# **ANNUAL REPORT Number 2**

# CO482/002/A

**Claire and James DENNIS** 

February.2016

## Landowner(s): Bleak House Pty Ltd (Claire and James Dennis)

## Site Reference: TFN-C0482/002/A

						Comments and Observations
Year	Site and Zone(s) (e.g. 001/A)	Management Actions to be completed (e.g. These actions are found listed in the Offset Management Plan appended to your Deed of Covenant)	Timing (What time of year?)	Description of Action (e.g. What method of control did you use?)	Supporting Documents (e.g. photos, receipts)	(Have you noticed any changes in the vegetation, fauna or other features of the site e.g. have you found new species, have the weed/pest increased/ decreased/ remained the same?)
	002/A	<b>Stock exclusion:</b> Monitor and maintain fencing	Continuous	The broader paddock has stock proof fencing which has been maintained and repaired where necessary.		The new grazing cells which have been established with new ringlock fencing have been maintained.
		<b>Stock exclusion:</b> Ensure all stock remains absent from offset site (unless required as part of the ecological management of the site and prior consent has been obtained from Trust for Nature )	Continuous	A Letter of Approval from Trust for Nature allows grazing of sheep in the offset area at times indicated by the OMP. A second letter of Approval from Trust for Nature allows grazing if necessary during spring to reduce the growth of the annual weeds.	Copy of letters attached.	Twp pulses of grazing have been carried out in the cells which contain this offset. The first was early autumn which was 12 months after the burn. The second was before the restricted spring summer grazing time.
1-10		Woody weed control: There are currently no woody weeds within the offset area. Maintain the absence of high threat woody weeds	Continuous	There is constant monitoring for woody weeds in the area whenever any work or surveys are carried out.		No woody weeds have been found in the area.
		<b>Brown-top Bent</b> : Burn standing dead material. New growth controlled with pulse grazing with sheep to prevent seed set and herbicide application. Cover at inception: 10%	July- November	Weed mapping of the area has been undertaken. Since the recovery from the burn in February 2014 grazing has been used to reduce the growth of the Bent Grass. Herbicide application with a wick wiper was used on some areas.	Photo point monitoring.	The burn reduced the biomass of the Brown Top Bent and although it re-grew more native species were able to grow in amongst the Bent. The wiping appears to have killed off the Bent but further monitoring is required and a repeat of herbicide application if it remains alive. The grazing has

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						helped to keep the biomass at a lower level. Overlaying the weed map with a map of areas of high quality native vegetation will help to plan future weed control work to achieve the greatest benefit for native vegetation.
		Sweet Vernal-grass: Controlled pulse grazing by sheep to prevent seed set. Spot spraying appropriate herbicide to prevent seeding. Cover at inception: 1-5%	July- November	Weed mapping of the area has been undertaken to record the occurrence and density of Sweet Vernal Grass. This mapping has helped to strategically plan weed control options. Since the recovery from the burn grazing was introduced again in February 2015.	Photos of photo point monitoring.	In this area there is not a high occurrence of Sweet Vernal. There has not been any increase in the area of this grass over the twelve months.
		<b>Oats:</b> Controlled pulse grazing by sheep to prevent seed set. Spot spraying appropriate herbicide to prevent seeding. Cover at inception: 1-5%	July- November	Weed mapping of the area has been undertaken to record the occurrence and density of the Wild Oats. This mapping has helped to strategically plan weed control options. Since the recovery from the burn pulse grazing was introduced again in February 2015 and used again in the winter before grazing restrictions.	Photo point monitoring.	There is little change in the area covered by the Wild Oats. It was recorded that in the photo point which has the highest cover of Wild Oats that the height of this grass has reduced from 16.4cm in Spring 2014 to 7cm in Spring 2015. This may be due to drier weather conditions and/or pulse grazing of the area. More grazing will be carried out later into the growing period. It is planned that grazing will be carried out in spring 2016.

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Year	Site and Zone(s) (e.g. 001/A)	Management Actions to be completed (e.g. These actions are found listed in the Offset Management Plan appended to your Deed of Covenant)	Timing (What time of year?)	<b>Description of Action</b> (e.g. What method of control did you use?)	Supporting Documents (e.g. photos, receipts)	(Have you noticed any changes in the vegetation, fauna or other features of the site e.g. have you found new species, have the weed/pest increased/ decreased/ remained the same?)
1-10	002/A	<b>Rye-grass:</b> Controlled pulse grazing by sheep to prevent seed set. Spot spraying appropriate herbicide to prevent seeding. Cover at inception: 1-5%	July- November	Weed mapping of the area has been undertaken to record the occurrence and density of the Rye Grass. This mapping has helped to strategically plan weed control options. Since the recovery from the burn pulse grazing was introduced again in February 2015 and used again in the winter before grazing restrictions.	Photo point monitoring photo	There is little change in the area of Rye Grass. There is very little in this offset area.
		<b>Toowoomba Canary-grass:</b> Spot spraying appropriate herbicide. Cover at inception: 1-5%	Early Spring	Weed mapping of the area has been undertaken to record the occurrence and density of the Phalaris. This mapping has helped to strategically plan weed control options. Since the recovery from the burn pulse grazing was introduced again in February 2015 and used again in the winter before grazing restrictions. Herbicide application with spot spraying was used on some areas. These were spot sprayed in the autumn and spring.	Photo point monitoring photos and general photos of paddock.	There has been a slight decrease in the amount of phalaris in the area. This is due to the phalaris tussocks being killed by the herbicide treatment. It would be advantageous to be able to seed over these dead tussocks with native grass such as <i>Themeda</i> <i>triandra</i> so that fewer weeds are able to colonise the area.
		<b>Salsify:</b> Spot spraying appropriate herbicide. Cover at inception: <1%	Early Spring	Weed mapping of the area has been undertaken to record the occurrence and density of the Salsify. This mapping has helped to strategically plan weed control options. Since the recovery from the burn pulse grazing was	Photo point monitoring photos	The areas of Salsify that were treated have responded well. A follow up in these areas will be undertaken in the next 12 months. Some young plants of Salsify have been successfully sprayed before flowering or seeding, and more

						Comments and Observations
Year	Site and Zone(s) (e.g. 001/A)	Management Actions to be completed (e.g. These actions are found listed in the Offset Management Plan appended to your Deed of Covenant)	Timing (What time of year?)	<b>Description of Action</b> (e.g. What method of control did you use?)	Supporting Documents (e.g. photos, receipts)	(Have you noticed any changes in the vegetation, fauna or other features of the site e.g. have you found new species, have the weed/pest increased/ decreased/ remained the same?)
		<b>Spear Thistle:</b> Spot spraying the appropriate herbicide to prevent flowering. Cover at inception: 1-5%	July- November	introduced again in February 2015 and used again in the winter before grazing restrictionsSome areas of Salsify were cut, painted with herbicide or pulled out, bagged and removed from site. (If left on site the plant will continue to flower and set seed due to the large store of nutrients in its root.) Weed mapping of the area has been undertaken to record the occurrence and density of the Spear Thistle. This mapping has helped to strategically plan weed control options. Since the recovery from the burn pulse grazing was introduced again in February 2015 and used again in the winter before grazing restrictions. Thistles have been hoed in autumn and spring and is ongoing whenever any work is done in the area.	Photo point monitoring photos and general photos of paddock	are planned for this treatment in the coming months. The whole area will be continually monitored and treated where necessary. The hoeing of Thistles over the whole area in summer 2015 has helped reduce the occurrence. Thistles continue to grow in the area germinating from the weed seed bank in the soil and from seed blown in from neighbouring paddocks. It appears that the area of Thistle has reduced in the last 12 months.
		New and emerging weed control: Monitor for new and emerging weeds and eliminate any found.	Continuous	Continual monitoring for any new weeds is undertaken when other work is being done on site. The South African Weed Orchid was found in a few spots in the site 12 months ago.		The areas where the South African Weed Orchid was found and removed has been carefully checked at various times and none has been seen in the area.

