

Appendix D: Environmental Weed Strategy - Criteria for the Assessment and Rating of Weeds in Terms of their Environmental Impact on Biodiversity (CALM 1999)

ENVIRONMENTAL WEEDS RATING

- **Invasiveness**- ability to invade bushland in good to excellent condition or ability to invade waterways (Score as yes or no).
- **Distribution** – wide current or potential distribution including consideration of known history of wide spread distribution elsewhere in the world (Score as yes or no).
- **Environmental Impacts** – ability to change the structure, composition and function of ecosystems; in particular an ability to form a monoculture in a vegetation community (Score as yes or no).

The Rating System used in the Environmental Weed Strategy for Western Australia

High	A weed species would have to score yes for all three criteria. Rating a weed species as high would indicate prioritising this weed for control and/or research.
Moderate	A weed species would have to score yes for two of the above criteria. Rating a weed species as moderate would indicate that control or research effort should be directed to it if funds are available; however it should be monitored (possibly a reasonably high level of monitoring).
Mild	A weed species scoring one of the criteria. A mild rating would indicate monitoring of the weed and control where appropriate.
Low	A weed species would score none of the criteria. A low ranking would mean that this species would require a low level of monitoring.

Appendix E: Fauna species which Occur or Potentially Occur in the Study Area (Western Wildlife 2016)

Table 1: Amphibians which occur or Potentially occur in the Study Area

Mantinae '16 & Carlton '16 = species recorded in the study areas during the 2016 fauna survey.
WAM = species recorded in the area on the Western Australian Museum Specimen Database (see Table 6 of main report).
FSDB = species recorded in the area on the Fauna Survey Returns Database (see Table 6 of main report).
Mantinae '09 = species recorded on the Mantinea Plain in 2009 (Strategen 2010).
PS, WB, EB = species recorded on the Packsaddle Plain, East Bank or West Bank in 2009 (Strategen 2010).
Ord Stage 2 = species recorded on the Weaber Plan, Knox Plain or Keep River Plain in 1996/1997 (Ecologia 1997).
DPAW = species recorded in the area on DPAW's Threatened and Priority Fauna Database (see Table 6 of main report).
EPBC = species/species habitat recorded in the area on the EPBC Act Protected Matters Search Tool (see Table 6 of main report).

Species	Conservation Status	Records								
		Mantinae '16	Carlton '16	WAM	FSDB	Mantinae '09	PS, WB, EB	Ord Stage 2	DPAW	EPBC
Hylidae (tree frogs and water-holding frogs)										
Giant Frog	<i>Cyclorana australis</i>			+	+		+	+		
Knife-footed Frogs	<i>Cyclorana cultripes</i>			+		+				
Hidden-ear Frog	<i>Cyclorana cryptotis</i>			+	+			+		
Long-footed Frog	<i>Cyclorana longipes</i>			+	+	+	+	+		
Wailing Frog	<i>Cyclorana vagitus</i>			+	+			+		
Green Tree Frog	<i>Litoria caerulea</i>		+	+	+	+	+	+		
Copland's Rock Frog	<i>Litoria coplandi</i>			+				+		
Peter's Frog	<i>Litoria inermis</i>			+	+		+	+		
Rockhole Frog	<i>Litoria meiriana</i>			+						
Rocket Frog	<i>Litoria nasuta</i>			+	+	+	+			
Pale Frog	<i>Litoria pallida</i>		+	+	+		+	+		
Roth's Tree Frog	<i>Litoria rothii</i>		+	+	+			+		
Desert Tree Frog	<i>Litoria rubella</i>			+	+	+	+	+		
Black-shinned Rocket Frog	<i>Litoria tornieri</i>									
Magnificent Tree Frog	<i>Litoria splendida</i>			+	+					
Chattering Rock Frog	<i>Litoria staccato</i>			+						
Wotjulum Frog	<i>Litoria watjulumensis</i>			+			+			
Limnodynastidae (ground frogs)										
Marbled Frog	<i>Limnodynastes convexiusculus</i>			+	+	+	+	+		
Flat-headed Frog	<i>Limnodynastes depressus</i>			+	+	+	+			
Carpenter Frog	<i>Limnodynastes lignarius</i>			+						
Northern Spadefoot	<i>Notaden melanoscaphus</i>			+	+	+	+			
Kimberley Spadefoot	<i>Notaden weigeli</i>				+	+				
Ornate Burrowing Frog	<i>Platyplectrum ornatum</i>			+			+	+		
Myobatrachidae (ground frogs)										
Bilingual Froglet	<i>Crinia bilingua</i>			+	+		+			
Northern Toadlet	<i>Uperoleia borealis</i>			+	+		+			
Stonemason Toadlet	<i>Uperoleia lithmoda</i>			+						
Blacksoil Toadlet	<i>Uperoleia trachyderma</i>			+						

Table 1 (cont.)

Species	Conservation Status	Records								
		Mantinea '16	Carlton '16	WAM	FSDB	Mantinea '09	PS, WB, EB	Ord Stage 2	DPAW	EPBC
Bufonidae (toads)										
Cane Toad <i>Rhinella marina</i>	Int.	+	+							
# frog species possible in the study area:		28								
# frog species recorded in the study areas 2016:		4								

Table 2: Reptiles which occur or Potentially occur in the Study Area

Site visit = species recorded in the study area during the 2016 fauna survey.

WAM = species recorded in the area on the Western Australian Museum Specimen Database (see Table 6 of main report).

FSDB = species recorded in the area on the Fauna Survey Returns Database (see Table 6 of main report).

Mantina '09 = species recorded on the Mantinea Plain in 2009 (Strategen 2010).

PS, WB, EB = species recorded on the Packsaddle Plain, East Bank or West Bank in 2009 (Strategen 2010).

Ord Stage 2 = species recorded on the Weaber Plan, Knox Plain or Keep River Plain in 1996/1997 (Ecologia 1997).

DPAW = species recorded in the area on DPAW's Threatened and Priority Fauna Database (see Table 6 of main report).

EPBC = species/species habitat recorded in the area on the EPBC Act Protected Matters Search Tool (see Table 6 of main report).

Species	Conservation Status	Records								
		Mantina '16	Carlton '16	WAM	FSDB	Mantina '09	PS, WB, EB	Ord Stage 2	DPAW	EPBC
Crocodylidae (crocodiles)										
Freshwater Crocodile <i>Crocodylus johnstoni</i>	CS1		+	+	+		+	+	+	
Saltwater Crocodile <i>Crocodylus porosus</i>	CS1	+								+
Cheluidae (freshwater turtles)										
Northern Long-necked Turtle <i>Chelodina burrungandjii</i>				+			+			
Northern Snapping Turtle <i>Elseya dentata</i>										
Northern Red-faced Turtle <i>Emydura victoriae</i>				+			+			
Carphodactylidae (knob-tailed Geckoes)										
Northern Knob-tailed Gecko <i>Nephurus sheai</i>										
Diplodactylidae (geckoes)										
Zig-zag Velvet Gecko <i>Amalosia rhombifer</i>				+				+		
Clawless Gecko <i>Crenadactylus ocellatus</i>										
Fat-tailed Gecko <i>Diplodactylus conspicillatus</i>				+						
Sand-plain Gecko <i>Lucasium stenodactylum</i>				+	+		+	+		
Northern Beaked Gecko <i>Rhynchoedura sexapora</i>				+	+		+			
Spiny-tailed Gecko <i>Strophurus ciliaris</i>			+	+			+	+		
Gekkonidae (geckoes)										
Northern Dtella <i>Gehyra australis</i>		+	+	+	+	+		+		
<i>Gehyra koira</i>				+	+					
<i>Gehyra nana</i>				+	+			+		
Asian House Gecko <i>Hemidactylus frenatus</i>	Int.			+						
Bynoe's Gecko <i>Heteronotia binoei</i>		+	+	+	+	+	+	+		
<i>Heteronotia planiceps</i>				+						
Pygopodidae (legless lizards)										
<i>Delma borea</i>				+						
<i>Delma tincta</i>				+	+	+	+	+		
Burton's Legless Lizard <i>Lialis burtonis</i>				+						
<i>Pygopus steelescotti</i>				+						
Agamidae (dragon lizards)										
Ta-Ta Lizard <i>Amphibolurus gilberti</i>		+		+	+	+	+	+		
Chameleon Dragon <i>Chelosania brunnea</i>				+						
Frill-neck Lizard <i>Chlamydosaurus kingii</i>				+				+		
Ring-tailed Dragon <i>Ctenophorus caudicinctus</i>				+						
Central Netted Dragon <i>Ctenophorus nuchalis</i>				+						
<i>Diporiphora bennettii</i>		+		+						

Table 2 (cont.)

Species	Conservation Status	Records								
		Mantinea '16	Carlton '16	WAM	FSDB	Mantinea '09	PS, WB, EB	Ord Stage 2	DPAW	EPBC
Agamidae (dragon lizards)										
<i>Diporiphora lalliae</i>					+			+		
<i>Diporiphora magna</i>				+	+			+	+	
Egerniidae (skink lizards, in part)										
Slender Blue-tongue <i>Cyclodomorphus melanops</i>				+						
Central Blue-tongue <i>Tiliqua multifasciata</i>				+						
Eastern Blue-tongue <i>Tiliqua scincoides</i>				+						
Eugongyliidae (skink lizards, in part)										
Two-spined Rainbow Skink <i>Carlia amax</i>					+			+		
Slender Rainbow Skink <i>Carlia gracilis</i>		+		+						
Shaded-litter Rainbow Skink <i>Carlia munda</i>		+	+	+	+	+	+	+		
Red-sided Rainbow Skink <i>Carlia rufilatus</i>									+	
<i>Carlia triacantha</i>				+					+	
Juno's Snake-eyed Skink <i>Cryptoblepharus juno</i>				+						
<i>Cryptoblepharus metallicus</i>		+	+	+	+	+	+			
<i>Cryptoblepharus ruber</i>				+	+	+				
Dwarf Skink <i>Menetia greyii</i>				+	+	+	+	+		
<i>Menetia maini</i>										
<i>Morethia ruficauda</i>		+		+	+		+	+		
<i>Proablepharus tenuis</i>				+					+	
Sphenomorphidae (skink lizards, in part)										
Ten-lined Ctenotus <i>Ctenotus decaneurus</i>				+						
<i>Ctenotus inornatus</i>				+	+	+	+	+		
<i>Ctenotus militaris</i>				+	+		+			
Leopard Ctenotus <i>Ctenotus pantherinus</i>				+	+		+			
<i>Ctenotus piankai</i>					+		+			
<i>Ctenotus rimacola</i>				+						
<i>Ctenotus robustus</i>				+	+	+	+	+		
<i>Ctenotus tantillus</i>				+	+		+	+		
<i>Eremiascincus isolepis</i>				+		+	+			
<i>Lerista borealis</i>			+	+				+		
<i>Lerista griffini</i>		+		+	+	+	+	+		
<i>Notoscincus ornatus</i>				+				+		
Varanidae (goanna or monitor lizards)										
Ridge-tailed Monitor <i>Varanus acanthurus</i>				+	+		+	+		
Kimberley Rock Monitor <i>Varanus glauerti</i>				+	+					
Black-palmed Rock Monitor <i>Varanus glebopalma</i>			+	+	+					
Gould's Goanna <i>Varanus gouldii</i>				+	+		+	+		
Long-tailed Rock Monitor <i>Varanus kingorum</i>										
Merten's Water Monitor <i>Varanus mertensi</i>				+	+		+			
Mitchell's Water Monitor <i>Varanus mitchelli</i>				+	+		+			

Table 2 (cont.)

Species	Conservation Status	Records								
		Mantinea '16	Carlton '16	WAM	FSDB	Mantinea '09	PS, WB, EB	Ord Stage 2	DPAW	EPBC
Varanidae (goanna or monitor lizards)										
Yellow-spotted Monitor	<i>Varanus panoptes</i>			+						
Spotted Tree Monitor	<i>Varanus scalaris</i>			+	+					
Storr's Monitor	<i>Varanus storri</i>			+						
Black-tailed Monitor	<i>Varanus tristis</i>			+	+			+		
Typhlopidae (blind snakes)										
	<i>Anilius diversus</i>									
	<i>Anilius guentheri</i>									
	<i>Anilius ligatus</i>						+			
Sandamara Blind Snake	<i>Anilius troglodytes</i>									
Claw-snouted Blind Snake	<i>Anilius unguirostris</i>									
Flower-pot Blind Snake	<i>Indotyphlops braminus</i>									
		CS2								
		Int.								
Boidae (pythons)										
Children's Python	<i>Antaresia childreni</i>			+	+		+			
Black-headed Python	<i>Aspidites melanocephalus</i>			+				+		
Water Python	<i>Liasis mackloti</i>	+	+	+	+					
Olive Python	<i>Liasis olivaceus</i>			+						
Carpet Python	<i>Morelia spilota</i>			+						
Colubridae (rear-fanged snakes)										
Brown Tree Snake	<i>Boiga irregularis</i>				+					
Australian Bockadam	<i>Cerberus australis</i>				+					
Green Tree Snake	<i>Dendrelaphis punctulata</i>	+	+	+	+					
Keelback	<i>Tropidonophis mairii</i>			+	+	+	+			
Elapidae (front-fanged snakes)										
Northern Death Adder	<i>Acanthophis praelongus</i>			+						
Northern Shovel-nosed Snake	<i>Brachyuropsis roperi</i>			+						
Northern Small-eyed Snake	<i>Cryptophis pallidiceps</i>			+	+	+				
Olive Whipsnake	<i>Demansia olivacea</i>			+						
Yellow-faced Whipsnake	<i>Demansia psammophis</i>				+	+				
Great Black Whipsnake	<i>Demansia papuensis</i>		+	+			+			
Lesser Black Whipsnake	<i>Demansia vestigiata</i>			+	+	+				
Moon Snake	<i>Furina ornata</i>			+	+	+				
Mulga Snake	<i>Pseudechis australis</i>			+	+		+			
Ingram's Brown Snake	<i>Pseudonaja ingrami</i>						+			
Western Brown Snake	<i>Pseudonaja mengdeni</i>			+						
Ringed Brown Snake	<i>Pseudonaja modesta</i>			+						
Gwardar / Northern Brown Snake	<i>Pseudonaja nuchalis</i>			+						
Ord Snake	<i>Suta ordensis</i>			+						
Spotted Snake	<i>Suta punctata</i>			+						
Curl Snake	<i>Suta suta</i>			+						
		CS3								
		CS3								

Table 2 (cont.)

Species	Conservation Status	Records								
		Mantina '16	Carlton '16	WAM	FSDB	Mantina '09	PS, WB, EB	Ord Stage 2	DPAW	EPBC
Elapidae (front-fanged snakes)										
Wide-banded Northern Bandy-bandy <i>Vermicella intermedia</i>	CS3			+						
Narrow-banded Northern Bandy-bandy <i>Vermicella multifasciata</i>	CS3			+						
# reptile species possible in the study area:		101								
# reptile species recorded in the study area in 2016:		17								

Table 3: Birds which occur or Potentially occur in the Study Area

Site visit = species recorded in the study area during the 2016 fauna survey.

BA = species recorded in the area by Birds Australia (see Table 1).

WAM = species recorded in the area on the Western Australian Museum Specimen Database (see Table 6 of main report).

FSDB = species recorded in the area on the Fauna Survey Returns Database (see Table 6 of main report).

PS, WB, EB = species recorded on the Packsaddle Plain, East Bank or West Bank in 2009 (Strategen 2010).

Ord Stage 2 = species recorded on the Weaber Plan, Knox Plain or Keep River Plain in 1996/1997 (Ecologia 1997).

DPAW = species recorded in the area on DPAW's Threatened and Priority Fauna Database (see Table 6 of main report).

EPBC =

Int = introduced species.

Species	Conservation Status	Records										
		Mantina '16	Carlton '16	BA	WAM	FSDB	Mantina '09	PS, WB, EB	Ord Stage 2	DPAW	EPBC	
Dromaiidae (emu)												
Emu <i>Dromaius novaehollandiae</i>												
Anseranatidae (magpie goose)												
Magpie Goose <i>Anseranas semipalmata</i>			+	+	+	+	+		+			
Anatidae (ducks and swans)												
Grey Teal <i>Anas gracilis</i>			+	+								
Pacific Black Duck <i>Anas superciliosa</i>			+	+			+	+	+			
Hardhead <i>Aythya australis</i>				+					+			
Black Swan <i>Cygnus atratus</i>				+								
Plumed Whistling-Duck <i>Dendrocygna eytoni</i>			+	+		+	+	+	+			
Wandering Whistling-Duck <i>Dendrocygna arcuata</i>				+			+		+			
Pink-eared Duck <i>Malacorhynchus membranaceus</i>				+								
Green Pygmy-goose <i>Nettapus pulchellus</i>				+				+	+			
Radjah Shelduck <i>Tadorna radjah</i>			+	+		+	+	+	+			
Phasianidae (quails)												
Brown Quail <i>Coturnix ypsilophora</i>				+	+		+	+	+			
Podicipedidae (grebes)												
Great Crested Grebe <i>Podiceps cristatus</i>				+								
Hoary-headed Grebe <i>Poliiocephalus poliocephalus</i>				+								
Australasian Grebe <i>Tachybaptus novaehollandiae</i>				+	+		+	+	+			
Ciconiidae (storks)												
Black-necked Stork <i>Ephippiorhynchus asiaticus</i>			+	+			+	+	+			
Threskionithidae (ibis and spoonbills)												
Glossy Ibis <i>Plegadis falcinellus</i>	CS1			+			+	+	+	+		
Australian White Ibis <i>Threskiornis moluccus</i>			+	+			+	+	+			
Straw-necked Ibis <i>Threskiornis spinicollis</i>		+	+	+			+	+	+			
Yellow-billed Spoonbill <i>Platalea flavipes</i>				+				+	+			
Royal Spoonbill <i>Platalea regia</i>			+	+			+		+			
Ardeidae (herons, egrets and bitterns)												
White-necked Heron <i>Ardea pacifica</i>			+	+	+		+	+	+			
Pied Heron <i>Ardea picata</i>				+	+		+		+			
White-faced Heron <i>Ardea novaehollandiae</i>			+	+			+	+	+			
Eastern Great Egret <i>Ardea modesta</i>	CS1	+	+	+			+	+	+	+		
Intermediate Egret <i>Ardea intermedia</i>				+			+	+	+			

Table 3 (cont.)

Species	Conservation Status	Records									
		Mantinea '16	Carlton '16	BA	WAM	FSDB	Mantinea '09	PS, WB, EB	Ord Stage 2	DPAW	EPBC
Ardeidae (cont.)											
Little Egret <i>Ardea garzetta</i>	CS1			+			+	+	+		
Cattle Egret <i>Ardea ibis</i>				+			+	+	+	+	
Great-billed Heron <i>Ardea sumatrana</i>					+						
Nankeen Night-Heron <i>Nycticorax caledonicus</i>		+	+	+	+		+	+	+		
Little Bittern <i>Ixobrychus minutus</i>					+						
Black Bittern <i>Ixobrychus flavicollis</i>					+			+	+		
Pelecanidae (pelicans)											
Australian Pelican <i>Pelecanus conspicillatus</i>			+	+			+	+			
Phalacrocoracidae (cormorants)											
Great Cormorant <i>Phalacrocorax carbo</i>				+							
Pied Cormorant <i>Phalacrocorax varius</i>				+		+	+				
Little Pied Cormorant <i>Phalacrocorax melanoleucos</i>			+	+		+	+	+			
Little Black Cormorant <i>Phalacrocorax sulcirostris</i>			+	+		+	+	+			
Anhingidae (darter)											
Darter <i>Anhinga melanogaster</i>		+	+	+	+	+	+	+			
Pandionidae (osprey)											
Eastern Osprey <i>Pandion haliaeetus (cristatus)</i>	CS1			+			+		+	+	
Accipitridae (osprey, hawks, eagles and harriers)											
Pacific Baza <i>Aviceda subcristata</i>	CS1			+			+				
Black-shouldered Kite <i>Elanus caeruleus</i>				+			+	+	+		
Red Goshawk <i>Erythrotriorchis radiatus</i>				+	+					+	+
Square-tailed Kite <i>Hamirostra isura</i>					+			+			
Black-breasted Buzzard <i>Hamirostra melanosternon</i>		+		+			+	+	+		
Black Kite <i>Milvus migrans</i>		+	+	+	+		+	+	+		
Brahminy Kite <i>Haliastur indus</i>				+			+	+	+		
Whistling Kite <i>Haliastur sphenurus</i>		+	+	+			+	+	+		
Brown Goshawk <i>Accipiter fasciatus</i>		+	+	+	+	+	+	+	+		
Collared Sparrowhawk <i>Accipiter cirrocephalus</i>		+	+	+	+		+	+	+		
Grey Goshawk <i>Accipiter novaehollandiae</i>				+							
Little Eagle <i>Hieraaetus morphnoides</i>							+	+	+		
Wedge-tailed Eagle <i>Aquila audax</i>		+	+	+			+	+	+		
White-bellied Sea-Eagle <i>Haliaeetus leucogaster</i>				+			+	+	+		
Spotted Harrier <i>Circus assimilis</i>					+		+	+	+		
Swamp Harrier <i>Circus approximans</i>					+			+			
Otididae (bustard)											
Australian Bustard <i>Ardeotis australis</i>		+	+	+			+	+	+		

Table 3 (cont.)

Species	Conservation Status	Records									
		Mantinea '16	Carlton '16	BA	WAM	FSDB	Mantinea '09	PS, WB, EB	Ord Stage 2	DPAW	EPBC
Rallidae (crakes, rails, coots and allies)											
Eurasian Coot <i>Fulica atra</i>				+	+						
Buff-banded Rail <i>Gallirallus philippensis</i>				+				+			
Purple Swamphen <i>Porphyrio porphyrio</i>				+	+						
White-browed Crake <i>Porzana cinerea</i>					+		+		+		
Ballion's Crake <i>Porzana pusilla</i>				+							
Black-tailed Native-hen <i>Tribonyx ventralis</i>				+							
Gruidae (cranes)											
Brolga <i>Grus rubicunda</i>		+	+	+			+	+	+		
Turnicidae (button-quails)											
Red-backed Button-Quail <i>Turnix maculosus</i>					+		+	+			
Red-chested Button-Quail <i>Turnix pyrrhorostrax</i>				+				+			
Little Button-Quail <i>Turnix velox</i>				+				+	+		
Burhinidae (stone-curlews)											
Bush Stone-Curlew <i>Burhinus grallarius</i>			+	+			+	+			
Recurvirostridae (stilts and avocets)											
Black-winged Stilt <i>Himantopus himantopus</i>				+					+		
Red-necked Avocet <i>Recurvirostra novaehollandiae</i>				+							
Charadriidae (plovers, dotterels and lapwings)											
Masked Lapwing <i>Vanellus miles</i>		+	+	+	+		+	+	+		
Greater Sand Plover <i>Charadrius leschenaultii</i>	CS1			+						+	
Red-capped Plover <i>Charadrius ruficapillus</i>				+	+						
Oriental Plover <i>Charadrius veredus</i>	CS1			+	+					+	+
Black-fronted Dotterel <i>Euseyonis melanops</i>		+	+		+	+	+	+	+		
Pacific Golden Plover <i>Pluvialis fulva</i>	CS1			+						+	
Red-kneed Dotterel <i>Erythrogonys cinctus</i>				+					+		
Rostratulidae (painted snipe)											
Painted Snipe <i>Rostratula benghalensis australis</i>	CS1			+						+	+
Jacaniidae (jacanas)											
Comb-crested Jacana <i>Irediparra gallinacea</i>				+	+				+		
Scolopacidae (sandpipers, stints, godwits and allies)											
Sharp-tailed Sandpiper <i>Calidris acuminata</i>	CS1			+	+					+	+
Curlew Sandpiper <i>Calidris ferruginea</i>	CS1			+						+	+
Red-necked Stint <i>Calidris ruficollis</i>	CS1			+	+				+	+	+
Long-toed Stint <i>Calidris subminuta</i>	CS1			+						+	
Swinhoe's Snipe <i>Gallinago megala</i>	CS1			+	+					+	
Black-tailed Godwit <i>Limosa limosa</i>	CS1			+						+	+
Eastern Curlew <i>Numenius madagascariensis</i>	CS1			+						+	

Table 3 (cont.)

Species	Conservation Status	Records									
		Mantinea '16	Carlton '16	BA	WAM	FSDB	Mantinea '09	PS, WB, EB	Ord Stage 2	DPAW	EPBC
Scolopacidae (cont.)											
Little Curlew	<i>Numenius minutus</i>			+						+	
Whimbrel	<i>Numenius phaeopus</i>									+	
Ruff	<i>Philomachus pugnax</i>			+						+	
Wood Sandpiper	<i>Tringa glareola</i>			+					+	+	
Common Sandpiper	<i>Tringa hypoleucos</i>								+		
Common Greenshank	<i>Tringa nebularia</i>			+					+	+	+
Marsh Sandpiper	<i>Tringa stagnatilis</i>								+	+	+
Glareolidae (pratincoles)											
Australian Pratincole	<i>Stiltia isabella</i>			+	+				+		
Oriental Pratincole	<i>Glareola maldivarum</i>			+	+					+	+
Laridae (gulls and terns)											
Silver Gull	<i>Larus novaehollandiae</i>			+							
Caspian Tern	<i>Sterna caspia</i>			+			+				
Whiskered Tern	<i>Sterna hybrida</i>				+		+		+		
Gull-billed Tern	<i>Sterna nilotica</i>			+							
Columbidae (pigeons and doves)											
Domestic Pigeon	<i>Columba livia</i>			+							
Common Bronzewing	<i>Phaps chalcoptera</i>			+					+		
Flock Bronzewing	<i>Phaps histrionica</i>			+							
Crested Pigeon	<i>Ocyphaps lophotes</i>	+	+	+	+		+	+	+		
Spinifex Pigeon	<i>Geophaps plumifera</i>			+	+		+				
Diamond Dove	<i>Geopelia cuneata</i>	+	+	+	+		+	+	+		
Peaceful Dove	<i>Geopelia striata</i>	+	+	+	+	+	+	+	+		
Bar-shouldered Dove	<i>Geopelia humeralis</i>	+	+	+	+		+	+	+		
White-quilled Rock Pigeon	<i>Petrophassa albipennis</i>			+	+			+			
Cuculidae (cuckoos and coucals)											
Pheasant Coucal	<i>Centropus phasianinus</i>	+	+	+	+		+	+	+		
Pallid Cuckoo	<i>Cacomantis pallidus</i>			+	+		+	+	+		
Oriental Cuckoo	<i>Cuculus optatus</i>								+		+
Brush Cuckoo	<i>Cacomantis variolosus</i>	+	+	+		+	+	+	+		
Black-eared Cuckoo	<i>Chrysococcyx osculans</i>						+				
Horsfield's Bronze-Cuckoo	<i>Chrysococcyx basalis</i>	+	+		+		+	+	+		
Little Bronze-Cuckoo	<i>Chrysococcyx minutillus</i>						+	+			
Common Koel	<i>Eudynamys orientalis</i>			+	+				+		
Channel-billed Cuckoo	<i>Scythrops novaehollandiae</i>			+					+		
Tytonidae (barn owls)											
Barn Owl	<i>Tyto alba</i>				+		+		+		
Grass Owl	<i>Tyto longimembris</i>						+		+		
Masked Owl	<i>Tyto novaehollandiae kimberli</i>				+					+	+

Table 3 (cont.)

