	Blackbutt	542728	6792426	730	2.3			2m
H5	Blackbutt	542724	6792436	890	2.8	1m		
H6	Blackbutt	542713	6792437	625	1.95			1l
H7	Blackbutt	542726	6792423	550	1.73	1m		
H8	Blackbutt	542752	6792377	981	3.1	2m		
H10	Blackbutt	542704	6792382	1100	3.45	1m		1m
H11	Blackbutt	542702	6792388	1350	4.25	1l, 2m		
H12	Blackbutt	542690	6792404	1250	3.9	1m		
H13	Blackbutt	542671	6792468	1370	4.3		1l	
H15	Blackbutt	542609	6792761	1340	4.2	2l, 2m		1l
H16	Blackbutt	542629	6792768	1290	4.05	1l, 4m		
H17	Blackbutt	542642	6792724	1400	4.4	2m		
H22	Blackbutt	542521	6793078	1145	3.6			2m
H28	Blackbutt	542549	6793162	1130	3.55	1l	1l	
H32	Blackbutt	542554	6793111	1350	4.25	5l		
H37	Blackbutt	542561	6792751	1080	3.4	2s		
H9	Brush box	542747	6792355	790	2.5		1m	
H14	Forest Red Gum	542604	6792659	930	2.9	1l		
H24	Forest Red Gum	542506	6793082	1350	3.25			1l
H25	Forest Red Gum	542503	6793085	775	2.43			
H42	Broad-leaved paperbark	542588	6792658	530	1.68	1m		
H36	Sieber's paperbark	542504	6792992	290	0.9		1s	
H43	Poinciana	542629	6792597	557	1.78		2m	
H18	Red Bloodwood	542572	6792964	1100	3.34			2l
H23	Red Mahogany	542530	6793087	1100	3.18			1vl, 1l
H26	Red Mahogany	542533	6793159	950	3	1l		
H27	Red Mahogany	542528	6793183	945	2.97			1l
H29	Red Mahogany	542561	6793129	680	2.13		1l	
H30	Red Mahogany	542541	6793123	835	2.63	2m		
H31	Red Mahogany	542551	6793105	610	1.9		1m	
H33	Red Mahogany	542554	6793094	910	2.73	2m	1l	
H20	Red Mahogany	542547	6792961	1225	3.85			1vl
H19	Scribbly Gum	542523	6793020	1000	3.15	1l, 1m		
H41	Stag	542558	6792682	725	2.28	3m, 1l		
H21	Swamp Box	542559	6792974	680	2.13			1l
H34	Swamp Box	542580	6792954	917	2.88	1L	2m	
H35	Swamp box	542595	6792911	700	2.2	1m	1s	
H40	Swamp box	542553	6792704	1520	4.78	2m		
H38	Tallowwood	542581	6792733	725	2.28	3m		
H39	Tallowwood	542574	6792737	650	2.04			1l

Table A3: Weather conditions during Phase 1 koala population surveys at the Laws Point hotspot. Mlb = moves large branch; Msb = moves small branch.

Date	Survey No.	Observers (T'sects)	Start	end	Temp Range	Cloud %	Wind	Rain	Moon	Comments
23/3/2017	1-N	DR,GM,MJ =1-6; BT,NP,SR =7-12	1919	2420	22	100	Still	<2hr	3/4	
24/3/2017	1-D	DR,GM,MJ =1-6; BT,NP, SR =7-12	1137	1610	24	90	Mlb	<24hr	3/4	Rain prior to survey, cloudy, mod wind
18/4/2017	2-N	NP,SR,MJ =1-6; BT,GM, SF =7-12	1759	2315	18-20	10	Still	Fine	2/4	Shower during surveys
19/4/2017	2-D	NP,SR,GM =1-6; BT,MJ, ZE =7-12	1010	1440	22-24	10-60	Msb	Fine	2/4	
26/4/2017	3N	BT, GM. ZE=1-6; NP, MJ,SR=7-12	1745	2242	18-21	10	Msb	Fine; <24hr	4/4	Fine
27/4/2017	3D	BT, GM. ZE=1-6; NP, MJ,SR=7-12	1030	1455	19-22	10	Msb	Fine; <24hr	4/4	Fine

Table A4: Koala scat collection location data. MWR = Munro Wharf Road; TR = Tucki Road.

