

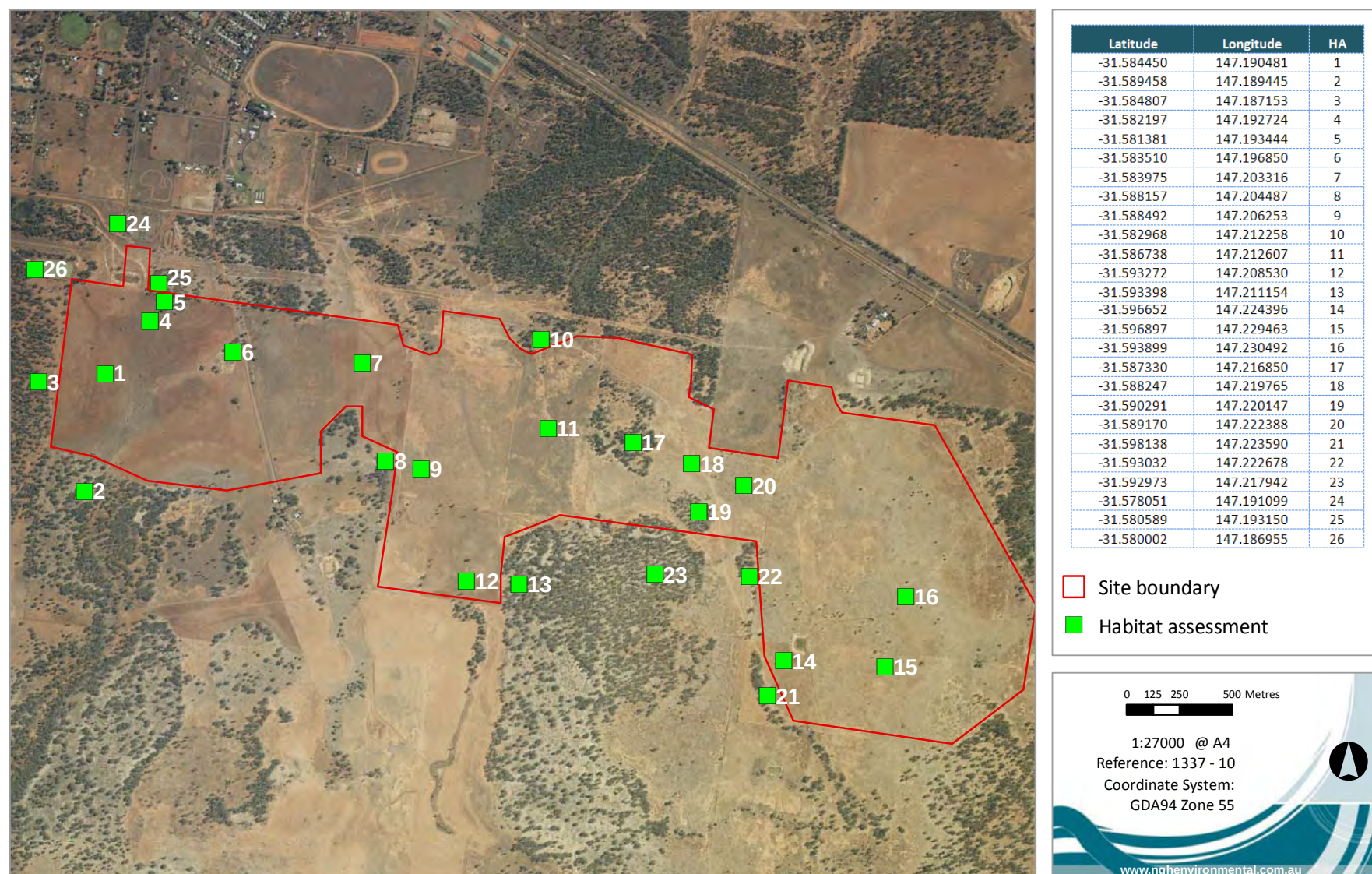


Figure 9-1 Fauna habitat assessment points

Habitat Assessment 1		
Habitat Type:	Native pasture/shrubland	
Area	75 ha approx, Area B1	
Landscape position:	Flats, central area of the paddock is slightly lower and appears prone to water logging	
Connectivity:	Forms the pastoral matrix	
Land use/disturbance:	Cleared and previously cultivated (not cultivated in the last 10 years). Grazed by cattle and sheep	
Dominant Overstorey:	Widely scattered Black Box with Bimble Box in the south east. Occasional Leopardwood trees (2) in the north west	
Regeneration:	Nil overstorey regen. Scattered Chenopod scrub regen across the paddock	
Understorey:	Native grass and scattered Chenopod shrubs (see Flora Random Meander 2 in Table 4-1)	
Water sources:	Large dam 80m north west of the paddock. Dam in the central eastern side of the paddock.	
Habitat features:	Seven piles of timber were recorded in the central/southern section of the paddock. The Chenopod shrub vegetation provides little cover for fauna. No cracks or holes in the soil present but muddy areas are found in the western side of the paddock so cracks may form once dry. Some of the remnant trees are hollow bearing but no sign of active hollows.	
Comments:	Large paddock with little structure or habitat values.	

Habitat Assessment 2		
Habitat Type:	Black Box Woodland	
Area	>100 ha, (offsite B1 south)	
Landscape position:	Flats, slight drainage line running north to south through B1 and into woodland	
Connectivity:	Connected to the Bogan riparian zone extending a considerable distance to the south	
Land use/disturbance:	Grazed by cattle and sheep, weed invasion- box thorn. No evidence of fire	
Dominant Overstorey:	Black Box	
Regeneration:	Very little	
Understorey:	Patchy grass and Chenopod shrubs, bare ground is common.	
Water sources:	Dam in the central eastern side of the paddock B1 800m, Bogan River 1.4 km to the west.	
Habitat features:	Few hollows, some fallen timber. Sparse native shrub layer.	
