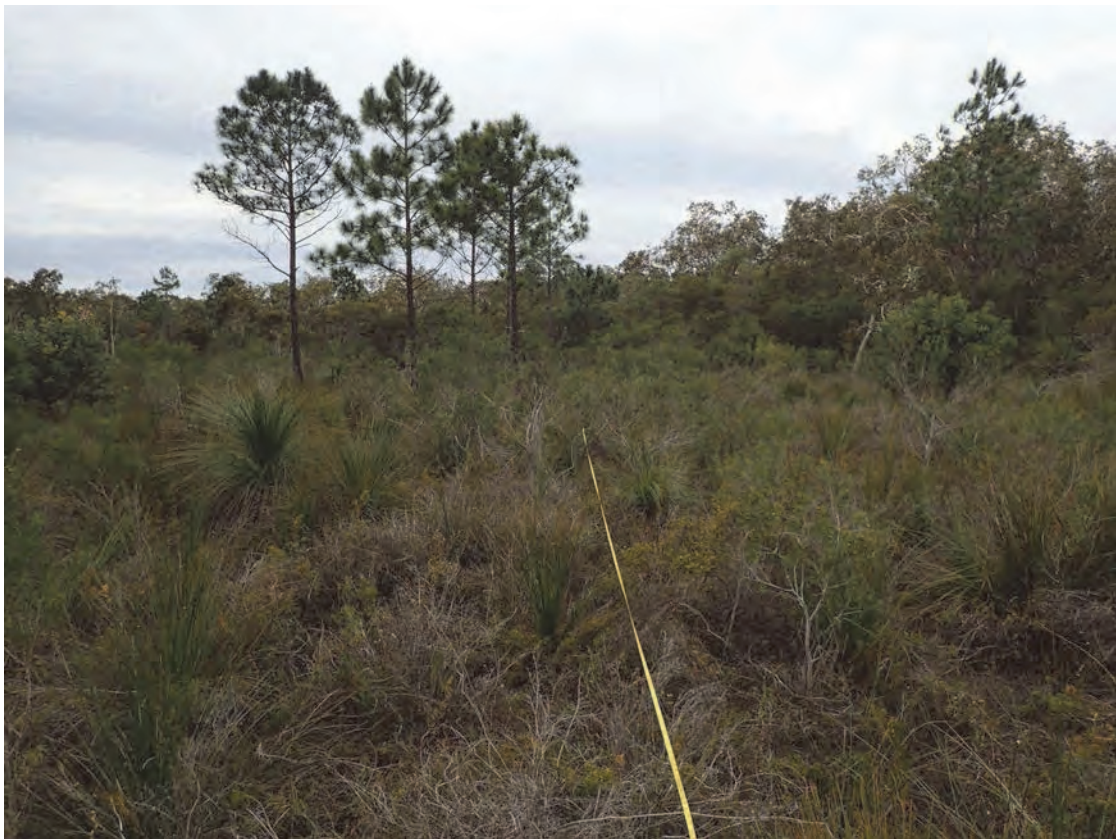
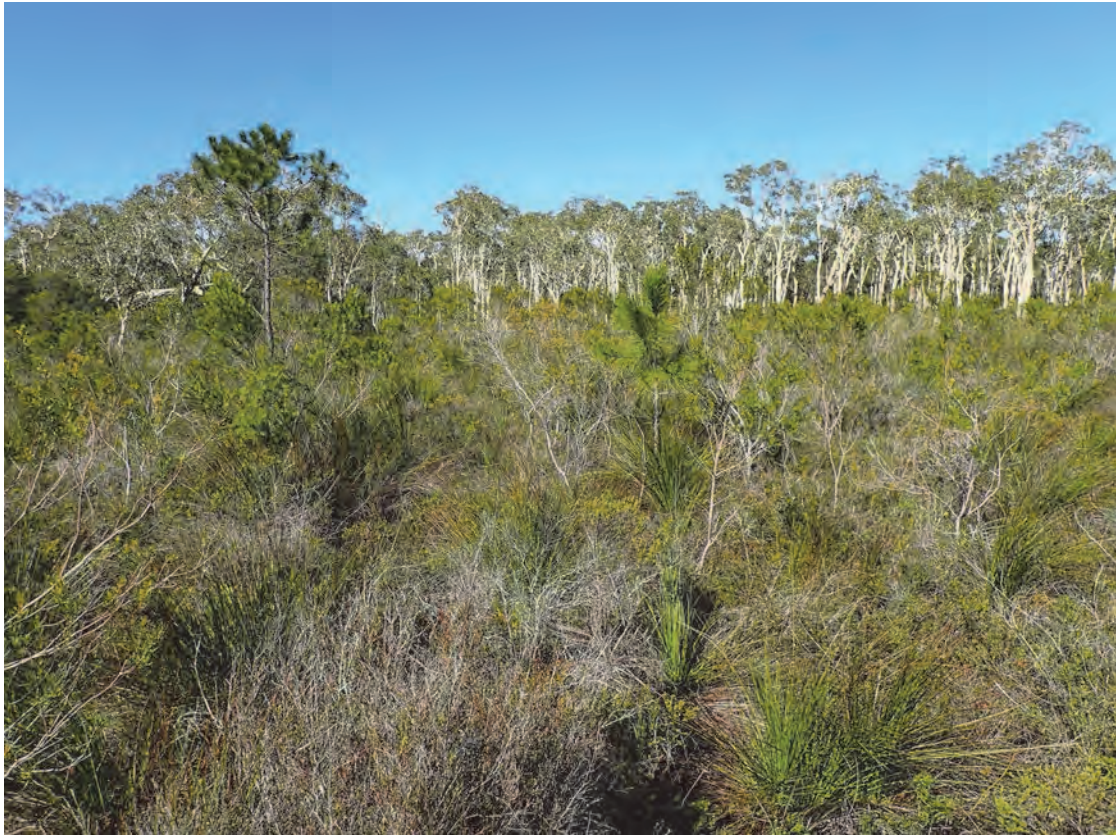