Collection Date	Record No.	Impact/Control	Time	T'sect/Location	Easting	Northing	No. Scats collected	Tree sp.	Collection Type
24/3/2017	K5 (S1)	I	1240	9	542798	6792683	4	Tallowwood	Off ground
24/3/2017	K4(po)	I	1240	3	542499	6792712		Red Mahogany	off ground
25/3/2017	K1	I	1240	10	542961	6792316	6	Forest red gum	off plastic
25/3/2017	C1 (S2)	C	1746	TR	531203	6801690	6	Forest red gum	Off plastic
25/3/2017	C2 (S3)	C	1801	MWR	529810	6800118	6	Forest red gum	Off plastic
25/3/2017	C3 (S4)	C	1907	MWR	528958	6800262	6	Forest red gum	Off plastic
19/4/17	K7	I	1500	3	542509	6792709		Swamp mahogany	Off ground
19/4/17	K9	I	1500	4	542571	6792695		Forest red gum	Off ground
19/4/17	K6 & K8	I	1510	11	542989	6792420		Forest red gum	off ground
19/4/17	C4	C	1610	TR	531194	6801698		Forest red gum	Off ground
19/4/17	C5	C	1622	MWR	531062	6800449		Swamp oak	Off ground
19/4/17	C6	C	1632	MWR	529080	6800242		Forest red gum	Off ground
27/4/2017	K11	I	1442	5	542563	6792703		Tallowwood	Off ground
27/4/2017	K13	I	1450	4	542519	6792753		Pink Bloodwood	Off ground
27/4/2017	K14	I	1510	11	543002	6792421		Forest red gum	Off ground
27/4/2017	C7	C	1631	MWR	529991	6800090		Swamp mahogany	Off ground
27/4/2017	C8	C	1649	MWR	529045	6800250		Forest red gum	Off ground
27/4/2017	C9	C	1655	MWR	529280	6800210		Forest red gum	Off ground

Table A5: Koala scat collection weather and health data. MWR = Munro Wharf Road; TR = Tucki Road.

Transect/Location	DBH	Temp at collection	Weather at collection	Rainfall (collection period)	Sex	Breeding	Health	Comments (activity; ear tag?)
9	180	22.4	fine. Rain<2hr	F(pr)		No	dry bottom ; robust, healthy	Sit; mid canopy
3	nr	24.2	fine, cloudy	10mm over night		No		Koala not present at time of survey
10	nr	22	cloudy	10mm over night	F	No	good	Sleeping high in canopy; been in tree for 2 days
TR	390	21	fine, cloudy	10mm over night	F	No	dry bottom ; clear eyes	Sit; mid canopy
MWR	380	21	fine, cloudy	10mm over night	M(pr)	No	Obstructed view	Sit; upper canopy
MWR		21	fine, cloudy	10mm over night	M(pr)	No	Good	Sleeping
3	750	23	Fine and windy	5mm O/N	?	NA	Dry bottom	
4	700	23	Fine and windy	5mm O/N	F?	No	Dry bottom	
11	850	23	Fine and windy	5mm O/N	F(ad); F (sub)	no	Healthy	Sit mid canopy & upper canopy
TR	350	23	Fine and windy	5mm on	F?	No	Dry	Sit, low
MWR	380	22	Fine and windy	5mm on	?	No	Dry	Sitting mid, climbed to very top
MWR	400	22	Fine and windy	5mm O/N	F?	No	Dry	Sitting mid, climbed to top
5	900	19	Fine	Nil	M	No	Dry bum, injured L eye	
4	750	19	Fine	Nil	F	No	Dry bum	
11	850	19	Overcast	Nil	F	No	Healthy; dry bum	
MWR	350	16	Fine, cloudy	Nil	F?	No	Dry	
MWR	450	16	Fine, cloudy	Nil	?	No	Dry	
MWR	350	17	Fine, cloudy	Nil	F?	No	Dry	