Species	Conservation Status	Records									
		Mantinea '16	Carlton '16	BA	WAM	FSDB	Mantinea '09	PS, WB, EB	Ord Stage 2	DPAW	EPBC
Strigidae (hawk owls)											
Barking Owl <i>Ninox connivens</i>			+	+	+		+	+	+		
Southern Boobook Owl <i>Ninox boobook</i>		+	+	+	+	+	+	+	+		
Podargidae (frogmouths)											
Tawny Frogmouth <i>Podargus strigoides</i>		+	+		+		+	+	+		
Caprimulgidae (nightjars)											
Spotted Nightjar <i>Eurostopodus argus</i>			+	+			+	+	+		
Aegothelidae (owlet-nightjars)											
Australian Owlet-Nightjar <i>Aegotheles cristatus</i>				+	+				+		
Apodidae (swifts)											
Fork-tailed Swift <i>Apus pacificus</i>	CS1			+					+	+	+
Coraciidae (dollarbirds)											
Dollarbird <i>Eurystomus orientalis</i>				+	+				+		
Alcedinidae (kingfishers)											
Azure Kingfisher <i>Ceyx azureus</i>				+	+			+	+		
Blue-winged Kookaburra <i>Dacelo leachii</i>		+	+	+		+	+	+	+		
Collared Kingfisher <i>Todiramphus chloris</i>				+					+		
Red-backed Kingfisher <i>Todiramphus pyrrhopygius</i>		+	+	+			+	+	+		
Sacred Kingfisher <i>Todiramphus sanctus</i>		+		+	+		+	+	+		
Meropidae (bee-eaters)											
Rainbow Bee-eater <i>Merops ornatus</i>	CS1	+	+	+	+	+	+	+	+	+	
Falconidae (falcons)											
Brown Falcon <i>Falco berigora</i>		+	+	+	+		+	+	+		
Australian Kestrel <i>Falco cenchroides</i>		+	+	+	+		+	+	+		
Australian Hobby <i>Falco longipennis</i>			+	+			+	+			
Grey Falcon <i>Falco hypoleucos</i>	CS1						+			+	
Peregrine Falcon <i>Falco peregrinus</i>	CS1			+					+	+	
Black Falcon <i>Falco subniger</i>				+							
Cacatuidae (cockatoos)											
Red-tailed Black-Cockatoo <i>Calyptorhynchus banksii</i>		+	+	+	+		+	+	+		
Galah <i>Cacatua roseicapilla</i>		+	+	+	+	+	+	+	+		
Little Corella <i>Cacatua sanguinea</i>		+	+	+			+	+	+		
Sulphur-crested Cockatoo <i>Cacatua galerita</i>		+	+	+			+	+	+		
Cockatiel <i>Nymphicus hollandicus</i>		+	+	+			+	+	+		
Psittacidae (cockatoos, parrots, lorikeets and rosellas)											
Red-winged Parrot <i>Aprosmictus erythropterus</i>		+	+	+	+	+	+	+	+		
Budgerigar <i>Melopsittacus undulatus</i>				+			+	+	+		
Northern Rosella <i>Platycercus venustus</i>			+	+		+	+	+	+		
Red-collared Lorikeet <i>Trichoglossus rubritorquis</i>		+	+	+	+	+	+	+	+		
Varied Lorikeet <i>Trichoglossus versicolor</i>				+	+	+	+		+		

Table 3 (cont.)

Species	Conservation Status	Records										
		Mantinea '16	Carlton '16	BA	WAM	FSDB	Mantinea '09	PS, WB, EB	Ord Stage 2	DPAW	EPBC	
Ptilonorhynchidae (bowerbirds)												
Great Bowerbird <i>Ptilonorhynchus nuchalis</i>		+	+	+	+	+	+	+	+			
Climacteridae (treecreepers)												
Black-tailed Treecreeper <i>Climacteris melanurus</i>		+		+	+	+	+	+	+			
Maluridae (fairy-wrens, grasswrens and emu-wrens)												
Variegated Fairy-wren <i>Malurus lamberti</i>				+	+							
Red-backed Fairy-wren <i>Malurus melanocephalus</i>		+	+	+	+	+	+	+	+			
Meliphagidae (honeyeaters and chats)												
Brown Honeyeater <i>Lichmera indistincta</i>		+	+	+	+	+	+	+	+			
Singing Honeyeater <i>Gavicalis virescens</i>							+	+	+			
Grey-fronted Honeyeater <i>Ptilotula plumula</i>							+		+			
Yellow-tinted Honeyeater <i>Ptilotula flavescens</i>		+	+			+		+	+	+		
White-throated Honeyeater <i>Melithreptus albugularis</i>		+	+	+	+	+	+	+	+	+		
Blue-faced Honeyeater <i>Melithreptus cyanotis</i>		+	+	+	+	+	+	+	+	+		
Black-chinned Honeyeater <i>Melithreptus gularis</i>				+				+	+	+		
Little Friarbird <i>Philemon citreogularis</i>		+	+	+	+	+	+	+	+	+		
Silver-crowned Friarbird <i>Philemon argenticeps</i>		+	+	+	+	+	+	+	+	+		
Banded Honeyeater <i>Cissomela pectoralis</i>				+	+	+	+	+	+	+		
Rufous-throated Honeyeater <i>Conopophila rufogularis</i>		+	+	+	+	+	+	+	+	+		
Yellow-throated Miner <i>Manorina flavigula</i>		+		+	+		+	+	+	+		
Bar-breasted Honeyeater <i>Ramsayornis fasciatus</i>				+	+					+		
White-gaped Honeyeater <i>Stomiopera unicolor</i>		+	+		+		+	+	+			
Yellow Chat <i>Ephianura crocea</i>				+								
Pardalotidae (pardalotes)												
Red-browed Pardalote <i>Pardalotus rubricatus</i>		+	+	+		+	+	+	+			
Striated Pardalote <i>Pardalotus striatus</i>			+	+	+	+	+	+	+			
Acanthizidae (thornbills, gerygones & allies)												
Green-backed Gerygone <i>Gerygone chloronota</i>				+						+		
White-throated Gerygone <i>Gerygone olivacea</i>		+	+		+	+	+	+	+	+		
Weebill <i>Smicromnis brevirostris</i>		+	+	+	+	+	+	+	+	+		
Pomatostomidae (babbler)												
Grey-crowned Babbler <i>Pomatostomus temporalis</i>		+	+	+	+	+	+	+	+	+		
Artamidae (woodswallows)												
White-breasted Woodswallow <i>Artamus leucorhynchus</i>		+	+	+	+					+		
Masked Woodswallow <i>Artamus personatus</i>				+			+					
White-browed Woodswallow <i>Artamus superciliosus</i>				+								
Black-faced Woodswallow <i>Artamus cinereus</i>		+	+	+	+	+	+	+	+	+		
Little Woodswallow <i>Artamus minor</i>				+	+			+	+			

Table 3 (cont.)

Species	Conservation Status	Records									
		Mantinea '16	Carlton '16	BA	WAM	FSDB	Mantinea '09	PS, WB, EB	Ord Stage 2	DPAW	EPBC
Cracticidae (butcherbirds and magpies)											
Grey Butcherbird	<i>Cracticus torquatus</i>			+	+	+		+	+		
Pied Butcherbird	<i>Cracticus nigrogularis</i>	+	+	+	+	+	+	+	+		
Australian Magpie	<i>Cracticus tibicen</i>	+		+		+	+	+	+		
Campephagidae (cuckoo-shrikes and trillers)											
Black-faced Cuckoo-Shrike	<i>Coracina novaehollandiae</i>	+	+	+	+	+	+	+	+		
White-bellied Cuckoo-Shrike	<i>Coracina papuensis</i>		+	+	+	+	+	+	+		
Ground Cuckoo-Shrike	<i>Coracina maxima</i>			+	+						
Varied Triller	<i>Lalage leucomela</i>			+							
White-winged Triller	<i>Lalage tricolor</i>	+	+		+	+	+	+	+		
Neosittidae (sittellas)											
Varied Sittella	<i>Daphoenositta chrysoptera</i>	+	+	+	+	+		+	+		
Pachycephalidae (shrike-tits, whistlers and allies)											
Grey Shrike-thrush	<i>Colluricincla harmonica</i>		+	+	+		+	+	+		
Sandstone Shrike-thrush	<i>Colluricincla woodwardi</i>		+	+					+		
Crestern Shrike-tit (northern)	<i>Falcunculus frontatus whitei</i>	CS1								+	+
Rufous Whistler	<i>Pachycephala rufiventris</i>	+	+	+	+	+	+	+	+		
Oriolidae (orioles and figbirds)											
Yellow Oriole	<i>Oriolus flavocinctus</i>		+	+	+	+	+	+	+		
Olive-backed Oriole	<i>Oriolus sagittatus</i>	+	+	+	+	+	+	+	+		
Rhipiduridae (fantails)											
Grey Fantail	<i>Rhipidura albiscapa</i>	CS1					+	+			
Arafura (Wood or Rufous) Fantail	<i>Rhipidura dryas (ruffifrons)</i>			+							+
Willie Wagtail	<i>Rhipidura leucophrys</i>	+	+	+		+	+	+	+		
Northern Fantail	<i>Rhipidura rufiventris</i>		+	+	+			+	+		
Monarchidae (monarchs and flycatchers)											
Magpie-Lark	<i>Grallina cyanoleuca</i>	+	+	+	+		+	+	+		
Shining Flycatcher	<i>Myiagra alecto</i>			+	+			+	+		
Restless Flycatcher	<i>Myiagra inquieta</i>	+	+	+	+	+	+	+	+		
Leaden Flycatcher	<i>Myiagra rubecula</i>			+	+	+	+	+	+		
Corvidae (ravens and crows)											
Torresian Crow	<i>Corvus orru</i>	+	+	+		+	+	+	+		
Little Crow	<i>Corvus bennetti</i>						+				
Petroicidae (robins)											
Jacky Winter	<i>Microeca fascinans</i>	+		+	+		+		+		
Lemon-breasted Flycatcher	<i>Microeca flavigaster</i>			+	+		+		+		
Buff-sided Robin	<i>Poecilodryas cerviniventris</i>	+		+	+	+	+	+	+		
Alaudidae (larks)											
Horsfield's Bushlark	<i>Mirafrava javanica</i>		+	+	+	+	+	+	+		

Table 3 (cont.)

Species	Conservation Status	Records									
		Mantinea '16	Carlton '16	BA	WAM	FSPDB	Mantinea '09	PS, WB, EB	Ord Stage 2	DPAW	EPBC
Hirundinidae (swallows and martins)											
Red-rumped Swallow	<i>Cecropis daurica</i>	CS1									+
Welcome Swallow	<i>Hirundo neoxena</i>			+							
Barn Swallow	<i>Hirundo rustica</i>	CS1	+	+						+	+
Tree Martin	<i>Hirundo nigricans</i>		+				+	+	+		
Fairy Martin	<i>Petrochelidon ariel</i>				+		+	+			
Acrocephalidae (reed-warblers)											
Australian Reed-warbler	<i>Acrocephalis australis</i>			+	+		+	+	+		
Locustellidae (old world warblers)											
Rufous Songlark	<i>Megalurus mathewsi</i>			+			+	+	+		
Brown Songlark	<i>Megalurus cruralis</i>			+							
Little Grassbird	<i>Megalurus gramineus</i>		+	+							
Tawny Grassbird	<i>Megalurus timoriensis</i>			+	+		+	+	+		
Golden-headed Cisticola	<i>Cisticola exilis</i>		+	+	+	+	+	+	+		
Zitting Cisticola	<i>Cisticola juncidis</i>										
Zosteropidae (white-eyes)											
Yellow White-eye	<i>Zosterops luteus</i>			+	+		+				
Dicaeidae (flowerpeckers)											
Mistletoebird	<i>Dicaeum hirundinaceum</i>		+	+	+		+	+	+		
Estrildidae (grassfinches and allies)											
Zebra Finch	<i>Taeniopygia guttata</i>		+	+		+	+	+	+		
Double-barred Finch	<i>Taeniopygia bichenovii</i>		+	+	+	+	+	+	+		
Long-tailed Finch	<i>Poephila acuticauda</i>		+	+	+	+	+	+	+		
Masked Finch	<i>Poephila personata</i>		+	+	+	+	+	+	+		
Chestnut-breasted Mannikin	<i>Lonchura castaneothorax</i>			+	+	+	+	+	+		
Yellow-rumped Mannikin	<i>Lonchura flaviprymna</i>			+		+		+	+		
Crimson Finch	<i>Neochmia phaeton</i>			+	+	+	+	+	+		
Star Finch	<i>Neochmia ruficauda</i>			+	+	+	+	+	+		
Pictorella Mannikin	<i>Heteromunia pectoralis</i>			+			+	+	+		
Gouldian Finch	<i>Erythrura gouldiae</i>	CS1		+				+		+	+
Motacillidae (pipits and wagtails)											
Australian Pipit	<i>Anthus australis</i>		+					+	+		
Grey Wagtail	<i>Motacilla cinerea</i>	CS1									+
Yellow Wagtail	<i>Motacilla flava</i>	CS1			+					+	+
# bird species possible in the study area:			234								
# bird species recorded in the study area in 2016:			103								

Table 4: Mammals which occur or Potentially occur in the Study Area

Mantinea '16 & Carlton '16 = species recorded in the study area during the 2016 fauna survey.

WAM = species recorded in the area on the Western Australian Museum Specimen Database (see Table 6 of main report).

FSDB = species recorded in the area on the Fauna Survey Returns Database (see Table 6 of main report).

Mantinea '09 = species recorded on the Mantinea Plain in 2009 (Stretegen 2010).

Irrigation = species recorded on the Packsaddle Plain, East Bank or West Bank in 2009 (Strategen 2010).

DPAW = species recorded in the area on DPAW's Threatened and Priority Fauna Database (see Table 6 of main report).






Int = introduced species.






Species	Conservation Status	Records								
		Mantinea '16	Carlton '16	WAM	FSDB	Mantinea '09	PS, WB, EB	Ord Stage 2	DPAW	EPBC
Tachyglossidae (echidnas)										
Echidna <i>Tachyglossus aculeatus</i>			+	+						
Dasyuridae (dasyurid marsupials)										
Northern Quoll <i>Dasyurus hallucatus</i>	CS1			+					+	+
Long-tailed Planigale <i>Planigale ingrami</i>				+	+	+	+	+		
Common Planigale <i>Planigale maculata</i>				+						
Ningbing Pseudantechinus <i>Pseudantechinus ningbing</i>			+	+				+		
Striped-faced Dunnart <i>Sminthopsis macroura</i>										
Peramelidae (bandicoots and bilbies)										
Northern Brown Bandicoot <i>Isodon macrourus</i>				+	+			+		
Macropodidae (kangaroos and wallabies)										
Agile Wallaby <i>Macropus agilis</i>		+	+	+				+		
Antilopine Wallaroo <i>Macropus antilopinus</i>				+				+		
Euro <i>Macropus robustus</i>			+	+						
Northern Nailtail Wallaby <i>Onychogalea unguifera</i>				+				+		
Short-eared Rock Wallaby <i>Petrogale brachyotis</i>			+	+						
Petauridae (gliders)										
Sugar Glider <i>Petuarus breviceps</i>				+						
Pteropodidae (flying foxes)										
Black Flying-Fox <i>Pteropus alecto</i>				+						
Little Red Flying-Fox <i>Pteropus scapulatus</i>				+						
Hipposideridae (leaf-nosed bats)										
Dusky Leaf-nosed Bat <i>Hipposideros ater</i>				+						
Northern Leaf-nosed Bat <i>Hipposideros stenotis</i>	CS2		+	+					+	
Orange Leaf-nosed Bat <i>Rhinonictis aurantia</i>	CS2		+	+					+	
Megadermatidae (ghost bat)										
Ghost Bat <i>Macroderma gigas</i>	CS1									+
Emballonuridae (sheathtail bats)										
Yellow-bellied Sheathtail Bat <i>Saccolaimus flaviventris</i>			+	+						
Common Sheathtail Bat <i>Taphozous georgianus</i>			+	+						
Vespertilionidae (ordinary bats)										
Gould's Wattled Bat <i>Chalinolobus gouldii</i>			+	+				+		
Hoary Wattled Bat <i>Chalinolobus nigrogriseus</i>				+						






Table 4 (cont.)






Species	Conservation Status	Records								
		Mantinea '16	Carlton '16	WAM	FSDB	Mantinea '09	Irrigation	Ord Stage 2	DPAW	EPBC
Vespertilionidae (ordinary bats)										
Northern Bentwing Bat	<i>Miniopterus schreibersii oriana</i>			+						
Southern Myotis	<i>Myotis macropus</i>			+						
Arnhem Land Long-eared Bat	<i>Nyctophilus arnhemensis</i>									
North-western Long-eared Bat	<i>Nyctophilus daedalus</i>			+						
Lesser Long-eared Bat	<i>Nyctophilus geoffroyi</i>			+						
Pygmy Long-eared Bat	<i>Nyctophilus walkeri</i>			+						
Northern Pipistrelle	<i>Pipistrellus westralis</i>		+							
Little Broad-nosed Bat	<i>Scotorepens greyii</i>			+				+		
Northern Broad-nosed Bat	<i>Scotorepens sanborni</i>			+						
Western Cave Bat	<i>Vespadelus caurinus</i>		+	+				+		
Molossidae (freetail bats)										
Northern Freetail Bat	<i>Chaerephon jobensis</i>		+							
Beccari's Freetail Bat	<i>Mormopterus beccarii</i>									
Muridae (rats and mice)										
Water-Rat (Rakali)	<i>Hydromys chrysogaster</i>	CS2		+						+
Lakeland Downs Mouse	<i>Leggadina lakedownensis</i>	CS2		+	+	+				+
Grassland Melomys	<i>Melomys burtoni</i>				+	+	+			
House Mouse	<i>Mus musculus</i>	Int.		+	+	+	+			+
Delicate Mouse	<i>Pseudomys delicatulus</i>			+	+		+			
Western Chestnut Mouse	<i>Pseudomys nanus</i>			+	+		+	+		
Black Rat	<i>Rattus rattus</i>	Int.		+						+
Pale Field-Rat	<i>Rattus tunneyi</i>			+						
Common Rock-rat	<i>Zyzomys argurus</i>		+	+	+		+	+		
Canidae (dogs and foxes)										
Dingo	<i>Canis lupus dingo</i>		+	+					+	
Felidae (cats)										
Feral/House Cat	<i>Felis catus</i>	Int.		+					+	+
Equidae (horses)										
Donkey	<i>Equus asinus</i>	Int.		+						+
Suidae (pigs)										
Pig	<i>Sus scrofa</i>	Int.								+
Bovidae (horned ruminants)										
Cow	<i>Bos taurus</i>	Int.	+	+						
# mammal species possible in the study area:		49								
# mammal species recorded in the study areas in 2016:		18								






Appendix F: Targetted Fauna Site Locations and Descriptions (Western Wildlife 2016)






Fauna Site	Location	Habitat	Photograph
CM01	52L 443248 E, 8281119 N	Nicole's Hole: Degraded, artificial watering point; occasional shrubs over grassland on clay	
CM02	52L 454457 E, 8278526 N	Sub-riparian Woodland (Eucalypt and Deciduous spp.) over open shrubs on loam.	
CM03	52L 451702 E, 8282176 N	Billy Swamp: Dry Lagoon, Eucalypt woodland over mixed shrubland on sand & clay	
CM04	52L 448698 E, 8282134 N	Boab woodland over Calotropis and grass on rocky clay	
CM05	52L 445313 E, 8277393 N	Open Eucalypt Woodland over mixed shrubs, grass and Calotropis	






Waypoint	Location	Habitat	Photograph
CM06	52L 438336 E, 8281969 N	Wetland/creekline: Eucalypt Woodland over freshwater mangroves and mixed shrubland.	
CM07	52L 445463 E, 8284336 N	Base of Houserook hill, scattered Boabs on stony flats between hills with shrubland over grassland on rocky hills	
CM08	52L 440642 E, 8283087 N	Billabong: Eucalypt and Deciduous Woodland over shrubs and grasses on clay	
CM09	52L 434861 E, 8283533 N	Weed Shrubland adjacent to floodplain – trashed by cattle – very weedy	
CM10	52L 447814 E, 8283368 N	Open Boab and Eucalypt woodland over weed shrubland on loam	






Waypoint	Location	Habitat	Photograph
CM11	52L 449324 E, 8285422 N	Eucalypt woodland over grass on loam	
CM12	52L 454386 E, 8277735 N	Riparian Woodland surrounded by grazed very open woodland over degraded grassland on loam	
CM13	52L 452559 E, 8276199 N	Riparian Woodland over grass on stony loam	
CM14	52L 448501 E, 8276976 N	Guttapercha Woodland	
CM15	52L 448410 E, 8275343 N	Riparian Eucalypt Woodland over tall Acacia and low grasses on sand	



Waypoint	Location	Habitat	Photograph
CM16	52L 449393 E, 8280463 N	Open Boab and Eucalypt woodland over grasses on loamy clay – heavily degraded	
CM17	52L 445013 E, 8280463 N	Dam and Melaleuca low woodland on stony clay plain with termite mounds	
CM18	52L 449929 E, 8276215 N	Carlton Hill Homestead: watered lawns, billabong, mango trees, degraded yards.	
CM19	52L 443607 E, 8284703 N	Sparse shrubland on open plains to north of Houserook Hill.	
CM20	52L 445330 E, 8282506 N	Houserook Hill – isolated sandstone hill.	

Waypoint	Location	Habitat	Photograph
CM21	52L 440991 E, 8279433 N	Ord River. (outside study area)	
CM22	52L 445797 E, 8286161 N	Grasslands on clay, sparse shrublands.	
CM23	52L 446914 E, 8286672 N	Terminalia/Boab woodland over grassland on minor creek.	
CM24	52L 440957 E, 8290568 N	Turkey nest dam (outside study area).	
CM25	52L 441419 E, 8289662 N	Open woodland along creek and low rocky hill	

Waypoint	Location	Habitat	Photograph
CM26	52L 444267 E, 8289291 N	Eucalypt woodland over cane grass/spinifex, large termite mounds, minor creek.	
CM27	52L 438768 E, 8287580 N	Open woodland over grass, to open grassland	
CM28	52L 439561 E, 8286122 N	Large, open, dry wetland, woody weeds. Surrounded by open Guttapercha woodland.	
CM29	52L 441046 E, 8277340 N	Open, degraded grassland and sparsely treed plain.	
CM30	52L 437399 E, 8275364 N	Dry creekline, Guttapercha and eucalypt lined, surrounded by very open woodland.	

Waypoint	Location	Habitat	Photograph
CM31	52L 435285 E, 8276356 N	Open eucalypt and melaleuca woodland, degraded.	
CM32	52L 434514 E, 8274759 N	Dam	
CM33	52L 434169 E, 8274466 N	Small, dry wetland.	
CM34	52L 433885 E, 8280346 N	Saltwater creek – tidal creek with muddy banks and degraded riparian woodland.	
CM35	52L 438172 E, 8279132 N	Open woodland on Ord River floodplain. Degraded, woody weeds.	
CM36	52L 443462 E, 8277403 N	Ord R. (near Barras - outside study area)	

Waypoint	Location	Habitat	Photograph
CM37	52L 434158 E, 8279293 N	Open woodland on clay-loam, very degraded.	
CM38	52L 438989 E, 8278198 N	Very open woodland. Scattered large trees over sparse shrubland and grassland in minor drainage.	
CM39	52L 443938 E, 8275462 N	Minor creek near stockyard, major erosion, Boab/Terminalia woodland over short grasses on clay-loam.	
CM40	52L 442321 E, 8274385 N	Woodland, patchy Acacia shrubland understorey over grass, sandy creek.	
CM41	52L 436062 E, 8276587 N	Eucalyptus and Melaleuca woodland in groves. Minor seasonal depressions in clay.	


Waypoint	Location	Habitat	Photograph
CM42	52L 439077 E, 8288591 N	Gutta percha woodland on cracking clay near Crazy Gates	
CM43	52L 448380 E, 8277311 N	Wetland/creekline: Eucalypt Woodland over freshwater mangroves and mixed shrubland.	
CM44	52L 442018 E, 8279638 N	Opportunistic, on track.	

Fauna Site Locations

Fauna Site	Easting	Northing
CM01	8281119	443248
CM02	8278526	454457
CM03	8282176	451702
CM04	8282134	448698
CM05	8277394	445313
CM06	8281969	438336
CM07	8284336	445463
CM08	8283087	440642
CM09	8283533	434861
CM10	8283368	447814
CM11	8285422	449324
CM12	8277735	454386
CM13	8276199	452559
CM14	8276976	448501
CM15	8275343	448410
CM16	8280463	449393
CM18	8287728	449929
CM19	8284703	443607
CM20	8282506	445330
CM21	8279433	440991
CM22	8286161	445797
CM23	8286672	446914
CM24	8290568	440957

Fauna Site	Easting	Northing
CM25	8289662	441419
CM26	8289291	444267
CM27	8287580	438768
CM28	8286122	439561
CM29	8277340	441046
CM30	8275364	437399
CM31	8276356	435285
CM32	8274759	434514
CM33	8274466	434169
CM34	8280346	433885
CM35	8279132	438172
CM36	8277403	443462
CM37	8279293	434158
CM38	8278198	438989
CM39	8275462	443938
CM40	8274385	442321
CM41	8276587	436062
CM42	8288591	439077
CM43	8277311	448380
CM44	8279638	442018

Appendix G: Bat Call Identification Report (Western Wildlife 2016)

	
<h2>Bat call identification from Kununurra, WA</h2>	
Type:	Acoustic analysis
Prepared for:	Western Wildlife
Date:	11 September 2016
Job No.:	SZ412
Prepared by:	Kyle Armstrong and Yuki Konishi Specialised Zoological ABN 92 265 437 422 Tel 0404 423 264 kyle.n.armstrong@gmail.com http://szool.com.au
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SUMMARY

Bat identifications from acoustic recordings are provided from near Kununurra, in the Kimberley region of Western Australia. At least 11 species of bat were identified as being present, with the possibility of others that could not be distinguished based on their echolocation call characteristics (Tables 1 and 2). There was no evidence of the presence of the Bare-rumped Sheath-tailed Bat *Saccolaimus saccolaimus* (Table 3), however the recordings of the Northern Leaf-nosed Bat *Hipposideros stenotis* are of significance. Representative echolocation calls are provided (Figure 1), as recommended by the Australasian Bat Society (ABS 2006). Further data are available should verification be required.

COMMENTS ON IDENTIFICATIONS

The identification of bat species from full spectrum WAV format recordings of their echolocation calls was based on measurements of characteristic frequency, pulse shape, and the pattern of harmonics. Harmonic patterning was especially useful for distinguishing species of the Emballonuridae from the Molossidae. For these low-frequency emitting bats (producing calls with the characteristic frequency of the loudest harmonic below 30 kHz), identification to species was made only when more than one harmonic was visible. The identification of the Northern Free-tailed Bat *Ozimops lumsdenae* (*Mormopterus beccarii*) was aided by the pattern of harmonics and pulse shape, but there were only a few call sequences where the harmonic profile characteristic of this species was observed.

Some call sequences could not be identified reliably to one species because of the overlap in echolocation pulse characteristics amongst one or more candidate species. The calls of the Hoary Wattled Bat *Chalinolobus nigrogriseus*, Little Broad-nosed Bat *Scotorepens greyii* and Northern Broad-nosed Bat *Scotorepens sanborni* are similar and could not be distinguished. Likewise, the calls of the Northern Bent-winged Bat *Miniopterus orianae orianae* and Forest Pipistrelle *Pipistrellus adamsi* cannot be distinguished reliably for some call types, and sometimes also overlap with the calls of the Northern Pipistrelle *Pipistrellus westralis*.

An assessment of calls with a characteristic frequency lower than 25 kHz for evidence of the presence of the Bare-rumped Sheath-tailed Bat *S. saccolaimus* was made in the context of seven criteria that can be helpful in separating the calls of the three Australian species of *Saccolaimus* and other low-frequency-emitting bat species (Table 3). Calls typical of *Saccolaimus* sp. met criteria 1–4, however none of these particular features by themselves or in combination provided an unambiguous identification of *S. saccolaimus*. Calls with characteristics that placed them with the confidence region of *S. saccolaimus* (Criterion 4;

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Figure 2) were examined, and were observed to be derived from other species (*Ozimops lumsdenae*, *Saccolaimus flaviventris*, *Taphozous georgianus*). While the method for distinguishing the calls of each *Saccolaimus* species is not fully effective, there was no compelling observation that suggested the presence of *S. saccolaimus* from any recording site.

METHODS

Data recorded in full spectrum lossless WAC0 format with Wildlife Acoustics SM2BAT+ bat detectors (sampling rate 384 kHz, trigger 6 dB above background; 48 dB gain; set to turn on automatically at sunset and off at sunrise) was converted to high quality bitstream WAV format using Kaleidoscope 3.3.0 software.

A multi-step acoustic analysis procedure developed to process large full spectrum echolocation recording datasets from insectivorous bats (Armstrong and Aplin 2014; Armstrong et al. 2016) was then applied to the recordings made on the survey. Firstly, the WAV files were scanned for bat echolocation calls using several parameter sets in the software SCAN'R version 1.7.7 (Binary Acoustic Technology), which also provides measurements (in "SonoBat™ compatible output") from each putative bat pulse. The output was then used to determine if putative bat pulses measured in SCAN'R could be identified to species. This was done using a custom [R] language script that performed three tasks: 1. undertook a Discriminant Function Analysis on training data from representative and reference calls from northern Australia; 2. from the measurements of each putative bat pulse from SCAN'R, calculated values for the first two Discriminant Functions that could separate the echolocation call types derived from the analysis of training data, and plotted these resulting coordinates over confidence regions for the defined call types; and 3. facilitated an inspection in a spectrogram of multiple examples of each call type for each recording night by opening the original WAV files containing pulses of interest in Adobe Audition CS6 version 5.0.2. The [R] language script also included a separate process that repeated the above steps using training data from low frequency emitting species, and which is able to separate *Chaerephon jobensis* from *Saccolaimus* species, and the three Australian species of *Saccolaimus* from each other (Armstrong et al. 2014).

Species were identified based on information in Milne (2002), Churchill (2008) and McKenzie and Bullen (2012), and nomenclature follows Reardon et al. (2015) and Jackson and Groves (2015). Examples of calls are illustrated with the help of the [R] package 'seewave' (Sueur et al. 2008).

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TABLE 1. Species identified in the present survey from all sites combined.