Plot 5b – Centre to End: April 2017 (Above) and October 2017 (Below).





Plot 5b – Centre to Right; April 2017 (left) and October 2017 (right).





Plot 5b – Centre to Left: April 2016 (Above) and September 2016 (Below).



Survey Locality 5c

Date of Assessment: 04.04.2016 (14.00); 29.09.2016 (12.00).

Plot Size: 50 m linear transect (Canopy Cover); 50 x 4m transect for S2 shrubs >0.5m; 10 x 1m x 1m quadrats for Ground Cover.

Location (Plot Centreline): Start -26.99467/ 153.15883; Finish -26.99447/ 153.15929

Structure: Heath

Shrub Cover** – Canopy Intercept (>50cm) (summarised 50 m transect)

April 2017

Intercept (m)	Species	Shrubs > 1m		Shrubs >0.5 to <1m	
		Intercept S1	Height (M)	Intercept S1	Height (M)
8.8 - 10	<i>Persoonia virgata</i>	1.2	1.8		
12.6 - 13.7	<i>Persoonia virgata</i>	1.1	1.5		
15 - 16.4	<i>Persoonia virgata</i>	1.4	1.6		
29.5 - 30.1	<i>Pinus elliotii</i> ***	0.6	5		
38 - 38.6	<i>Leucopogon leptospermoides</i>	0.6	1		
41.6 - 43.6	<i>Persoonia virgata</i>	2.0	2.2		
47.8 - 48.5	<i>Persoonia virgata</i>	0.7	1.5		
49.3 - 50	<i>Leptospermum semibaccatum</i>			0.7	0.6
Total Cover		7		0.7	
Average Height			1.6		0.6

*** Tree not included in cover calculation

October 2017

Intercept (m)	Species	Shrubs > 1m		Shrubs >0.5 to <1m	
		Intercept S1	Height (M)	Intercept S1	Height (M)
8.9 - 9,7	<i>Persoonia virgata</i>	0.8	1.8		
12.7 - 13.8	<i>Persoonia virgata</i>	1.1	1.5		
15.1 - 16.2	<i>Persoonia virgata</i>	1.1	1.4		
29.5 - 30.1	<i>Pinus elliotii</i> ***	0.6	5		
29.5 - 30.0	<i>Persoonia virgata</i>	0.5	1.2		
38 - 38.5	<i>Leucopogon leptospermoides</i>	0.5	1		
41.5 - 43.4	<i>Persoonia virgata</i>	1.9	2.2		
47.7 - 48.4	<i>Persoonia virgata</i>	0.7	1.5		
Total Cover		6.6			
Average Height			1.7		