Comments:	Woodland is in slight drainage line/lower lying area with evidence of some pooling when wet.	

Habitat Assessment 3	
Habitat Type:	Black Box Woodland/tall shrubland
Area	180 ha, (offsite B1 west)
Landscape position:	Flats beside the Bogan River
Connectivity:	Connected to the Bogan riparian zone extending a considerable distance to the south
Land use/disturbance:	Fox prints along fence w horse and dog prints on the track No/little grazing. Lots of dumping and a maze of bike/vehicle tracks throughout. Areas of Invasive Native Shrub (INS) with no understorey
Dominant Overstorey:	Black Box with some Bimble Box
Regeneration:	Limited regeneration
Understorey:	Large areas with no ground cover. Relatively diverse midstorey to 5m. (see Flora Random Meander 1 in Table 4-1)
Water sources:	Dam in the north eastern corner of the stand, Bogan River adjacent to the west
Habitat features:	Few hollows, some fallen timber. Native shrub layer providing midstorey structure and foraging opportunities.
Comments:	Rubbish piles provide habitat and shelter for frogs, rodents and reptiles. Large areas with no ground cover.



Habitat Assessment 4	
Habitat Type:	Black Box Woodland remnant
Area	0.1ha, Area B1
Landscape position:	Flats, in slight drainage line.
Connectivity:	Isolated by 60m from a slightly larger stand to the north
Land use/disturbance:	Grazed by cattle and sheep – stock camp. Weed invasion- box thorn. No evidence of fire
Dominant Overstorey:	Black Box
Regeneration:	none
Understorey:	Bare ground dominates, boxthorn midlayer (see Flora Random Meander 4 in Table 4-1)
Water sources:	Dam in the central eastern side of the paddock B1 400m, large dam adjacent to the subject site (Area B1) 400m north west.
Habitat features:	12 small low hollows, some fallen timber. Sparse native shrub layer.
Comments:	Small patch of stunted trees (<20 trees dBH >20cm), 12 sm hollows present - all low (<2m and none active (cobweds over most).