RHINONYCTERIDAE	
Orange Leaf-nosed Bat	<i>Rhinonycteris aurantia</i>
HIPPOSIDERIDAE	
Northern Leaf-nosed Bat	<i>Hipposideros stenotis</i>
EMBALLONURIDAE	
Yellow-bellied Sheath-tailed Bat	<i>Saccolaimus flaviventris</i>
Common Sheath-tailed Bat	<i>Taphozous georgianus</i>
VESPERTILIONIDAE	
Gould's Wattled Bat	<i>Chalinolobus gouldii</i>
Northern Pipistrelle	<i>Pipistrellus westralis</i>
Northern Cave Bat	<i>Vespadelus caurinus</i>
MOLOSSIDAE	
Greater Northern Free-tailed Bat	<i>Chaerephon jobensis</i>
Northern Free-tailed Bat	<i>Ozimops lumsdenae</i>
Ambiguous	
Hoary Wattled Bat /	<i>Chalinolobus nigrogriseus</i> /
and/or Little Broad-nosed Bat /	<i>Scotorepens greyii</i> /
and/or Northern Broad-nosed Bat	<i>Scotorepens sanborni</i>
Northern Bent-winged Bat /	<i>Miniopterus orianae orianae</i> /
and/or Forest Pipistrelle	<i>Pipistrellus adamsi</i>

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TABLE 2. Species identifications, with the degree of confidence indicated by a code. Date and serial/unit correlates with site; see Table 1 for full species names.

	<i>C. gouldii</i>	<i>C. jobensis</i>	<i>C. nigrogriseus</i> / <i>S. greyii</i> / <i>S. sanborni</i>	<i>H. stenotis</i>	<i>M. oriana</i> / <i>P. adamsi</i>	<i>M. lumsdenae</i>	<i>P. westralis</i>	<i>R. aurantia</i>	<i>S. flaviventris</i>	<i>T. georgianus</i>	<i>V. caurinus</i>
SM2BAT 8072											
20/08/2016	◆	◆	NC	—	NC	NC	◆	◆	◆	◆	—
21/08/2016	◆	◆	NC	—	NC	—	◆	◆	◆	◆	—
22/08/2016	◆	◆	NC	—	NC	NC	◆	◆	◆	◆	—
23/08/2016	◆	◆	NC	—	NC	—	◆	◆	◆	◆	—
SM2BAT 10890											
20/08/2016	◆	◆	NC	◆	—	—	—	◆	◆	◆	◆
21/08/2016	◆	◆	NC	◆	NC	—	◆	—	—	◆	◆
22/08/2016	◆	◆	NC	◆	—	—	—	◆	—	◆	◆
23/08/2016	◆	◆	NC	◆	—	—	◆	—	—	◆	◆

Definition of confidence level codes:

— Not detected.

◆ Unambiguous identification of the species at the site based on measured call characteristics and comparison with available reference material. Greater confidence in this ID would come only after capture and supported by morphological measurements or a DNA sequence.

NC Needs Confirmation. Either call quality was poor, or the species cannot be distinguished reliably from another that makes similar calls. Alternative identifications are indicated in the *Comments on identifications* section of this report. If this is a species of conservation significance, further survey work might be required to confirm the record.

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TABLE 3. Criteria used to attribute call types to the Bare-rumped Sheath-tailed Bat *Saccolaimus saccolaimus*. A tick or a cross indicates whether an observation consistent with that particular criterion was observed in the recordings from the present survey.

	Indicative of a species of <i>Saccolaimus</i>
✓	1. Characteristic frequency of the second (loudest, based on microphone sensitivity) harmonic between c. 20 and 25 kHz (Milne et al. 2009; Armstrong et al. 2014; K.N. Armstrong unpublished data; evident in AnaBat or full spectrum format data). This criterion is indicative of, but not exclusively characteristic of <i>Saccolaimus</i> .
✓	2. In multi-harmonic representations available from full spectrum recordings, the characteristic frequency of the fundamental at around 10–12 kHz, and of the third harmonic around 30–35 kHz (Armstrong et al. 2014; K.N. Armstrong unpub. data; evident sometimes in AnaBat or more usually full spectrum format data; see examples of harmonic fragments in the AnaBat-recorded calls of Milne et al. 2009). This criterion is exclusively characteristic of <i>Saccolaimus</i> and <i>Taphozous</i> .
✓	3. A pulse shape that is either curvilinear or serpentine (a typical curvilinear chirp with a terminal droop) (Milne et al. 2009; Armstrong et al. 2014; K.N. Armstrong unpublished data; evident in AnaBat or full spectrum format data). This criterion is indicative of, but not exclusively characteristic of <i>Saccolaimus</i> .
✓	4. Measurements from pulses that fall within the confidence region of <i>S. saccolaimus</i> in an ordination plot constructed from the Discriminant Function Analysis of a range of low frequency emitting bats from northern Australia (Armstrong et al. 2014; see example in Figure 2). Meeting this criterion is indicative of, but not exclusively characteristic of <i>S. saccolaimus</i> . Note that there is often variation from other low frequency emitting species that can fall close to the cluster centroid of <i>S. saccolaimus</i> , so points falling within the confidence region of this species are not absolutely diagnostic.
✗	5. Feeding buzz shape differing from that of <i>S. flaviventris</i> as described by Corben (2010, 2011), which can be diagnostic in the absence of the Papuan sheath-tailed bat <i>S. mixtus</i> (K.N. Armstrong unpublished data; evident in AnaBat or full spectrum format data).
	Diagnostic of the species <i>Saccolaimus saccolaimus</i> (given criteria 1–5) in sympatry with <i>S. mixtus</i>.
✗	6. Alternation of high and low characteristic frequency in successive pulses within the band 20–25 kHz (Milne et al. 2009; evident in AnaBat or full spectrum format data).
✗	7. Repeated triplet or doublet pulse sequences as described by Coles et al. (2012, 2014) and Meutstege et al. (2014) (evident in full spectrum format data only).

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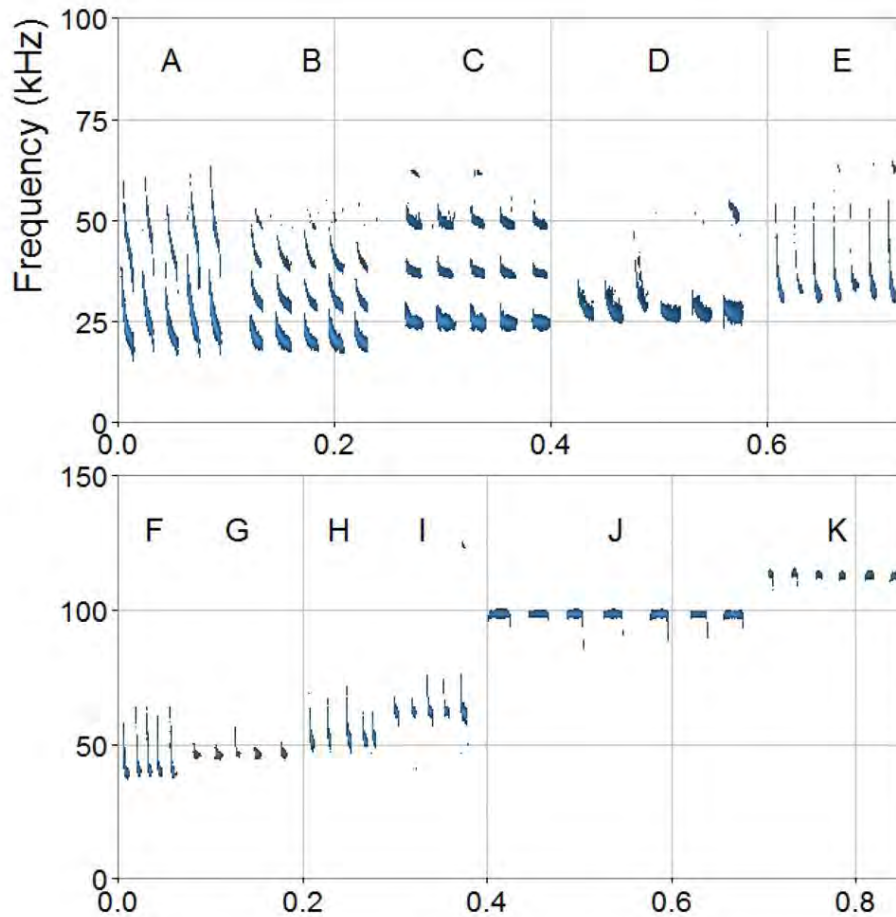


FIGURE 1. Representative call sequence portions of the species identified (time between pulses has been compressed).

- | | |
|------------------------------------|--|
| A: <i>Chaerephon jobensis</i> | F: <i>Chalinolobus nigrogriseus</i> / <i>Scotorepens greyii</i> / <i>S. sanborni</i> |
| B: <i>Saccolaimus flaviventris</i> | G: <i>Pipistrellus westralis</i> |
| C: <i>Taphozous georgianus</i> | H: <i>Miniopterus orianae</i> / <i>Pipistrellus adamsi</i> |
| D: <i>Ozimops lumsdenae</i> | I: <i>Vespadelus caurinus</i> |
| E: <i>Chalinolobus gouldii</i> | J: <i>Hipposideros stenotis</i> |
| | K: <i>Rhinonictis aurantia</i> |

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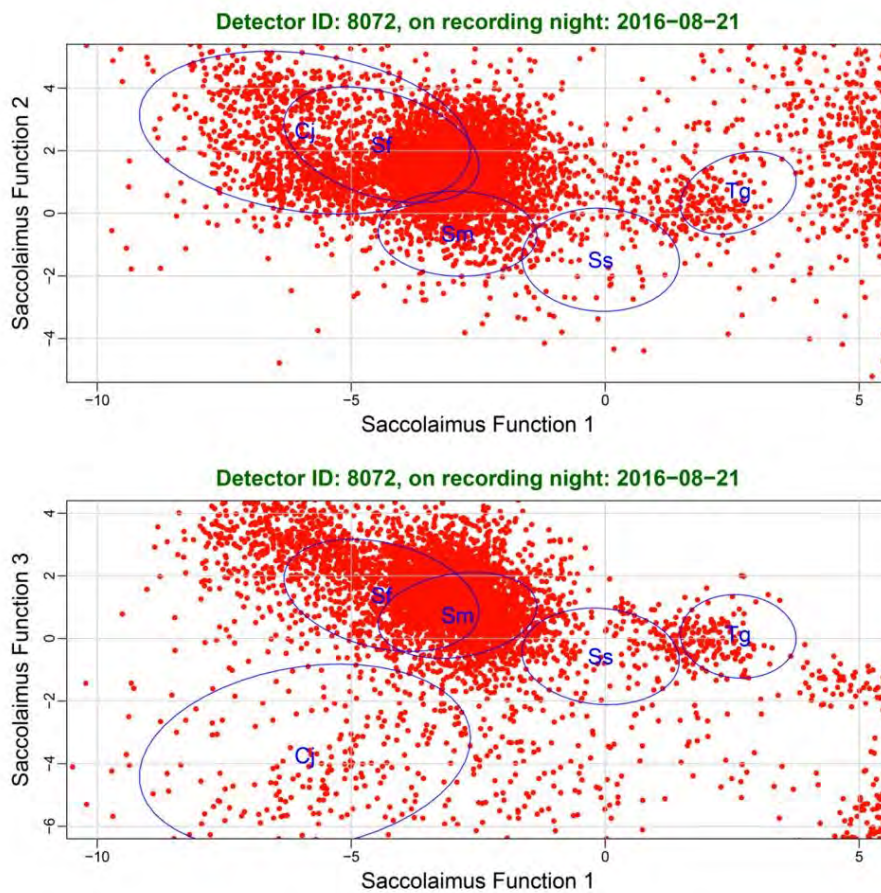


FIGURE 2. Discriminant Function Analysis ordinations with coordinates from anonymously-recorded pulses (red points) in an example subset of WAV files. Ellipses are 68% confidence regions based on measurements from reference calls of each species (Cj: *Chaerephon jobensis*; Sf: *Saccolaimus flaviventris*; Sm: *S. mixtus*; Ss: *S. saccolaimus*; Tg: *Taphozous georgianus*).

Appendix H: Vegetation Condition Scale for the Eremaean and Northern Botanical Provinces (adapted from Keighery 1994)

Condition Ranking	Description
E (Excellent)	Pristine or nearly so, no obvious signs of damage caused by human activities since European settlement.
VG (Very Good)	Some relatively slight signs of damage caused by human activities since European settlement. For example, some signs of damage to tree trunks caused by repeated fire, the presence of some relatively non-aggressive weeds, or occasional vehicle tracks.
G (Good)	More obvious signs of damage caused by human activities since European settlement, including some obvious impact on the vegetation structure such as that caused by low levels of grazing or slightly aggressive weeds.
P (Poor)	Still retains basic vegetation structure or ability to regenerate to it after very obvious impacts of human activities since European settlement, such as grazing, partial clearing, frequent fires or aggressive weeds.
VP (Very Poor)	Severely impacted by grazing, very frequent fires, clearing or a combination of these activities. Scope for some regeneration but not to a state approaching good condition without intensive management. Usually with a number of weed species present including very aggressive species.
D (Completely Degraded)	Areas that are completely or almost completely without native species in the structure of their vegetation; i.e. areas that are cleared or 'parkland cleared' with their flora comprising of weed or crop species with isolated native trees or shrubs.

Appendix I: Raw Data Recorded within Relevés in the Study Area

Site Name: KAI-001
 Site Type: AREA
 Survey Date: 24/08/2016
 GPS Location: GDA94 Zone 52 456465.5571E 8276506.624N
 Vegetation Type: 33
 Landform Type: Drainage Line
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: N
 Soil Type: Loamy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing - Heavily grazed, Exotic Weeds - Significant weeds, 60% weed cover, very dry
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Adansonia gregorii*, *Bauhinia cunninghamii*, *Lophostemon grandiflorus* subsp. *riparius*, *Terminalia hadleyana*
 Mid Stratum 1: *Dichrostachys spicata*, *Flueggea virosa* subsp. *melanthesoides*
 Mid Stratum 2: **Hyptis suaveolens*
 Lower Stratum 1: *Heteropogon contortus*
 Lower Stratum 2: *Cynodon convergens*, *Paspalidium* sp.

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	11	7
<i>Bauhinia cunninghamii</i>	10	2
<i>Cynodon convergens</i>	0.3	10
<i>Dichrostachys spicata</i>	5	0.5
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	4	4
<i>Heteropogon contortus</i>	1.4	2
* <i>Hyptis suaveolens</i>	1.2	30
<i>Lophostemon grandiflorus</i> subsp. <i>riparius</i>	11	60

<i>Paspalidium</i> sp.	0.3	1
Poaceae sp.6	0.3	40
<i>Terminalia hadleyana</i>	10	1



Site Name: KAI-002
 Site Type: AREA
 Survey Date: 24/08/2016
 GPS Location: GDA94 Zone 52 456193.9972E 8276448.586N
 Vegetation Type: 9
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: N
 Soil Type: Light Clay
 Soil Colour: Light brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: <2%
 CF Sizes: 20-60mm
 CF Types: Sandstone
 Vegetation Condition: Northern Vegetation Condition - P - Poor
 Disturbance: Grazing - Heavily grazed, very dry, <1% weed cover
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Melaleuca minutifolia, Triodia bitextura*
 Lower Stratum 1: *Eriachne obtusa, Triodia stenostachya*
 Lower Stratum 2: *Sorghum ?stipoideum*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Eriachne obtusa</i>	0.3	70
<i>Melaleuca minutifolia</i>	4	5
<i>Sorghum ?stipoideum</i>	0.4	2
* <i>Stylosanthes hamata</i>	0.1	0.1
<i>Triodia bitextura</i>	0.4	6
<i>Triodia stenostachya</i>	0.2	0.1



Site Name: KAI-005
 Site Type: AREA
 Survey Date: 24/08/2016
 GPS Location: GDA94 Zone 52 454937.186E 8277039.804N
 Vegetation Type: 9
 Landform Type: Lower Slope
 Slope Class: Gently Inclined (3 degrees)
 Aspect: N
 Soil Type: Sandy clay
 Soil Colour: Light brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 10-20%
 CF Sizes: 2-6mm, 6-20mm, 20-60mm
 Vegetation Condition: Northern Vegetation Condition - P - Poor
 Disturbance: Grazing - Heavily grazed, very dry, <1% weed cover, drought affected
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus pruinosa* subsp. ?*pruinosa*
 Upper Stratum 2: *Melaleuca minutifolia*
 Mid Stratum 1: *Calytrix exstipulata*
 Lower Stratum 1: *Triodia bitextura*
 Lower Stratum 2: *Eriachne ciliata*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Calytrix exstipulata</i>	1	0.1
<i>Eriachne ciliata</i>	0.3	2
<i>Eucalyptus pruinosa</i> subsp. ? <i>pruinosa</i>	3.5	3
<i>Heliotropium euodes</i>	0.3	0.5
* <i>Hyptis suaveolens</i>	0.7	0.2
<i>Melaleuca minutifolia</i>	3	1
<i>Triodia bitextura</i>	0.3	1



Site Name: KAI-007
 Site Type: AREA
 Survey Date: 24/08/2016
 GPS Location: GDA94 Zone 52 454016E 8277314N
 Vegetation Type: 11
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Soil Type: Clay Loam
 Soil Colour: Grey-brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Disturbance: Grazing, Exotic Weeds, Pig/Animal Disturbance - Cattle trampling
 Fire: > 5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Mid Stratum 1: **Parkinsonia aculeata*, **Vachellia farnesiana*

Mid Stratum 2: **Hyptis suaveolens*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
* <i>Hyptis suaveolens</i>	0.5	5
* <i>Malvastrum americanum</i>	1	1
* <i>Parkinsonia aculeata</i>	3	10
Poaceae spp.	0.2	30
<i>Sida spinosa</i>	0.3	0.5
* <i>Vachellia farnesiana</i>	2.5	15



Site Name: KAI-008
 Site Type: AREA
 Survey Date: 24/08/2016
 GPS Location: GDA94 Zone 52 454310E 8277597N
 Vegetation Type: 19
 Landform Type: Plain
 Slope Class: Level (0 degrees)
 Aspect: N
 Soil Type: Clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Bauhinia cunninghamii*, *Corymbia bella*, *Corymbia confertiflora*,
Corymbia greeniana
 Mid Stratum 1: **Calotropis procera*, **Vachellia farnesiana*
 Lower Stratum 1: Poaceae spp.

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Bauhinia cunninghamii</i>	6	2
* <i>Calotropis procera</i>	2	3
<i>Corymbia bella</i>	8	2
<i>Corymbia confertiflora</i>	6	1
<i>Corymbia greeniana</i>	8	0.5
<i>Ficus aculeata</i> var. <i>indecora</i>	3	0.3
* <i>Hyptis suaveolens</i>	0.5	2
* <i>Malvastrum americanum</i>	0.5	2
Poaceae spp.	0.2	25
* <i>Vachellia farnesiana</i>	3	2



Site Name: KAI-010
 Site Type: AREA
 Survey Date: 24/08/2016
 GPS Location: GDA94 Zone 52 454420E 8277090N
 Vegetation Type: 4
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Grey-brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - P - Poor
 Disturbance: Grazing, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*
 Lower Stratum 1: ?*Dichanthium fecundum*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Bauhinia cunninghamii</i>	1	0.1
? <i>Dichanthium fecundum</i>	1	80
<i>Eucalyptus microtheca</i>	11	10
* <i>Vachellia farnesiana</i>	1.5	0.3



Site Name: KAI-011
 Site Type: AREA
 Survey Date: 24/08/2016
 GPS Location: GDA94 Zone 52 454854.6116E 8277375.905N
 Vegetation Type: 22
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: S
 Soil Type: Loamy clay
 Soil Colour: Red-brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing - Very heavily grazed, Exotic Weeds - Significant weeds, 70%
 weed cover, very dry
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*
 Mid Stratum 1: *Dichrostachys spicata*, *Flueggea virosa* subsp. *melanthesoides*
 Mid Stratum 2: *Abutilon hannii*
 Lower Stratum 1: *Cynodon convergens*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Abutilon hannii</i>	1.4	2
<i>Cynodon convergens</i>	0.2	70
<i>Dichrostachys spicata</i>	3.5	0.5
<i>Eucalyptus microtheca</i>	8	35
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	3.5	2



Site Name:	KAI-013
Site Type:	AREA
Survey Date:	24/08/2016
GPS Location:	GDA94 Zone 52 456550.6438E 8279575.408N
Vegetation Type:	18
Landform Type:	Other, River bank
Slope Class:	Moderately Inclined (10 degrees)
Aspect:	NNW
Soil Type:	Loamy clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - D - Degraded
Disturbance:	Grazing - very heavily grazed, Exotic Weeds - Significant weeds, 90% weed cover, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i>
Upper Stratum 2:	<i>Bauhinia cunninghamii</i> , <i>Eucalyptus microtheca</i>
Mid Stratum 1:	<i>Flueggea virosa</i> subsp. <i>melanthesoides</i> , * <i>Parkinsonia aculeata</i> , * <i>Vachellia farnesiana</i>
Lower Stratum 1:	* <i>Cenchrus ciliaris</i> , <i>Cynodon convergens</i> , Poaceae sp.6

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Bauhinia cunninghamii</i>	6	1
* <i>Cenchrus ciliaris</i>	0.3	2
<i>Cynodon convergens</i>	0.3	20
<i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i>	12	5
<i>Eucalyptus microtheca</i>	9	3
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	3	1
* <i>Parkinsonia aculeata</i>	5	7
Poaceae sp.6	0.3	58
* <i>Vachellia farnesiana</i>	5	3



Site Name:	KAI-016
Site Type:	AREA
Survey Date:	24/08/2016
GPS Location:	GDA94 Zone 52 457081.9341E 8279579.729N
Vegetation Type:	18
Landform Type:	Drainage Line
Slope Class:	Gently Inclined (3 degrees)
Aspect:	N
Soil Type:	Sandy clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - VP - Very Poor
Disturbance:	Grazing - Very heavily grazed , Exotic Weeds - 50% weed cover, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Cathormion umbellatum</i> , <i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i>
Upper Stratum 2:	<i>Ficus coronulata</i>
Mid Stratum 1:	<i>Flueggea virosa</i> subsp. <i>melanthesoides</i> , * <i>Parkinsonia aculeata</i>
Lower Stratum 1:	* <i>Sida cordifolia</i>
Lower Stratum 2:	Poaceae sp.6

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Abutilon hannii</i>	0.7	0.1
<i>Bauhinia cunninghamii</i>	2	0.1
<i>Cathormion umbellatum</i>	11	15
<i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i>	17	20
<i>Ficus coronulata</i>	7	4
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	3	1
<i>Melia azedarach</i>	4	0.1
<i>Pandanus spiralis</i> var. <i>thermalis</i>	2.5	0.2
* <i>Parkinsonia aculeata</i>	6	2
Poaceae sp.6	0.3	45
<i>Sesbania formosa</i>	9	0.1
* <i>Sida cordifolia</i>	0.5	1



Site Name:	KAI-019
Site Type:	AREA
Survey Date:	24/08/2016
GPS Location:	GDA94 Zone 52 456256.2349E 8276083.35N
Vegetation Type:	29
Landform Type:	Other, Flood plain
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	NE
Soil Type:	Light Clay
Soil Colour:	Light brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	2-10%
CF Sizes:	2-6mm, 6-20mm, 20-60mm, 60-200mm
CF Types:	Sandstone
Vegetation Condition:	Northern Vegetation Condition - P - Poor
Disturbance:	Grazing - Very heavily grazed, very dry, <1% weed cover
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Bauhinia cunninghamii</i> , <i>Grevillea striata</i> , <i>Terminalia platyptera</i>
Mid Stratum 1:	<i>Carissa lanceolata</i>
Lower Stratum 1:	<i>Eriachne obtusa</i> , <i>Sorghum ?stipoideum</i>
Lower Stratum 2:	<i>Corchorus sidoides</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Bauhinia cunninghamii</i>	7	2
<i>Carissa lanceolata</i>	1.3	0.5
<i>Corchorus sidoides</i>	0.2	0.2
<i>Eriachne obtusa</i>	0.3	40
<i>Grevillea striata</i>	6	1
<i>Heliotropium euodes</i>	0.3	0.1
<i>Sorghum ?stipoideum</i>	0.5	3
<i>Terminalia platyptera</i>	5	0.5



Site Name: KAI-020
 Site Type: AREA
 Survey Date: 24/08/2016
 GPS Location: GDA94 Zone 52 451567E 8277268N
 Vegetation Type: 32
 Landform Type: Plain
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing, Exotic Weeds - Weeds, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Adansonia gregorii*, *Corymbia confertiflora*, *Corymbia greeniana*, *Gyrocarpus americanus* subsp. *pachyphyllus*
 Mid Stratum 1: **Hyptis suaveolens*, **Malvastrum americanum*
 Lower Stratum 1: *Chrysopogon fallax*, *Heteropogon contortus*, Poaceae spp.

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	12	5
<i>Chrysopogon fallax</i>	1	5
<i>Corymbia confertiflora</i>	10	2
<i>Corymbia greeniana</i>	10	2
<i>Grewia breviflora</i>	8	2
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	10	2
<i>Heteropogon contortus</i>	0.7	15
* <i>Hyptis suaveolens</i>	0.7	8
* <i>Malvastrum americanum</i>	0.7	2
Poaceae spp.	0.5	20



Site Name:	KAI-021
Site Type:	AREA
Survey Date:	24/08/2016
GPS Location:	GDA94 Zone 52 452253.8305E 8277101.832N
Vegetation Type:	32
Landform Type:	Plain
Slope Class:	Level (0 degrees)
Aspect:	S
Soil Type:	Loamy clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - G - Good
Disturbance:	Grazing - Some grazing, Exotic Weeds - Minor weeds, very dry, 4% weed cover
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Adansonia gregorii</i> , <i>Bauhinia cunninghamii</i> , <i>Corymbia greeniana</i> , <i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>
Upper Stratum 2:	* <i>Calotropis procera</i> , <i>Ficus aculeata</i> var. <i>indecora</i> , <i>Flueggea virosa</i> subsp. <i>melanthesoides</i>
Lower Stratum 1:	<i>Heteropogon contortus</i>
Lower Stratum 2:	<i>Cynodon convergens</i> , * <i>Hyptis suaveolens</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	9	2
<i>Bauhinia cunninghamii</i>	7	2
* <i>Calotropis procera</i>	2	0.1
<i>Corymbia greeniana</i>	5	0.5
<i>Cynodon convergens</i>	0.3	2
<i>Ficus aculeata</i> var. <i>indecora</i>	3	1
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	2	0.2
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	9	0.5
<i>Heteropogon contortus</i>	1	75
* <i>Hyptis suaveolens</i>	1.3	5



Site Name: KAI-023
 Site Type: AREA
 Survey Date: 24/08/2016
 GPS Location: GDA94 Zone 52 448383E 8278042N
 Vegetation Type: 11
 Landform Type: Other, Flat plain
 Slope Class: Level (0 degrees)
 Soil Type: Clay Loam
 Soil Colour: Grey-brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Disturbance: Grazing, Exotic Weeds, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Mid Stratum 1: **Vachellia farnesiana*
 Lower Stratum 1: *Chrysopogon fallax*, Poaceae spp., *Sida* sp.