*** Tree not included in cover calculation

Stem Counts (50 x 4) – Shrubs > 0.5m

Species	50 m x 4 m Stems (50x4m) April 2017	50 m x 4 m Stems (50x4m) October 2017
		S2
<i>Persoonia virgata</i>	24	22
<i>Leucopogon leptospermoides</i>	5	7
<i>Leptospermum semibaccatum</i>	1	4
<i>Dillwynia floribunda</i>	3	0

<i>Strangea linearis</i>		1
<i>Epacris pulchella</i>		1
Totals	33	35

Ground Cover %- 1 x 1m Sub-plots

April 2017

Ground Cover Type	Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Mean April 16
Native perennial grass / sedges	<i>Cautis recurvata</i>			20		10	15	20	15	25	20	31.1
	<i>Hypolaena fastigiata</i>								2	1	2.5	
	<i>Gahnia seiberiana</i>			15								
	<i>Sporodanthus interruptus</i>	10	10	15	30	10	10	15				
	<i>Baloskion tenuiculme</i>					10	10	15	10	10		
	<i>Lomandra elongata</i>			2.5					2.5			
	<i>Lomandra sp. (Strappy)</i>	2.5										
Native forbs and other spp.	<i>Eriachne pallescens var. gracilis</i>			2	1							1.05
	<i>Pimelea liniifolia</i>						0.5	2.5			0.1	
	<i>Cassytha glabella</i>				2.5							
	<i>Hibbertia salicifolia</i>		2.5									
	<i>Cryptostylis erecta</i>											
	<i>Drosera bipinnata</i>						0.5					
Native shrubs ,<1m	<i>Stackhousia nuda</i>										1	12.5
	<i>Leucopogon leptospermoides</i>			1		10	2.5		2.5	2.5	10	
	<i>Strangea linearis</i>				1	2	1			2.5		
	<i>Epacris pulchella</i>						2.5					
	<i>Leptospermum semibaccatum</i>					25		20	2.5	15	10	
<i>Baeckea frutescens</i>	10	5										

Ground Cover Type	Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Mean April 16
Grass Tree	<i>Xanthorrhoea fulva</i>	65	50	45	30	30	25		10	25		28
Cryptogams												
Bare Ground		0	0	0	0	0	0	0	0	0	0	0
Exotic Shrubs	<i>Pinus elliotii</i> **											
Leaf litter		12.5	17.5	14.5	35.5	13	33	32.5	50.5	19	45.5	27.35
Timber (>/= 10cm)												
Total		100	100	100	100	100	100	100	100	100	100	100%

October 2017

Ground Cover Type	Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Mean April 16	Mean Sept. 16
Native perennial grass / sedges	<i>Caustis recurvata</i>	10	15	2.5	10	2.5		10	20	15	15	31.1	28
	<i>Gahnia seiberiana</i>												
	<i>Sporodanthus interruptus</i>	25			15			15		15	20		
	<i>Baloskion tenuiculme</i>		25		10	15							
	<i>Lomandra elongata</i>	2.5	2.5										
	<i>Lomandra sp.</i>						2.5						
	<i>Homolaena fastigiata</i>			5	10	1	2.5	5	2.5	5			
	<i>Eriachne pallescens var. gracilis</i>		1.5										
Native forbs and other spp.	<i>Pimelea liniifolia</i>										1	1.05	0.7
	<i>Patersonia sericea</i>		2.5										
	<i>Cryptostylis erecta</i>												
	<i>Cassytha glabella</i>				1								
	<i>Stackhousia nuda</i>										2.5		
Native shrubs <1m	<i>Leucopogon leptospermoides</i>			1		5			2.5		15	12.5	18.3
	<i>Agortia pedicellata</i>		5		5		2.5	10	5	2.5			
	<i>Baeckea frutescens</i>	2.5				10	5	2	5				
	<i>Strangea</i>		5					2.5	5				