						Comments and Observations
Year	Site and Zone(s) (e.g. 001/A)	Management Actions to be completed (e.g. These actions are found listed in the Offset Management Plan appended to your Deed of Covenant)	Timing (What time of year?)	<b>Description of Action</b> (e.g. What method of control did you use?)	Supporting Documents (e.g. photos, receipts)	(Have you noticed any changes in the vegetation, fauna or other features of the site e.g. have you found new species, have the weed/pest increased/ decreased/ remained the same?)
		<b>Rabbit control</b> : Monitor rabbit population and control by fumigating and hand- collapsing warrens and baiting or shooting.	Summer – Winter	Continual monitoring for rabbits is carried our whenever any work is done in the paddock.		No rabbits have been found on this site and there is no evidence of active rabbit burrows .
1-10	002/A	<b>Fox control</b> : Monitor fox population and control by fumigating and hand-collapsing dens and baiting.	Summer/ Autumn	There is evidence of fox dens on the rocky barriers but these are not active at present. Continual monitoring is carried out whenever other work is done in the area.		There has been no need for control at the fox dens as yet but the area is monitored and baiting may be used if necessary.
		Hare control: Monitor hare population and control by baiting or shooting.	Summer – Winter	Continual monitoring is carried out whenever other work is done in the area.		No hares have been recorded.
		Other pest control: Monitor for new and emerging pest animal species and control any found	Continuous	Continual monitoring is carried out whenever other work is done in the area.		No new pest animals have been recorded.
		<b>Biomass Management</b> : Biomass management in the form of grazing will be conducted in consultation with Trust for Nature.	Late Summer- early Winter.	The broader paddock has stock proof fencing which has been maintained and repaired where necessary. Grazing cells have been established which allows pulse grazing of sheep.	Photo point monitoring,	The grazing cycle twelve months post burn has been successful with reducing the biomass of the site including that of the weeds such as Bent Grass.

Year	Site and Zone(s) (e.g. 001/A)	Management Actions to be completed (e.g. These actions are found listed in the Offset Management Plan appended to your Deed of Covenant)	Timing (What time of year?)	Description of Action (e.g. What method of control did you use?)	Supporting Documents (e.g. photos, receipts)	Comments and Observations (Have you noticed any changes in the vegetation, fauna or other features of the site e.g. have you found new species, have the weed/pest increased/ decreased/ remained the same?)
		<b>Biomass Management</b> : Biomass management in the form of burning will be conducted if required in consultation with Trust for Nature. No patch is to be burnt more than once every 3 years.	Once every 5 years in Autumn- Spring	Since the recovery from the burn pulse grazing was introduced again in February 2015 and used again in the winter before grazing restrictions.	Photo point monitoring, some from 12 months ago and general photos show effects of burn, table of average heights, %bare ground and inter tussock space	The photo point monitoring has recorded the amount of biomass present . For four photo points the records are for three years' worth of monitoring and for the total 15 for two years' worth. The 4 photo points with 3 years of results show that percentages of intertussock space, and bare ground are both greater in 2014 and 2015 compared with 2013 while the average height of vegetation is lower for the more recent years. Considering the 15 photo points over 2014 and 2015 intertussock space and bare ground are greater in 2014 after the burn while the average height is lower in 2015.

I hereby declare that the supplied information contained within this report is accurate and complies with all the reporting requirements under the Offset Management Plan.

Signed:	Jeklemi	Name:	James E.R. Dennis	Date: 23 <sup>rd</sup> February 2016
	Claire Denin			
Signed:		Name:	Claire Dennis	Date: 23 <sup>rd</sup> February 2016

#### Photo Point Monitoring.

A hot uncontrolled burn occurred across the offset site in late February 2014. In the spring of 2013, prior to the covenant and OMP being finalised, 15 photo points were set up using an old GPS unit to record the positions and marked with plastic whiskers. Unfortunately the GPS points were not accurate and could not be reproduced and the whiskers burnt in the fire. Four of the original points were marked with steel posts and these were found and used again in the new set of 15 photo points which were set up in spring 2014. A new GPS unit has been used to mark the points and short steel posts used as markers for the plots.

Surveys have been undertaken at each photo point. A marker post was placed at the 1 metre plot at the north east corner. A GPS point was taken at this corner. Within the 1 metre<sup>2</sup> plot percentages of total vegetation cover, native and weed species cover, inter-tussock space bare ground and litter were estimated. The percentages of different types of native (graminoids and herbs) and weed species (perennial, annual grasses and dicotyledons) were also recorded. It is important to consider that this is an estimation and depends on the time of year, the conditions at that time and the person undertaking the surveys. In 2015 a Biomass Estimation was also used employing the 'Golf Ball Method'\*. This involved dropping 18 golf balls from a set height (1.3m) into the 1 metre<sup>2</sup> plot and an estimate made of the percentage of each golf ball not covered by vegetation. This gives an estimation of the biomass present. Over time it will be easier to note any trends in the data. At each photo point in each 1 metre<sup>2</sup> and 5 metre<sup>2</sup> plots a list of species present was recorded.

Vegetation height was also measured using the 'drop disc method' (Bransbury and Tainton 1977; Catchpole and Wheeler 1992). A disc with a central slot is dropped down a vertically held ruler and the height above ground where the disc comes to rest is then measured. The disc is a standard 200 g and 30 cm in diameter, and dropped from 1 meter.

\*Morgan, John. Rapid Assessment of Biomass – the 'Golf Ball Method' in Land of Sweeping Plains – Managing and restoring the native grasslands of south-eastern Australia (2015) ed Nicholas S.G, Adrian Marshall and John W Morgan. CSIRO Publishing Bransbury, D. I. and Tainton, N. M. (1977) The disc pasture meter: Possible applications in grazing management. Proc. Grass. Soc. Sth.Afr. 5, 115-18. Catchpole, W. R. and Wheeler, C. J. (1992) Estimating plant biomass: A review of techniques. Australian Journal of Ecology 17, 121-131

Photos were taken of each plot; a landscape view and a close up view. Each time the landscape photo was taken from the north side of the plot looking due south, and the close up view was taken looking vertically down from the centre of 1 metre<sup>2</sup> plot from a height that included the whole plot in the frame. A new camera has been used in 2016 as the previous one has broken so the lens is slightly different.

S 38°15.412′

E 143°46.281'

Date & time	26.11.2014 09.34	16.11.2015 16.02
Total Vegetation Cover	75%	85%
Average Height Vegetation	11.6cm	15.2cm
Total Native Vegetation	35%	30%
Cover		
Graminoids	30%	28%
Herbs	5%	2%
Total Weeds	40%	55%
Total Grasses	35%	45%
Grasses – perennial	10%	10%
Grasses – annual	25%	35%
Dicots	5%	10%
Inter-tussock space	25%	7%
Bare Ground	20%	5%
Litter	5%	10%
Moss – present or absent	Present	Absent
Biomass Monitoring		10.5
Golf Ball Method		Medium biomass
Temperature / Wind	12.7°C WSW 17 kph	3pm - 26°C WNW 13kph



PPM 101 - 2014 Landscape View



PPM 101 – 2015 Landscape View



PPM 101 – 2014 Close up View



PPM 101 – 2015 Close up View

20	)14	2015				
Silver Tussock	Poa labillardierei	Silver Tussock	Poa labillardierei			
Wallaby Grass	Rytidosperma sp.	Wallaby Grass x2	Rytidosperma spp.			
Blushing Bind Weed	Convolvulus	Blushing Bind Weed	Convolvulus			
	erubescens		erubescens			
Blue Devil	Eryngium ovinum	Grey Tussock Grass	Poa sieberiana			
Wood Sorrell	Oxalis perennans					
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides			
Fescue		Fescue				
*Rye Grass	Lolium multiflorum	*Rye Grass	Lolium multiflorum			
*Fog Grass	Holcus lanatus					
*Brown Top Bent	Agrostis capillaris					
*Lesser Quaking	Briza minor					
Grass						
*Onion Grass	Romula rosea					
* Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris			
	radicata		radicata			
		*Narrow Leaf Clover	Trifolium			
			angustifolium			

20	14	2015		
Silver Tussock	Poa labilliardierii	Silver Tussock	Poa labilliardierii	
Wallaby Grass	Rytidosperma sp.	Wallaby Grass x4	Rytidosperma spp.	
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita	
Australian Wheat	Elymus scaber	Australian Wheat	Elymus scaber	
Grass		Grass		
Leafy Blown Grass	Lachnagrostis	Leafy Blown Grass	Lachnagrostis	
	aemula		aemula	
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra	
		Spear Grass	Austrostipa sp.	
		Grey Tussock	Poa siebieriana	
Blushing Bind Weed	Convolvulus	Blushing Bind Weed	Convolvulus	
	erubescens		erubescens	
Blue Devil	Eryngium ovinum	Blue Devil	Eryngium ovinum	
Wood Sorrell	Oxalis perennans			
*Brown Top Bent	Agrostis capillaris	*Brown Top Bent	Agrostis capillaris	
*Rye Grass	Lolium multiflorum	*Rye Grass	Lolium multiflorum	
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides	
Fescue		Fescue		
*Lesser Quaking	Briza minor	*Toowoomba	Phalaris aquatica	
Grass		Canary Grass		
*Fog Grass	Holcus lanatus			
*Delicate Hair Grass	Aira elegantissima			
*Onion Grass	Romula rosea			
* Flat Weed	Hypochoeris	* Flat Weed	Hypochoeris	
	radicata		radicata	
*Narrow Leaf Clover	Trifolium	*Narrow Leaf Clover	Trifolium	
	angustifolium		angustifolium	
*Clover	Trifolium sp.			