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Chrysopogon fallax</i>	0.5	1
<i>Panicum decompositum</i>	0.3	0.1
Poaceae spp.	0.5	4
<i>Sida</i> sp.	0.5	1
* <i>Vachellia farnesiana</i>	1.5	30



Site Name:	KAI-026
Site Type:	AREA
Survey Date:	24/08/2016
GPS Location:	GDA94 Zone 52 449508.91E 8279835.95N
Vegetation Type:	32
Landform Type:	Plain
Slope Class:	Level (0 degrees)
Aspect:	E
Soil Type:	Sandy clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - VP - Very Poor
Disturbance:	Grazing - Very heavily grazed, Exotic Weeds - Major weeds, 40% weed cover, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Adansonia gregorii</i> , <i>Corymbia bella</i> , <i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>
Upper Stratum 2:	<i>Corymbia confertiflora</i>
Mid Stratum 1:	* <i>Calotropis procera</i> , <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> , * <i>Vachellia farnesiana</i>
Lower Stratum 1:	* <i>Hyptis suaveolens</i>
Lower Stratum 2:	<i>Heteropogon contortus</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	12	2
* <i>Calotropis procera</i>	2	1
<i>Corymbia bella</i>	13	3
<i>Corymbia confertiflora</i>	7	0.5
<i>Ficus aculeata</i> var. <i>indecora</i>	4	1
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	3	4
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	10	2
<i>Heteropogon contortus</i>	1	70
* <i>Hyptis suaveolens</i>	1.3	30
<i>Trichosanthes cucumerina</i>		0.1

* <i>Vachellia farnesiana</i>	2	1
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Site Name: KAI-028
 Site Type: AREA
 Survey Date: 24/08/2016
 GPS Location: GDA94 Zone 52 450225E 8280358N
 Vegetation Type: 19
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Aspect: NE
 Soil Type: Clay
 Soil Colour: Dark brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing, Exotic Weeds, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Corymbia bella*, *Grewia breviflora*
 Mid Stratum 1: *Ficus aculeata* var. *indecora*, *Flueggea virosa* subsp. *melanthesoides*
 Mid Stratum 2: **Hyptis suaveolens*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	8	0.5
* <i>Calotropis procera</i>	3	1
<i>Capparis lasiantha</i>	0.5	0.5
<i>Corymbia bella</i>	17	20
<i>Ficus aculeata</i> var. <i>indecora</i>	6	2
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	4	15
<i>Grewia breviflora</i>	10	3
* <i>Hyptis suaveolens</i>	1	50



Site Name: KAI-029
 Site Type: AREA
 Survey Date: 23/08/2016
 GPS Location: GDA94 Zone 52 447869E 8277720N
 Vegetation Type: 19
 Landform Type: Plain
 Slope Class: Level (0 degrees)
 Soil Type: Clay Loam
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Disturbance: Grazing, Exotic Weeds, - Death, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Bauhinia cunninghamii*, *Corymbia polycarpa*, *Gyrocarpus americanus* subsp. *pachyphyllus*
 Mid Stratum 1: *Flueggea virosa* subsp. *melanthesoides*, **Hyptis suaveolens*, **Malvastrum americanum*, **Vachellia farnesiana*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Bauhinia cunninghamii</i>	7	1
<i>Boerhavia dominii</i>		0.1
* <i>Calotropis procera</i>	1.5	0.2
<i>Corymbia polycarpa</i>	10	2
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	4	10
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	7	1
* <i>Hyptis suaveolens</i>	1	5
* <i>Malvastrum americanum</i>	0.5	5
* <i>Vachellia farnesiana</i>	4	30



Site Name:	KAI-032
Site Type:	AREA
Survey Date:	23/08/2016
GPS Location:	GDA94 Zone 52 447612.8E 8275347.95N
Vegetation Type:	11
Landform Type:	Plain
Slope Class:	Level (0 degrees)
Aspect:	SE
Soil Type:	Medium clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - G - Good
Disturbance:	Grazing - Heavy grazing, Exotic Weeds - 50% weed cover, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Eucalyptus microtheca</i>
Mid Stratum 1:	* <i>Macroptilium lathyroides</i> var. <i>semirectum</i>
Lower Stratum 1:	<i>Chrysopogon fallax</i> , <i>Heteropogon contortus</i> , <i>Sorghum stipoideum</i>
Lower Stratum 2:	<i>Indeterminate sp.1</i> , <i>Marsilea hirsuta</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Indeterminate sp.1</i>	1.7	20
<i>Chrysopogon fallax</i>	1.3	4
<i>Eucalyptus microtheca</i>	6	0.2
<i>Heteropogon contortus</i>	1.6	5
<i>Ludwigia octovalvis</i>	1.5	0.1
* <i>Macroptilium lathyroides</i> var. <i>semirectum</i>	1.5	0.2
<i>Marsilea hirsuta</i>	0.1	0.1
<i>Sorghum stipoideum</i>	1.8	0.2
* <i>Vachellia farnesiana</i>	2.5	0.5



Site Name:	KAI-034
Site Type:	AREA
Survey Date:	22/08/2016
GPS Location:	GDA94 Zone 52 447484.96E 8276770.15N
Vegetation Type:	11
Landform Type:	Plain
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	S
Soil Type:	Loamy clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - D - Degraded
Disturbance:	Grazing - Very heavily grazed, Exotic Weeds - Significant weeds, 95% weed cover, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Mid Stratum 1:	<i>Bauhinia cunninghamii</i> , * <i>Calotropis procera</i> , * <i>Vachellia farnesiana</i>
Mid Stratum 2:	* <i>Sida cordifolia</i> , <i>Waltheria indica</i>
Lower Stratum 1:	* <i>Cenchrus ciliaris</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Abutilon hannii</i>	1.2	0.1
<i>Bauhinia cunninghamii</i>	1.3	0.1
* <i>Calotropis procera</i>	1.8	0.1
* <i>Cenchrus ciliaris</i>	0.4	50
<i>Heteropogon contortus</i>	0.3	0.1
* <i>Melochia pyramidata</i>	0.4	0.1
* <i>Sida cordifolia</i>	0.3	3
* <i>Vachellia farnesiana</i>	1.5	0.1
<i>Waltheria indica</i>	0.4	1



Site Name:	KAI-035
Site Type:	AREA
Survey Date:	23/08/2016
GPS Location:	GDA94 Zone 52 448052.78E 8275581.02N
Vegetation Type:	4
Landform Type:	Plain
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	S
Soil Type:	Medium clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - VG - Very Good
Disturbance:	Grazing - Minor grazing, Exotic Weeds - Minor weeds, 2% weed cover, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Corymbia bella</i> , <i>Eucalyptus microtheca</i>
Upper Stratum 2:	<i>Acacia neurocarpa</i> , <i>Melaleuca ?nervosa</i>
Mid Stratum 1:	<i>Chrysopogon fallax</i> , <i>Heteropogon contortus</i>
Mid Stratum 2:	<i>Cynodon convergens</i> , <i>Themeda triandra</i>
Lower Stratum 1:	<i>Indeterminate sp.1</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Indeterminate sp.1</i>	0.6	2
<i>Acacia neurocarpa</i>	3	2
<i>Chrysopogon fallax</i>	1.2	1
<i>Corymbia bella</i>	10	5
<i>Cynodon convergens</i>	0.2	2
<i>Eucalyptus microtheca</i>	12	20
<i>Heteropogon contortus</i>	1.6	20
<i>Melaleuca ?nervosa</i>	4.5	0.5
<i>Themeda triandra</i>	0.8	25
* <i>Vachellia farnesiana</i>	2	0.1



Site Name: KAI-039
 Site Type: AREA
 Survey Date: 23/08/2016
 GPS Location: GDA94 Zone 52 447433.6895E 8275101.97N
 Vegetation Type: 31
 Landform Type: Closed Depression
 Slope Class: Level (0 degrees)
 Aspect: SE
 Soil Type: Heavy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - G - Good
 Disturbance: Grazing - very minor grazing, Exotic Weeds - Some weeds, 40% weed cover. , - Clay pan surrounded by Exc parv. If Lud weed is native, cover = < 1% and condition very good.
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Excoecaria parvifolia*
 Mid Stratum 1: *Ludwigia perennis*
 Mid Stratum 2: *Eleocharis dulcis*
 Lower Stratum 1: *Coldenia procumbens, Dentella minutissima, Glinus lotoides*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Coldenia procumbens</i>		0.1
<i>Dentella minutissima</i>		0.1
<i>Eleocharis dulcis</i>	0.6	9
<i>Excoecaria parvifolia</i>	4	3
<i>Glinus lotoides</i>		0.1
<i>Ludwigia perennis</i>	1.9	40
* <i>Parkinsonia aculeata</i>	1.8	0.1



Site Name: KAI-041
 Site Type: AREA
 Survey Date: 23/08/2016
 GPS Location: GDA94 Zone 52 447522.331E 8274829.51N
 Vegetation Type: 4
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: SW
 Soil Type: Sandy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VG - Very Good
 Disturbance: Grazing - Light grazing, Exotic Weeds - Minor weeds, <1% weeds, very dry
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca, Grevillea striata, Melaleuca ?nervosa*
 Mid Stratum 1: *Aristida holathera var. holathera, Panicum sp., Sorghum ?stipoideum*
 Lower Stratum 1: **Hyptis suaveolens*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Acacia neurocarpa</i>	4	0.1
<i>Aristida holathera var. holathera</i>	0.6	85
<i>Eucalyptus microtheca</i>	8	2
<i>Grevillea striata</i>	7	0.5
<i>*Hyptis suaveolens</i>	0.7	0.5
<i>Melaleuca ?nervosa</i>	6	18
<i>Panicum sp.</i>	0.6	10
<i>Sorghum ?stipoideum</i>	1.4	5



Site Name: KAI-042
 Site Type: AREA
 Survey Date: 23/08/2016
 GPS Location: GDA94 Zone 52 448030.2425E 8275026.68N
 Vegetation Type: 11
 Landform Type: Plain
 Slope Class: Level (0 degrees)
 Aspect: E
 Soil Type: Loamy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VG - Very Good
 Disturbance: Grazing - Some grazing, Exotic Weeds - <1% weed cover, very dry
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Corymbia bella, Eucalyptus microtheca, Grevillea striata*
 Mid Stratum 1: *Chrysopogon fallax, Sorghum ?stipoideum*
 Lower Stratum 1: *Eriachne sp.*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Chrysopogon fallax</i>	1.3	20
<i>Corymbia bella</i>	7	0.2
<i>Eriachne sp.</i>	0.4	50
<i>Eucalyptus microtheca</i>	6	0.2
<i>Grevillea striata</i>	8	0.2
<i>Sorghum ?stipoideum</i>	1.6	55
* <i>Stylosanthes hamata</i>	0.4	0.1
<i>Themeda triandra</i>	0.5	0.1



Site Name:	KAI-046
Site Type:	AREA
Survey Date:	23/08/2016
GPS Location:	GDA94 Zone 52 448562.2929E 8275124.561N
Vegetation Type:	26
Landform Type:	Drainage Line
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	NW
Soil Type:	Clayey sand
Soil Colour:	Light brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - P - Poor
Disturbance:	Grazing - Heavily grazed, Exotic Weeds - Some weeds, 50% weed cover, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Corymbia bella</i> , <i>Corymbia polycarpa</i>
Upper Stratum 2:	<i>Acacia neurocarpa</i> , <i>Melaleuca ?nervosa</i>
Mid Stratum 1:	* <i>Hyptis suaveolens</i> , * <i>Sida cordifolia</i>
Mid Stratum 2:	<i>Heteropogon contortus</i>
Lower Stratum 1:	<i>Cynodon convergens</i> , Poaceae spp.

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Acacia neurocarpa</i>	4.5	5
<i>Corymbia bella</i>	15	15
<i>Corymbia polycarpa</i>	12	5
<i>Cynodon convergens</i>	0.2	50
<i>Heteropogon contortus</i>	1.2	0.1
* <i>Hyptis suaveolens</i>	1.6	3
<i>Melaleuca ?nervosa</i>	5	1
* <i>Passiflora foetida</i> var. <i>hispid</i>		0.1
Poaceae spp.	0.3	10
* <i>Sida cordifolia</i>	1.3	2



Site Name:	KAI-047
Site Type:	AREA
Survey Date:	23/08/2016
GPS Location:	GDA94 Zone 52 448707.222E 8275082.19N
Vegetation Type:	26
Landform Type:	Plain
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	NE
Soil Type:	Sandy clay
Soil Colour:	Light brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - P - Poor
Disturbance:	Grazing - Heavy grazing, Exotic Weeds - Some weeds, 60% weed cover, - Drought affected - dead corymbia
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Corymbia bella</i> , <i>Corymbia polycarpa</i>
Upper Stratum 2:	<i>Bauhinia cunninghamii</i>
Mid Stratum 1:	<i>Acacia neurocarpa</i> , <i>Melaleuca ?nervosa</i>
Lower Stratum 1:	* <i>Hyptis suaveolens</i> , * <i>Sida cordifolia</i>
Lower Stratum 2:	<i>Cynodon convergens</i> , Poaceae spp.

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Acacia neurocarpa</i>	4	2
<i>Bauhinia cunninghamii</i>	7	2
<i>Corymbia bella</i>	10	2
<i>Corymbia polycarpa</i>	12	6
<i>Cynodon convergens</i>	0.2	50
* <i>Hyptis suaveolens</i>	0.7	3
<i>Melaleuca ?nervosa</i>	5	1
Poaceae spp.	0.3	10
* <i>Sida cordifolia</i>	0.8	2
* <i>Vachellia farnesiana</i>	2.5	0.1



Site Name:	KAI-048
Site Type:	AREA
Survey Date:	23/08/2016
GPS Location:	GDA94 Zone 52 448271.9462E 8275282.195N
Vegetation Type:	34
Landform Type:	Other, Drainage line/Flood plain
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	E
Soil Type:	Clayey sand
Soil Colour:	Light brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	10-20%
Vegetation Condition:	Northern Vegetation Condition - P - Poor
Disturbance:	Grazing - Some grazing, Exotic Weeds - Significant weeds, 50% weed cover, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Acacia neurocarpa</i> , <i>Lophostemon grandiflorus</i> subsp. <i>riparius</i> , <i>Melaleuca argentea</i>
Mid Stratum 1:	<i>Chrysopogon fallax</i> , <i>Heteropogon contortus</i>
Lower Stratum 1:	* <i>Hyptis suaveolens</i> , * <i>Sida cordifolia</i>
Lower Stratum 2:	<i>Cynodon convergens</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Acacia neurocarpa</i>	5	10
<i>Chrysopogon fallax</i>	1.2	0.2
<i>Cynodon convergens</i>	0.2	20
<i>Heteropogon contortus</i>	1.5	5
* <i>Hyptis suaveolens</i>	3	30
<i>Lophostemon grandiflorus</i> subsp. <i>riparius</i>	6	0.2
<i>Melaleuca argentea</i>	6	30
* <i>Passiflora foetida</i> var. <i>hispida</i>		0.5
* <i>Sida cordifolia</i>	1.6	5
* <i>Vachellia farnesiana</i>	1.4	0.1



Site Name: KAI-049
 Site Type: AREA
 Survey Date: 23/08/2016
 GPS Location: GDA94 Zone 52 447133.04E 8274753.73N
 Vegetation Type: 4
 Landform Type: Open Depression
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: SE
 Soil Type: Heavy clay
 Soil Colour: Light brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - P - Poor
 Disturbance: Grazing - Very heavily grazed, Exotic Weeds - Minor weeds, <1% weed cover, very dry, clay pan

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Melaleuca ?nervosa*
 Mid Stratum 1: *Carissa lanceolata*
 Lower Stratum 1: *Chrysopogon fallax*, *Cynodon convergens*, *Heteropogon contortus*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Carissa lanceolata</i>	1.6	0.5
<i>Chrysopogon fallax</i>	0.5	2
<i>Cynodon convergens</i>	0.2	0.5
<i>Goodenia lamprosperma</i>	0.2	0.1
<i>Heteropogon contortus</i>	0.5	0.1
<i>Melaleuca ?nervosa</i>	6	0.5



Site Name:	KAI-050
Site Type:	AREA
Survey Date:	23/08/2016
GPS Location:	GDA94 Zone 52 446460E 8274413N
Vegetation Type:	35
Landform Type:	Other, Low hill
Slope Class:	Gently Inclined (3 degrees)
Aspect:	W
Soil Type:	Clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	50-90%
CF Sizes:	2-6mm, 6-20mm, 20-60mm, 60-200mm, 200-600mm, 600-2000mm, >2000mm
CF Types:	Metamorphic
Vegetation Condition:	Northern Vegetation Condition - VG - Very Good
Disturbance:	Grazing - Minor grazing
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Corymbia ?dichromophloia, Eucalyptus sp.1</i>
Lower Stratum 1:	<i>Chrysopogon fallax</i>
Lower Stratum 2:	<i>Triodia bitextura</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	7	0.5
<i>Amyema villiflora</i> subsp. <i>villiflora</i>		0.1
<i>Chrysopogon fallax</i>	1.2	35
<i>Corymbia confertiflora</i>	4.5	1.5
<i>Corymbia ?dichromophloia</i>	10	5
<i>Eucalyptus sp.1</i>	10	5
<i>Fimbristylis cardiocarpa</i>	0.2	0.1
? <i>Gardenia</i> sp.	6	2
<i>Owenia vernicosa</i>	3	0.5
<i>Spermacoce ?brachystema</i>	0.1	1
<i>Terminalia canescens</i>	4	1.5
<i>Triodia bitextura</i>	0.3	20



Site Name:	KAI-051
Site Type:	AREA
Survey Date:	23/08/2016
GPS Location:	GDA94 Zone 52 446559E 8274681N
Vegetation Type:	14
Landform Type:	Drainage Line
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	N
Soil Type:	Sandy clay
Soil Colour:	Brown-pink
Rock Outcrop:	No bedrock exposed
CF Abundance:	2-10%
CF Sizes:	2-6mm, 6-20mm, 20-60mm, 60-200mm, 200-600mm, 600-2000mm, >2000mm
CF Types:	Metamorphic
Vegetation Condition:	Northern Vegetation Condition - P - Poor
Disturbance:	Grazing, Pig/Animal Disturbance - Cattle trampling
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Bauhinia cunninghamii</i> , <i>Corymbia polycarpa</i>
Lower Stratum 1:	<i>Aristida</i> sp.

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	1.6	3
<i>Aristida</i> sp.	0.7	10
<i>Bauhinia cunninghamii</i>	10	10
<i>Chrysopogon fallax</i>	1	5
<i>Corymbia confertiflora</i>	5	3
<i>Corymbia polycarpa</i>	11	4
<i>Hakea arborescens</i>	4	1
<i>Terminalia canescens</i>	8	4



Site Name:	KAI-052
Site Type:	AREA
Survey Date:	23/08/2016
GPS Location:	GDA94 Zone 52 446036E 8274715N
Vegetation Type:	35
Landform Type:	Other, Undulating stony run
Slope Class:	Gently Inclined (3 degrees)
Soil Type:	Clay
Soil Colour:	Dark brown
Rock Outcrop:	Granite And Dolerite , 2-10% bedrock exposed
CF Abundance:	20-50%
CF Sizes:	2-6mm, 6-20mm, 20-60mm, 60-200mm, 200-600mm, 600-2000mm, >2000mm
CF Types:	Granite, Dolerite
Vegetation Condition:	Northern Vegetation Condition - VG - Very Good
Disturbance:	Pig/Animal Disturbance - Minor cattle trampling
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Adansonia gregorii</i> , <i>Bauhinia cunninghamii</i> , <i>Terminalia canescens</i>
Upper Stratum 2:	<i>Corymbia confertiflora</i> , <i>Corymbia ?grandifolia</i> , <i>Triodia bitextura</i>
Lower Stratum 1:	<i>Aristida sp.</i> , <i>Chrysopogon fallax</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	7	1
<i>Aristida sp.</i>	0.5	20
<i>Bauhinia cunninghamii</i>	8	1
<i>Calytrix exstipulata</i>	2.5	0.2
<i>Chrysopogon fallax</i>	2	15
<i>Cochlospermum fraseri</i>	3.5	0.2
<i>Corchorus pumilio</i>	0.3	0.5
<i>Corymbia confertiflora</i>	4	3
<i>Corymbia ?grandifolia</i>	6	8
<i>Grevillea pyramidalis</i> subsp. <i>leucadendron</i>	1.8	0.2
<i>Heliotropium euodes</i>	0.2	0.5
<i>Owenia vernicosa</i>	2.5	0.2
<i>Ptilotus corymbosus</i>	0.3	0.3

<i>Spermacoce ?brachystema</i>	0.2	0.5
<i>Terminalia canescens</i>	7	10
<i>Triodia bitextura</i>	0.3	35



Site Name: KAI-053
 Site Type: AREA
 Survey Date: 23/08/2016
 GPS Location: GDA94 Zone 52 446991.6462E 8275071.525N
 Vegetation Type: 1
 Landform Type: Plain
 Slope Class: Level (0 degrees)
 Aspect: N
 Soil Type: Heavy clay
 Soil Colour: Black
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing - very heavily grazed, Exotic Weeds - Significant weeds, 85%
 weed cover, very dry, cracking clay
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Excoecaria parvifolia*
 Mid Stratum 1: **Parkinsonia aculeata*
 Mid Stratum 2: *Indeterminate sp.1*
 Lower Stratum 1: *Cyperus macrostachyos*
 Lower Stratum 2: *Cynodon convergens, Eriachne sp.*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Indeterminate sp.1</i>	0.8	5
<i>Cynodon convergens</i>	0.2	70
<i>Cyperus macrostachyos</i>	0.5	1
<i>Eriachne sp.</i>	0.5	1
<i>Excoecaria parvifolia</i>	4.5	15
<i>Fimbristylis blepharolepis</i>	0.4	0.1
<i>*Parkinsonia aculeata</i>	3	2



Site Name: KAI-056
 Site Type: AREA
 Survey Date: 23/08/2016
 GPS Location: GDA94 Zone 52 444461E 8274733N
 Vegetation Type: 35
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Grey-brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing - Grazing, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Adansonia gregorii, Bauhinia cunninghamii, Eucalyptus microtheca*
 Lower Stratum 1: *Chrysopogon fallax*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	13	2
<i>Bauhinia cunninghamii</i>	10	4
<i>Chrysopogon fallax</i>	1.2	40
<i>Eucalyptus microtheca</i>	12	2
<i>Excoecaria parvifolia</i>	8	1.5



Site Name: KAI-057
 Site Type: AREA
 Survey Date: 23/08/2016
 GPS Location: GDA94 Zone 52 444307E 8274577N
 Vegetation Type: 11
 Landform Type: Closed Depression
 Slope Class: Level (0 degrees)
 Soil Type: Clay - erupting
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Lower Stratum 1: *Eriachne sulcata*, *Themeda triandra*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Indeterminate sp.2</i>	0.4	0.5
<i>Eriachne sulcata</i>	0.5	25
? <i>Ludwigia perennis</i>	0.4	1
<i>Marsilea hirsuta</i>	0.1	3
<i>Themeda triandra</i>	1	1



Site Name:	KAI-058
Site Type:	AREA
Survey Date:	23/08/2016
GPS Location:	GDA94 Zone 52 444114E 8274361N
Vegetation Type:	9
Landform Type:	Lower Slope, of low rise
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	N
Soil Type:	Clay
Soil Colour:	Light brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	10-20%
CF Sizes:	2-6mm, 6-20mm, 20-60mm
CF Types:	Dolerite
Vegetation Condition:	Northern Vegetation Condition - P - Poor
Disturbance:	Grazing, Pig/Animal Disturbance - Cattle trampling
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Adansonia gregorii</i> , <i>Bauhinia cunninghamii</i>
Mid Stratum 1:	<i>Melaleuca minutifolia</i> , <i>Terminalia canescens</i>
Lower Stratum 1:	<i>Chrysopogon fallax</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	8	1.5
<i>Aristida</i> sp.	0.3	1
<i>Bauhinia cunninghamii</i>	8	3
<i>Chrysopogon fallax</i>	1	45
<i>Eriachne sulcata</i>	0.3	0.5
<i>Heliotropium euodes</i>	0.3	0.5
<i>Melaleuca minutifolia</i>	6	12
<i>Spermacoce ?brachystema</i>	0.1	0.1
<i>Terminalia canescens</i>	4	1.5



Site Name: KAI-059
 Site Type: AREA
 Survey Date: 22/08/2016
 GPS Location: GDA94 Zone 52 442201E 8275928N
 Vegetation Type: 4
 Landform Type: Plain
 Slope Class: Level (0 degrees)
 Soil Type: Clay Loam
 Soil Colour: Dark brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - P - Poor
 Disturbance: Grazing, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*
 Mid Stratum 1: *Melaleuca ?nervosa*
 Lower Stratum 1: *Dichanthium fecundum, Heteropogon contortus*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Carissa lanceolata</i>	1	0.5
<i>Dichanthium fecundum</i>	1	30
<i>Eucalyptus microtheca</i>	14	10
<i>Ficus aculeata</i> var. <i>indecora</i>	2	0.1
<i>Heteropogon contortus</i>	0.6	15
<i>Melaleuca ?nervosa</i>	6	2



Site Name: KAI-064
 Site Type: AREA
 Survey Date: 22/08/2016
 GPS Location: GDA94 Zone 52 438230E 8274408N
 Vegetation Type: 4
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: SW
 Soil Type: Clay
 Soil Colour: Dark brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - G - Good
 Disturbance: Exotic Weeds, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Bauhinia cunninghamii*, *Eucalyptus microtheca*
 Mid Stratum 1: **Vachellia farnesiana*
 Lower Stratum 1: *Chrysopogon fallax*, *Fimbristylis sp.1*, *Heteropogon contortus*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Bauhinia cunninghamii</i>	8	2
<i>Chrysopogon fallax</i>	1.5	60
<i>Eucalyptus microtheca</i>	15	10
<i>Fimbristylis sp.1</i>	0.2	15
<i>Heteropogon contortus</i>	0.6	1
<i>*Vachellia farnesiana</i>	2	1



Site Name: KAI-066
 Site Type: AREA
 Survey Date: 22/08/2016
 GPS Location: GDA94 Zone 52 439045E 8276267N
 Vegetation Type: 22
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Soil Type: Clay Loam
 Soil Colour: Dark brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing, Exotic Weeds, Pig/Animal Disturbance - cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*, *Excoecaria parvifolia*, *Grewia breviflora*
 Mid Stratum 1: **Calotropis procera*, *Flueggea virosa* subsp. *melanthesoides*, **Vachellia farnesiana*
 Lower Stratum 1: **Urochloa mosambicensis*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Abutilon hannii</i>	1	0.5
<i>Atalaya hemiglauca</i>	5	1
* <i>Calotropis procera</i>	3	3
<i>Eucalyptus microtheca</i>	17	50
<i>Excoecaria parvifolia</i>	12	5
<i>Ficus aculeata</i> var. <i>indecora</i>	3	0.5
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	3	3
<i>Grewia breviflora</i>	9	2
* <i>Malvastrum americanum</i>	0.3	0.5
<i>Tylophora cinerascens</i>		2
* <i>Urochloa mosambicensis</i>	0.6	10
* <i>Vachellia farnesiana</i>	2.5	10



Site Name: KAI-067
 Site Type: AREA
 Survey Date: 22/08/2016
 GPS Location: GDA94 Zone 52 443003.2394E 8277540.471N
 Vegetation Type: 17
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: E
 Soil Type: Loamy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Disturbance: Grazing - Very heavily grazed, Exotic Weeds - 80% weed cover, very dry

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Gyrocarpus americanus* subsp. *pachyphyllus*
 Mid Stratum 1: *Flueggea virosa* subsp. *melanthesoides*, **Vachellia farnesiana*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Cathormion umbellatum</i>	4.5	0.1
<i>*Cenchrus ciliaris</i>	0.2	0.1
<i>Ficus aculeata</i> var. <i>indecora</i>	4	0.1
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	3	15
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	8	3
<i>*Vachellia farnesiana</i>	4	3



Site Name:	KAI-069
Site Type:	AREA
Survey Date:	22/08/2016
GPS Location:	GDA94 Zone 52 439593.841E 8279078.899N
Vegetation Type:	22
Landform Type:	Plain
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	E
Soil Type:	Sandy clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - VP - Very Poor
Disturbance:	Grazing - Very heavily grazed, Exotic Weeds - Major weeds, 70% weed cover
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Corymbia bella</i> , <i>Eucalyptus microtheca</i>
Upper Stratum 2:	<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>
Mid Stratum 1:	<i>Ficus aculeata</i> var. <i>indecora</i> , <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> , <i>Heliotropium muelleri</i> , * <i>Vachellia farnesiana</i>
Lower Stratum 1:	* <i>Cenchrus ciliaris</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
* <i>Cenchrus ciliaris</i>	0.7	65
<i>Corymbia bella</i>	12	3
<i>Eucalyptus microtheca</i>	14	20
<i>Ficus aculeata</i> var. <i>indecora</i>	4	1
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	4	10
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	7	2
<i>Heliotropium muelleri</i>	2	2
* <i>Vachellia farnesiana</i>	4	15



Site Name:	KAI-071
Site Type:	AREA
Survey Date:	22/08/2016
GPS Location:	GDA94 Zone 52 438506.61E 8277987.99N
Vegetation Type:	22
Landform Type:	Plain
Slope Class:	Very Gently Inclined (1 degree)
Soil Type:	Loamy clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - P - Poor
Disturbance:	Grazing - Some grazing, Exotic Weeds - Significant weeds, 95% weed cover, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Corymbia bella</i>
Mid Stratum 1:	<i>Flueggea virosa</i> subsp. <i>melanthesoides</i> , * <i>Vachellia farnesiana</i>
Lower Stratum 1:	* <i>Cenchrus ciliaris</i> , <i>Heteropogon contortus</i> , Poaceae sp.1
Lower Stratum 2:	* <i>Urochloa mosambicensis</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
* <i>Cenchrus ciliaris</i>	0.8	4
<i>Chrysopogon fallax</i>	1	0.1
<i>Corymbia bella</i>	10	8
<i>Eucalyptus microtheca</i>	10	1
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	2.5	0.5
<i>Heteropogon contortus</i>	1.1	4
Poaceae sp.1	1.1	4
* <i>Urochloa mosambicensis</i>	0.4	80
* <i>Vachellia farnesiana</i>	3	25
<i>Waltheria indica</i>	0.4	0.1



Site Name: KAI-072
 Site Type: AREA
 Survey Date: 22/08/2016
 GPS Location: GDA94 Zone 52 437040.8204E 8275529.653N
 Vegetation Type: 1
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: W
 Soil Type: Medium clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - G - Good
 Disturbance: Grazing - Some grazing, Exotic Weeds - 20% weed cover, very dry
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Excoecaria parvifolia*
 Lower Stratum 1: Poaceae sp.1
 Lower Stratum 2: *Paspalidium* sp.