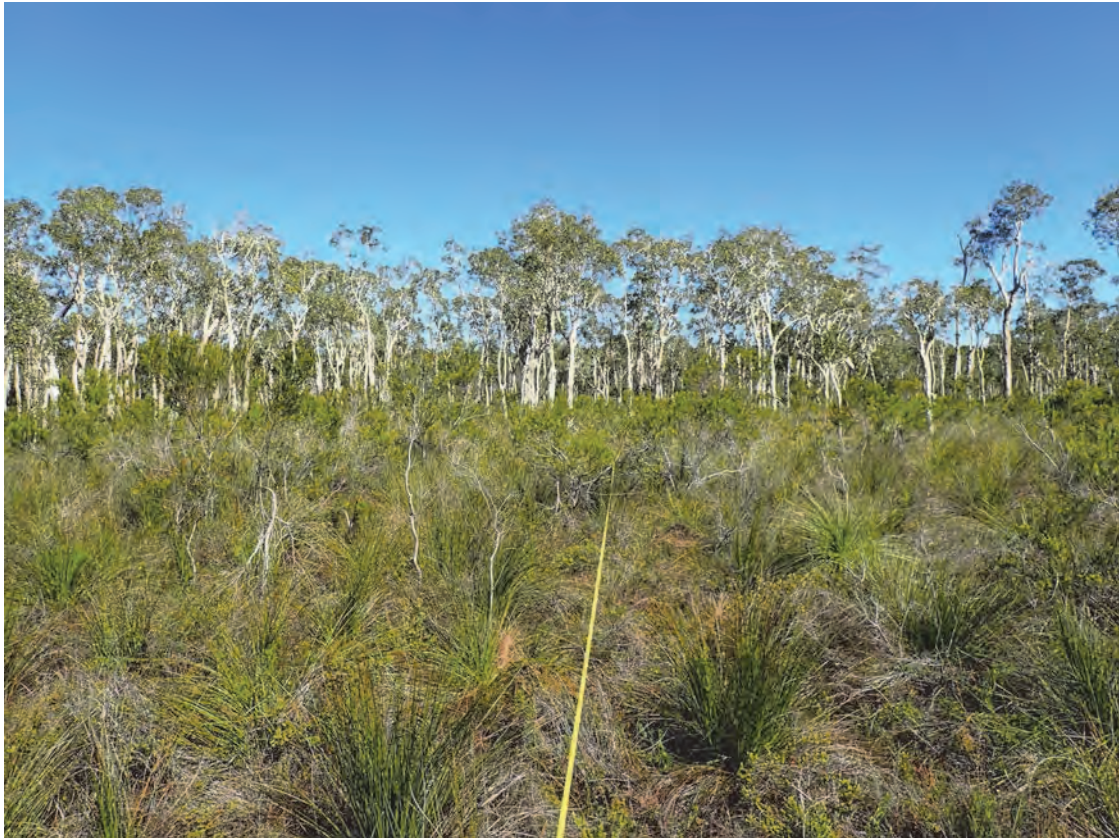
Ground Cover Type	Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Mean April 16	Mean Sept. 16
	<i>linearis</i>												
	<i>Epacris pulchella</i>			1.5									
	<i>Ochrosperma lineare</i>												
	<i>Leptospermum semibaccatum</i>		20	15	1.5	5	15	20	10	1	2.5		
	<i>Dillwynia floribunda</i>									1			
Grass Tree	<i>Xanthorrhoea fulva</i>	20	5	15	2	20	20		5	10	10	28	10.7
Cryptogams													
Bare Ground		5		5	2.5						2.5	0	1.5
Exotic Shrubs	<i>Pinus elliotii</i> **										1		0.1
Leaf litter		35	18.5	55	43	41.5	52.5	35.5	45	53	28	27.35	40.7
Timber (>= 10cm)													
Total		100	100	100	100	100	100	100	100	100	100	100%	100%