Habitat Assessment 5		
Habitat Type:	Myall woodland remnant patch	
Area	0.5ha, Area B1	
Landscape position:	Flats, in slight drainage line.	
Connectivity:	Myall remnant patch that forms the southern portion of a large black box patch that extends out of the site towards the substation. Shrubs present, fallen timber present (appears not to be frequented by stock too much).	
Land use/disturbance:	Lightly grazed, partly cleared, on northern boundary of grazed paddock	
Dominant Overstorey:	Myall	
Regeneration:	Little regen	
Understorey:	Shrubs and native grasses	
Water sources:	Large dam 400m to the west (off site)	
Habitat features:	One large hollow bearing stag, some shrubs, fallen timber	
Comments:	4X Chestnut Crowned babbler nests and a group inhabiting the patch	
Habitat Assessment 6		
Habitat Type:	Lg dam, stock trampling around - no veg. Box thorn and Bathurst burr. bLack box with hollows, timber pile and iron rubbish. Fox prints, some muscle shells broken on edge	
Area	1ha, Area B1	
Landscape position:	Flats, on very slight rise	
Connectivity:	Isolated by 150m from woodland in a travelling stock reserve to the north.	
Land use/disturbance:	Man made dam – stock trampled edges. Clearing, weed invasion, grazing	
Dominant Overstorey:	Black Box	
Regeneration:	Nil	
Understorey:	Boxthorn with native grasses (see Flora Random Meander 6 in Table 4-1)	
Water sources:	Dam	
Habitat features:	Water source, large pile of logs/iron, nectar foraging opportunities when the Black Box is flowering, some hollows	
Comments:	Active Black-shouldered Kite nest in one of the Black Box trees. Also other medium nests (magpie/raven?)	

Habitat Assessment 7		
Habitat Type:	Native pasture	
Area	40 ha, Area B2	
Landscape position:	Flats	
Connectivity:	matrix	
Land use/disturbance:	Cleared, grazed by cattle	
Dominant Overstorey:	Occasional Black box trees	
Regeneration:	Nil	
Understorey:	Grasses and scattered Chenopod shrubs, similar to Flora Random Meander 2 in Table 4-1)	
Water sources:	Farm dam to the south 600m and dam in paddock B1 40m north west	
Habitat features:	Little habitat value	
Comments:	Similar to paddock B1	

Habitat Assessment 8		
Habitat Type:	Black Box woodland patch	
Area	10 ha	
Location:	Flats, largely offsite adjacent to Area B2 and B3. Several large trees just inside the fence of B3	
Connectivity:	Isolated patch, loosely linked to the south but surrounded by cleared agricultural land	
Land use/disturbance:	Grazed by cattle and horses, most trees are young mature suggesting regrowth from past clearing	
Dominant Overstorey:	Black Box	
Regeneration:	nil	
Understorey:	Grassy, with a few native shrubs and Box Thorn present, 50% bare ground in places (see Flora Random Meander 7 in Table 4-1)	
Water sources:	Farm dam 500m to the south, small piggery adjacent to the south with water trough and food scraps	
Habitat features:	No HBTs in the bulk of the stand however a row of large mature trees with numerous hollows, including some very large ones, exists within the fence of Area 3. Little fallen timber	
Comments:	Lots of parrots, kites and ravens around the piggery. The large Black Box trees contained several recently used (last breeding season) parrot nests.	