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Excoecaria parvifolia</i>	6	5
* <i>Parkinsonia aculeata</i>	1.8	0.1
<i>Paspalidium</i> sp.	0.3	20
Poaceae sp.1	0.8	75
* <i>Sida cordifolia</i>	0.3	0.1



Site Name: KAI-073
 Site Type: AREA
 Survey Date: 22/08/2016
 GPS Location: GDA94 Zone 52 436706.3508E 8275598.97N
 Vegetation Type: 22
 Landform Type: Other, Lowrise
 Slope Class: Gently Inclined (3 degrees)
 Aspect: W
 Soil Type: Loamy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Disturbance: Grazing - Heavily grazed, Exotic Weeds - Significant weeds, 80% weed cover, very dry
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*
 Mid Stratum 1: **Vachellia farnesiana*
 Lower Stratum 1: **Sida cordifolia*
 Lower Stratum 2: *Cynodon convergens*, **Urochloa mosambicensis*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Cynodon convergens</i>	0.3	20
<i>Eucalyptus microtheca</i>	6	1
* <i>Sida cordifolia</i>	0.5	1
* <i>Urochloa mosambicensis</i>	0.4	60
* <i>Vachellia farnesiana</i>	3	15



Site Name: KAI-074
 Site Type: AREA
 Survey Date: 22/08/2016
 GPS Location: GDA94 Zone 52 437726.3209E 8275291.163N
 Vegetation Type: 1
 Landform Type: Drainage Line
 Slope Class: Gently Inclined (3 degrees)
 Aspect: N
 Soil Type: Loamy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Disturbance: Grazing - Grazing, Exotic Weeds - Minor weeds, 10% weed cover,
 Pig/Animal Disturbance - Pig rooting, very dry
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*, *Terminalia hadleyana*
 Upper Stratum 2: *Cathormion umbellatum*, *Excoecaria parvifolia*
 Mid Stratum 1: *Atalaya hemiglauca*, *Strychnos lucida*, **Vachellia farnesiana*
 Lower Stratum 1: *Cynanchum pedunculatum*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Atalaya hemiglauca</i>	4.5	1
<i>Cathormion umbellatum</i>	9	60
<i>Cynanchum pedunculatum</i>		1
<i>Eucalyptus microtheca</i>	15	3
<i>Excoecaria parvifolia</i>	8	1
<i>Strychnos lucida</i>	5	2
<i>Terminalia hadleyana</i>	13	12
<i>*Vachellia farnesiana</i>	4	1



Site Name: KAI-075
 Site Type: AREA
 Survey Date: 22/08/2016
 GPS Location: GDA94 Zone 52 433885E 8274349N
 Vegetation Type: 31
 Landform Type: Closed Depression
 Slope Class: Level (0 degrees)
 Aspect: SW
 Soil Type: Clay
 Soil Colour: Grey
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Exotic Weeds, Pig/Animal Disturbance - Cattle trampling, very dry, cracking clay
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Mid Stratum 1: *Persicaria attenuata* subsp. *attenuata*
 Lower Stratum 1: *Eleocharis dulcis*, *Glinus lotoides*, *Marsilea hirsuta*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Eleocharis dulcis</i>	0.6	80
<i>Glinus lotoides</i>		7
<i>Marsilea hirsuta</i>	0.1	1
<i>Persicaria attenuata</i> subsp. <i>attenuata</i>	0.5	2



Site Name: KAI-076
 Site Type: AREA
 Survey Date: 22/08/2016
 GPS Location: GDA94 Zone 52 434429E 8274180N
 Vegetation Type: 35
 Landform Type: Plain
 Slope Class: Level (0 degrees)
 Aspect: NW
 Soil Type: Clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 10-20%
 CF Sizes: 2-6mm, 6-20mm, 20-60mm, 60-200mm
 CF Types: Dolerite
 Vegetation Condition: Northern Vegetation Condition - G - Good
 Disturbance: Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Bauhinia cunninghamii*, *Corymbia flavescens*
 Mid Stratum 1: *Grevillea pyramidalis* subsp. *leucadendron*
 Lower Stratum 1: *Chrysopogon fallax*, *Heliotropium euodes*, *Heteropogon contortus*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>		0.1
<i>Aristida latifolia</i>	0.8	0.5
<i>Bauhinia cunninghamii</i>	7	4
<i>Christia australasica</i>	0.1	0.1
<i>Chrysopogon fallax</i>	1.2	50
<i>Corymbia flavescens</i>	7	8
<i>Grevillea pyramidalis</i> subsp. <i>leucadendron</i>	3.5	1
<i>Heliotropium euodes</i>	0.3	1
<i>Heteropogon contortus</i>	0.7	15



Site Name: KAI-077
 Site Type: AREA
 Survey Date: 22/08/2016
 GPS Location: GDA94 Zone 52 434716E 8274121N
 Vegetation Type: 1
 Landform Type: Other, Flat plain
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Grey
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Exotic Weeds, Pig/Animal Disturbance - Cattle trampling, very dry, cracking clay
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Excoecaria parvifolia*
 Mid Stratum 1: *?Ludwigia perennis, *Parkinsonia aculeata*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Alternanthera nodiflora</i>	0.1	0.1
<i>Elytrophorus spicatus</i>	0.1	0.1
<i>Excoecaria parvifolia</i>	5	25
<i>?Ludwigia perennis</i>	1	50
<i>*Parkinsonia aculeata</i>	3	1
Poaceae sp.5	0.1	0.3



Site Name: KAI-080
 Site Type: AREA
 Survey Date: 22/08/2016
 GPS Location: GDA94 Zone 52 435698.7E 8275786.31N
 Vegetation Type: 1
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: S
 Soil Type: Light Clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Disturbance: Grazing - Very heavily grazed, Exotic Weeds - Significant weeds, 80%
 weed cover, very dry
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*, *Excoecaria parvifolia*
 Mid Stratum 1: **Parkinsonia aculeata*
 Lower Stratum 1: *Cynodon convergens*, Poaceae sp.2
 Lower Stratum 2: **Passiflora foetida* var. *hispida*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Cynodon convergens</i>	0.3	80
<i>Eucalyptus microtheca</i>	7	1
<i>Excoecaria parvifolia</i>	5	25
* <i>Parkinsonia aculeata</i>	2	1
* <i>Passiflora foetida</i> var. <i>hispida</i>		1
Poaceae sp.2	0.7	5



Site Name:	KAI-081
Site Type:	AREA
Survey Date:	22/08/2016
GPS Location:	GDA94 Zone 52 434992.188E 8276726.206N
Vegetation Type:	22
Landform Type:	Plain
Slope Class:	Level (0 degrees)
Aspect:	S
Soil Type:	Loamy clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - VP - Very Poor
Disturbance:	Grazing - Very heavily grazed, Exotic Weeds - Significant weeds, 80% weed cover, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Eucalyptus microtheca</i>
Mid Stratum 1:	<i>Flueggea virosa</i> subsp. <i>melanthesoides</i> , * <i>Vachellia farnesiana</i>
Mid Stratum 2:	<i>Excoecaria parvifolia</i>
Lower Stratum 1:	* <i>Urochloa mosambicensis</i>
Lower Stratum 2:	* <i>Sida cordifolia</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Eucalyptus microtheca</i>	18	9
<i>Excoecaria parvifolia</i>	7	1
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	3	25
* <i>Sida cordifolia</i>	0.6	15
* <i>Urochloa mosambicensis</i>	0.5	80
* <i>Vachellia farnesiana</i>	3	3



Site Name: KAI-082
 Site Type: AREA
 Survey Date: 22/08/2016
 GPS Location: GDA94 Zone 52 435600.4514E 8275953.392N
 Vegetation Type: 1
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: S
 Soil Type: Loamy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Disturbance: Grazing - very heavily grazed, Exotic Weeds - Significant weeds, 80%
 weed cover, very dry
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*
 Upper Stratum 2: *Excoecaria parvifolia*, *Melaleuca leucadendra*
 Mid Stratum 1: *Cathormion umbellatum*, **Parkinsonia aculeata*, **Vachellia farnesiana*
 Mid Stratum 2: **Sida cordifolia*
 Lower Stratum 1: Poaceae sp.2
 Lower Stratum 2: **Passiflora foetida* var. *hispida*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Cathormion umbellatum</i>	6	2
<i>Eucalyptus microtheca</i>	15	2
<i>Excoecaria parvifolia</i>	8	15
<i>Melaleuca leucadendra</i>	7	30
* <i>Parkinsonia aculeata</i>	3	1
* <i>Passiflora foetida</i> var. <i>hispida</i>		2
Poaceae sp.2	0.6	75
<i>Pterocaulon sphacelatum</i>		0.1
* <i>Sida cordifolia</i>	0.6	1
* <i>Vachellia farnesiana</i>	3.5	1



Site Name:	KAI-092
Site Type:	AREA
Survey Date:	22/08/2016
GPS Location:	GDA94 Zone 52 434508.2545E 8282225.331N
Vegetation Type:	17
Landform Type:	Other, Floodplain
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	W
Soil Type:	Loamy clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - D - Degraded
Disturbance:	Grazing - Very heavily grazed, Exotic Weeds - Significant weeds, 95% weed cover, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i> , <i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>
Mid Stratum 1:	* <i>Calotropis procera</i> , <i>Ficus aculeata</i> var. <i>indecora</i> , <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> , * <i>Vachellia farnesiana</i>
Lower Stratum 1:	* <i>Urochloa mosambicensis</i>
Lower Stratum 2:	<i>Trichosanthes cucumerina</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Achyranthes aspera</i>		0.1
* <i>Calotropis procera</i>	3	0.5
<i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i>	9	1
<i>Ficus aculeata</i> var. <i>indecora</i>	4	0.5
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	2.5	0.1
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	8	0.5
<i>Trichosanthes cucumerina</i>		3
* <i>Urochloa mosambicensis</i>	0.4	85
* <i>Vachellia farnesiana</i>	3	25
<i>Waltheria indica</i>		0.1



Site Name: KAI-101
 Site Type: AREA
 Survey Date: 22/08/2016
 GPS Location: GDA94 Zone 52 438413E 8277023N
 Vegetation Type: 22
 Landform Type: Plain
 Slope Class: Level (0 degrees)
 Aspect: SE
 Soil Type: Clay
 Soil Colour: Dark brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing, Exotic Weeds, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*
 Mid Stratum 1: **Calotropis procera*, *Ehretia saligna* var. *saligna*, *Ficus aculeata* var. *indecora*, *Flueggea virosa* subsp. *melanthesoides*, **Vachellia farnesiana*
 Lower Stratum 1: *Chrysopogon fallax*, *Heteropogon contortus*, *Themeda triandra*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
* <i>Calotropis procera</i>	2	1
<i>Chrysopogon fallax</i>	1.2	10
<i>Corymbia bella</i>		0.1
<i>Ehretia saligna</i> var. <i>saligna</i>	3	1
<i>Eucalyptus microtheca</i>	15	8
<i>Ficus aculeata</i> var. <i>indecora</i>	4	1
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	2	3
<i>Heteropogon contortus</i>	1.5	5
* <i>Passiflora foetida</i> var. <i>hispida</i>		0.1
<i>Themeda triandra</i>	1.8	6
* <i>Vachellia farnesiana</i>	2	15



Site Name: KAI-104
 Site Type: AREA
 Survey Date: 22/08/2016
 GPS Location: GDA94 Zone 52 438234E 8275652N
 Vegetation Type: 11
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Dark brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - P - Poor
 Disturbance: Grazing, Exotic Weeds, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Mid Stratum 1: **Vachellia farnesiana*
 Lower Stratum 1: *Aristida latifolia*, *Chrysopogon fallax*, ?*Dichanthium fecundum*, *Panicum decompositum*, Poaceae sp.7

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Aristida latifolia</i>	1.5	5
<i>Chrysopogon fallax</i>	1.2	40
? <i>Dichanthium fecundum</i>	0.6	7
<i>Panicum decompositum</i>	1	30
Poaceae sp.7	0.5	10
* <i>Vachellia farnesiana</i>	1.5	5



Site Name:	KAI-109
Site Type:	AREA
Survey Date:	21/08/2016
GPS Location:	GDA94 Zone 52 453966.12E 8279351.9N
Vegetation Type:	29
Landform Type:	Other, Outwash
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	S
Soil Type:	Medium clay
Soil Colour:	Tan
Rock Outcrop:	No bedrock exposed
CF Abundance:	10-20%
CF Sizes:	2-6mm, 6-20mm, 20-60mm
CF Types:	Sandstone
Vegetation Condition:	Northern Vegetation Condition - VG - Very Good
Disturbance:	Exotic Weeds - Minor weeds, <1% weed cover
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Bauhinia cunninghamii</i> , <i>Grevillea striata</i> , <i>Terminalia platyptera</i>
Mid Stratum 1:	<i>Carissa lanceolata</i>
Lower Stratum 1:	<i>Heliotropium euodes</i>
Lower Stratum 2:	<i>Aristida holathera</i> var. <i>holathera</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Aristida holathera</i> var. <i>holathera</i>	0.4	70
<i>Bauhinia cunninghamii</i>	4.5	1
<i>Carissa lanceolata</i>	1.7	0.5
<i>Grevillea striata</i>	5	0.5
<i>Heliotropium euodes</i>	0.4	15
<i>Terminalia platyptera</i>	4.5	7



Site Name: KAI-111
 Site Type: AREA
 Survey Date: 21/08/2016
 GPS Location: GDA94 Zone 52 453185.1452E 8280166.75N
 Vegetation Type: 11
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: SW
 Soil Type: Sandy clay
 Soil Colour: Orange
 Rock Outcrop: No bedrock exposed
 CF Abundance: 2-10%
 CF Sizes: 2-6mm, 6-20mm, 20-60mm
 CF Types: Sandstone
 Vegetation Condition: Northern Vegetation Condition - VG - Very Good
 Disturbance: Exotic Weeds - Some weeds, <1% weed cover, very dry
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Bauhinia cunninghamii*
 Lower Stratum 1: *Themeda triandra*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Bauhinia cunninghamii</i>	5	0.2
* <i>Calotropis procera</i>		0.1
<i>Themeda triandra</i>	1	20
* <i>Vachellia farnesiana</i>		0.1



Site Name:	KAI-112
Site Type:	AREA
Survey Date:	21/08/2016
GPS Location:	GDA94 Zone 52 452408.1857E 8278508.936N
Vegetation Type:	19
Landform Type:	Plain
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	S
Soil Type:	Loamy clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - D - Degraded
Disturbance:	Grazing, Exotic Weeds - Significant weeds, 60% weed cover, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Corymbia confertiflora</i> , <i>Eucalyptus pruinosa</i> subsp. ? <i>pruinosa</i>
Mid Stratum 1:	<i>Acacia neurocarpa</i> , * <i>Calotropis procera</i> , <i>Ficus aculeata</i> var. <i>indecora</i> , <i>Flueggea virosa</i> subsp. <i>melanthesoides</i>
Lower Stratum 1:	<i>Cynodon convergens</i>
Lower Stratum 2:	* <i>Bidens ?pilosa</i> , * <i>Hyptis suaveolens</i> , <i>Waltheria indica</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Acacia neurocarpa</i>	5	1
* <i>Bidens ?pilosa</i>	1	39
<i>Bulbostylis barbata</i>		0.1
* <i>Calotropis procera</i>	2.5	1
<i>Corymbia confertiflora</i>	10	3
<i>Cynodon convergens</i>	0.3	2
<i>Eragrostis cumingii</i>		0.1
<i>Eucalyptus pruinosa</i> subsp. ? <i>pruinosa</i>	10	2
<i>Ficus aculeata</i> var. <i>indecora</i>	3	1
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	4.5	25
* <i>Hyptis suaveolens</i>	1.3	20
<i>Pterocaulon serrulatum</i> var. <i>velutinum</i>		0.1
<i>Sporobolus australasicus</i>		0.1

<i>Waltheria indica</i>	0.7	1
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Site Name:	KAI-114
Site Type:	AREA
Survey Date:	21/08/2016
GPS Location:	GDA94 Zone 52 451145.2182E 8279824.014N
Vegetation Type:	19
Landform Type:	Plain
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	S
Soil Type:	Loamy clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - VP - Very Poor
Disturbance:	Grazing - Some grazing, Exotic Weeds - Major weeds, 60% weed cover, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Bauhinia cunninghamii</i> , <i>Corymbia bella</i> , <i>Corymbia confertiflora</i> , <i>Ficus aculeata</i> var. <i>indecora</i> , <i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>
Mid Stratum 1:	* <i>Calotropis procera</i> , <i>Flueggea virosa</i> subsp. <i>melanthesoides</i>
Lower Stratum 1:	* <i>Bidens ?pilosa</i> , * <i>Hyptis suaveolens</i>
Lower Stratum 2:	<i>Solanum fecundum</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Bauhinia cunninghamii</i>	7	0.5
* <i>Bidens ?pilosa</i>	1	40
* <i>Calotropis procera</i>	2.5	10
<i>Corymbia bella</i>	9	3
<i>Corymbia confertiflora</i>	8	5
<i>Ficus aculeata</i> var. <i>indecora</i>	6	1
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	4.5	25.1
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	8	2
* <i>Hyptis suaveolens</i>	1	20
<i>Solanum fecundum</i>	0.7	1
* <i>Xanthium occidentale</i>		0.1



Site Name: KAI-115
 Site Type: AREA
 Survey Date: 21/08/2016
 GPS Location: GDA94 Zone 52 451725.5534E 8281899.464N
 Vegetation Type: 31
 Landform Type: Closed Depression
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: S
 Soil Type: Medium clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VG - Very Good
 Disturbance: Exotic Weeds - Some weeds, 2% weed cover, very dry, cracking clay
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Mid Stratum 1: *Cyperus macrostachyos*
 Lower Stratum 1: *Glinus lotoides*, Poaceae sp.3
 Lower Stratum 2: *Basilicum polystachyon*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Basilicum polystachyon</i>	1	2
<i>Cyperus macrostachyos</i>	0.6	6
<i>Glinus lotoides</i>	0.2	40
Poaceae sp.3	0.1	60



Site Name: KAI-116
 Site Type: AREA
 Survey Date: 21/08/2016
 GPS Location: GDA94 Zone 52 451705.0469E 8281911.036N
 Vegetation Type: 18
 Landform Type: Other, Riparian
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: S
 Soil Type: Loamy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - G - Good
 Disturbance: Exotic Weeds - Some weeds, 20% weed cover, very dry
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus camaldulensis* subsp. *obtusa*
 Mid Stratum 1: *Flueggea virosa* subsp. *melanthesoides*
 Lower Stratum 1: *Basilicum polystachyon*, **Hyptis suaveolens*, *Solanum fecundum*,
Waltheria indica

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Basilicum polystachyon</i>	1	2
<i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i>	17	40
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	2.5	20
* <i>Hyptis suaveolens</i>	1	15
* <i>Parkinsonia aculeata</i>		
Poaceae sp.3		0.1
<i>Solanum fecundum</i>	0.3	0.5
<i>Waltheria indica</i>	0.5	0.5



Site Name: KAI-117
 Site Type: AREA
 Survey Date: 21/08/2016
 GPS Location: GDA94 Zone 52 452032.2042E 8282279.843N
 Vegetation Type: 11
 Landform Type: Plain
 Slope Class: Level (0 degrees)
 Aspect: W
 Soil Type: Loamy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing - Some grazing, Exotic Weeds - Some weeds, 50% weed cover, very dry
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Lower Stratum 1: *Aristida latifolia*, *Chrysopogon fallax*, *Iseilema sp.1*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Aristida latifolia</i>	0.7	10
<i>Chrysopogon fallax</i>	0.6	25
<i>Iseilema sp.1</i>	0.5	45
<i>Neptunia dimorphantha</i>		0.1
* <i>Sida acuta</i> subsp. <i>acuta</i>		0.1



Site Name:	KAI-118
Site Type:	AREA
Survey Date:	21/08/2016
GPS Location:	GDA94 Zone 52 451553.8013E 8282388.013N
Vegetation Type:	22
Landform Type:	Other, Floodplain
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	E
Soil Type:	Loamy clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - D - Degraded
Disturbance:	Grazing - Heavily grazed, Exotic Weeds - Significant weeds, 50% weed cover, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Corymbia bella</i> , <i>Eucalyptus microtheca</i>
Upper Stratum 2:	<i>Ficus aculeata</i> var. <i>indecora</i>
Mid Stratum 1:	* <i>Calotropis procera</i> , <i>Flueggea virosa</i> subsp. <i>melanthesoides</i>
Mid Stratum 2:	<i>Abutilon hannii</i> , * <i>Aerva javanica</i>
Lower Stratum 1:	* <i>Hyptis suaveolens</i> , * <i>Sida acuta</i> subsp. <i>acuta</i> , <i>Waltheria indica</i>
Lower Stratum 2:	<i>Cynodon convergens</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Abutilon hannii</i>	1.5	1
* <i>Aerva javanica</i>	1	2
* <i>Bidens ?pilosa</i>	0.7	0.1
* <i>Calotropis procera</i>	4	2
<i>Corymbia bella</i>	12	6
<i>Cynodon convergens</i>	0.3	25
<i>Eucalyptus microtheca</i>	11	3
<i>Ficus aculeata</i> var. <i>indecora</i>	6	3
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	4	6
* <i>Hyptis suaveolens</i>	1.3	20
<i>Notoleptopus decaisnei</i>		0.1

<i>*Sida acuta</i> subsp. <i>acuta</i>	1	2
<i>Solanum fecundum</i>	0.1	0.1
<i>Trichosanthes cucumerina</i>		0.2
<i>Waltheria indica</i>	0.6	1



Site Name:	KAI-126
Site Type:	AREA
Survey Date:	21/08/2016
GPS Location:	GDA94 Zone 52 450581.3806E 8287315.079N
Vegetation Type:	27
Landform Type:	Drainage Line
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	NW
Soil Type:	Sitty sand
Soil Colour:	Light brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - P - Poor
Disturbance:	Grazing - Minor grazing, Exotic Weeds - 30% weed cover, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Bauhinia cunninghamii</i> , <i>Corymbia bella</i> , <i>Melaleuca leucadendra</i> , <i>Terminalia hadleyana</i>
Mid Stratum 1:	<i>Flueggea virosa</i> subsp. <i>melanthesoides</i> , <i>Pandanus spiralis</i> var. <i>thermalis</i>
Lower Stratum 1:	* <i>Hyptis suaveolens</i> , <i>Setaria apiculata</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Bauhinia cunninghamii</i>	10	5
<i>Corymbia bella</i>	20	10
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	4	25
* <i>Hyptis suaveolens</i>	1.3	25
<i>Melaleuca leucadendra</i>	18	15
<i>Pandanus spiralis</i> var. <i>thermalis</i>	5	20
<i>Setaria apiculata</i>	0.6	5
<i>Terminalia hadleyana</i>	18	20



Site Name:	KAI-127
Site Type:	AREA
Survey Date:	21/08/2016
GPS Location:	GDA94 Zone 52 450304.0674E 8287880.709N
Vegetation Type:	25
Landform Type:	Mid Slope
Slope Class:	Moderately Inclined (10 degrees)
Aspect:	S
Soil Type:	Clay
Soil Colour:	Light brown
Rock Outcrop:	Sandstone , 2-10% bedrock exposed
CF Abundance:	50-90%
CF Sizes:	2-6mm, 6-20mm, 20-60mm, 60-200mm, 200-600mm
CF Types:	Sandstone
Vegetation Condition:	Northern Vegetation Condition - E - Excellent
Disturbance:	very dry, 0% weed cover
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Erythrophleum chlorostachys</i> , <i>Eucalyptus obconica</i>
Mid Stratum 1:	<i>Calytrix exstipulata</i> , <i>Cochlospermum fraseri</i>
Mid Stratum 2:	<i>Sorghum ?stipoideum</i>
Lower Stratum 1:	<i>Triodia bitextura</i> , <i>Triodia stenostachya</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Calytrix exstipulata</i>	2.5	1
<i>Cochlospermum fraseri</i>	3	0.5
<i>Eriachne ciliata</i>	0.3	0.1
<i>Erythrophleum chlorostachys</i>	4	1
<i>Eucalyptus obconica</i>	6	3
<i>Fimbristylis schultzei</i>	0.1	0.1
<i>Indeterminate sp.4</i>	1.6	0.1
<i>Sorghum ?stipoideum</i>	1.4	2
<i>Triodia bitextura</i>	0.4	60
<i>Triodia stenostachya</i>	0.3	20



Site Name: KAI-128
 Site Type: AREA
 Survey Date: 21/08/2016
 GPS Location: GDA94 Zone 52 450349.4889E 8288107N
 Vegetation Type: 24
 Landform Type: Ridge, Ridge and gully
 Slope Class: Steep (23 degrees)
 Aspect: SE
 Soil Type: Clayey sand
 Soil Colour: Brown
 Rock Outcrop: Sandstone , >50% bedrock exposed
 CF Abundance: >90%
 CF Sizes: 2-6mm, 6-20mm, 20-60mm, 60-200mm, 200-600mm
 Vegetation Condition: Northern Vegetation Condition - E - Excellent
 Disturbance: very dry, 0% weeds
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus miniata*
 Upper Stratum 2: *Corymbia ?collina*, *Erythrophleum chlorostachys*, *?Gardenia sp.*, *Owenia vernicosa*
 Mid Stratum 1: *Calytrix exstipulata*
 Mid Stratum 2: *Tephrosia sp.*
 Lower Stratum 1: *Sorghum stipoideum*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Calytrix exstipulata</i>	2.3	1
<i>Corymbia ?collina</i>	9	2
<i>Erythrophleum chlorostachys</i>	6	1
<i>Eucalyptus miniata</i>	14	3
<i>?Gardenia sp.</i>	5	0.5
<i>Owenia vernicosa</i>	5	2
<i>Sorghum stipoideum</i>	1.7	15
<i>Tephrosia sp.</i>	1.5	0.5



Site Name: KAI-131
 Site Type: AREA
 Survey Date: 21/08/2016
 GPS Location: GDA94 Zone 52 450574.4844E 8287130.009N
 Vegetation Type: 26
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: W
 Soil Type: Sandy clay
 Soil Colour: Light brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing - Some grazing, Exotic Weeds - 80% weed cover, very dry
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Corymbia bella*, *Corymbia confertiflora*, *Corymbia polycarpa*
 Mid Stratum 1: *Acacia neurocarpa*
 Lower Stratum 1: **Hyptis suaveolens*
 Lower Stratum 2: *Setaria apiculata*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Acacia neurocarpa</i>	7	9
<i>Corymbia bella</i>	15	2
<i>Corymbia confertiflora</i>	12	10
<i>Corymbia polycarpa</i>	11	4
<i>*Hyptis suaveolens</i>	1.3	40
<i>Setaria apiculata</i>	0.6	60



Site Name: KAI-132
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 52 449316.0044E 8287513.753N
 Vegetation Type: 26
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Aspect: S
 Soil Type: Sandy clay
 Soil Colour: Light brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing - Heavily grazed, Exotic Weeds - Major weeds, 60% weed cover
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Corymbia bella*, *Corymbia polycarpa*
 Mid Stratum 1: *Melaleuca ?nervosa*, *Melaleuca viridiflora*
 Lower Stratum 1: **Hyptis suaveolens*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Corymbia bella</i>	12	3
<i>Corymbia polycarpa</i>	11	5
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	1.5	0.1
<i>*Hyptis suaveolens</i>	0.6	3
<i>Melaleuca ?nervosa</i>	4.5	30
<i>Melaleuca viridiflora</i>	5	2
<i>Setaria apiculata</i>	0.3	50
<i>*Sida cordifolia</i>	0.6	1



Site Name:	KAI-133
Site Type:	AREA
Survey Date:	21/08/2016
GPS Location:	GDA94 Zone 52 450492.7039E 8286603.979N
Vegetation Type:	26
Landform Type:	Plain
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	SE
Soil Type:	Sandy clay
Soil Colour:	Light brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - P - Poor
Disturbance:	Grazing - Some grazing, Exotic Weeds - 70% weed cover, very dry, drought affected
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Corymbia confertiflora</i>
Upper Stratum 2:	<i>Adansonia gregorii</i> , <i>Melaleuca ?nervosa</i>
Mid Stratum 1:	<i>Acacia neurocarpa</i> , <i>Acacia ?tumida</i> , <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> , <i>Hakea arborescens</i> , <i>Melaleuca viridiflora</i>
Lower Stratum 1:	* <i>Hyptis suaveolens</i>
Lower Stratum 2:	<i>Aristida holathera</i> var. <i>holathera</i> , <i>Cynodon convergens</i> , <i>Setaria apiculata</i> , <i>Sorghum stipoideum</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Acacia neurocarpa</i>	5	2
<i>Acacia ?tumida</i>	5	0.5
<i>Adansonia gregorii</i>	8	1
<i>Aristida holathera</i> var. <i>holathera</i>	0.4	1
<i>Brachychiton tuberculatus</i> (P3)		
<i>Corymbia confertiflora</i>	12	1
<i>Cynodon convergens</i>	0.3	10
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	2.5	0.5
<i>Hakea arborescens</i>	5	0.5
<i>Heteropogon contortus</i>	1	0.1