Additional Species: *Baeckia imbricata*, *Burchardia umbellata*, *Boronia Falcifolia*, *Pattersonia sericea*, *Hibbertia salicifolia*, *Austromyrtus dulcis*, *Blechnum cartilagineum*, *Banksia aemula*, *Melaleuca quinquenervia*, *Drosera binnata*, *Melaleuca pachycalyx*

Structural / Floristic Summary

BioCondition Attribute		April 2017	October 2017
Native Plant Species Richness	Tree:	.	.
	Shrub:		7
	Grass Tree		1
	Grass / Sedge		8
	Forbs and other:		9
Total Species No.**		25	
Native Shrubs	Projected Canopy Cover – Shrubs > 1m (%)	7	6.6
	Projected Canopy Cover – Shrubs >0.5 to <1m (%)	0.7	0
Native Ground cover (%):	Native perennial grass / sedge cover (%):	31.1	28
	Native shrubs (%)	12.5	18.3
	Grass tree	28	10.7
	Organic litter cover (%):	27.35	40.7
	Native forb cover (%)	1.05	0.7
Coarse woody debris:	Total length (m) of debris ≥ 10cm diameter and ≥0.5m in length per hectare	0	0
Non-native plant cover	Non-native Grasses%	0	0
	Non-native shrubs %	0	0.1

** Excludes Exotic Species



Plot 5c – Centre to Start: April 2017 (Above) and October 2017 (Below).





Plot 5c – Centre to End: April 2017 (Above) and October 2017 (Below).





Plot 5c – Centre to Right: April 2017 (Above) and October 2017 (Below).





Plot 5c – Centre to Left: April 2017 (Above) and October 2017 (Below).



Survey Locality 6a

Date of Assessment: 28.04.2017: 12:10.2017

Plot Size: 50 m linear transect (Canopy Cover); 50 x 4m transect for S2 shrubs >0.5m; 10 x 1m x 1m quadrats for Ground Cover.

Location (Plot Centreline): Start -26.985 / 153.1540431; Centre -26.9849 / 153.1542562 Finish - 26.9847 / 153.1544874

Structure: Heath

Shrub Cover** – Canopy Intercept (>50cm) (summarised 50 m transect)

April 2016

Intercept (m)	Species	Shrubs > 1m		Shrubs >0.5 to <1m	
		Intercept S1	Height (M)	Intercept S1	Height (M)
4 – 5.4	<i>Banksia aemula</i>	1.4	2.2		
10.8 – 11.5	<i>Baeckea frutescens</i>			0.7	0.8
11.9 – 12.8	<i>Baeckea frutescens</i>	0.9	1		
15.3 – 16.5	<i>Baeckea frutescens</i>			1.2	0.8
20.6 - 21	<i>Boronia falcifolia</i>			0.4	0.5
22.4 – 24.0	<i>Banksia oblongifolia</i>			1.6	0.5
27.3 – 27.8	<i>Banksia oblongifolia</i>			0.5	0.5
28 - 29	<i>Leptospermum liversedgeii</i>	1	1		
30 - 31	<i>Persoonia virgata</i>	1	1.8		
31.7 – 33.4	<i>Persoonia virgata</i>	1.7	2.2		
38.3 - 40	<i>Persoonia virgata</i>	1.7	1.8		
40.3 -41.2	<i>Persoonia virgata</i>	0.9	2		
43.9 – 46.3	<i>Boronia falcifolia</i>	2.4	1		
46.3 – 46.7	<i>Leptospermum liversidgei</i>			0.4	0.6
48.3 – 48.7	<i>Leptospermum liversidgei</i>			0.4	0.5
49.4 - 50	<i>Persoonia virgata</i>	0.6	1.8		
Total Cover		11.6		5.2	
Average Height			1.65		0.6