Habitat Assessment 9		
Habitat Type:	Cultivated Paddock	
Area	37 ha	
Location:	Flats, Area B3	
Connectivity:	Agricultural matrix	
Land use/disturbance:	Cleared and cultivated	
Dominant Overstorey:	nil	
Regeneration:	nil	
Understorey:	Cereal crop, grazed by sheep and cattle	
Water sources:	Water troughs for stock	
Habitat features:	Little habitat value other than for generalists such as the Australian magpie	
Comments:	Slight drainage line runs roughly north-south through the paddock	

Habitat Assessment 10		
Habitat Type:	Black Box stand around farm dam	
Area	3.5 ha remnant patch, <2ha within subject site.	
Location:	flats, near subject site northern boundary in B4	
Connectivity:	separated by an unsealed road (30m) from a 100 ha woodland patch travelling stock reserve that is connected to the north via riparian vegetation	
Land use/disturbance:	Cleared, stock trampling around dam and surrounds, earthworks around dam to deepen? Removed earth in large piles at the edge of the dam, farm track is adjacent to the southern edge of the stand, farm house lies 500m west.	
Dominant Overstorey:	Black Box	
Regeneration:	Nil	
Understorey:	very heavily grazed grass and exotic forbs, bare ground 50%, (see Flora Random Meander 8in Table 4-1)	
Water sources:	Dam within stand (full)	
Habitat features:	Numerous hollows from large to small (34 trees in the stand with a total of 26 small, 26 medium 12 large and 3 very large hollows), some Black Boxes flowering, aquatic habitat - water turbid, no aquatic vegetation or fringing vegetation, no fallen timber	
Comments:	Hollows, proximity to water and to the larger woodland patch to the north in crease the habitat potential of this degraded stand. Brown Treecreepers were found roosting in the hollows (and probably nesting). Smaller dam exists off site 100m NE of the larger dam. Powerlines run between the dams providing perching sites for birds.	

Habitat Assessment 11		
Habitat Type:	Exotic dominated pasture	
Area	30 ha	
Location:	flats, Area B4	
Connectivity:	forms part of the modified agricultural matrix	
Land use/disturbance:	Cleared and heavily grazed, likely to have been cultivated in the past.	
Dominant Overstorey:	Isolated Black Box shade trees	
Regeneration:	No over storey regen, some native shrub regeneration present.	
Understorey:	exotic forbs (clover) very little grass, low native shrub regeneration present (see Flora Random Meander 9 in Table 4-1)	
Water sources:	Dam (Habitat Assessment 10) in north western corner of paddock	
Habitat features:	very little cover or foraging potential, low habitat quality, isolated Black Box tree with hollows to the north	
Comments:	Very heavily grazed	

Habitat Assessment 12		
Habitat Type:	Cropped paddock (direct drill wheat)	
Area	14 ha	
Location:	Flats, Area B5	
Connectivity:	forms part of the modified agricultural matrix	
Land use/disturbance:	Cleared and cropped (minimum tillage direct drilled wheat crop)	
Dominant Overstorey:	Isolated Black Box and Bimble Box shade trees	
Regeneration:	No over storey regeneration, some native shrub regeneration present.	
Understorey:	Wheat with some Chenopod shrubs surviving	
Water sources:	Farm dam 600m to the west	
Habitat features:	very little cover or foraging potential, low habitat quality, isolated Black Box and Bimble Box trees with low quality hollows in and adjacent to the paddock.	
Comments:	Some low native shrubs seem to have survived the cropping due to the minimum tillage methods used. Over all low habitat value	

Habitat Assessment 13		
Habitat Type:	Black Box Woodland	
Area	150 ha approx	
Location:	flats, adjacent Area B5	
Connectivity:	Modified woodland extends to the south and south east incorporating riparian vegetation of the Bogan River	
Land use/disturbance:	Uncleared but grazed woodland. Weeds include Boxthorn, present at a moderate to high density.	
Dominant Overstorey:	Black Box	
Regeneration:	Some seedlings present but generally little regeneration of canopy species	
Understorey:	grass and native Chenopod shrubs	
Water sources:	Bogan River 4km to the south east	
Habitat features:	Numerous hollows, foraging opportunities in the eucalypt canopy, sparse mid storey. Moderate levels of fallen timber. Babbler nests present	
Comments:	Quite dense woodland in the north of the stand thinning to open woodland to the south	