<i>*Hyptis suaveolens</i>	1	50
<i>Melaleuca ?nervosa</i>	6.5	15
<i>Melaleuca viridiflora</i>	4.5	1
<i>Setaria apiculata</i>	0.5	40
<i>Sorghum stipoideum</i>	1.7	0.1



Site Name: KAI-136
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 446934E 8286661N
 Vegetation Type: 14
 Landform Type: Drainage Line
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: SE
 Soil Type: Loamy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VG - Very Good
 Disturbance: Grazing - Some grazing, very dry, <1% weed cover
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Adansonia gregorii*, *Terminalia hadleyana*
 Mid Stratum 1: *Flueggea virosa* subsp. *melanthesoides*
 Lower Stratum 1: *Heteropogon contortus*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	12	2
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	4	3
<i>Heteropogon contortus</i>	1.2	75
* <i>Hyptis suaveolens</i>		0.1
<i>Terminalia hadleyana</i>	12	20
<i>Trichosanthes cucumerina</i>		0.1



Site Name: KAI-137
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 52 448001.9122E 8286760.531N
 Vegetation Type: 15
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: S
 Soil Type: Sandy clay
 Soil Colour: Light brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - G - Good
 Disturbance: Grazing, very dry, <1% weed cover
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Corymbia bella*
 Mid Stratum 1: *Bauhinia cunninghamii*, *Corymbia polycarpa*, *Eucalyptus microtheca*
 Mid Stratum 2: *Carissa lanceolata*
 Lower Stratum 1: *Themeda triandra*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Bauhinia cunninghamii</i>	8	6
<i>Carissa lanceolata</i>	1.6	0.5
<i>Corymbia bella</i>	11	4
<i>Corymbia polycarpa</i>	6	0.5
<i>Eucalyptus microtheca</i>	6	0.5
<i>Themeda triandra</i>	1.1	60



Site Name:	KAI-142
Site Type:	AREA
Survey Date:	21/08/2016
GPS Location:	GDA94 Zone 52 447398E 8280422N
Vegetation Type:	28
Landform Type:	Lower Slope
Slope Class:	Moderately Inclined (10 degrees)
Aspect:	S
Soil Type:	Clay
Soil Colour:	Light brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	20-50%
CF Sizes:	2-6mm, 6-20mm, 20-60mm, 60-200mm, 200-600mm, 600-2000mm, >2000mm
CF Types:	Metamorphic
Vegetation Condition:	Northern Vegetation Condition - VG - Very Good
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Cochlospermum fraseri</i> , <i>Corymbia confertiflora</i> , <i>Erythrophleum chlorostachys</i> , <i>Terminalia canescens</i>
Mid Stratum 1:	<i>Calytrix exstipulata</i>
Lower Stratum 1:	<i>Sorghum ?stipoideum</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Bauhinia cunninghamii</i>	2	1
<i>Calytrix exstipulata</i>	3	20
<i>Cochlospermum fraseri</i>	6	3
<i>Corymbia confertiflora</i>	5	3
<i>Dicliptera armata</i>	0.3	0.1
<i>Ehretia saligna</i> var. <i>saligna</i>	3	2
<i>Erythrophleum chlorostachys</i>	8	12
<i>Sorghum ?stipoideum</i>	1.2	60
<i>Terminalia canescens</i>	8	15
<i>Triodia stenostachya</i>	0.1	0.1



Site Name:	KAI-143
Site Type:	AREA
Survey Date:	21/08/2016
GPS Location:	GDA94 Zone 52 448335E 8281260N
Vegetation Type:	28
Landform Type:	Lower Slope, of hill
Slope Class:	Moderately Inclined (10 degrees)
Aspect:	E
Soil Type:	Clay
Soil Colour:	Light brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	50-90%
CF Sizes:	2-6mm, 6-20mm, 20-60mm, 60-200mm, 200-600mm, 600-2000mm
CF Types:	Metamorphic sandstone
Vegetation Condition:	Northern Vegetation Condition - VG - Very Good
Disturbance:	- Dry, Grazing
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Adansonia gregorii</i>
Mid Stratum 1:	<i>Bauhinia cunninghamii</i> , <i>Calytrix exstipulata</i> , <i>Cochlospermum fraseri</i> , <i>Hakea arborescens</i> , <i>Melaleuca minutifolia</i> , <i>Terminalia canescens</i>
Lower Stratum 1:	<i>Eriachne ciliata</i> , <i>Eriachne major</i> , <i>Heliotropium euodes</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	8	10
<i>Bauhinia cunninghamii</i>	2	1
<i>Calytrix exstipulata</i>	3	4
<i>Carissa lanceolata</i>	1	0.2
<i>Cochlospermum fraseri</i>	8	5
<i>Eriachne ciliata</i>	0.4	5
<i>Eriachne major</i>	0.4	5
<i>Euphorbia</i> sp.	0.1	0.1
<i>Hakea arborescens</i>	3.5	1
<i>Heliotropium euodes</i>	0.4	1
<i>Melaleuca minutifolia</i>	6	12
<i>Phyllanthus virgatus</i>	0.3	0.2

<i>Ptilotus</i> sp.	0.1	0.1
<i>Terminalia canescens</i>	2	1.5



Site Name: KAI-148
 Site Type: AREA
 Survey Date: 21/08/2016
 GPS Location: GDA94 Zone 52 446184E 8277300N
 Vegetation Type: 19
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Aspect: S
 Soil Type: Sandy clay
 Soil Colour: Dark brown
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing, Exotic Weeds
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Adansonia gregorii*, *Corymbia bella*, *Grewia breviflora*
 Mid Stratum 1: **Calotropis procera*, *Ficus aculeata* var. *indecora*, *Flueggea virosa* subsp. *melanthesoides*, *Heliotropium muelleri*
 Lower Stratum 1: **Hyptis suaveolens*, *Luffa graveolens*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	15	5
* <i>Calotropis procera</i>	4	10
<i>Corymbia bella</i>	18	23
<i>Ficus aculeata</i> var. <i>indecora</i>	4	3
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	4	10
<i>Grewia breviflora</i>	10	5
<i>Heliotropium muelleri</i>	3	5
* <i>Hyptis suaveolens</i>	1	60
<i>Luffa graveolens</i>		5
* <i>Malvastrum americanum</i>	0.8	1



Site Name:	KAI-149
Site Type:	AREA
Survey Date:	21/08/2016
GPS Location:	GDA94 Zone 52 446140E 8277463N
Vegetation Type:	19
Landform Type:	Other, Flat/plain/open depression
Slope Class:	Level (0 degrees)
Aspect:	SW
Soil Type:	Clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - VP - Very Poor
Disturbance:	Grazing, Exotic Weeds
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Adansonia gregorii</i> , <i>Corymbia bella</i>
Mid Stratum 1:	* <i>Calotropis procera</i> , <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> , <i>Hakea arborescens</i>
Mid Stratum 2:	* <i>Hyptis suaveolens</i> , * <i>Physalis angulata</i>
Lower Stratum 1:	<i>Sporobolus australasicus</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Abutilon hannii</i>	1.5	0.5
<i>Abutilon otocarpum</i>	0.1	0.1
<i>Adansonia gregorii</i>	10	5
<i>Bulbostylis barbata</i>		0.1
* <i>Calotropis procera</i>	2.5	8
<i>Corymbia bella</i>	9	7
<i>Fabaceae</i> sp.		0.1
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	2	3
<i>Hakea arborescens</i>	6	3
* <i>Hyptis suaveolens</i>	0.5	30
<i>Indeterminate sp.3</i>	0.5	0.3
* <i>Physalis angulata</i>	1	10
<i>Sporobolus australasicus</i>	0.2	25



Site Name: KAI-151
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 52 443523E 8279036N
 Vegetation Type: 30
 Landform Type: Drainage Line
 Slope Class: Level (0 degrees)
 Aspect: S
 Soil Type: Clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - P - Poor
 Disturbance: Grazing, Pig/Animal Disturbance - Cattle trampling, - Broad flow line
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Bauhinia cunninghamii*, *Eucalyptus pruinosa* subsp. *?pruinosa*
 Mid Stratum 1: *Carissa lanceolata*
 Lower Stratum 1: *Chrysopogon fallax*, *?Dichanthium fecundum*, *Eriachne major*,
Heteropogon contortus, *Themeda triandra*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Aristida latifolia</i>	0.8	0.5
<i>Bauhinia cunninghamii</i>	9	6
<i>Carissa lanceolata</i>	1.8	1.5
<i>Chrysopogon fallax</i>	1.2	2
<i>?Dichanthium fecundum</i>	1	25
<i>Eriachne major</i>	0.3	2
<i>Eucalyptus pruinosa</i> subsp. <i>?pruinosa</i>	8	12
<i>Heteropogon contortus</i>	0.8	5
<i>Sporobolus australasicus</i>	0.1	0.1
<i>Themeda triandra</i>	1.5	2



Site Name: KAI-152
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 52 442053E 8279578N
 Vegetation Type: 11
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Grey-brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing, Exotic Weeds - Significant weeds
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Ficus aculeata* var. *indecora*, *Gyrocarpus americanus* subsp. *pachyphyllus*
 Mid Stratum 1: **Calotropis procera*, *Grevillea dimidiata*
 Lower Stratum 1: **Cenchrus ciliaris*, *Heteropogon contortus*, *Trichodesma zeylanicum*,
 **Urochloa mosambicensis*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
* <i>Calotropis procera</i>	3	3
* <i>Cenchrus ciliaris</i>	0.5	10
<i>Ficus aculeata</i> var. <i>indecora</i>	4.5	1
<i>Grevillea dimidiata</i>	7	1
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	8	1
<i>Heteropogon contortus</i>	1.2	30
<i>Trichodesma zeylanicum</i>	0.5	0.2
* <i>Urochloa mosambicensis</i>	0.8	50
* <i>Vachellia farnesiana</i>	1	0.1



Site Name:	KAI-156
Site Type:	AREA
Survey Date:	20/08/2016
GPS Location:	GDA94 Zone 52 443584E 8281667N
Vegetation Type:	14
Landform Type:	Drainage Line
Slope Class:	Very Gently Inclined (1 degree)
Soil Type:	Sandy clay
Soil Colour:	Grey
Rock Outcrop:	No bedrock exposed
CF Abundance:	10-20%
CF Sizes:	2-6mm, 6-20mm, 20-60mm
CF Types:	Dolerite
Vegetation Condition:	Northern Vegetation Condition - P - Poor
Disturbance:	Grazing - Some grazing, Exotic Weeds - Some weeds,
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Adansonia gregorii*, *Bauhinia cunninghamii*, *Ehretia saligna* var. *saligna*,
Terminalia volucris

Lower Stratum 1: *Chrysopogon fallax*, *Eriachne major*, *Heteropogon contortus*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	10	20
<i>Bauhinia cunninghamii</i>	8	5
* <i>Bidens ?pilosa</i>	0.3	0.1
<i>Carissa lanceolata</i>	0.5	0.1
<i>Chrysopogon fallax</i>	1.2	2
<i>Cleome viscosa</i>	0.3	0.2
<i>Dichanthium fecundum</i>	1	1
<i>Ehretia saligna</i> var. <i>saligna</i>	10	2
<i>Eragrostis cumingii</i>	0.3	0.2
<i>Eriachne major</i>	0.3	2
<i>Euphorbia schultzei</i> var. <i>schultzei</i>	0.1	0.1
<i>Heliotropium tenuifolium</i>	0.2	0.1
<i>Heteropogon contortus</i>	1.5	5
* <i>Hyptis suaveolens</i>	0.4	0.1
<i>Spermacoce ?brachystema</i>	0.2	0.5

<i>Tephrosia stipuligera</i>	0.1	0.1
<i>Terminalia volucris</i>	10	2
* <i>Vachellia farnesiana</i>	1.5	1



Site Name: KAI-157
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 50 443853E 8281621N
 Vegetation Type: 23
 Landform Type: Other, Stoney outwash plains
 Slope Class: Gently Inclined (3 degrees)
 Soil Type: Clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 50-90%
 CF Sizes: 60-200mm
 CF Types: Dolerite
 Vegetation Condition: Northern Vegetation Condition - VG - Very Good
 Disturbance: Grazing

DOMINANT TAXA IN VEGETATION STRATA

Lower Stratum 1: *Eriachne pulchella* subsp. *dominii*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Eriachne pulchella</i> subsp. <i>dominii</i>	0.2	10



Site Name: KAI-163
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 446076.8134E 8285572.2N
 Vegetation Type: 12
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: N
 Soil Type: Loamy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - G - Good
 Disturbance: Grazing - Some grazing, very dry, native grasses, <1% weed cover, occasional Calotropis, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Mid Stratum 1: *Sorghum stipoideum*
 Lower Stratum 1: *Chrysopogon fallax*, *Heteropogon contortus*, *Themeda triandra*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Chrysopogon fallax</i>		3
<i>Heteropogon contortus</i>		1
<i>Sesbania cannabina</i>		0.1
<i>Sorghum stipoideum</i>	2.5	15
<i>Themeda triandra</i>	1.2	75



Site Name: KAI-166
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 52 444581.1063E 8289064.149N
 Vegetation Type: 13
 Landform Type: Lower Slope
 Slope Class: Gently Inclined (3 degrees)
 Aspect: SW
 Soil Type: Sandy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VG - Very Good
 Disturbance: very dry, 0% weed cover, Grazing, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Cochlospermum fraseri*, *Grevillea striata*
 Mid Stratum 1: *Sorghum stipoideum*
 Lower Stratum 1: Poaceae sp.4, *Triodia bitextura*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Cochlospermum fraseri</i>	5	0.2
<i>Goodenia sepalosa</i> var. <i>sepalosa</i>		0.1
<i>Grevillea striata</i>	5	1
Poaceae sp.4	0.4	90
<i>Sorghum stipoideum</i>	2.2	20
<i>Triodia bitextura</i>	0.4	3
<i>Waltheria virgata</i>		0.1



Site Name:	KAI-168
Site Type:	AREA
Survey Date:	20/08/2016
GPS Location:	GDA94 Zone 52 442587.63E 8288226.9N
Vegetation Type:	1
Landform Type:	Plain, Plain with drainage lines
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	W
Soil Type:	Medium clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - VG - Very Good
Disturbance:	Grazing - Minor grazing, Exotic Weeds - Some weeds, 1-5% weed cover, very dry, cracking clay
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Eucalyptus microtheca</i> , <i>Excoecaria parvifolia</i> , <i>Terminalia hadleyana</i>
Mid Stratum 1:	<i>Eulalia aurea</i> , <i>Ophiuros exaltatus</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Abelmoschus ficulneus</i>	1.8	0.1
<i>Eucalyptus microtheca</i>	8	1
<i>Eulalia aurea</i>	1.2	5
<i>Excoecaria parvifolia</i>	7.5	15
<i>Ophiuros exaltatus</i>	1.6	90
<i>Paspalum scrobiculatum</i>	0.5	1
<i>Sesbania cannabina</i>	2	0.1
* <i>Sida acuta</i> subsp. <i>acuta</i>	1.3	0.1
<i>Terminalia hadleyana</i>	4	0.5



Site Name: KAI-173
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 439817E 8286352N
 Vegetation Type: 20
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Grey
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Disturbance: Grazing, Exotic Weeds, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Mid Stratum 1: **Parkinsonia aculeata*
 Lower Stratum 1: *Chenopodium auricomum*, *Marsilea hirsuta*, *Panicum decompositum*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Chenopodium auricomum</i>	0.7	3
<i>Marsilea hirsuta</i>	0.1	0.2
<i>Neptunia</i> sp.	0.7	0.1
<i>Panicum decompositum</i>	0.4	1
* <i>Parkinsonia aculeata</i>	3	2



Site Name: KAI-174
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 439442E 8286654N
 Vegetation Type: 1
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Grey-brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing, Pig/Animal Disturbance - Cattle trampling, - Typhonium habitat?
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Excoecaria parvifolia*
 Mid Stratum 1: **Parkinsonia aculeata*
 Lower Stratum 1: *Ophiuros exaltatus*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Alternanthera nodiflora</i>		0.1
<i>Excoecaria parvifolia</i>	8	20
<i>Neptunia sp.</i>		0.1
<i>Ophiuros exaltatus</i>	1.6	5
<i>*Parkinsonia aculeata</i>	3	1
Poaceae sp.5		0.1



Site Name: KAI-177
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 52 441945.5347E 8289118.163N
 Vegetation Type: 10
 Landform Type: Hillock
 Slope Class: Gently Inclined (3 degrees)
 Aspect: NE
 Soil Type: Sandy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: <2%
 CF Sizes: 60-200mm
 CF Types: Granite
 Vegetation Condition: Northern Vegetation Condition - G - Good
 Disturbance: Grazing, very dry, <1% weeds
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Terminalia platyptera*
 Mid Stratum 1: *Carissa lanceolata*
 Lower Stratum 1: *Aristida holathera* var. *holathera*, *Sorghum ?stipoidium*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Aristida holathera</i> var. <i>holathera</i>	0.6	10
<i>Calytrix exstipulata</i>		0.1
<i>Carissa lanceolata</i>	1.8	0.1
<i>Cochlospermum fraseri</i>		0.1
<i>Corymbia ?grandifolia</i>	4	0.1
* <i>Hyptis suaveolens</i>	1.4	0.1
<i>Sorghum ?stipoidium</i>	1.8	80
<i>Terminalia platyptera</i>	6	9



Site Name:	KAI-178
Site Type:	AREA
Survey Date:	18/08/2016
GPS Location:	GDA94 Zone 52 440314.47E 8290815.24N
Vegetation Type:	6
Landform Type:	Plain, Plain with flow lines
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	E
Soil Type:	Sandy Loam
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - VG - Very Good
Disturbance:	Grazing, very dry, weeds <1% if present
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Adansonia gregorii</i> , <i>Corymbia polycarpa</i> , <i>Eucalyptus sp.2</i>
Mid Stratum 1:	<i>Bauhinia cunninghamii</i> , <i>Melaleuca ?nervosa</i>
Lower Stratum 1:	<i>Chrysopogon fallax</i> , <i>Themeda triandra</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Acacia holosericea</i>		0.1
<i>Adansonia gregorii</i>	12	1
<i>Bauhinia cunninghamii</i>	8	2
<i>Chrysopogon fallax</i>	0.8	20
<i>Corymbia bella</i>	12	3
<i>Corymbia polycarpa</i>	15	7
<i>Eriachne sulcata</i>		0.1
<i>Eucalyptus sp.2</i>	15	15
<i>Ficus aculeata</i> var. <i>indecora</i>		0.1
<i>Grewia retusifolia</i>		0.1
<i>Melaleuca ?nervosa</i>	10	5
<i>Panicum ?decompositum</i>		0.1
* <i>Passiflora foetida</i> var. <i>hispida</i>		0.1
<i>Planchonia careya</i>		0.1
* <i>Stylosanthes hamata</i>		0.1
<i>Themeda triandra</i>	0.8	2



Site Name: KAI-179
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 52 440328.2657E 8290252.473N
 Vegetation Type: 5
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: W
 Soil Type: Clayey sand
 Soil Colour: Orange
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing - Heavy grazing, Exotic Weeds - 30% weed cover, very dry
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*, *Excoecaria parvifolia*
 Mid Stratum 1: *Carissa lanceolata*
 Lower Stratum 1: *Aristida holathera* var. *holathera*, *Chrysopogon fallax*, *Cynodon convergens*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Aristida holathera</i> var. <i>holathera</i>	0.5	3
<i>Carissa lanceolata</i>	1.6	0.2
<i>Chrysopogon fallax</i>	0.3	1
<i>Cynodon convergens</i>	0.2	30
<i>Eucalyptus microtheca</i>	8	30
<i>Excoecaria parvifolia</i>	5	1
* <i>Vachellia farnesiana</i>		0.1



Site Name: KAI-180
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 52 441060.5752E 8290196.284N
 Vegetation Type: 8
 Landform Type: Hillock
 Slope Class: Moderately Inclined (10 degrees)
 Aspect: W
 Soil Type: Loamy sand
 Soil Colour: Brown
 Rock Outcrop: 10-20% bedrock exposed
 CF Abundance: >90%
 CF Sizes: 200-600mm
 CF Types: Sandstone
 Vegetation Condition: Northern Vegetation Condition - VG - Very Good
 Disturbance: Grazing - Minor grazing, very dry, 0% weed cover, Pig/Animal
 Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Corymbia ?grandifolia*
 Mid Stratum 1: *Calytrix exstipulata*
 Mid Stratum 2: *Sorghum ?stipoideum*
 Lower Stratum 1: *Spermacoce ?brachystema*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Calytrix exstipulata</i>	3	6
<i>Corymbia ?grandifolia</i>	5	2
<i>Sorghum ?stipoideum</i>	2	3
<i>Spermacoce ?brachystema</i>	0.4	1



Site Name:	KAI-181
Site Type:	AREA
Survey Date:	18/08/2016
GPS Location:	WGS84 Zone 52 437390E 8290301N
Vegetation Type:	2
Landform Type:	Lower Slope
Slope Class:	Gently Inclined (3 degrees)
Aspect:	S
Soil Type:	Clay Loam
Soil Colour:	Grey-brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	10-20%
CF Sizes:	60-200mm
CF Types:	Granite, Dolerite
Vegetation Condition:	Northern Vegetation Condition - G - Good
Disturbance:	Pig/Animal Disturbance - Cattle trampling, Grazing
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Adansonia gregorii</i> , <i>Bauhinia cunninghamii</i>
Mid Stratum 1:	<i>Carissa lanceolata</i> , <i>Ehretia saligna</i> var. <i>saligna</i> , <i>Heliotropium euodes</i> , <i>Terminalia canescens</i>
Lower Stratum 1:	<i>Chrysopogon fallax</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	8	1
<i>Atalaya hemiglauca</i>	1	0.2
<i>Bauhinia cunninghamii</i>	5	5
<i>Carissa lanceolata</i>	2.5	2
<i>Chrysopogon fallax</i>	0.7	8
<i>Corchorus aestuans</i>	0.2	0.1
<i>Cynodon convergens</i>	0.1	0.1
<i>Ehretia saligna</i> var. <i>saligna</i>	3	0.5
<i>Eriachne ?sulcata</i>	0.2	0.3
<i>Heliotropium euodes</i>	0.2	0.3
Poaceae spp.	0.3	50
* <i>Stylosanthes hamata</i>	0.1	0.1

<i>Terminalia canescens</i>	3.5	1
<i>Themeda triandra</i>	0.4	0.2
<i>Waltheria indica</i>	0.1	0.1



Site Name: KAI-182
 Site Type: AREA
 Survey Date: 18/08/2016
 GPS Location: GDA94 Zone 52 438883E 8288825N
 Vegetation Type: 1
 Landform Type: Plain
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Grey
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - G - Good
 Disturbance: Pig/Animal Disturbance - Cattle trampling, - Typhonium habitat
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*, *Excoecaria parvifolia*
 Lower Stratum 1: *Cyperus sp.2*, Poaceae sp.5

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Alternanthera nodiflora</i>	0.1	0.1
<i>Cyperus sp.2</i>	0.3	80
<i>Eucalyptus microtheca</i>	5	1
<i>Excoecaria parvifolia</i>	6	20
* <i>Melochia pyramidata</i>	0.1	0.1
Poaceae sp.5		0.5



Site Name: KAI-183
 Site Type: AREA
 Survey Date: 18/08/2016
 GPS Location: GDA94 Zone 52 438352E 8289056N
 Vegetation Type: 1
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Grey
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - G - Good
 Disturbance: Grazing, Pig/Animal Disturbance - Cattle trampling, - Cracking clay,
 Typhonium habitat
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*, *Excoecaria parvifolia*
 Lower Stratum 1: *Cyperus sp.2*, *Poaceae sp.5*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Alternanthera nodiflora</i>	0.1	0.2
<i>Corchorus fascicularis</i>		5
<i>Cyperus sp.2</i>	0.3	15
* <i>Echinochloa colona</i>	0.1	0.1
<i>Eucalyptus microtheca</i>	4	2
<i>Excoecaria parvifolia</i>	8	28
<i>Poaceae sp.5</i>	0.2	45



Site Name: KAI-184
 Site Type: AREA
 Survey Date: 18/08/2016
 GPS Location: GDA94 Zone 52 437190E 8289534N
 Vegetation Type: 1
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Aspect: W
 Soil Type: Clay
 Soil Colour: Grey
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - G - Good
 Disturbance: Pig/Animal Disturbance - Cattle trampling, - Cracking clay, Typhonium habitat?
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*, *Excoecaria parvifolia*
 Lower Stratum 1: *Corchorus fascicularis*, *Cyperus sp.1*, *Cyperus sp.2*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Alternanthera nodiflora</i>	0.2	0.2
<i>Corchorus fascicularis</i>		10
<i>Cyperus sp.1</i>	0.5	65
<i>Cyperus sp.2</i>	0.4	2
<i>Eucalyptus microtheca</i>	4	2
<i>Excoecaria parvifolia</i>	7	20
<i>Ipomoea muelleri</i>		0.5
? <i>Ludwigia perennis</i>	0.4	0.2
<i>Marsilea hirsuta</i>	0.1	0.1
Poaceae sp.5		0.1



Site Name:	KAI-186
Site Type:	AREA
Survey Date:	18/08/2016
GPS Location:	GDA94 Zone 52 439187.96E 8291291.59N
Vegetation Type:	3
Landform Type:	Plain, with creeks & sink holes
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	NE
Soil Type:	Sandy clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - G - Good
Disturbance:	Grazing, Exotic Weeds, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Adansonia gregorii</i> , <i>Eucalyptus microtheca</i>
Upper Stratum 2:	<i>Bauhinia cunninghamii</i> , <i>Excoecaria parvifolia</i>
Mid Stratum 1:	<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>
Lower Stratum 1:	* <i>Sida cordifolia</i> , <i>Tribulopsis pentandra</i> , <i>Waltheria indica</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	11	2
<i>Aristida latifolia</i>	0.7	0.1
<i>Atalaya hemiglauca</i>	2.5	0.1
<i>Bauhinia cunninghamii</i>	6	0.5
<i>Bonamia media</i>		0.1
<i>Capparis lasiantha</i>		0.1
<i>Carissa lanceolata</i>	0.5	0.1
<i>Cathormion umbellatum</i>	4	0.1
<i>Enneapogon polyphyllus</i>	0.1	0.1
<i>Eucalyptus microtheca</i>	11	3
<i>Excoecaria parvifolia</i>	9	4
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	2.4	8
* <i>Hyptis suaveolens</i>	1	0.1
<i>Ipomoea polymorpha</i>	0.1	0.1

<i>Neptunia dimorphantha</i>	0.1	0.1
* <i>Sida acuta</i> subsp. <i>acuta</i>	0.3	0.1
* <i>Sida cordifolia</i>	0.6	0.5
* <i>Stylosanthes hamata</i>	0.4	0.1
<i>Terminalia hadleyana</i>	4.5	0.1
<i>Tribulopsis pentandra</i>	0.6	1
* <i>Vachellia farnesiana</i>	3	0.1
<i>Waltheria indica</i>	0.6	18



Site Name: KAI-187
 Site Type: AREA
 Survey Date: 18/08/2016
 GPS Location: GDA94 Zone 52 436400E 8289462N
 Vegetation Type: 1
 Landform Type: Other, Floodplain
 Slope Class: Level (0 degrees)
 Aspect: S
 Soil Type: Clay
 Soil Colour: Grey
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - G - Good
 Disturbance: Grazing, Pig/Animal Disturbance - Cattle trampling, - Cracking clay,
 Typhonium habitat? Assuming Tubular reed is native
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Excoecaria parvifolia*
 Lower Stratum 1: *Cyperus sp.1*, Poaceae sp.5

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Alternanthera nodiflora</i>	0.2	0.3
<i>Bergia pedicellaris</i>	0.1	0.1
<i>Corchorus fascicularis</i>	0.2	0.1
<i>Cyperus sp.1</i>	0.6	60
* <i>Echinochloa colona</i>	0.2	0.1
<i>Excoecaria parvifolia</i>	8	15
<i>Ipomoea muelleri</i>		0.1
? <i>Ludwigia perennis</i>	0.5	0.1
Poaceae sp.5	0.2	0.5



Site Name: KAI-188
 Site Type: AREA
 Survey Date: 18/08/2016
 GPS Location: GDA94 Zone 52 436424E 8289221N
 Vegetation Type: 1
 Landform Type: Drainage Line
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: SSE
 Soil Type: Clay
 Soil Colour: Grey
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - P - Poor
 Disturbance: Grazing - Heavy grazing, Pig/Animal Disturbance - Heavy cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Excoecaria parvifolia*
 Lower Stratum 1: *Bergia pedicellaris*, *Cyperus pygmaeus*, *Dentella minutissima*, *Glinus lotoides*, Poaceae sp.5

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Alternanthera nodiflora</i>		0.1
<i>Bergia pedicellaris</i>		1
<i>Cyperus pygmaeus</i>		4
<i>Dentella minutissima</i>		1
<i>Excoecaria parvifolia</i>	6	8
<i>Glinus lotoides</i>		1
<i>Marsilea hirsuta</i>		0.1
Poaceae sp.5	0.1	15