*** Tree not included in cover calculation

October 2017

Intercept (m)	Species	Shrubs > 1m		Shrubs >0.5 to <1m	
		Intercept S1	Height (M)	Intercept S1	Height (M)
3.8 – 5.4	<i>Banksia aemula</i>	1.6	2.4		
10.7 – 10.9	<i>Boronia Falcifolia</i>			0.2	0.7
10.4 – 11.3	<i>Baeckia frutescens</i>			0.9	0.9
11.4 – 11.7	<i>Boronia Falcifolia</i>			0.3	0.7
12.2 – 12.8	<i>Boronia Falcifolia</i>	0.6	1		
15.3 – 16.4	<i>Boronia Falcifolia</i>			1.1	0.9
18.5 – 18.8	<i>Boronia Falcifolia</i>			1.1	0.9
21.0 – 21.7	<i>Leptospermum liversedgei</i>			0.7	0.9
22.6 – 22.8	<i>Epacris oblongifolia</i>			0.2	0.8
22.8 – 24.2	<i>Banksia oblongifolia</i>			1.4	0.8
27.6 – 28.2	<i>Banksia oblongifolia</i>			0.6	0.8
28.4 - 29	<i>Leptospermum liversedgei</i>			0.6	0.9
30.4 – 31.1	<i>Persoonia virgata</i>	0.7	1.1		
32.1 – 34.2	<i>Persoonia virgata</i>	2.1	2.3		

Intercept (m)	Species	Shrubs > 1m		Shrubs >0.5 to <1m	
		Intercept S1	Height (M)	Intercept S1	Height (M)
38.6 – 40.1	<i>Persoonia virgata</i>	1.5	2.0		
39.6 – 40.2	<i>Leptospermum liversedgei</i>	0.6	1.0		
40.4 – 40.7	<i>Persoonia virgata</i>	0.3	1.8		
44.2 – 44.6	<i>Boronia Falcifolia</i>			0.4	0.8
46.6 – 46.9	<i>Leptospermum liversedgei</i>			0.3	0.8
46.8 – 47.5	<i>Banksia oblongifolia</i>			0.7	0.6
48.7 - 49	<i>Leptospermum liversedgei</i>			0.3	0.6
Total Cover		7.4		8.8	
Average Height			1.6		0.8

*** Tree not included in cover calculation

Stem Counts (50 x 4) – Shrubs > 0.5m

Species	50 m x 4 m Stems (50x4m) April 2016	50 m x 4 m Stems (50x4m) September 2016
	S2	
<i>Persoonia virgata</i>	33	37
<i>Banksia aemula</i>	1	1
<i>Banksia oblongifolia</i>	20	20
<i>Epacris pulchella</i>		
<i>Leptospermum liversedgei</i>	33	26
<i>Leptospermum semibaccatum</i>		
<i>Boronia falcifolia</i>	17	53
<i>Sprengelia sprengeliodes</i>	1	
<i>Leucopogon leptospermoides</i>	3	3
<i>Baeckea frutescens</i>	7	4
<i>Dilwynnia floribunda</i>		
<i>Epacris obtusifolia</i>		
<i>Olax retusa</i>		
<i>Phyllota phyllocoides</i>		
<i>Aotus lanigera</i>	2	2
<i>Strangea linearis</i>		
<i>Connospermum taxifolium</i>		
Totals	125	142

Ground Cover %- 1 x 1m Sub-plots

April 2017

Ground Cover Type	Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Mean April 17
Native perennial grass / sedges	<i>Caustis recurvata</i>	2.5	5	10	5		5					21
	<i>Sporodanthus interruptus</i>	30	30	20	25	15	10	5	10	10	10	
	<i>Lomandra longifolia</i>					5						
	<i>Lomandra elongata</i>	2.5	2.5	5								
	<i>Hypolaena fastigiata</i>	2.5										
Native forbs and other spp.	<i>Pimelea liniifolia</i>											0.65
	<i>Cassytha glabella</i>			1								
	<i>Hibbertia salicifolia</i>							0.5	2.5		2.5	
Native shrubs ,<1m	<i>Boronia falcifolia</i>								2.5	10	5	17.75
	<i>Baেকে imbricata</i>						10	5			10	
	<i>Leucopogon leptospermoides</i>		15									
	<i>Banksia oblongifolia</i>					10	10	10	5			
	<i>Strangea linearis</i>				5	5						
	<i>Leptospermum liversidgei</i>								5	15	10	
	<i>Leptospermum semibaccatum</i>	15		5	5							
	<i>Sprengelia sprengelioids</i>		2.5					2.5			5	
	<i>Olax retusa</i>							5				
	<i>Aotus lanigera</i>									1		
	<i>Orange Stem</i>					2						
	<i>Persoonia virgata</i>					1						
	<i>Homoranthus virgatus</i>						1					
Grass Tree	<i>Xanthorrhoea fulva</i>			5	5	30	20	70	50	30	25	23.5
Cryptogams												
Bare Ground												
Exotic Shrubs												
Leaf litter		12.5	17.5	14.5	35.5	13	33	32.5	50.5	19	45.5	27.35
Timber (>/= 10cm)												