Habitat Assessment 14		
Habitat Type:	Cropped paddock (traditional tillage)	
Area	8ha approx	
Location:	Flats, southern Area of B7	
Connectivity:	forms part of the modified agricultural matrix	
Land use/disturbance:	Cleared and cultivated. Sown to wheat	
Dominant Overstorey:	Bimble Box shade trees	
Regeneration:	Nil	
Understorey:	Wheat	
Water sources:	Large dam in the north east corner of the paddock	
Habitat features:	Isolated Bimble Box trees no hollows. Dam has limited fringing vegetation (sparse, low Chenopod shrubs) but is large and likely to be an important water source for stock and wildlife.	
Comments:	Little habitat value in the cropped land but the dam is likely to be locally significant. Salmon-striped frog <i>Limnodynastes salmini</i> found under a log along the fence line, likely to use the dam for breeding.	

Habitat Assessment 15		
Habitat Type:	Myall woodland/derived grassland	
Area	170ha approx (Myall present on roughly 30 ha of this)	
Location:	flats, Area B7	
Connectivity:	Grassland forms part of the grazed agricultural matrix. Myall woodland is isolated with in this.	
Land use/disturbance:	Cleared, grazed (currently by sheep and feral goats), unlikely to have been extensively cropped.	
Dominant Overstorey:	Myall with occasional Black box and very occasional Leopardwood	
Regeneration:	Myall regeneration present at habitat assessment point (seedlings to 3m plants moderate density in places)	
Understorey:	Grassy variable cover bare areas in places, tall dry grass in others (to 40cm). Scattered box thorn (see Flora Random Meander 14 in Table 4-1)	
Water sources:	Dam in the south west corner of the paddock	
Habitat features:	Extensive derived grasslands provides shelter and foraging opportunities for grassland species. Little fallen timber, very few hollows.	
Comments:	Reasonable groundcover in the form of moderate density tall grasses provides shelter. Grazing and clearing has degraded the habitat values	

Habitat Assessment 16		
Habitat Type:	Native pasture	
Area	170ha approx (Myall present on roughly 30 ha of this)	
Location:	flats, Area B7	
Connectivity:	Grassland forms part of the grazed agricultural matrix. Myall woodland is isolated with in this.	
Land use/disturbance:	Cleared, grazed (currently by sheep and feral goats), unlikely to have been extensively cropped.	
Dominant Overstorey:	Myall with occasional Black box and very occasional Leopardwood	
Regeneration:	No regeneration in this area	
Understorey:	Grass cover variable, bare areas in places, tall dry grass in others (to 40cm). Box thorn at a moderate density (see Flora Random Meander 13 in Table 4-1)	
Water sources:	Dam in the south west corner of the paddock	
Habitat features:	Extensive grassland provides shelter and foraging opportunities for grassland species. Boxthorn provides some limited midstorey structure Little fallen timber, very few hollows.	
Comments:	Reasonable groundcover in the form of moderate density tall grasses provides shelter.	

Habitat Assessment 17		
Habitat Type:	Black Box Woodland remnant	
Area	11 ha	
Location:	flats, Area B6	
Connectivity:	Isolated remnant, 200m approx to nearest treed areas to the north and south.	
Land use/disturbance:	unfenced and grazed, wood harvesting evident.	
Dominant Overstorey:	Black Box	
Regeneration:	Nil	
Understorey:	widely scattered chenopod shrubs, some boxthorn, bare ground 20-50% (See RM 10 in Table 4-1)	
Water sources:	Dam (Habitat Assessment 10) 350m north west	
Habitat features:	fallen timber piled to be burnt, evidence of old burn piles, few hollows (50x50m tree survey yielded 15 trees: 5 with dieback symptoms, 7 containing a total of 5 small, 9 medium, 2 large and 2 very large hollows). Two dry, shallow ephemeral pools exist within the stand. These may provide frog habitat after rain, however there is little cover in the surrounding woodland and stock trampling would further reduce the habitat quality for amphibians	
Comments:	Two dead cows that had been scavenged by pigs, woodland trees are in poor health and collapsing. Heavy grazing has degraded the understorey. A Brown Treecreeper was heard in the patch - likely to be one of the family roosting near the dam at habitat assessment 10	