Site Name: KAI-189
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 438229.2589E 8286740.787N
 Vegetation Type: 11
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: SE
 Soil Type: Sandy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - G - Good
 Disturbance: Grazing
 Fire: >5yrs

DOMINANT TAXA IN VEGETATION STRATA

Lower Stratum 1: *Chrysopogon fallax, Iseilema sp.2*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Chrysopogon fallax</i>	0.6	85
<i>Iseilema sp.2</i>	0.5	15



Site Name: KAI-191
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 437044.5E 8285665.38N
 Vegetation Type: 4
 Landform Type: Drainage Line, /floodplain
 Slope Class: Gently Inclined (3 degrees)
 Aspect: SW
 Soil Type: Sandy Loam
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Disturbance: Limited Clearing - Heavy grazing, Exotic Weeds, very dry, if Grass stubborn (193-02) is a weed - cover is 80%
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*, *Excoecaria parvifolia*
 Lower Stratum 1: Poaceae sp.6

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Eucalyptus microtheca</i>	9	20
<i>Excoecaria parvifolia</i>	7	5
Poaceae sp.6	0.4	80



Site Name:	KAI-192
Site Type:	AREA
Survey Date:	19/08/2016
GPS Location:	GDA94 Zone 52 437313.56E 8286939.52N
Vegetation Type:	1
Landform Type:	Plain, Plain with drainage lines
Slope Class:	Gently Inclined (3 degrees)
Aspect:	SW
Soil Type:	Loamy clay
Soil Colour:	Dark brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - G - Good
Disturbance:	Grazing, Exotic Weeds - Some weeds, 30% weed cover, very dry, cracking clay
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Excoecaria parvifolia</i>
Lower Stratum 1:	<i>Eriachne sulcata</i> , <i>Eulalia aurea</i> , ? <i>Sorghum</i> sp.
Lower Stratum 2:	<i>Fimbristylis blepharolepis</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Alternanthera nodiflora</i>		0.1
<i>Eriachne sulcata</i>	0.6	40
<i>Eulalia aurea</i>	0.6	2
<i>Excoecaria parvifolia</i>	6	25
<i>Fimbristylis blepharolepis</i>	0.5	1
* <i>Sida acuta</i> subsp. <i>acuta</i>		0.1
? <i>Sorghum</i> sp.	1.2	5



Site Name: KAI-193
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 437482.9988E 8285415.703N
 Vegetation Type: 19
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: S
 Soil Type: Loamy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: <2%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Disturbance: Grazing - Heavy grazing, Exotic Weeds - 30% weed cover, very dry, if
 Grass stubborn (193-02) is weed - 90% weed cover
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Corymbia bella*, *Ehretia saligna* var. *saligna*, *Erythrina vespertilio*, *Hakea arborescens*
 Mid Stratum 1: **Hyptis suaveolens*
 Lower Stratum 1: *Ficus aculeata* var. *indecora*, Poaceae sp.6

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Corymbia bella</i>	7	3
<i>Ehretia saligna</i> var. <i>saligna</i>	5	1
<i>Erythrina vespertilio</i>	5	0.5
<i>Ficus aculeata</i> var. <i>indecora</i>	4	1
<i>Hakea arborescens</i>	6	1
* <i>Hyptis suaveolens</i>	1.3	30
Poaceae sp.6	0.4	50



Site Name: KAI-194
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 433834E 8283950N
 Vegetation Type: 16
 Landform Type: Closed Depression
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Disturbance: Grazing, Pig/Animal Disturbance - Cattle trampling, - No foliage or bark on trees in understorey - eaten/chewed
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: **Moringa oleifera*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
* <i>Moringa oleifera</i>	15	80



Site Name: KAI-195
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 433915E 8284202N
 Vegetation Type: 18
 Landform Type: Drainage Line, /floodplain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: E
 Soil Type: Sandy clay
 Soil Colour: Dark brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing, Exotic Weeds, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus camaldulensis* subsp. *obtusa*
 Mid Stratum 1: **Calotropis procera*, *Flueggea virosa* subsp. *melanthesoides*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>*Calotropis procera</i>	3.5	4
<i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i>	20	20
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	3	30



Site Name: KAI-196
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 433958E 8283495N
 Vegetation Type: 17
 Landform Type: Other, Floodplain
 Slope Class: Level (0 degrees)
 Aspect: SW
 Soil Type: Clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Exotic Weeds, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Ficus aculeata* var. *indecora*
 Mid Stratum 1: **Calotropis procera*, *Flueggea virosa* subsp. *melanthesoides*,
Heliotropium muelleri
 Lower Stratum 1: **Hyptis suaveolens*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
* <i>Calotropis procera</i>	3	3
<i>Cynanchum floribundum</i>		1
<i>Ficus aculeata</i> var. <i>indecora</i>	12	10
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	4	2
<i>Heliotropium muelleri</i>	3	25
* <i>Hyptis suaveolens</i>	0.4	5
* <i>Sida cordifolia</i>	0.4	0.1



Site Name:	KAI-197
Site Type:	AREA
Survey Date:	19/08/2016
GPS Location:	GDA94 Zone 52 434316.83E 8283611.91N
Vegetation Type:	17
Landform Type:	Other, Floodplain
Slope Class:	Gently Inclined (3 degrees)
Aspect:	S
Soil Type:	Clayey sand
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - D - Degraded
Disturbance:	Exotic Weeds - Very weedy, minor natives, 70% weeds, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>
Mid Stratum 1:	* <i>Calotropis procera</i> , <i>Flueggea virosa</i> subsp. <i>melanthesoides</i>
Lower Stratum 1:	<i>Heliotropium muelleri</i>
Lower Stratum 2:	<i>Cynanchum floribundum</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Abutilon hannii</i>		0.1
* <i>Calotropis procera</i>	3	5
<i>Cynanchum floribundum</i>		1
<i>Ficus aculeata</i> var. <i>indecora</i>	5.5	1
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	3	2
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	6	2
<i>Heliotropium muelleri</i>	1.8	7
<i>Solanum fecundum</i>		0.1



Site Name:	KAI-198
Site Type:	AREA
Survey Date:	19/08/2016
GPS Location:	GDA94 Zone 52 434505.23E 8283961.88N
Vegetation Type:	17
Landform Type:	Other, Floodplain
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	SW
Soil Type:	Clayey sand
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - D - Degraded
Disturbance:	Grazing - Heavily grazed, Exotic Weeds - Very weedy, 70% weeds, minimal natives, very dry
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Erythrina vespertilio</i> , <i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>
Mid Stratum 1:	* <i>Calotropis procera</i> , <i>Ficus aculeata</i> var. <i>indecora</i> , <i>Flueggea virosa</i> subsp. <i>melanthesoides</i>
Lower Stratum 1:	<i>Heliotropium muelleri</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
* <i>Calotropis procera</i>	4	4
<i>Cynanchum floribundum</i>		0.5
<i>Erythrina vespertilio</i>	8	2
<i>Ficus aculeata</i> var. <i>indecora</i>	4.5	1.5
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	2.5	2
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	6	3.1
<i>Heliotropium muelleri</i>	1.9	3



Site Name: KAI-199
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 434537.28E 8284382.54N
 Vegetation Type: 18
 Landform Type: Drainage Line, /floodplain
 Slope Class: Gently Inclined (3 degrees)
 Aspect: W
 Soil Type: Loamy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - P - Poor
 Disturbance: Grazing - Heavily grazed, Exotic Weeds - Slightly weedy, 10% weed cover, very dry
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus camaldulensis* subsp. *obtusa*
 Mid Stratum 1: *Flueggea virosa* subsp. *melanthesoides*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i>	17	20
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	3	6
<i>Trichosanthes cucumerina</i>		0.1



Site Name:	KAI-204
Site Type:	AREA
Survey Date:	19/08/2016
GPS Location:	GDA94 Zone 52 435974E 8284662N
Vegetation Type:	19
Landform Type:	Flat
Slope Class:	Level (0 degrees)
Aspect:	S
Soil Type:	Clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - VP - Very Poor
Disturbance:	Grazing, Exotic Weeds, Pig/Animal Disturbance - Cattle trampling
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Adansonia gregorii*, *Corymbia bella*, *Ehretia saligna* var. *saligna*, *Erythrina vespertilio*, *Ficus aculeata* var. *indecora*, *Gyrocarpus americanus* subsp. *pachyphyllus*

Mid Stratum 1: **Calotropis procera*, *Flueggea virosa* subsp. *melanthesoides*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	10	5
* <i>Calotropis procera</i>	3	3
<i>Corymbia bella</i>	14	8
<i>Ehretia saligna</i> var. <i>saligna</i>	6	1
<i>Erythrina vespertilio</i>	8	2
<i>Ficus aculeata</i> var. <i>indecora</i>	14	3
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	3	10
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	8	3



Site Name: KAI-205
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 436344E 8284893N
 Vegetation Type: 19
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Aspect: S
 Soil Type: Clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Disturbance: Grazing - Chewed grasses, Exotic Weeds - *Calotropis procera*, Pig/Animal
 Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Mid Stratum 1: **Calotropis procera*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
* <i>Calotropis procera</i>	3	1
<i>Waltheria indica</i>	0.1	0.1



Site Name: KAI-205a
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 436230E 8284912N
 Vegetation Type: 19
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Pig/Animal Disturbance - cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Corymbia bella*
 Mid Stratum 1: *Ehretia saligna* var. *saligna*, *Flueggea virosa* subsp. *melanthesoides*
 Lower Stratum 1: **Hyptis suaveolens*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Corymbia bella</i>	12	12
<i>Ehretia saligna</i> var. <i>saligna</i>	4	2
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	2.5	6
<i>Heliotropium muelleri</i>	1.5	0.5
<i>*Hyptis suaveolens</i>	0.7	60
<i>*Sida cordifolia</i>	0.2	0.1



Site Name: KAI-208
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 443667E 8284744N
 Vegetation Type: 14
 Landform Type: Drainage Line
 Slope Class: Very Gently Inclined (1 degree)
 Soil Type: Clay
 Soil Colour: Light grey
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Adansonia gregorii, Bauhinia cunninghamii*
 Mid Stratum 1: *Atalaya hemiglauca, Terminalia volucris*
 Lower Stratum 1: *?Dichanthium fecundum, Panicum ?decompositum*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	10	20
<i>Atalaya hemiglauca</i>	6	1
<i>Bauhinia cunninghamii</i>	10	15
<i>?Dichanthium fecundum</i>	0.6	4
<i>Panicum ?decompositum</i>	0.5	2
<i>Terminalia volucris</i>	6	5
* <i>Vachellia farnesiana</i>	1	0.2



Site Name: KAI-209
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 443019E 8284195N
 Vegetation Type: 14
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Light grey
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Disturbance: Grazing, Exotic Weeds, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Bauhinia cunninghamii*
 Mid Stratum 1: *Atalaya hemiglauca*, **Calotropis procera*, **Vachellia farnesiana*
 Lower Stratum 1: *Ophiuros exaltatus*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Atalaya hemiglauca</i>	1	0.5
<i>Bauhinia cunninghamii</i>	7	6
* <i>Calotropis procera</i>	2	2
<i>Carissa lanceolata</i>	0.2	0.1
<i>Ophiuros exaltatus</i>	1.5	3
<i>Panicum decompositum</i>	1	0.2
* <i>Vachellia farnesiana</i>	2	2



Site Name: KAI-211
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 440339E 8285668N
 Vegetation Type: 1
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Grey
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - D - Degraded
 Disturbance: Grazing, Pig/Animal Disturbance - Cattle trampling, - Typhonium habitat?
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Excoecaria parvifolia*
 Mid Stratum 1: *Ophiuros exaltatus*
 Lower Stratum 1: *Chenopodium auricomum*, *?Dichanthium fecundum*, *Panicum ?decompositum*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Chenopodium auricomum</i>	0.8	12
<i>?Dichanthium fecundum</i>	0.6	2
<i>Excoecaria parvifolia</i>	7	8
<i>Ophiuros exaltatus</i>	1.6	5
<i>Panicum ?decompositum</i>	0.6	1



Site Name: KAI-212
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 52 440885E 8282741N
 Vegetation Type: 21
 Landform Type: Closed Depression
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Grey
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing, Pig/Animal Disturbance - Cattle trampling, - Cracking clay
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Barringtonia acutangula* subsp. *acutangula*
 Mid Stratum 1: *Eleocharis dulcis*
 Lower Stratum 1: *Glinus lotoides*, ?*Heliotropium* sp.

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Barringtonia acutangula</i> subsp. <i>acutangula</i>	7	10
<i>Eleocharis dulcis</i>	0.6	40
<i>Glinus lotoides</i>	0.1	10
? <i>Heliotropium</i> sp.		0.1



Site Name: KAI-213
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 52 440647E 8282617N
 Vegetation Type: 22
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Soil Type: Clay
 Soil Colour: Dark grey
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Corymbia bella*, *Eucalyptus microtheca*, *Ficus aculeata* var. *indecora*
 Mid Stratum 1: *Melia azedarach*, **Parkinsonia aculeata*
 Lower Stratum 1: **Hyptis suaveolens*, *Solanum fecundum*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Corymbia bella</i>	17	5
<i>Eucalyptus microtheca</i>	15	25
<i>Ficus aculeata</i> var. <i>indecora</i>	20	5
* <i>Hyptis suaveolens</i>	0.4	2
<i>Melia azedarach</i>	2	0.1
* <i>Parkinsonia aculeata</i>	3	9
<i>Solanum fecundum</i>	1	8



Site Name: KAI-216
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 52 439751E 8283132N
 Vegetation Type: 22
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Aspect: W
 Soil Type: Clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - P - Poor
 Disturbance: Exotic Weeds, Pig/Animal Disturbance - Cattle trampling
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Ehretia saligna* var. *saligna*, *Eucalyptus microtheca*, *Excoecaria parvifolia*
 Mid Stratum 1: *Flueggea virosa* subsp. *melanthesoides*
 Lower Stratum 1: **Cardiospermum halicacabum* var. *halicacabum*, **Hyptis suaveolens*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
* <i>Cardiospermum halicacabum</i> var. <i>halicacabum</i>	0.2	5
<i>Ehretia saligna</i> var. <i>saligna</i>	7	2
<i>Eucalyptus microtheca</i>	12	55
<i>Excoecaria parvifolia</i>	8	3
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	2.5	30
* <i>Hyptis suaveolens</i>	0.4	5



Site Name:	KAI-224
Site Type:	AREA
Survey Date:	20/08/2016
GPS Location:	GDA94 Zone 52 440936E 8279568N
Vegetation Type:	17
Landform Type:	Plain
Slope Class:	Very Gently Inclined (1 degree)
Aspect:	W
Soil Type:	Clay
Soil Colour:	Brown
Rock Outcrop:	No bedrock exposed
CF Abundance:	0%
Vegetation Condition:	Northern Vegetation Condition - P - Poor
Disturbance:	Grazing, Exotic Weeds, Pig/Animal Disturbance - Cattle trampling
Fire:	>5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1:	<i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i> , <i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>
Mid Stratum 1:	* <i>Calotropis procera</i> , <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> , <i>Heliotropium muelleri</i>

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
* <i>Calotropis procera</i>	3	7
<i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i>	20	10
<i>Flueggea virosa</i> subsp. <i>melanthesoides</i>	4	60
<i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i>	10	4
<i>Heliotropium muelleri</i>	2.5	2



Site Name: KAI-231
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 52 440016.97E 8287691.38N
 Vegetation Type: 4
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: S
 Soil Type: Sandy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VG - Very Good
 Disturbance: Grazing - Very minor grazing, very dry, 0% weed cover
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*, *Excoecaria parvifolia*
 Mid Stratum 1: *Carissa lanceolata*
 Lower Stratum 1: *Chrysopogon fallax*, *Iseilema sp.1*, *?Sorghum plumosum*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Aristida latifolia</i>	1	0.1
<i>Carissa lanceolata</i>	1.2	0.5
<i>Chrysopogon fallax</i>	0.6	15
<i>Eucalyptus microtheca</i>	8	30
<i>Excoecaria parvifolia</i>	5	1
<i>Iseilema sp.1</i>	0.5	10
<i>Melaleuca ?nervosa</i>		0.1
<i>?Sorghum plumosum</i>	1	70



Site Name: KAI-234
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 445515E 8285236N
 Vegetation Type: 11
 Landform Type: Flat
 Slope Class: Level (0 degrees)
 Soil Type: Clay
 Soil Colour: Grey
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - G - Good
 Disturbance: Grazing - Cattle, Pig/Animal Disturbance - Cattle present, - Condition possibly very good if native species
 Fire: >5 yrs

DOMINANT TAXA IN VEGETATION STRATA

Lower Stratum 1: *Eragrostis tenellula*, *Fimbristylis sp.2*, *Iseilema sp.2*, Poaceae sp.7

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Eragrostis tenellula</i>	0.1	1
<i>Fimbristylis sp.2</i>	0.1	1
<i>Iseilema sp.2</i>	0.5	5
Poaceae sp.7	0.5	85



Site Name: KAI-235
 Site Type: AREA
 Survey Date: 18/08/2016
 GPS Location: GDA94 Zone 52 439479.62E 8291224.77N
 Vegetation Type: 1
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: S
 Soil Type: Loamy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VG - Very Good
 Disturbance: Grazing
 Fire: >5yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Adansonia gregorii*, *Eucalyptus microtheca*, *Excoecaria parvifolia*,
Terminalia hadleyana
 Mid Stratum 1: *Ophiuros exaltatus*
 Mid Stratum 2: *Eulalia aurea*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Adansonia gregorii</i>	5	0.5
<i>Eucalyptus microtheca</i>	6	1
<i>Eulalia aurea</i>	1	90
<i>Excoecaria parvifolia</i>	5	3
<i>Ophiuros exaltatus</i>	1.5	5
<i>Terminalia hadleyana</i>	5	2



Site Name: KAI-236
 Site Type: AREA
 Survey Date: 18/08/2016
 GPS Location: GDA94 Zone 52 439866E 8291017N
 Vegetation Type: 1
 Landform Type: Plain, with minor drainage lines
 Slope Class: Very Gently Inclined (1 degree)
 Soil Type: Clay and loamy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VG - Very Good
 Disturbance: Grazing
 Fire: >5yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Eucalyptus microtheca*, *Excoecaria parvifolia*

Mid Stratum 1: *Chrysopogon fallax*, *Eulalia aurea*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Chrysopogon fallax</i>	1	20
<i>Eucalyptus microtheca</i>	4.5	1
<i>Eulalia aurea</i>	1	80
<i>Excoecaria parvifolia</i>	4	1

Site Name: KAI-237
 Site Type: AREA
 Survey Date: 19/08/2016
 GPS Location: GDA94 Zone 52 438021.93E 8286102.76N
 Vegetation Type: 11
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: S
 Soil Type: Sandy clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing, Exotic Weeds, Pig/Animal Disturbance - Cattle trampling
 Fire: >5yrs

DOMINANT TAXA IN VEGETATION STRATA

Lower Stratum 1: *Chrysopogon fallax*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Chrysopogon fallax</i>	0.8	70



Site Name: KAI-238
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 52 445000.6765E 8286356.779N
 Vegetation Type: 12
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: ESE
 Soil Type: Medium clay
 Soil Colour: Brown
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VG - Very Good
 Disturbance: Grazing
 Fire: >5yrs

DOMINANT TAXA IN VEGETATION STRATA

Mid Stratum 1: *Ophiuros exaltatus, Sorghum stipoideum*
 Lower Stratum 1: *Chrysopogon fallax, Themeda triandra*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Chrysopogon fallax</i>	1	0.5
<i>Ophiuros exaltatus</i>	1.5	0.3
<i>Sorghum stipoideum</i>	2	99
<i>Themeda triandra</i>	1	0.5



Site Name: KAI-239
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 52 440665.1528E 8290654.872N
 Vegetation Type: 7
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: SSE
 Soil Type: Clayey sand
 Soil Colour: Orange
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VP - Very Poor
 Disturbance: Grazing - Heavily grazed, Pig/Animal Disturbance - Cattle trampling
 Fire: >5yrs

DOMINANT TAXA IN VEGETATION STRATA

Upper Stratum 1: *Bauhinia cunninghamii*, *Grevillea striata*
 Mid Stratum 1: *Carissa lanceolata*
 Lower Stratum 1: *Chrysopogon fallax*, *Eriachne* sp.

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Bauhinia cunninghamii</i>	6	5
<i>Carissa lanceolata</i>	1.7	0.5
<i>Chrysopogon fallax</i>	0.5	5
<i>Eriachne</i> sp.	0.3	5
<i>Grevillea striata</i>	6	7



Site Name: KAI-240
 Site Type: AREA
 Survey Date: 20/08/2016
 GPS Location: GDA94 Zone 52 442650.4166E 8286706.883N
 Vegetation Type: 11
 Landform Type: Plain
 Slope Class: Very Gently Inclined (1 degree)
 Aspect: S
 Soil Type: Loamy clay
 Soil Colour: Red
 Rock Outcrop: No bedrock exposed
 CF Abundance: 0%
 Vegetation Condition: Northern Vegetation Condition - VG - Very Good
 Disturbance: Grazing
 Fire: >5yrs

DOMINANT TAXA IN VEGETATION STRATA

Lower Stratum 1: *Chrysopogon fallax, Iseilema sp.2, Themeda triandra*

SPECIES LIST

Taxon Name	Avg. Height	Cover Alive
<i>Chrysopogon fallax</i>	1	5
<i>Iseilema sp.2</i>	0.5	85
<i>Themeda triandra</i>	0.8	10



Appendix J: Vascular Plant Taxa Recorded in the Study Area

Note: * denotes introduced taxon

FAMILY	TAXON
No family name	Indeterminate sp.1 Indeterminate sp.2 Indeterminate sp.3 Indeterminate sp.4 Indeterminate sp.5
Acanthaceae	<i>Dicliptera armata</i>
Amaranthaceae	<i>Achyranthes aspera</i> * <i>Aerva javanica</i> <i>Alternanthera nodiflora</i> <i>Ptilotus corymbosus</i> <i>Ptilotus nobilis</i> subsp. <i>nobilis</i> <i>Ptilotus</i> sp.
Apocynaceae	* <i>Calotropis procera</i> <i>Carissa lanceolata</i> <i>Cynanchum floribundum</i> <i>Cynanchum pedunculatum</i> <i>Tylophora cinerascens</i>
Asteraceae	* <i>Bidens ?pilosa</i> <i>Pterocaulon serrulatum</i> var. <i>velutinum</i> <i>Pterocaulon sphacelatum</i> * <i>Xanthium occidentale</i>
Bixaceae	<i>Cochlospermum fraseri</i>
Boraginaceae	<i>Coldenia procumbens</i> <i>Ehretia saligna</i> var. <i>saligna</i> <i>Heliotropium euodes</i> * <i>Heliotropium indicum</i> <i>Heliotropium muelleri</i> ? <i>Heliotropium</i> sp. <i>Heliotropium tenuifolium</i> <i>Trichodesma zeylanicum</i>
Capparaceae	<i>Capparis lasiantha</i>
Chenopodiaceae	<i>Chenopodium auricomum</i> <i>Salsola australis</i>

Cleomaceae	<i>Cleome viscosa</i>
Combretaceae	<i>Terminalia canescens</i> <i>Terminalia hadleyana</i> <i>Terminalia platyptera</i> <i>Terminalia volucris</i>
Convolvulaceae	<i>Bonamia media</i> <i>Ipomoea muelleri</i> <i>Ipomoea polymorpha</i> <i>Operculina aequisejala</i>
Cucurbitaceae	* <i>Citrullus lanatus</i> <i>Luffa graveolens</i> <i>Trichosanthes cucumerina</i>
Cyperaceae	<i>Bulbostylis barbata</i> <i>Cyperus macrostachyos</i> <i>Cyperus pygmaeus</i> <i>Cyperus</i> sp.1 <i>Cyperus</i> sp.2 <i>Eleocharis dulcis</i> <i>Fimbristylis blepharolepis</i> <i>Fimbristylis cardiocarpa</i> <i>Fimbristylis schultzei</i> <i>Fimbristylis</i> sp.1 <i>Fimbristylis</i> sp.2
Elatinaceae	<i>Bergia pedicellaris</i>
Euphorbiaceae	<i>Euphorbia</i> ? <i>bifida</i> <i>Euphorbia schultzei</i> var. <i>schultzei</i> <i>Euphorbia</i> sp. <i>Excoecaria parvifolia</i>
Fabaceae	<i>Acacia holosericea</i> <i>Acacia neurocarpa</i> <i>Acacia</i> ? <i>tumida</i> <i>Bauhinia cunninghamii</i> <i>Cathormion umbellatum</i> <i>Christia australasica</i> <i>Crotalaria novae-hollandiae</i> subsp. <i>novae-hollandiae</i> <i>Cullen badocanum</i> <i>Dichrostachys spicata</i> <i>Erythrina vespertilio</i> <i>Erythrophleum chlorostachys</i> <i>Fabaceae</i> sp.