S 38°15.392'

E 143°46.190'

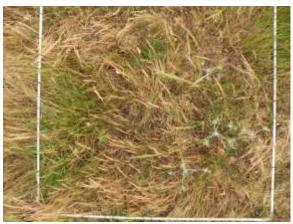
Date & time	26.11.2014 10.06	16.11.2015 16.30
Total Vegetation Cover	80%	80%
Average Height Vegetation	14 cm	10.60cm
Total Native Vegetation	40%	25%
Cover		
Graminoids	20%	20%
Herbs	20%	5%
Total Weeds	40%	55%
Total Grasses	35%	50%
Grasses – perennial	20%	25%
Grasses – annual	15%	25%
Dicots	5%	5%
Inter-tussock space	35%	15%
Bare Ground	15%	10%
Litter	5%	10%
Moss – present or absent	Absent	Present
Biomass Monitoring		8
Golf Ball Method		Medium Biomass
Temperature / Wind	13.2°C W 17 kph	3pm - 26°C WNW 13kph



PPM 102 - 2014 Landscape View



PPM 102 – 2015 Landscape View







PPM 102 – 2015 Close up View

20	)14	2015		
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra	
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita	
Australian Wheat	Elymus scaber	Australian Wheat	Elymus scaber	
Grass		Grass		
Wallaby Grass	Rytidosperma sp	Wallaby Grass x3	Rytidosperma spp	
Blushing Bind Weed	Convolvulus	Blushing Bind Weed	Convolvulus	
	erubescens		erubescens	
Blue Devil	Eryngium ovinum	Blue Devil	Eryngium ovinum	
Wood-sorrel	Oxalis perennans	Wood-sorrel	Oxalis perennans	
*Brown Top bent	Agrostis capillaris	*Brown Top bent	Agrostis capillaris	
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides	
Fescue		Fescue		
*Lesser Quaking	Briza minor	*Rye Grass	Lolium multiflorum	
Grass				
		*Fog Grass	Holcus lanatus	
		* Soft Brome	Bromus hordeaceus	
*Onion Grass	Romula rosea			
*Flat weed	Hypochoeris	*Flat weed	Hypochoeris	
	radicata		radicata	

2014		2015	
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra
Australian Wheat	Elymus scaber	Australian Wheat	Elymus scaber
Grass		Grass	
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Wallaby Grass	Rytidosperma sp	Wallaby Grass x3	Rytidosperma spp
Spear Grass	Austrostipa sp	Spear Grass	Austrostipa sp
		Silver Tussock	Poa labillardierei
Blushing Bind Weed	Convolvulus	Blushing Bind Weed	Convolvulus
	erubescens		erubescens
Wood-sorrel	Oxalis perennans	Wood-sorrel	Oxalis perennans
Blue Devil	Eryngium ovinum	Blue Devil	Eryngium ovinum
Wiry Dock	Rumex dumosus		
*Brown Top bent	Agrostis capillaris	*Brown Top bent	Agrostis capillaris
*Fog Grass	Holcus lanatus	*Fog Grass	Holcus lanatus
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Rye Grass	Lolium multiflorum	*Rye Grass	Lolium multiflorum
*Lesser Quaking	Briza minor	*Soft Brome	Bromus hordeaceus
Grass			
*Onion Grass	Romula rosea		
*Flat weed	Hypochoeris	*Flat weed	Hypochoeris
	radicata		radicata
*Narrow Leafed	Trifolium		
Clover	augustifolium		

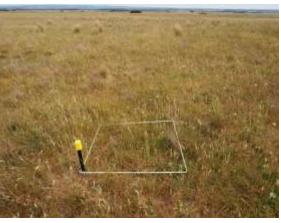
S 38°15.380'

E 143°46.056'

Date & time	26.11.2014 10.52	18.11.2015 15.35
Total Vegetation Cover	80%	70
Average Height Vegetation	13.4 cm	11.6 cm
Total Native Vegetation	35%	30%
Cover		
Graminoids	20%	25%
Herbs	15%	5%
Total Weeds	45%	40%
Total Grasses	35%	35%
Grasses – perennial	10%	20%
Grasses – annual	25%	15%
Dicots	10%	5%
Inter-tussock space	25%	10%
Bare Ground	10%	5%
Litter	10%	25%
Moss – present or absent	Present	Present
Biomass Monitoring		9.5
Golf Ball Method		Medium Biomass
Temperature / Wind	15.3°C WSW 22 kph	3pm 25°C NNW 6kph

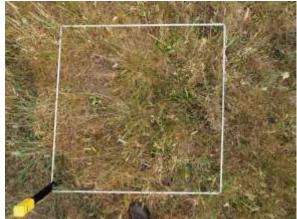


PPM 103 - 2014 Landscape View



PPM 103 – 2015 Landscape View





PPM 103 – 2014 Close up View

PPM 103 – 2015 Close up View

2014		2015	
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Australian Wheat	Elymus scaber	Australian Wheat	Elymus scaber
Grass		Grass	
Spear Grass	Austrostipa sp.	Spear Grass	Austrostipa sp.
		Wallaby Grass x2	Rytidosperma spp.
Blushing Bind Weed	Convolvulus	Blushing Bind Weed	Convolvulus
	erubescens		erubescens
Small Mat Rush	Lomandra nana		
*Brown Top Bent	Agrostis capillaris	*Brown Top Bent	Agrostis capillaris
*Rye Grass	Lolium multiflorum	*Rye Grass	Lolium multiflorum
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Fog Grass	Holcus lanantus	*Fog Grass	Holcus lanantus
* Lesser Quaking	Briza minor	*Soft brome	Bromus hordeaceus
Grass			
*Delicate Hair Grass	Aira elegantissima		
*Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris
	radicata		radicata
*Onion Grass	Romula rosea		

2014		2015	
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Australian Wheat	Elymus scaber	Australian Wheat	Elymus scaber
Grass		Grass	
Spear Grass	Austrostipa sp.	Spear Grass	Austrostipa sp.
Wallaby Grass	Rytidospermum sp.	Wallaby Grass x2	Rytidosperma spp.
		Blushing Bind Weed	Convolvulus
			erubescens
		Kangaroo Grass	Themeda triandra
		Poa Tussock	Pos labillardierei
Blushing Bind Weed	Convolvulus	Blue Devil	Eryngium ovinum
	erubescens		
Small Mat Rush	Lomandra nana		
*Brown Top Bent	Agrostis capillaris	*Brown Top Bent	Agrostis capillaris
*Rye Grass	Lolium multiflorum	*Rye Grass	Lolium multiflorum
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
* Lesser Quaking	Briza minor	* Lesser Quaking	Briza minor
Grass		Grass	
*Fog Grass	Holcus lanantus	*Fog Grass	Holcus lanantus
*Delicate Hair Grass	Aira elegantissima	*Soft brome	Bromus hordeaceus
*Onion Grass	Romula rosea		
*Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris
	radicata		radicata
		*Thistle	Cirsium vulgare

S 38°15.425'

E 143°46.102'

Date & time	26.11.2014 11.21	18.11.2015 16.02
Total Vegetation Cover	75%	85%
Average Height Vegetation	13.8 cm	10.4cm
Total Native Vegetation	50%	30%
Cover		
Graminoids	30%	25%
Herbs	20%	5%
Total Weeds	25%	55%
Total Grasses	10%	30%
Grasses – perennial	5%	5%
Grasses – annual	5%	25%
Dicots	15%	25%
Inter-tussock space	45%	10%
Bare Ground	25%	5%
Litter	0%	10%
Moss – present or absent	Present	Present
Biomass Monitoring		9.5
Golf Ball Method		Medium Biomass
Temperature / Wind	15.4°C WSW 24 kph	3pm 25°C NNW 6 kph