Habitat Assessment 18		
Habitat Type:	Exotic pasture	
Area	50 ha approx	
Location:	flats, Area B6	
Connectivity:	forms part of the exotic dominated grazing land around the woodland patches	
Land use/disturbance:	heavily grazed and cleared, exotic dominated	
Dominant Overstorey:	Nil - Black Box remnant stands exist within this habitat and a larger woodland area (habitat 19) is adjacent to the south.	
Regeneration:	Nil	
Understorey:	Little groundcover (50% bare). Exotic forbs and scattered chenopod shrubs.	
Water sources:	Dam (Habitat Assessment 10) 1km north west	
Habitat features:	Little habitat value - exposed and little vegetation	
Comments:	Heavily grazed, prone to wind erosion.	

Habitat Assessment 19		
Habitat Type:	Black Box Woodland remnant	
Area	3 ha	
Location:	flats, Area B6	
Connectivity:	isolated remnant, 200m approx to nearest treed areas to the north and south.	
Land use/disturbance:	unfenced and grazed, wood harvesting evident, many trees dead or in the final stages of dieback (80%)	
Dominant Overstorey:	Black Box with the occasional Bimble Box	
Regeneration:	Nil	
Understorey:	widely scattered Chenopod shrubs, some boxthorn, bare ground 20-50%	
Water sources:	Dam (Habitat Assessment 10) 350m north west	
Habitat features:	Lots of dying trees and stags, many with hollows (50x50m tree survey yielded 22 trees: 20 with dieback symptoms, 5 containing a total of 3 small, 6 medium and 4 large hollows).	
Comments:	This stand is likely to degrade further as many of the trees are dying or dead. Other woodland trees in the area appear to be healthy so it is unclear what has caused the tree deaths. Several Babbler nests were present in the stand however these may be disused as no babblers were seen.	

Habitat Assessment 20		
Habitat Type:	direct drilled area within paddock	
Area	9 ha	
Location:	flats, Area B6	
Connectivity:	forms part of the exotic dominated grazing land around the woodland patches	
Land use/disturbance:	heavily grazed and cleared, exotic dominated	
Dominant Overstorey:	Nil - Black Box remnant stands are found nearby	
Regeneration:	Nil	
Understorey:	Little groundcover (60% bare). Exotic forbs and scattered Chenopod shrubs. some Bathurst Burr	
Water sources:	Dam (Habitat Assessment 10) 1.2 km north west	
Habitat features:	Little habitat value - exposed with little vegetation, no cracks or holes present	
Comments:	Heavily grazed, prone to wind erosion. Direct drilling has retained some of the Chenopod shrubs	

Habitat Assessment 21		
Habitat Type:	Bimble Box Woodland	
Area	2 ha strip	
Location:	flats, offsite beside cultivated paddock (Habitat Assessment 14, Area B7)	
Connectivity:	forms part of a 1.3km loose connection between the woodland adjacent to the south east of the site (Habitat Assessment 13) and another large modified woodland stand (200ha approx) further to the south east	
Land use/disturbance:	Wooded strip along the edge of a farm track, large edge effects, grazing and weed invasion (Box Thorn)	
Dominant Overstorey:	Bimble Box with some Black Box, young mature trees	
Regeneration:	Little tree recruitment	
Understorey:	Boxthorn dominated with native shrubs to 1m. Fallen timber - light - no logs	
Water sources:	small dam at the southern end of the stand (choked with Box Thorn around the edge)	
Habitat features:	Few hollows, good canopy cover and some dense understorey, largely due to the Boxthorn. Babbler nests present (no Babblers seen).	
Comments:	The stand provides a corridor and a shelter site for dispersing fauna. Unlikely to sustain any populations due to its small size.	