Ground Cover Type	Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Mean April 17
Total		100	100	100	100	100	100	100	100	100	100	100%

October 2017

Ground Cover Type	Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Mean April 17	Mean Oct. 17
Native perennial grass / sedges	<i>Caustis recurvata</i>	2.5		5	1							21	19.45
	<i>Sporodanthus interruptus</i>	30	20	10	25	20	5	10	15	15	10		
	<i>Lomandra longifolia</i>	2.5				10							
	<i>Lomandra elongata</i>			10									
	<i>Eriachne pallescens</i>						1						
	<i>Hypolaena fastigiata</i>	2.5											
Native forbs and other spp.	<i>Pimelea liniifolia</i>					1	1					0.65	1.5
	<i>Cassytha glabella</i>										1		
	<i>Hibbertia salicifolia</i>								2.5	5	2.5		
	<i>Stackhousia nuda</i>						1						
	<i>Burchardia umbellata</i>								1				
Native shrubs ,<1m	<i>Boronia falcifolia</i>		2.5		5				5	10	10	17.75	17.2
	<i>Baeckea imbricata</i>			5	1		2.5			1			
	<i>Baeckea frutescens</i>							5	2.5		2.5		
	<i>Leucopogon leptospermoides</i>		10										
	<i>Banksia oblongifolia</i>						15	5	10				
	<i>Strangea linearis</i>				5	5	2.5						
	<i>Epacris pulchella</i>			1			1			2.5			
	<i>Epacris oblongifolia</i>									1			
	<i>Leptospermum liversidgei</i>									5	5		
	<i>Leptospermum semibaccatum</i>	25	1	5	2.5								
	<i>Sprengelia</i>				5	5	2.5						

Ground Cover Type	Species	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Mean April 17	Mean Oct. 17
	<i>sprengelioides</i>												
	<i>Oxal retusa</i>						2						
	<i>Connospermum taxifolia</i>					7.5							
	<i>Dillwynia foribunda</i>	1	1		1								
Grass Tree	<i>Xanthorrhoea fulva</i>			10	5	30	10	50	20	30	40	23.5	19.5
Cryptogams													
Bare Ground					10							0	1
Exotic Shrubs													
Leaf litter												27.35	41.35
Timber (>/= 10cm)													
Total		100	100	100	100	100	100	100	100	100	100	100%	100%

Additional Species: *Selaginella uliginosa*, *Xyris complanata*, *Pultenaea palaceae*

Structural / Floristic Summary

BioCondition Attribute		March 2016	September 2016
Native Plant Species Richness	Tree:		
	Shrub:		19
	Grass Tree		1
	Grass / Sedge		6
	Forbs and other:		7
Total Species**		33	
Native Shrubs	Projected Canopy Cover – Shrubs > 1m (%)	23.2	14.8
	Projected Canopy Cover – Shrubs >0.5 to <1m (%)	9.4	17.6
Native Ground cover (%):	Native perennial grass / sedge cover (%):	23	19.5
	Native shrubs (%)	17.75	17.2
	Grass tree	23.5	19.5
	Organic litter cover (%):	35.1	41.35
	Native forb cover (%)	0.65	1.5
Coarse woody debris:	Total length (m) of debris ≥ 10cm diameter and ≥0.5m in length per hectare	0	0
Non-native plant cover	Non-native Grasses%	0	0
	Non-native shrubs %	0	0

**Excludes Exotic Species