PPM 104 - 2014 Landscape View



PPM 104 – 2015 Landscape View (taken Jan 2015)



PPM 104 – 2014 Close up View



PPM 104 – 2015 Close up View

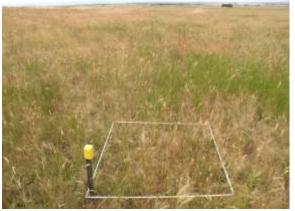
Species Recorded In 1 m <sup>2</sup> Plot MAB 104			
2014		2015	
Australian Wheat	Elymus scaber	Australian Wheat	Elymus scaber
Grass		Grass	
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra
Wallaby Grass	Rytidospermum sp		
Chocolate Lily	Arthropodium strictum	Chocolate Lily	Arthropodium strictum
Common Woodruff	Asperula conferta	Common Woodruff	Asperula conferta
Wood Sorrell	Oxalis perennans		
Varied Raspwort	Haloragis heterophylla		
Solenogyne	Solenogyne dominii		
* Brown Top Bent	Agrostis capillaris	* Brown Top Bent	Agrostis capillaris
* Lesser Quaking	Briza minor	*Wild Oats	Avena barbata
Grass			
*Delicate Hair Grass	Aira elegantissima	*Delicate Hair Grass	Aira elegantissima
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Soft Brome	Bromus	*Soft Brome	Bromus
	hordeaceous		hordeaceous
*Hare's Tail Grass	Lagurus ovatus	*Hare's Tail Grass	Lagurus ovatus
		*Onion Grass	Romula rosea
*Clover	Trifolium sp.	*Clover	Trifolium sp.
*Narrow Leafed	Trifolium	*Narrow Leafed	Trifolium
Clover	augustifolium	Clover	augustifolium
*Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris
	radicata		radicata

2014		2015	
Australian Wheat	Elymus scaber	Australian Wheat	Elymus scaber
Grass		Grass	
Wallaby Grass	Rytidospermum sp	Wallaby Grass	Rytidospermum sp
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra
Silver Tussock	Poa labilliardierii	Silver Tussock	Poa labilliardierii
Chocolate Lily	Arthropodium	Chocolate Lily	Arthropodium
	strictum		strictum
		Onion Orchid	Microtis unifolia
Common Woodruff	Asperula conferta	Common Woodruff	Asperula conferta
Blue Devil	Eryngium ovinum	Blue Devil	Eryngium ovinum
Wood Sorrell	Oxalis perennans		
Varied Raspwort	Haloragis		
	heterophylla		
Sheep's Burr	Acaena echinata		
Solenogyne	Solenogyne dominii		
* Brown Top Bent	Agrostis capillaris	* Brown Top Bent	Agrostis capillaris
* Lesser Quaking	Briza minor	*Wild Oats	Avena barbata
Grass			
*Delicate Hair Grass	Aira elegantissima	*Delicate Hair Grass	Aira elegantissima
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Soft Brome	Bromus	*Soft Brome	Bromus
	hordeaceous		hordeaceous
*Hare's Tail Grass	Lagurus ovatus	*Hare's Tail Grass	Lagurus ovatus
*Fog Grass	Holcus lanatus	*Fog Grass	Holcus lanatus
*Wild Oats	Avena barbata	*Onion Grass	Romula rosea
*Narrow Leafed	Trifolium	*Narrow Leafed	Trifolium
Clover	augustifolium	Clover	augustifolium
*Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris
	radicata		radicata
*Clover	Trifolium sp.	*Clover	Trifolium sp.
*Slender Century	Centaurium	*Spear Thistle	Cirsium vulgare
	tenuiflorum		

S 38°15.579'

E 143°46.306'

Date & time	27.11.2014 09.10	16.11.2015 09.14
Total Vegetation Cover	90%	80%
Average Height Vegetation	13 cm	7.6 cm
Total Native Vegetation	45%	35%
Cover		
Graminoids	40%	30%
Herbs	5%	5%
Total Weeds	45%	45%
Total Grasses	40%	35%
Grasses – perennial	5%	5%
Grasses – annual	35%	30%
Dicots	5%	10%
Inter-tussock space	15%	15%
Bare Ground	10%	10%
Litter	0%	10%
Moss – present or absent	Present	Present
Biomass Monitoring		10
Golf Ball Method		Medium Biomass
Temperature / Wind	11.6°C S 19 kph	9am - 15°C.4 E 19 kph



PPM 105 - 2014 Landscape View



PPM 105 – 2015 Landscape View



PPM 105 – 2014 Close up View



PPM 105 – 2015 Close up View

20	14	20	15
Wallaby Grass x 2	Rytidosperma spp.	Wallaby Grass x 2	Rytidosperma spp.
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra
Blushing Bind Weed	Convolvulus	Blushing Bind Weed	Convolvulus
	erubescens		erubescens
Wood Sorrell	Oxalis perennans		
*Brown Top Bent	Agrostis capillaris	*Brown Top Bent	Agrostis capillaris
*Lesser Quaking	Briza minor	*Rye Grass	Lolium multiflorum
Grass			
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Hare's Tail Grass	Lagurus ovatus	*Delicate Hair Grass	Aira elegantissima
*Onion Grass	Romula rosea	*Onion Grass	Romula rosea
*Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris
	radicata		radicata
*Narrow Leaf Clover	Trifolium	*Narrow Leaf Clover	Trifolium
	augustifolium		augustifolium
*Clover	Trifolium sp.		

2014		2015	
Wallaby Grass x 3	Rytidosperma spp.	Wallaby Grass x 3	Rytidosperma spp.
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra
Australian Wheat Grass	Elymus scaber		
Blushing Bind Weed	Convolvulus erubescens	Blushing Bind Weed	Convolvulus erubescens
Blue Devil	Eryngium ovinum	Blue Devil	Eryngium ovinum
Wood Sorrell	Oxalis perennans		
*Brown Top Bent	Agrostis capillaris	*Brown Top Bent	Agrostis capillaris
*Lesser Quaking	Briza minor	*Lesser Quaking	Briza minor
Grass		Grass	
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Hare's Tail Grass	Lagurus ovatus		
*Onion Grass	Romula rosea	*Onion Grass	Romula rosea
*Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris
	radicata		radicata
*Narrow Leaf Clover	Trifolium	*Narrow Leaf Clover	Trifolium
	augustifolium		augustifolium
*Clover	Trifolium sp.		

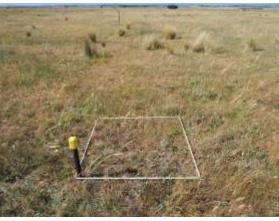
S 38°15.578'

E 143°46.208'

Date & time	27.11.2014 09.37	16.11.2015 09.38
Total Vegetation Cover	70%	70%
Average Height Vegetation	9.8 cm	5 cm
Total Native Vegetation	45%	40%
Cover		
Graminoids	20%	10%
Herbs	25%	30%
Total Weeds	25%	30%
Total Grasses	20%	25%
Grasses – perennial	15%	0%
Grasses – annual	5%	25%
Dicots	5%	5%
Inter-tussock space	55%	40%
Bare Ground	30%	20%
Litter	0%	10%
Moss – present or absent	Present	Present
Biomass Monitoring		16
Golf Ball Method		Low Biomass
Temperature / Wind	13.5°C ESE 15 kph	9am - 15°C.4 E 19 kph



PPM 106 - 2014 Landscape View



PPM 106 – 2015 Landscape View





PPM 106 – 2014 Close up View

PPM 106 – 2015 Close up View

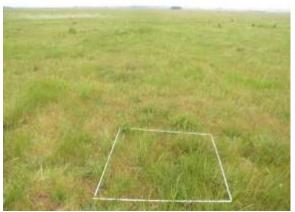
20	14	20	15
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Wallaby Grass	Rytidosperma sp.	Wallaby Grass x2	Rytidosperma spp.
Leafy Blown Grass	Lachnagrostis	Leafy Blown Grass	Lachnagrostis
	aemula		aemula
Scaly Buttons	Leptorhynchos	Scaly Buttons	Leptorhynchos
	squamatus		squamatus
Blue Devil	Eryngium ovinum	Blue Devil	Eryngium ovinum
		Varied Raspwort	Haloragis
			heterophylla
*Hare's Tail Grass	Lagurus ovatus	*Hare's Tail Grass	Lagurus ovatus
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Brown Top Bent	Agrostis capillaris		
*Lesser Quaking	Briza minor		
Grass			
*Delicate Hair Grass	Aira elegantissima		
*Onion Grass	Romula rosea		
*Clover	Trifolium sp.		
*Narrow Leaf Clover	Trifolium	*Narrow Leaf Clover	Trifolium
	augustifolium		augustifolium
*Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris
	radicata		radicata
*Dodder	Cuscuta sp.	*Dodder	Cuscuta sp.