Fabaceae cont.	<p><i>*Macroptilium lathyroides</i> var. <i>semierectum</i> <i>Neptunia dimorphantha</i> <i>Neptunia</i> sp. <i>*Parkinsonia aculeata</i> <i>Rhynchosia minima</i> <i>Sesbania cannabina</i> <i>Sesbania formosa</i> <i>*Stylosanthes hamata</i> <i>Tephrosia</i> sp. <i>Tephrosia stipuligera</i> <i>*Vachellia farnesiana</i> <i>Vachellia valida</i></p>
Goodeniaceae	<p><i>Goodenia lamprosperma</i> <i>Goodenia sepalosa</i> var. <i>sepalosa</i></p>
Hernandiaceae	<p><i>Gyrocarpus americanus</i> <i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i></p>
Lamiaceae	<p><i>Basilicum polystachyon</i> <i>*Hyptis suaveolens</i></p>
Lecythidaceae	<p><i>Barringtonia acutangula</i> subsp. <i>acutangula</i> <i>Planchonia careya</i></p>
Loganiaceae	<p><i>Strychnos lucida</i></p>
Loranthaceae	<p><i>Amyema villiflora</i> subsp. <i>villiflora</i></p>
Malvaceae	<p><i>Abelmoschus ficulneus</i> <i>Abutilon hannii</i> <i>Abutilon otocarpum</i> <i>Adansonia gregorii</i> <i>Brachychiton fitzgeraldianus</i> <i>Brachychiton tuberculatus</i> (P3) <i>Corchorus aestuans</i> <i>Corchorus fascicularis</i> <i>Corchorus pumilio</i> <i>Corchorus sidoides</i> <i>Grewia breviflora</i> <i>Grewia retusifolia</i> <i>Hibiscus apodus</i> <i>*Malvastrum americanum</i> <i>*Melochia pyramidata</i> <i>*Sida acuta</i> subsp. <i>acuta</i> <i>*Sida cordifolia</i> <i>Sida</i> sp.</p>



Malvaceae cont.	<i>Sida spinosa</i> <i>Waltheria indica</i> <i>Waltheria virgata</i>
Marsileaceae	<i>Marsilea hirsuta</i>
Meliaceae	* <i>Azadirachta indica</i> <i>Melia azedarach</i> <i>Owenia vernicosa</i>
Menispermaceae	<i>Tinospora smilacina</i>
Molluginaceae	<i>Glinus lotoides</i>
Moraceae	<i>Ficus aculeata</i> var. <i>indecora</i> <i>Ficus coronulata</i>
Myrtaceae	<i>Calytrix exstipulata</i> <i>Corymbia bella</i> <i>Corymbia ?collina</i> <i>Corymbia confertiflora</i> <i>Corymbia ?dichromophloia</i> <i>Corymbia flavescens</i> <i>Corymbia ?grandifolia</i> <i>Corymbia grandifolia</i> subsp. <i>lamprocardia</i> <i>Corymbia greeniana</i> <i>Corymbia polycarpa</i> <i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i> <i>Eucalyptus microtheca</i> <i>Eucalyptus miniata</i> <i>Eucalyptus obconica</i> <i>Eucalyptus pruinosa</i> subsp. <i>?pruinosa</i> <i>Eucalyptus</i> sp.1 <i>Eucalyptus</i> sp.2 <i>Lophostemon grandiflorus</i> subsp. <i>riparius</i> <i>Melaleuca argentea</i> <i>Melaleuca leucadendra</i> <i>Melaleuca minutifolia</i> <i>Melaleuca ?nervosa</i> <i>Melaleuca viridiflora</i>
Nyctaginaceae	<i>Boerhavia dominii</i>
Onagraceae	<i>Ludwigia octovalvis</i> <i>Ludwigia perennis</i> <i>?Ludwigia perennis</i>
Pandanaceae	<i>Pandanus spiralis</i> var. <i>thermalis</i>



Passifloraceae	<i>*Passiflora foetida</i> var. <i>hispida</i>
Phyllanthaceae	<i>Breynia cernua</i> <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> <i>Notoleptopus decaisnei</i> <i>Phyllanthus maderaspatensis</i> <i>Phyllanthus ?virgatus</i> <i>Phyllanthus virgatus</i>
Plantaginaceae	<i>Stemodia lythrifolia</i>
Poaceae	<i>Aristida holathera</i> var. <i>holathera</i> <i>Aristida latifolia</i> <i>Aristida</i> sp. <i>*Cenchrus ciliaris</i> <i>Chloris lobata</i> <i>Chrysopogon fallax</i> <i>Cynodon convergens</i> <i>?Dichanthium fecundum</i> <i>Dichanthium fecundum</i> <i>Digitaria bicornis</i> <i>*Echinochloa colona</i> <i>Elytrophorus spicatus</i> <i>Enneapogon polyphyllus</i> <i>Eragrostis cumingii</i> <i>Eragrostis falcata</i> <i>Eragrostis tenellula</i> <i>Eriachne ciliata</i> <i>Eriachne major</i> <i>Eriachne obtusa</i> <i>Eriachne pulchella</i> subsp. <i>dominii</i> <i>Eriachne</i> sp. <i>Eriachne sulcata</i> <i>Eriachne ?sulcata</i> <i>Eulalia aurea</i> <i>Heteropogon contortus</i> <i>Iseilema fragile</i> <i>Iseilema</i> sp.1 <i>Iseilema</i> sp.2 <i>Iseilema ?vaginiflorum</i> <i>Ophiuros exaltatus</i> <i>Panicum decompositum</i> <i>Panicum ?decompositum</i> <i>Panicum</i> sp. <i>Paspalidium</i> sp. <i>Paspalum scrobiculatum</i>



Poaceae cont.	Poaceae sp.1 Poaceae sp.2 Poaceae sp.3 Poaceae sp.4 Poaceae sp.5 Poaceae sp.6 Poaceae sp.7 Poaceae spp. <i>Setaria apiculata</i> ? <i>Sorghum</i> sp. <i>Sorghum</i> ? <i>stipoideum</i> <i>Sorghum stipoideum</i> <i>Sporobolus australasicus</i> <i>Themeda triandra</i> <i>Triodia bitextura</i> <i>Triodia stenostachya</i> * <i>Urochloa mosambicensis</i>
Polygonaceae	<i>Persicaria attenuata</i> subsp. <i>attenuata</i>
Proteaceae	<i>Grevillea dimidiata</i> <i>Grevillea erythroclada</i> <i>Grevillea pyramidalis</i> subsp. <i>leucadendron</i> <i>Grevillea striata</i> <i>Hakea arborescens</i>
Rubiaceae	<i>Dentella minutissima</i> ? <i>Gardenia</i> sp. <i>Spermacoce</i> ? <i>brachystema</i>
Santalaceae	<i>Exocarpos latifolius</i>
Sapindaceae	<i>Atalaya hemiglauca</i> * <i>Cardiospermum halicacabum</i> var. <i>halicacabum</i> <i>Dodonaea hispidula</i> var. <i>arida</i> <i>Dodonaea polyzyga</i> * <i>Datura inoxia</i>
Solanaceae	* <i>Datura inoxia</i> * <i>Physalis angulata</i> <i>Solanum fecundum</i>
Zygophyllaceae	<i>Tribulopsis pentandra</i>
Conservation Significant Taxa	= 1
Common Native Taxa	= 200
Introduced Taxa	= <u>23</u>
Total Taxa	<u>223</u>



Appendix K: Vegetation Types Mapped in the Study Area



VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT1	Low open to low woodland of mixed tree species including <i>Excoecaria parvifolia</i> , <i>Eucalyptus microtheca</i> , <i>Adansonia gregorii</i> and <i>Terminalia hadleyana</i> over low open to low closed sedgeland of <i>Cyperus</i> spp. over low isolated grasses to low closed grassland of mixed species including <i>Ophiuros exaltatus</i> , <i>Eulalia aurea</i> and <i>Chrysopogon fallax</i> over mixed low isolated forbs to open forbland flats, plains, floodplains and minor drainage lines on grey or brown cracking clay or loamy clay.	KAI-053, KAI-072, KAI-074, KAI-077, KAI-080, KAI-082, KAI-168, KAI-174, KAI-182, KAI-183, KAI-184, KAI-187, KAI-188, KAI-192, KAI-211, KAI-235, KAI-236	2182.7 (8.87 % of Study Area)	Potential habitat for <i>Typhonium</i> sp. Kununurra (A.N. Start ANS 1467) Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 Site KAI-192
VT2	Low open woodland of <i>Adansonia gregorii</i> and <i>Bauhinia cunninghamii</i> over tall isolated clumps of shrubs of <i>Carissa lanceolata</i> , <i>Ehretia saligna</i> var. <i>saligna</i> and <i>Terminalia canescens</i> over low to mid grassland of mixed species including <i>Chrysopogon fallax</i> , <i>Cynodon convergens</i> , <i>Eriachne ?sulcata</i> and <i>Themeda triandra</i> over low isolated clumps of forbs of <i>Corchorus aestuans</i> and <i>Heliotropium euodes</i> on gentle slopes of low hillocks on grey-brown clay loam, with surface stones.	KAI-181	19.9 (0.08 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 Site KAI-181



VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT3	Mid isolated clumps of trees of <i>Adansonia gregorii</i> and <i>Eucalyptus microtheca</i> over low woodland of <i>Bauhinia cunninghamii</i> and <i>Excoecaria parvifolia</i> over tall sparse shrubland of <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> over low open shrubland of <i>*Sida cordifolia</i> , <i>Tribulopsis pentandra</i> and <i>Waltheria indica</i> on plains with drainage lines and sinkholes on brown sandy clay	KAI-186	10.1 (0.04 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 751 2056 778">Site KAI-186</p>
VT4	Low open woodland to low woodland of <i>Eucalyptus microtheca</i> over tall isolated clumps of shrubs of <i>Melaleuca ?nervosa</i> occasionally with mid isolated clumps of shrubs of <i>Carissa lanceolata</i> over low to mid closed grassland to grassland of mixed species including <i>Chrysopogon fallaxa</i> , <i>Heteropogon contortus</i> and <i>Dichanthium fecundum</i> occasionally with low isolated clumps of trees of <i>Excoecaria parvifolia</i> on plains and floodplains on brown sandy clay.	KAI-010, KAI-035, KAI-041, KAI-049, KAI-059, KAI-064, KAI-191, KAI-231	1799.8 (7.31 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 1241 2056 1268">Site KAI-231</p>



VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT5	Low woodland of <i>Eucalyptus microtheca</i> and <i>Excoecaria parvifolia</i> over mid isolated clumps of shrubs of <i>Carissa lanceolata</i> over low open grassland of <i>Chrysopogon fallax</i> , <i>Cynodon convergens</i> and <i>Aristida holathera</i> var. <i>holathera</i> on plains on orange clayey sand.	KAI-179	23.2 (0.09 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 751 1585 778">Site KAI-179</p>
VT6	Mid open woodland to woodland of <i>Corymbia bella</i> and <i>Corymbia polycarpa</i> over low open woodland to woodland of <i>Acacia neurocarpa</i> and <i>Melaleuca ?nervosa</i> over low to mid sparse shrubland to shrubland of * <i>Hyptis suaveolens</i> over low to mid grassland of mixed species including <i>Cynodon convergens</i> and <i>Setaria apiculata</i> on plains and drainage lines on brown sandy clay.	KAI-178	11.8 (0.05 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 1241 1585 1268">Site KAI-178</p>



VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT7	Low woodland of <i>Bauhinia cunninghamii</i> and <i>Grevillea striata</i> over tall isolated clumps of shrubs of <i>Carissa lanceolata</i> over low open grassland of <i>Chrysopogon fallax</i> and <i>Eriachne</i> sp. on plains on orange clayey sand	KAI-239	11.9 (0.05 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 751 2056 778">Site KAI-239</p>
VT8	Low isolated clumps of trees of <i>Corymbia ?grandifolia</i> over tall sparse shrubland of <i>Calytrix exstipulata</i> over tall isolated clumps of grasses of <i>Sorghum ?stipoideum</i> over low isolated clumps of forbs of <i>Spermacoce ?brachystema</i> on low hillocks on brown loamy sand, with sandstone outcropping and surface stones.	KAI-180	5.8 (0.02 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 1241 2056 1268">Site KAI-180</p>



VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT9	Low open woodland of <i>Melaleuca minutifolia</i> over mixed grassland dominated by species including <i>Chrysopogon fallax</i> and <i>Eriachne obtusa</i> often with <i>Triodia bitextura</i> on stony plains and low rises on light brown clay.	KAI-002, KAI-005, KAI-058	333.1 (1.35 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p>Site KAI-002</p>
VT10	Low open woodland of <i>Terminalia platyptera</i> over mid isolated shrubs of <i>Bauhinia cunninghamii</i> and <i>Carissa lanceolata</i> over mid closed grassland of <i>Aristida holathera</i> var. <i>holathera</i> and <i>Sorghum ?stipoideum</i> on low hillocks on brown sandy clay, with surface stones.	KAI-177	76.4 (0.31 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p>Site KAI-177</p>



VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT11	Mid grassland of mixed species dominated by <i>Chrysopogon fallax</i> , <i>Iseilema</i> spp. and <i>Themeda triandra</i> on plains with red, grey and brown sandy clay and loamy clay.	KAI-007, KAI-023, KAI-032, KAI-034, KAI-042, KAI-057, KAI-104, KAI-111, KAI-117, KAI-152, KAI-189, KAI-234, KAI-237, KAI-240	6185.4 (25.14 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 751 1585 778">Site KAI-240</p>
VT12	Tall open to tall closed grassland of <i>Sorghum stipoideum</i> and <i>Ophiuros exaltatus</i> over mid isolated clumps of grasses to tall closed grassland of <i>Chrysopogon fallax</i> , <i>Heteropogon contortus</i> and <i>Themeda triandra</i> on plains on red or brown medium or loamy cracking clay	KAI-163, KAI-238	396.8 (1.61 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 1241 1585 1268">Site KAI-238</p>



VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT13	Tall isolated clumps of shrubs of <i>Cochlospermum fraseri</i> and <i>Grevillea striata</i> over tall open grassland of <i>Sorghum stipoideum</i> over low closed grassland of mixed species including <i>Sorghum stipoideum</i> and <i>Triodia bitextura</i> on gentle slopes on brown sandy clay, between patches of low open woodland of <i>Corymbia ?grandifolia</i> and <i>Erythrophleum chlorostachys</i> .	KAI-166	60 (0.24 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 754 1581 778">Site KAI-166</p>
VT14	Mid woodland of <i>Adansonia gregorii</i> , <i>Bauhinia cunninghamii</i> and <i>Terminalia</i> spp. over tall isolated clumps of shrubs of <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> over tall closed grassland of mixed species including <i>Heteropogon contortus</i> , <i>Chrysopogon fallax</i> , <i>Dichanthium fecundum</i> and <i>Panicum decompositum</i> on flats, in drainage lines and on adjacent floodplains on brown-grey sandy to loamy clay and clay.	KAI-051, KAI-136, KAI-156, KAI-208, KAI-209	503.4 (2.05 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 1244 1581 1268">Site KAI-208</p>



VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT15	Mid isolated clumps of trees of <i>Corymbia bella</i> over low open woodland of <i>Bauhinia cunninghamii</i> , <i>Corymbia polycarpa</i> and <i>Eucalyptus microtheca</i> over mid isolated clumps of shrubs of <i>Carissa lanceolata</i> over mid grassland of <i>Themeda triandra</i> on plains on brown sandy clay	KAI-137	121.8 (0.05 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 756 1581 778">Site KAI-137</p>
VT16	Mid forest of * <i>Moringa oleifera</i> in closed depressions on brown clay.	KAI-194	3.8 (0.02 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 1246 1581 1268">Site KAI-194</p>



VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT17	Low isolated clumps of trees of <i>Erythrina vespertilio</i> and <i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i> over tall isolated clumps of shrubs to tall shrubland of <i>*Calotropis procera</i> , <i>Ficus aculeata</i> var. <i>indecora</i> and <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> over mid isolated clumps of shrubs to mid sparse shrubland of <i>Heliotropium muelleri</i> over low isolated clumps of forbs of <i>*Hyptis suaveolens</i> occasionally with open woodland of <i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i> on floodplains on brown clay to clayey sand	KAI-067, KAI-092, KAI-197, KAI-196, KAI-198, KAI-224	1219.7 (4.96 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p>Site KAI-198</p>
VT18	Mid woodland of <i>Eucalyptus camaldulensis</i> subsp. <i>obtusa</i> over tall sparse shrubland to shrubland of <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> on drainage lines/floodplains on brown sandy clay to loamy clay	KAI-013, KAI-016, KAI-116, KAI-195, KAI-199	749.7 (3.05 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p>Site KAI-199</p>



VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT19	Low to mid isolated clumps of trees to mid woodland of mixed trees dominated by <i>Corymbia bella</i> , often with <i>Ficus aculeata</i> var. <i>indecora</i> over tall isolated clumps of shrubs to tall open shrubland of <i>*Calotropis procera</i> and <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> over low to mid open shrubland of <i>*Hyptis suaveolens</i> , between bands of bare soil or low isolated clumps to sparse grassland of mixed species on flats and plains on brown clay or loamy clay.	KAI-008, KAI-028, KAI-029, KAI-112, KAI-114, KAI-148, KAI-149, KAI-193, KAI-204, KAI-205, KAI-205a	1878.9 (7.64 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p>Site KAI-204</p>
VT20	Tall open shrubland of <i>*Parkinsonia aculeata</i> over low sparse to open chenopod shrubland of <i>Chenopodium auricomum</i> over sparse grassland of <i>Panicum decompositum</i> and <i>?Dichanthium fecundum</i> fringed by tall sparse grassland of <i>Ophiuros exaltatus</i> and low open woodland of <i>Excoecaria parvifolia</i> on flats on grey clay.	KAI-173	307.7 (1.25 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p>Site KAI-173</p>



VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT21	Low woodland of <i>Barringtonia acutangula</i> subsp. <i>acutangula</i> over mid sedge-land of <i>Eleocharis dulcis</i> over low sparse forbland of <i>Glinus lotoides</i> and ? <i>Heliotropium</i> sp. on closed depressions on grey clay	KAI-212	51.2 (0.21 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 Site KAI-212
VT22	Mid woodland to open forest of <i>Corymbia bella</i> and <i>Eucalyptus microtheca</i> over tall sparse to open shrubland of <i>Ficus aculeata</i> var. <i>indecora</i> and <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> over low to mid open grassland to grassland of mixed species including and <i>Cynodon convergens</i> and * <i>Urochloa mosambicensis</i> or occasionally with low isolated clumps to mid open forbland of * <i>Hyptis suaveolens</i> on plains on brown clay and loamy clay.	KAI-011, KAI-066, KAI-069, KAI-071, KAI-073, KAI-081, KAI-101, KAI-118, KAI-213, KAI-216	3696.5 (15.02 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 Site KAI-213



VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT23	Low open grassland of <i>Eriachne pulchella</i> subsp. <i>dominii</i> on outwash stony plains on brown clay.	KAI-157	339.5 (1.38 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 751 1585 778">Site KAI-157</p>
VT24	Mid isolated clumps of trees of <i>Eucalyptus miniata</i> over low isolated clumps of trees of <i>Corymbia ?collina</i> , <i>Erythrophleum chlorostachys</i> , <i>?Gardenia</i> sp. and <i>Owenia vernicosa</i> over tall isolated clumps of shrubs of <i>Calytrix exstipulata</i> over mid isolated clumps of shrubs of <i>Tephrosia</i> sp. over tall open grassland of <i>Sorghum stipoideum</i> on steep ridges and gullies with sandstone outcrops on brown clayey sand.	KAI-128	62.7 (0.25 % of Study Area)		 <p data-bbox="1451 1241 1585 1268">Site KAI-128</p>


VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT25	Low isolated clumps of trees of <i>Erythrophleum chlorostachys</i> and <i>Eucalyptus obconica</i> over tall isolated clumps of shrubs of <i>Calytrix extipulata</i> and <i>Cochlospermum fraseri</i> over tall isolated clumps of grasses of <i>Sorghum ?stipoideum</i> over <i>Triodia bitextura</i> and <i>Triodia stenostachya</i> on midslopes with sandstone outcrops on light brown clay.	KAI-127	48.2 (0.20 % of Study Area)		 <p>Site KAI-127</p>
VT26	Low woodland to open forest of <i>Corymbia bella</i> , <i>C. polycarpa</i> and <i>C. confertiflora</i> over tall shrubland of mixed species including <i>Acacia neurocarpa</i> , <i>Melaleuca ?nervosa</i> and <i>*Hyptis suaveolens</i> over mixed open grassland of Poaceae spp. on flats, plains and drainage lines on light brown sandy clay	KAI-046, KAI-047, KAI-131, KAI-132, KAI-133	284.9 (1.16 % of Study Area)	<i>Brachychiton tuberculatus</i> (P3) Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p>Site KAI-132</p>

VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT27	Mid open forest of mixed species dominated by <i>Corymbia bella</i> , <i>Melaleuca leucadendra</i> and <i>Terminalia hadleyana</i> over tall shrubland of <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> and <i>Pandanus spiralis</i> var. <i>thermalis</i> over mid open forbland of <i>*Hyptis suaveolens</i> and mid isolated clumps of grasses of <i>Setaria apiculata</i> on drainage lines on light brown silty sand.	KAI-126	43.5 (0.18 % of Study Area)	<i>Brachychiton tuberculatus</i> (P3)	 <p data-bbox="1451 751 1585 778">Site KAI-126</p>
VT28	Low woodland to open forest of species including <i>Adansonia gregorii</i> , <i>Bauhinia cunninghamii</i> , <i>Erythrophleum chlorostachys</i> and <i>Terminalia canescens</i> over tall open shrubland of <i>Calytrix exstipulata</i> , <i>Cochlospermum fraseri</i> and <i>Melaleuca minutifolia</i> over mixed open grassland to grassland on lower to upperslopes and hill top on light brown clay with metamorphic sandstone.	KAI-142, KAI-143	1664.3 (6.76 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 1241 1585 1268">Site KAI-142</p>

VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT 29	Low open woodland of <i>Bauhinia cunninghamii</i> , <i>Terminalia platyptera</i> and <i>Grevillea striata</i> over mid isolated clumps of shrubs of <i>Carissa lanceolata</i> over low grassland of mixed species including <i>Aristida holathera</i> var. <i>holathera</i> , <i>Eriachne obtusa</i> and <i>Sorghum ?stipoideum</i> with <i>Heliotropium euodes</i> on floodplains to outwash areas on light brown clay.	KAI-019, KAI-109	69.2 (0.28 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 751 1585 778">Site KAI-109</p>
VT 30	Low woodland of <i>Eucalyptus pruinosa</i> subsp. <i>?pruinosa</i> and <i>Bauhinia cunninghamii</i> over mid isolated shrubs including <i>Carissa lanceolata</i> over grassland dominated by <i>?Dichanthium fecundum</i> and <i>Heteropogon contortus</i> on drainage lines on brown clay.	KAI-151	24 (0.10 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 1241 1585 1268">Site KAI-151</p>

VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT31	Mid sparse to closed sedgeland of <i>Eleocharis dulcis</i> and occasionally <i>Cyperus macrostachyos</i> over low forbland of <i>Glinus lotoides</i> with occasional tall sparse shrubland dominated by <i>Ludwigia perennis</i> and <i>Excoecaria parvifolia</i> on closed depressions on brown clay.	KAI-039, KAI-075, KAI-115	23.6 (0.10 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p>Site KAI-039</p>
VT 32	Low open woodland of mixed <i>Adansonia gregorii</i> , <i>Corymbia greeniana</i> , <i>Corymbia confertiflora</i> and <i>Gyrocarpus americanus</i> subsp. <i>pachyphyllus</i> over tall open shrubland including <i>Ficus aculeata</i> var. <i>indecora</i> and <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> over low shrubland of <i>*Hyptis suaveolens</i> over mid open grassland to grassland dominated by <i>Heteropogon contortus</i> on plains on brown sandy to loamy clay.	KAI-020, KAI-021, KAI-026	1038.6 (4.22 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p>Site KAI-026</p>

VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT 33	Mid open forest of mixed species dominated by <i>Lophostemon grandiflorus</i> subsp. <i>riparius</i> over tall sparse shrubland dominated by <i>Flueggea virosa</i> subsp. <i>melanthesoides</i> over mid shrubland of <i>*Hyptis suaveolens</i> over tall sparse grassland of <i>Heteropogon contortus</i> over low open grassland dominated by <i>Cynodon convergens</i> on drainage lines on brown loamy clay.	KAI-001	74.3 (0.30 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p>Site KAI-001</p>
VT 34	Low woodland of <i>Melaleuca argentea</i> and <i>Acacia neurocarpa</i> over tall shrubland of <i>*Hyptis suaveolens</i> over low grassland dominated by <i>Cynodon convergens</i> on floodplains on brown clay.	KAI-048	975 (3.96 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p>Site KAI-048</p>

VT	Description	Relevee	Area (ha)	Conservation Significance; Flora	Photo
VT 35	Low woodland of mixed species including <i>Adansonia gregorii</i> , <i>Bauhinia cunninghamii</i> and <i>Corymbia confertiflora</i> over tall mixed grassland dominated by <i>Chrysopogon fallax</i> sometimes with <i>Triodia bitextura</i> on plains to low hills on brown clay.	KAI-050, KAI-052, KAI-056, KAI-076	240.3 (0.98 % of Study Area)	Considered representative of Ivanhoe Land System Priority 3 PEC (Section 5.1.1 of report)	 <p data-bbox="1451 751 1585 777">Site KAI-050</p>

Appendix L: Location Details of Conservation Significant Flora and Introduced Flora Recorded within the Study Area

All coordinates were recorded in GDA94 (Zone 52)

Taxon	Status	Easting	Northing	Record Location	Count
<i>Brachychiton tuberculatus</i>	P3	450387	8287275	Opportunistic	1 alive, 7 dead
<i>Brachychiton tuberculatus</i>	P3	450493	8286604	KAI-133	1 alive
<i>Brachychiton tuberculatus</i>	P3	450506	8287097	Opportunistic	6 dead
<i>Brachychiton tuberculatus</i>	P3	450553	8286698	Opportunistic	1 alive
<i>Brachychiton tuberculatus</i>	P3	450562	8286549	Opportunistic	13 alive, 9 dead
<i>Brachychiton tuberculatus</i>	P3	450572	8287242	Opportunistic	2 dead
<i>Brachychiton tuberculatus</i>	P3	450603	8287147	Opportunistic	16 dead
<i>Brachychiton tuberculatus</i>	P3	450653	8287170	Opportunistic	1 alive
<i>Brachychiton tuberculatus</i>	P3	450682	8286781	Opportunistic	5 alive, 4 dead
* <i>Aerva javanica</i>	Introduced	433854	8283710	Opportunistic	100
* <i>Aerva javanica</i>	Introduced	433858	8283616	Opportunistic	1000
* <i>Aerva javanica</i>	Introduced	434544	8284417	Opportunistic	10
* <i>Aerva javanica</i>	Introduced	449156	8282746	Opportunistic	1000
* <i>Aerva javanica</i>	Introduced	451235	8282137	Opportunistic	20
* <i>Aerva javanica</i>	Introduced	451554	8282388	KAI-118	50
* <i>Azadirachta indica</i>	Introduced	449156	8282746	Opportunistic	50
* <i>Bidens ?pilosa</i>	Introduced	443584	8281667	KAI-156	-
* <i>Bidens ?pilosa</i>	Introduced	451145	8279824	KAI-114	-
* <i>Bidens ?pilosa</i>	Introduced	451235	8282137	Opportunistic	10
* <i>Bidens ?pilosa</i>	Introduced	451554	8282388	KAI-118	-
* <i>Bidens ?pilosa</i>	Introduced	452408	8278509	KAI-112	-
* <i>Calotropis procera</i>	Introduced	433915	8284202	KAI-195	-
* <i>Calotropis procera</i>	Introduced	433958	8283495	KAI-196	-
* <i>Calotropis procera</i>	Introduced	434234	8283893	Opportunistic	100
* <i>Calotropis procera</i>	Introduced	434317	8283612	KAI-197	-
* <i>Calotropis procera</i>	Introduced	434505	8283962	KAI-198	-
* <i>Calotropis procera</i>	Introduced	434508	8282225	KAI-092	100
* <i>Calotropis procera</i>	Introduced	434547	8284375	Opportunistic	5
* <i>Calotropis procera</i>	Introduced	434637	8284505	Opportunistic	500
* <i>Calotropis procera</i>	Introduced	434836	8284592	Opportunistic	20
* <i>Calotropis procera</i>	Introduced	435974	8284662	KAI-204	-
* <i>Calotropis procera</i>	Introduced	436344	8284893	KAI-205	-
* <i>Calotropis procera</i>	Introduced	437684	8275236	Opportunistic	5
* <i>Calotropis procera</i>	Introduced	438262	8284782	Opportunistic	200
* <i>Calotropis procera</i>	Introduced	438413	8277023	KAI-101	-
* <i>Calotropis procera</i>	Introduced	438645	8277983	Opportunistic	20
* <i>Calotropis procera</i>	Introduced	438704	8282801	Opportunistic	100
* <i>Calotropis procera</i>	Introduced	438877	8277960	Opportunistic	20
* <i>Calotropis procera</i>	Introduced	439045	8276267	KAI-066	

Taxon	Status	Easting	Northing	Record Location	Count
* <i>Calotropis procera</i>	Introduced	439528	8277257	Opportunistic	10
* <i>Calotropis procera</i>	Introduced	439617	8282995	Opportunistic	50
* <i>Calotropis procera</i>	Introduced	440936	8279568	KAI-224	-
* <i>Calotropis procera</i>	Introduced	441165	8276693	Opportunistic	5
* <i>Calotropis procera</i>	Introduced	441195	8280651	Opportunistic	500000
* <i>Calotropis procera</i>	Introduced	442053	8279578	KAI-152	-
* <i>Calotropis procera</i>	Introduced	442099	8280299	Opportunistic	500000
* <i>Calotropis procera</i>	Introduced	442770	8283428	Opportunistic	50
* <i>Calotropis procera</i>	Introduced	442780	8280807	Opportunistic	100
* <i>Calotropis procera</i>	Introduced	443019	8284195	KAI-209	-
* <i>Calotropis procera</i>	Introduced	444156	8286675	Opportunistic	10
* <i>Calotropis procera</i>	Introduced	445897	8277658	Opportunistic	50
* <i>Calotropis procera</i>	Introduced	446140	8277463	KAI-149	-
* <i>Calotropis procera</i>	Introduced	446184	8277300	KAI-148	-
* <i>Calotropis procera</i>	Introduced	446282	8285810	Opportunistic	100
* <i>Calotropis procera</i>	Introduced	446730	8279031	Opportunistic	50
* <i>Calotropis procera</i>	Introduced	447349	8276909	Opportunistic	500
* <i>Calotropis procera</i>	Introduced	447473	8277218	Opportunistic	500
* <i>Calotropis procera</i>	Introduced	447485	8276770	KAI-034	-
* <i>Calotropis procera</i>	Introduced	447869	8277720	KAI-029	-
* <i>Calotropis procera</i>	Introduced	448192	8275292	Opportunistic	1
* <i>Calotropis procera</i>	Introduced	448273	8278065	Opportunistic	1000
* <i>Calotropis procera</i>	Introduced	449499	8282762	Opportunistic	10
* <i>Calotropis procera</i>	Introduced	449509	8279836	KAI-026	25
* <i>Calotropis procera</i>	Introduced	450225	8280358	KAI-028	-
* <i>Calotropis procera</i>	Introduced	450600	8281368	Opportunistic	500
* <i>Calotropis procera</i>	Introduced	450684	8281070	Opportunistic	500
* <i>Calotropis procera</i>	Introduced	451145	8279824	KAI-114	500
* <i>Calotropis procera</i>	Introduced	451235	8282137	Opportunistic	500
* <i>Calotropis procera</i>	Introduced	451442	8282038	Opportunistic	500
* <i>Calotropis procera</i>	Introduced	451554	8282388	KAI-118	500
* <i>Calotropis procera</i>	Introduced	451800	8282500	Opportunistic	500
* <i>Calotropis procera</i>	Introduced	452025	8282219	Opportunistic	5
* <i>Calotropis procera</i>	Introduced	452254	8277102	KAI-021	5
* <i>Calotropis procera</i>	Introduced	452408	8278509	KAI-112	200
* <i>Calotropis procera</i>	Introduced	452900	8279800	Opportunistic	5000
* <i>Calotropis procera</i>	Introduced	453185	8280167	KAI-111	4
* <i>Calotropis procera</i>	Introduced	453785	8278060	Opportunistic	500
* <i>Calotropis procera</i>	Introduced	454221	8278282	Opportunistic	500
* <i>Calotropis procera</i>	Introduced	454310	8277597	KAI-008	-
* <i>Calotropis procera</i>	Introduced	454322	8277424	Opportunistic	50
* <i>Calotropis procera</i>	Introduced	454447	8278532	Opportunistic	500