2014		2015	
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Wallaby Grass x3	Rytidosperma spp.	Wallaby Grass x3	Rytidosperma spp.
Leafy Blown Grass	Lachnagrostis	Leafy Blown Grass	Lachnagrostis
	aemula		aemula
Tussock Grass	Poa labillardierei	Tussock Grass	Poa lablliardierei
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra
Scaly Buttons	Leptorhynchos	Scaly Buttons	Leptorhynchos
	squamatus		squamatus
Blue Devil	Eryngium ovinum	Blue Devil	Eryngium ovinum
Lemon Beauty	Calocephalus citreus	Lemon Beauty	Calocephalus citreus
Heads x 10 m to SE		Heads x 10 m to SE	
		Varied Raspwort	Haloragis
			heterophylla
*Brown Top Bent	Agrostis cacpillaris	*Brown Top Bent	Agrostis cacpillaris
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Fog Grass	Holcus lanatus	*Fog Grass	Holcus lanatus
*Hare's Tail Grass	Lagurus ovatus	*Hare's Tail Grass	Lagurus ovatus
*Lesser Quaking	Briza minor		
Grass			
*Delicate Hair Grass	Aira elegantissima		
*Onion Grass	Romula rosea		
*Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris
	radicata		radicata
*Narrow Leaf Clover	Trifolium	*Narrow Leaf Clover	Trifolium
	augustifolium		augustifolium
*Dodder	Cuscuta sp.	*Dodder	Cuscuta sp.
*Clover	Trifolium sp		

S 38°15.553′

E 143°46.035' (repositioned)

Date & time	23.10.2014 15.15	18.11.2015 15.03
Total Vegetation Cover	80%	75%
Average Height Vegetation	12cm	8.6 cm
Total Native Vegetation	40%	40%
Cover		
Graminoids	30%	35%
Herbs	10%	5%
Total Weeds	40%	35%
Total Grasses	35%	20%
Grasses – perennial	20%	15%
Grasses – annual	15%	5%
Dicots	5%	15%
Inter-tussock space	25%	10%
Bare Ground	15%	5%
Litter	5%	20%
Moss – present or absent	Present	Present
Biomass Monitoring		11.5
Golf Ball Method		Medium – Low Biomass
Temperature / Wind	15°C ESE 30 kph	3pm – 25°C NNW 6kph



PPM 107 - 2014 Landscape View



PPM 107 – 2015 Landscape View



PPM 107 – 2014 Close up View

PPM 107 – 2015 Close up View

2014		2015	
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra
Wallaby Grass x2sp	Rytidosperma spp.	Wallaby Grassx2sp	Rytidosperma spp.
Plume Grass	Dichelachne crinita	Spear Grass	Austrostipa sp.
Poa sp – v small	Poa sp.	Leafy Blown Grass	Lachnagrostis
			aemula
		Australian Wheat	Elymus scaber
		Grass	
Blushing Bindweed	Convolvulus	Blushing Bindweed	Convolvulus
	erubescens		erubescens
Dwarf Mat Rush	Lomandra nana	Dwarf Mat Rush	Lomandra nana
Common Bog Sedge	Schoenus apogon	Blue Devil	Eryngium ovinum
Scaly Buttons	Leptorhynchos	Varied Raspwort	Haloragis
	squamatus		heterophylla
Sheep's Burr	Acaena echinata		
Wood Sorrel	Oxalis perennans		
*Brown Top Bent	Agrostis capillaris	*Brown Top Bent	Agrostis capillaris
*Lesser Quaking	Briza minor	*Lesser Quaking	Briza minor
Grass		Grass	
*Delicate Hair Grass	Aira elegantissima	*Hare's Tail Grass	Lagurus ovatus
*Onion Grass	Romula rosea		
		*Ribwort	Plantago lanceolata
		*Flat Weed	Hypochoeris radicata

2014		2015	
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra
Wallaby Grass x2sp	Rytidosperma spp.	Wallaby Grassx3sp	Rytidosperma spp.
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Silver Tussock	Poa labilliardierii	Silver Tussock	Poa labillardierei
Poa sp – v small	Poa sp.	Leafy Blown Grass	Lachnagrostis
			aemula
		Spear Grass	Austrostipa sp.
		Australian Wheat	Elymus scaber
		Grass	
Chocolate Lily	Arthropodium		
	strictum		
Dwarf Mat Rush	Lomandra nana	Dwarf Mat Rush	Lomandra nana
Blushing Bindweed	Convolvulus	Blushing Bindweed	Convolvulus
	erubescens		erubescens
Blue Devil	Eryngium ovinum	Blue Devil	Eryngium ovinum
Common Bog Sedge	Schoenus apogon	Varied Raspwort	Haloragis
			heterophylla
Wood Sorrel	Oxalis perennans		
Sheep's Burr	Acaena echinata		
Common Woodruff	Asperula conferta		
Scaly Buttons	Leptorhynchos		
	squamatus		
*Brown Top Bent	Agrostis capillaris	*Brown Top Bent	Agrostis capillaris
*Lesser Quaking	Briza minor	*Lesser Quaking	Briza minor
Grass		Grass	
*Delicate Hair Grass	Aira elegantissima	*Hare's Tail Grass	Lagurus ovatus
*Onion Grass	Romula rosea		
		*Ribwort	Plantago lanceolata
		*Flat Weed	Hypochoeris
			radicata

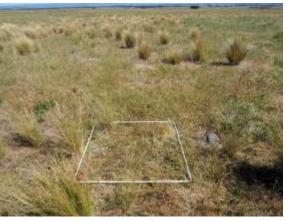
S 38°15.458'

E 143°46.308' (repositioned)

Date & time	18.10.14 10.10	16.11.15 15.42
Total Vegetation Cover	80%	90%
Average Height Vegetation	16.4cm	7cm
Total Native Vegetation	30%	10%
Cover		
Graminoids	20%	5%
Herbs	10%	5%
Total Weeds	50%	80%
Total Grasses	40%	70%
Grasses – perennial	10%	0%
Grasses – annual	30%	70%
Dicots	10%	10%
Inter-tussock space	30%	10%
Bare Ground	20%	5%
Litter	0%	5%
Moss – present or absent	Absent	Present
Biomass Monitoring		11.5
Golf Ball Method		Medium - Low Biomass
Temperature / Wind	14°C NNW 7kph	3pm – 26°C WNW 13kph

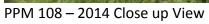


PPM 108 - 2014 Landscape View



PPM 108 – 2015 Landscape View







PPM 108 – 2015 Close up View

2014		2015	
Common Tussock	Poa labiliardierei	Common Tussock	Poa labillardierei
		Weeping Grass	Microlaena stipoides
Sheep's Burr	Acaena echinata	Sheep's Burr	Acaena echinata
Wood Sorrel	Oxalis perennans	Blue Devil	Eryngium ovinum
*Wild oats	Avena barbata	*Wild oats	Avena barbata
*Lesser Quaking	Briza minor	*Squirrel-tail	Vulpia bromoides
Grass		Fescue	
*Toowoomba	Phalaris aquatica	*Fog Grass	Holcus lanatus
Canary Grass			
		*Rye Grass	Lolium multiflorum
*Onion Grass	Romula rosea		
*Spear Thistle	Cirsium vulgare	*Flat Weed	Hypochoeris radicata
*Clover	Trifolium sp.	*Narrow Leafed	Trifolium
		Clover	angustifolium

2014		2015	
Common Tussock	Poa labilliardierei	Common Tussock	Poa labilliardierei
		Australian Wheat	Elymus scaber
		Grass	
Sheep's Burr	Acaena echinata	Sheep's Burr	Acaena echinata
Dwarf Mat Rush	Lomandra nana	Weeping Grass	Microlaena stipoides
Wood Sorrel	Oxalis perennans	Blue Devil	Eryngium ovinum
*Wild oats	Avena barbata	*Wild oats	Avena barbata
*Lesser Quaking	Briza minor	*Squirrel-tail Fescue	Vulpia bromoides
Grass			
*Toowoomba	Phalaris aquatica	*Fog Grass	Holcus lanatus
Canary Grass			
		*Rye Grass	Lolium multiflorum
*Onion Grass	Romula rosea		
* Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris
	radicata		radicata
*Clover	Trifolium sp.	*Narrow Leafed	Trifolium
		Clover	angustifolium
* Cape Weed	Arctotheca		
	calendula		
*Spear Thistle	Cirsium vulgare		

S 38°15.491'

E 143°46.328'

Date & time	07.12.2013 10.15	18.10.2014 11.10	16.11.2015 12.26
<b>Total Vegetation Cover</b>	95%	94%	75%
Average Height	20.5	13.2cm	9.4cm
Vegetation			
<b>Total Native Vegetation</b>	40%	5%	30%
Cover			
Graminoids	35%	4%	30%
Herbs	5%	1%	0%
Total Weeds	55%	89%	45%
Total Grasses	50%	85%	40%
Grasses – perennial	45%	45%	30%
Grasses – annual	5%	40%	10%
Dicots	5%	4%	5%
Inter-tussock space	10%	2%	0%
Bare Ground	5%	1%	0%
Litter	0%	5%	25%
Moss – present or absent	Present	Absent	Absent
Biomass Monitoring			7 - High-Medium
Golf Ball Method			Biomass
Temperature / Wind	15°C N 6kph	19°C N 15kph	3pm - 26°C WNW
			13kph



PPM 109 – 2013 Landscape View

PPM 109 – 2015 Landscape View



PPM 109 – 2013 Close up View

PPM 109 – 2015 Close up View

Black type denotes present both years, green type present in 2013 and blue type 2014 only.

2013 & 2014*		2015	
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra
Wallaby Grass	Rytidosperma sp.	Australian Wheat	Elymus scaber
		Grass	
Plume Grass	Dichelachne crinita		
Solenogyne	Solenogyne dominii		
*Brown Top Bent	Agrostis capillaris	*Brown Top Bent	Agrostis capillaris
*Lesser Quaking	Briza minor	Squirrel Tail	Vulpia bromoides
Grass		Fescue	
*Hare's Tail Grass	Lagurus ovatus		
*Onion Grass	Romula rosea		
*Flat Weed	Hypochoeris radicata	*Flat Weed	Hypochoeris radicata
*Clover	Trifolium sp		

2013 & 2014*		2015	
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra
Wallaby Grass x2	Rytidosperma spp.	Wallaby Grass x3	Rytidosperma spp.
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Spear Grass	Austrostipa sp	Spear Grass	Austrostipa sp
Silver Tussock	Poa labilliardierei	Australian Wheat Grass	Elymus scaber
Blue Devil	Eryngium ovinum	Blue Devil	Eryngium ovinum
Solenogyne	Solenogyne dominii		
Blushing Bind weed	Convolvulus	Blushing Bind weed	Convolvulus
	erubescens		erubescens
*Brown Top Bent	Agrostis capillaris	*Brown Top Bent	Agrostis capillaris
*Lesser Quaking	Briza minor	Squirrel Tail Fescue	Vulpia bromoides
Grass			
*Hare's Tail Grass	Lagurus ovatus		
*Fog Grass	Holcus lanatus		
*Rye Grass	Lolium multiflorum		
*Onion Grass	Romula rosea		
*Flat Weed	Hypochoeris radicata	*Flat Weed	Hypochoeris radicata
*Narrow Leaf Clover	Trifolium augustifolium		
*Clover	Trifolium sp		

S 38°15.487'

E 143°46.274'

Date & time	07.12.13 10.34	18.10.2014 11.10	16.11.15 12.03
Total Vegetation Cover	93%	60%	55%
Average Height	10.34cm	8.66cm	7.4cm
Vegetation			
<b>Total Native Vegetation</b>	83%	50%	50%
Cover			
Graminoids	53%	10%	25%
Herbs	30%	40%	25%
Total Weeds	10%	10%	5%
Total Grasses	5%	2%	3%
Grasses – perennial	5%	0%	0%
Grasses – annual	0%	2%	3%
Dicots	5%	8%	2%
Inter-tussock space	35%	80%	65%
Bare Ground	5%	40%	40%
Litter	2%	%	5%
Moss – present or	Absent	Absent	Absent
absent			
Biomass Monitoring			13.5
Golf Ball Method			Medium – Low
			Biomass
Temperature / Wind	17°C N 10kph	18°C NNW 12kph	3pm 26°C
			WNW 13kph



PPM 110 – 2013 Landscape View



PPM 110 – 2015 Landscape View



PPM 110 – 2013 Close up View

PPM 110 – 2015 Close up View

Black type denotes present both years, green type present in 2013 and blue type 2014 only.

2013 & 2014		2015	
Wallaby Grass	Rytidosperma sp.	Wallaby Grassx2	Rytidosperma spp.
Silver Tussock	Poa labillardierei	Silver Tussock	Poa labillardierei
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Onion Orchid	Microtis unifolia		
Blushing Bind Weed	Convolvulus	Blushing Bind	Convolvulus
	erubescens	Weed	erubescens
Sheep's Burr	Acaena echinata	Sheep's Burr	Acaena echinata
Blue Devil	Eryngium ovinum	Blue Devil	Eryngium ovinum
Kidney Weed	Dichondra repens	Kidney Weed	Dichondra repens
Woodruff	Asperula conferta	Woodruff	Asperula conferta
Grassland Wood	Oxalis perennans		
Sorrel			
Common Bog Sedge	Schoenus apogon		
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Lesser Quaking	Briza minor		
Grass			
*Sweet Vernel	Anthoxanthum		
Grass	odoratum		
*Toowoomba	Phalaris aquatica		
Canary Grass			
*Delicate Hair Grass	Aira elegantissima		
*Onion Grass	Romula rosea		
*Flat Weed	Hypochoeris radicata	*Flat Weed	Hypochoeris radicata

2014		2015	
Wallaby Grass	Rytidosperma sp.	Wallaby Grassx2	Rytidosperma spp.
Silver Tussock	Poa labillardierei	Silver Tussock	Poa labillardierei
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Spear Grass	Ausrostipa sp		
Onion Orchid	Microtis unifolia		
Blushing Bind Weed	Convolvulus	Blushing Bind Weed	Convolvulus
	erubescens		erubescens
Sheep's Burr	Acaena echinata	Sheep's Burr	Acaena echinata
Blue Devil	Eryngium ovinum	Blue Devil	Eryngium ovinum
Kidney Weed	Dichondra repens	Kidney Weed	Dichondra repens
Woodruff	Asperula conferta	Woodruff	Asperula conferta
Slender Speedwell	Veronica gracilis		
Grassland Wood	Oxalis perennans		
Sorrel			
Common Bog Sedge	Schoenus apogon		
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Lesser Quaking	Briza minor		
Grass			
*Sweet Vernel	Anthoxanthum		
Grass	odoratum		
*Toowoomba	Phalaris aquatica		
Canary Grass			
*Delicate Hair Grass	Aira elegantissima		
*Onion Grass	Romula rosea		
*Spear Thistle	Cirsium vulgare	*Spear Thistle	Cirsium vulgare
*Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris
	radicata		radicata

S 38°15.474'

E 143°46.136'

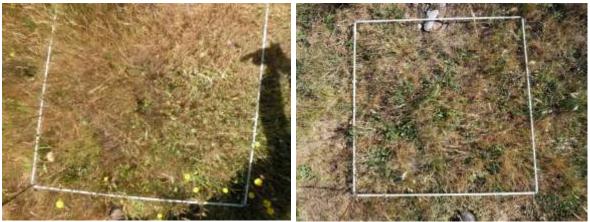
Date & time	07.12.13 11.20	23.10.14 15.45	16.11.15 17.00
<b>Total Vegetation Cover</b>	95%	80%	80%
Average Height	15 cm	11.6cm	8cm
Vegetation			
<b>Total Native Vegetation</b>	10%	20%	40%
Cover			
Graminoids	5%	10%	30%
Herbs	5%	10%	10%
Total Weeds	85%	60%	40%
Total Grasses	65%	30%	30%
Grasses – perennial	45%	0%	5%
Grasses – annual	20%	30%	25%
Dicots	20%	30%	10%
Inter-tussock space	5%	30%	20%
Bare Ground	0%	20%	10%
Litter	5%	0%	10%
Moss – present or absent	Present	Absent	Present
Biomass Monitoring			9.5
Golf Ball Method			Medium- Biomass
Temperature / Wind	22°C wind not	15°C E 31 kph	3pm 26°C
	recorded		WNW 13kph



PPM 111 – 2013 Landscape View



PPM 111 – 2015 Landscape View



PPM 111 – 2013 Close up View

PPM 111 – 2015 Close up View

Black type denotes present both years, green type present in 2013 and blue type 2014 only.

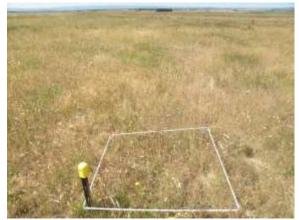
2013 & 2014		2015	
Spear Grass	Austrostipa sp.	Spear Grass	Austrostipa sp.
Wallaby Grass	Rytidosperma sp.	Wallaby Grass x2	Rytidosperma sp.
Weeping Grass	Microlaena stipoides		
Chocolate Lily	Arthropodium strictum	Chocolate Lily	Arthropodium strictum
Onion Orchid	Microtis unifolia		
Sheep's Burr	Acaena ovina	Sheep's Burr	Acaena ovina
Grassland's Crane's Bill	Geranium retrorsum		
Wood Sorrell	Oxalis perennans		
Wiry Dock	Rumex dumosus		
*Wild Oats	Avena barbata	*Wild Oats	Avena barbata
*Delicate Hair Grass	Aira elegantissima	*Delicate Hair Grass	Aira elegantissima
*Ryegrass	Lolium multiflorum	*Ryegrass	Lolium multiflorum
*Lesser Quaking Grass	Briza minor	*Fog Grass	Holcus lanatus
*Soft Brome	Bromus hordeaceus	*Squirrel Tail Fescue	Vulpia bromoides
*Onion Grass	Romula rosea		
*Flat Weed	Hypochoeris radicata	*Flat Weed	Hypochoeris radicata
*Clover	Trifolium sp	*Spear Thistle	Cirsium vulgare

2013 & 2014		2015	
Spear Grass	Austrostipa sp.	Spear Grass	Austrostipa sp.
Wallaby Grass x3	Rytidosperma sp.	Wallaby Grass x2	Rytidosperma sp.
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra
Weeping Grass	Microlaena	Australian Wheat	Elymus scaber
	stipoides	Grass	
		Leafy Blown Grass	Lachnagrostis aemula
Chocolate Lily	Arthropodium	Chocolate Lily	Arthropodium
	strictum		strictum
Onion Orchid	Microtis unifolia		
Sheep's Burr	Acaena ovina	Sheep's Burr	Acaena ovina
Grassland's Crane's Bill	Geranium retrorsum		
Wood Sorrel	Oxalis perennans		
Common Woodruff	Asperula conferta		
Sweet Hound's	Cynoglossum		
Tongue	suaveolens		
Wiry Dock	Rumex dumosus		
*Wild Oats	Avena barbata	*Wild Oats	Avena barbata
*Delicate Hair Grass	Aira elegantissima	*Delicate Hair Grass	Aira elegantissima
*Ryegrass	Lolium multiflorum	*Ryegrass	Lolium multiflorum
*Lesser Quaking Grass	Briza minor	*Fog Grass	Holcus lanatus
*Hare's Tail Grass	Lagurus ovatus	*Squirrel Tail Fescue	Vulpia bromoides
*Soft Brome	Bromus hordeaceus		
*Onion Grass	Romula rosea		
*Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris
	radicata		radicata
*Spear Thistle	Cirsium vulgare	*Spear Thistle	Cirsium vulgare
*Red Bartsia	Parentucellia		
	latifolia		
*Clover	Trifolium sp		

S 38°15.534'

E 143°46.168'

Date & time	27.11.2014 10.28	21.11.15 16.44
Total Vegetation Cover	65%	85%
Average Height Vegetation	12.6 cm	5.6cm
Total Native Vegetation	20%	55%
Cover		
Graminoids	15%	30%
Herbs	5%	25%
Total Weeds	45%	30%
Total Grasses	40%	25%
Grasses – perennial	5%	5%
Grasses – annual	35%	20%
Dicots	5%	5%
Inter-tussock space	15%	35%
Bare Ground	10%	10%
Litter	25%	5%
Moss – present or absent	Present	Present
Biomass Monitoring		11
Golf Ball Method		Medium – Low Biomass
Temperature / Wind	14.4C ENE 20 kph	3pm
		14°C SW 24kph



PPM 112 – 2014 Landscape View



PPM 112 – 2015 Landscape View (taken Jan 2016)



PPM 112 – 2014 Close up View



PPM 112 – 2015 Close up View

2014		2015	
Wallaby Grass x 2	Rytidosperma spp.	Wallaby Grass x 4	Rytidosperma spp.
		Kangaroo Grass	Themeda triandra
		Plume Grass	Dichelachne crinata
Blue Devil	Eryngium ovinum	Blue Devil	Eryngium ovinum
Scaly Buttons	Leptorhynchos	Scaly Buttons	Leptorhynchos
	squamatus		squamatus
		Common Woodruff	Asperula conferta
		Blushing Bind	Convolvulus
		Weed	angustissimus
		Dwarf Mat Rush	Lomandra nana
*Delicate Hair Grass	Aira elegantissima	*Delicate Hair	Aira elegantissima
		Grass	
*Brown Top Bent	Agrostis capillaris	*Brown Top Bent	Agrostis capillaris
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Hare's Tail Grass	Lagurus ovatus		
*Lesser Quaking	Briza minor		
Grass			
*Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris radicata
	radicata		
*Onion Grass	Romula rosea	*Ribwort	Plantago lanceolata
*Clover	Trifolium sp.		
*Narrow Leaf Clover	Trifolium		
	augustifolia		
	augustījoliā		

2014		2015	
Wallaby Grass x 3	Rytidosperma spp.	Wallaby Grass x 5	Rytidosperma spp.
Australian Wheat	Elymus scaber	Australian Wheat	Elymus scaber
Grass		Grass	
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinata
		Kangaroo Grass	Themeda triandra
		Silver Tussock	Poa labillardierei
		Spear Grass	Austrostipa sp.
Blue Devil	Eryngium ovinum	Blue Devil	Eryngium ovinum
Scaly Buttons	Leptorhynchos	Scaly Buttons	Leptorhynchos
	squamatus		squamatus
		Common Woodruff	Asperula conferta
		Blushing Bind Weed	Convolvulus
			angustissimus
		Dwarf Mat Rush	Lomandra nana
		Sheep's Burr	Acaena echinata
*Brown Top Bent	Agrostis capillaris	*Brown Top Bent	Agrostis capillaris
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Delicate Hair Grass	Aira elegantissima	*Delicate Hair Grass	Aira elegantissima
*Hare's Tail Grass	Lagurus ovatus		
*Lesser Quaking	Briza minor		
Grass			
*Onion Grass	Romula rosea		
*Narrow Leaf Clover	Trifolium	*Narrow Leaf Clover	Trifolium
	augustifolia		augustifolia
*Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris
	radicata		radicata
*Clover	Trifolium sp.	*Ribwort	Plantago lanceolata
		*Dodder	Cuscuta planiflora

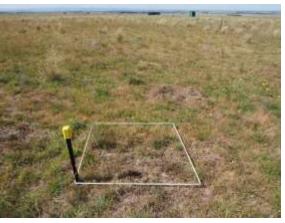
S 38°15.538'

E 143°46.109'

Date & time	30.11.2014 10.00	16.11.15 10.03
Total Vegetation Cover	55%	55%
Average Height Vegetation	6.2 cm	4cm
Total Native Vegetation	40%	50%
Cover		
Graminoids	35%	45%
Herbs	5%	5%
Total Weeds	15%	5%
Total Grasses	5%	3%
Grasses – perennial	0%	0%
Grasses – annual	5%	3%
Dicots	10%	2%
Inter-tussock space	50%	45%
Bare Ground	45%	40%
Litter	0%	5%
Moss – present or absent	Present	Absent
Biomass Monitoring		15.5
Golf Ball Method		Low Biomass
Temperature / Wind	20.2°C E 17 kph	



PPM 113 – 2014 Landscape View



PPM 113 – 2015 Landscape View



PPM 113 – 2014 Close up View



PPM 113 – 2015 Close up View

2014		2	015
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra
Australian Wheat	Elymus scaber		
Grass			
Common Woodruff	Asperula conferta	Common Woodruff	Asperula conferta
Wood Sorrel	Oxalis perennans		
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Delicate Hair Grass	Aira elegantissima		
*Lesser Quaking	Briza minor		
Grass			
*Onion Grass	Romula rosea		
*Narrow Leaf Clover	Trifolium	*Narrow Leaf	Trifolium
	augustifolium	Clover	augustifolium
*Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris radicata
	radicata		
*Spear Thistle	Cirsium vulgare	*Spear Thistle	Cirsium vulgare
*Salsify	Tragapogon		
	porrifolius		

2014		2015	
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra
Wallaby Grass x3	Rytidosperma spp.	Wallaby Grass	Rytidosperma spp.
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Silver tussock	Poa labillardierei	Silver tussock	Poa labillardierei
Australian Wheat	Elymus scaber	Velvet Tussock	Poa morrisii
Grass			
Spear Grass	Austrostipa sp.		
Common Woodruff	Asperula conferta	Common Woodruff	Asperula conferta
Blue Devil	Eryngium ovinum	Blue Devil	Eryngium ovinum
Wood Sorrel	Oxalis perennans		
Sheep's Burr	Acaena echinata		
*Squirrel Tail	Vulpia bromoides	*Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Delicate Hair Grass	Aira elegantissima	*Delicate Hair Grass	Aira elegantissima
*Fog Grass	Holcus lanatus	*Wild Oats	Avena barbata
*Lesser Quaking	Briza minor		
Grass			
*Onion Grass	Romula rosea		
*Narrow Leaf Clover	Trifolium	*Narrow Leaf Clover	Trifolium
	augustifolium		augustifolium
*Flat Weed	Hypochoeris	*Flat Weed	Hypochoeris
	radicata		radicata
*Salsify	Tragapogon	*Salsify	Tragapogon
	porrifolius		porrifolius
*Slender Century	Centaurium	*Spear Thistle	Cirsium vulgare
	tenuiflorum		
*Spear Thistle	Cirsium vulgare		

S 38°15.515'

E 143°46.187'

Date & time	30.11.2014 10.40	21.11.15 15.45
Total Vegetation Cover	90%	85%
Average Height Vegetation	15.8 cm	7.8cm
Total Native Vegetation	45%	55%
Cover		
Graminoids	40%	50%
Herbs	5%	5%
Total Weeds	45%	30%
Total Grasses	45%	29%
Grasses – perennial	0%	5%
Grasses – annual	45%	24%
Dicots	0%	1%
Inter-tussock space	15%	10%
Bare Ground	10%	5%
Litter	0%	10%
Moss – present or absent	Absent	Absent
Biomass Monitoring		10.5
Golf Ball Method		Medium Biomass
Temperature / Wind	22°C ENE 13 kph	3pm 14°C SW 24 kph



PPM 114 – 2014 Landscape View



PPM 114 – 2015 Landscape View



PPM 114 – 2014 Close up View



PPM 114 – 2015 Close up View

2014		2015	
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Wallaby Grass	Rytidosperma sp.		
Blushing Bind Weed	Convolvulus	Blushing Bind	Convolvulus
	erubescens	Weed	erubescens
*Fog Grass	Holcus lanatus	*Fog Grass	Holcus lanatus
* Squirrel Tail	Vulpia bromoides	* Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Delicate Hair Grass	Aira elegantissima		
*Onion Grass	Romula rosea	*Onion Grass	Romula rosea
		*Flat Weed	Hypochoeris radicata

2014		2015	
Kangaroo Grass	Themeda triandra	Kangaroo Grass	Themeda triandra
Plume Grass	Dichelachne crinita	Plume Grass	Dichelachne crinita
Wallaby Grass x3	Rytidosperma spp.	Wallaby Grass x3	Rytidosperma spp.
Australian Wheat	Elymus scaber	Australian Wheat	Elymus scaber
Grass		Grass	
		Spear Grass	Austrostipa sp
		Leafy Blown Grass	Lachnagrostis
			aemula
		Silver Tussock	Poa labillardierei
		Velvet Tussock	Poa morrisii
Blushing Bind Weed	Convolvulus	Blushing Bind Weed	Convolvulus
	erubescens		erubescens
		Blue Devil	Eryngium ovinum
*Fog Grass	Holcus lanatus	*Fog Grass	Holcus lanatus
* Squirrel Tail	Vulpia bromoides	* Squirrel Tail	Vulpia bromoides
Fescue		Fescue	
*Delicate Hair Grass	Aira elegantissima		
*Brown Top Bent	Agrostis capillaries		
*Hare's Tail grass	Lagurus ovatus		
*Onion Grass	Romula rosea	*Onion Grass	Romula rosea
		*Flat Weed	Hypochoeris
			radicata
		*Spear Thistle	Cirsium vulgare

S 38°15.481'

E 143°46.281

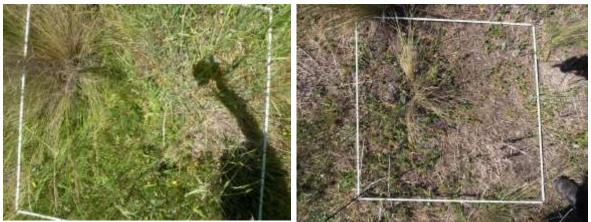
Date & time	07.12.13 12.30	18.10.14 10.50	16.11.15 11.04
<b>Total Vegetation Cover</b>	70%	80%	45
Average Height	25.6cm	10.2cm	3.6cm
Vegetation			
<b>Total Native Vegetation</b>	50%	45%	40%
Cover			
Graminoids	20%	5%	5%
Herbs	30%	40%	35%
Total Weeds	20%	35%	5%
Total Grasses	18%	25%	5%
Grasses – perennial	15%	20%	0%
Grasses – annual	3%	5%	5%
Dicots	2%	10%	0%
Inter-tussock space	30%	60%	85%
Bare Ground	0%	20%	50%
Litter	30%	0%	5%
Moss – present or absent	Present	Absent	Absent
Biomass Monitoring			14 Medium - low
Golf Ball Method			Biomass
Temperature / Wind	18°C NW 8 kph	16°C NNW 9kph	9am 15 4°C
			E 19kph



PPM 115 – 2013 Landscape View



PPM 115 – 2015 Landscape View



PPM 115 – 2013 Close up View

PPM 115 – 2015 Close up View

Black type denotes present both years, green type present in 2013 and blue type 2014 only.

2013 & 2014		2015	
Common Tussock	Poa labillardierei	Silver Tussock	Poa labillardierei
		Wallaby Grass	Rytidosperma sp
Sheep's Burr	Acaena echinata	Sheep's Burr	Acaena echinata
Wood Sorrel	Oxalis perennans	Wood Sorrel	Oxalis perennans
Blue Devil	Eryngium ovinum		
*Wild oats	Avena barbata	*Wild oats	Avena barbata
*Toowoomba	Phalaris aquatica	*Soft Brome	Bromus hordeaceus
Canary Grass			
*Fog Grass	Holcus lanatus	*Narrow Leaf	Trifolium
		Clover	angustifolium
*Onion Grass	Romula rosea		
*Spear Thistle	Cirsium vulgare		
*Flat Weed	Hypochoeris		
	radicata		
*Clover sp.	Trifolium sp.		

2014		2015	
Common Tussock	Poa labillardierei	Silver Tussock	Poa labillardierei
		Wallaby Grass	Rytidosperma sp
Sheep's Burr	Acaena echinata	Sheep's Burr	Acaena echinata
Wood Sorrel	Oxalis perennans	Wood Sorrel	Oxalis perennans
Blue Devil	Eryngium ovinum		
Slender Speedwell	Veronica gracilis		
*Wild oats	Avena barbata	*Wild oats	Avena barbata
*Toowoomba	Phalaris aquatica	*Soft Brome	Bromus hordeaceus
Canary Grass			
*Rye Grass	Lolium multiflorum	*Rye Grass	Lolium ,ultiflorum
*Fog Grass	Holcus lanatus		
*Onion Grass	Romula rosea		
* Flat Weed	Hypochoeris	* Flat Weed	Hypochoeris
	radicata		radicata
*Spear Thistle	Cirsium vulgare	*Narrow Leaf Clover	Trifolium
			angustifolium
*Clover	Trifolium sp.		