Habitat Assessment 22		
Habitat Type:	Black Box stand	
Area	2 ha	
Location:	flats adjacent to the west of Area B7	
Connectivity:	isolated by 160m from larger woodland stand to the west (Habitat Assessment 23)	
Land use/disturbance:	grazed (cattle and horses moderate only), weed invasion (Box Thorn)	
Dominant Overstorey:	Black Box	
Regeneration:	Some g regeneration (acacia) and Myall	
Understorey:	Boxthorn dominated with native shrubs to 1m some grass, 40% bare ground	
Water sources:	Ephemeral pools within the stand (dry). Dam 350m to the south east	
Habitat features:	Open woodland structure with scrubby understorey (largely Box Thorn), some fallen timber, ephemeral pools	
Comments:	Chestnut Crowned Babblers in the stand (>10) with numerous roost nests.	

Habitat Assessment 23		
Habitat Type:	Black Box Woodland	
Area	150 ha approx	
Location:	flats, adjacent to the south eastern corner of the subject site north western section of the same stand as Habitat Assessment 13	
Connectivity:	Modified woodland extends to the south and south east incorporating riparian vegetation of the Bogan River	
Land use/disturbance:	Uncleared but grazed woodland. Weeds include Box Thorn, present at a moderate to high density.	
Dominant Overstorey:	Black Box	
Regeneration:	Some seedlings present but generally little regeneration of canopy species	
Understorey:	grass and native Chenopod shrubs	
Water sources:	Bogan River 4km to the south east	
Habitat features:	Numerous hollows (50x50m tree survey 12 trees, 5 with hollows totalling 5 small, 8 medium and 4 large), foraging opportunities in the eucalypt canopy, sparse mid storey. Moderate levels of fallen timber. Babbler nests present	
Comments:	Grey-crowned Babblers present - two groups recorded including one set of roost nests. The extent of this woodland helps to overcome the degradation by grazing in terms of habitat provision.	

Habitat Assessment 24		
Habitat Type:	modified grassland offsite at substation	
Area	3.5 ha	
Location:	flats behind flood levee, Nyngan Substation	
Connectivity:	part of the cleared matrix	
Land use/disturbance:	Sub station, cleared for access to power lines,	
Dominant Overstorey:	Black Box stands nearby	
Regeneration:	Nil	
Understorey:	Grass, tall in areas	
Water sources:	Large dam 250m east	
Habitat features:	Little habitat value. Ephemeral pool filled with cumbungi, may provide habitat for wetland birds.	
Comments:	this area is likely to have a power line easement run through or adjacent to it from the PV arrays	

Habitat Assessment 25		
Habitat Type:	Black Box Woodland	
Area	3.5ha	
Location:	Flats, offsite adjacent to Area B1 north boundary	
Connectivity:	Isolated by 100m from the travelling stock reserve that extends to the east and then north, adjacent to the northern boundary of the subject site	
Land use/disturbance:	Trees are all young mature suggesting regrowth from past clearing.	
Dominant Overstorey:	Black Box	
Regeneration:	Little present	
Understorey:	Grasses and isolated Chenopod Shrubs	
Water sources:	Large dam 400m to the west	
Habitat features:	Two large HBTs in the centre of the stand, some fallen timber, isolation and edge effects reduce the habitat value of the stand	
Comments:	The stand borders the Myall woodland stand in paddock B1	

Habitat Assessment 26		
Habitat Type:	Large Dam	
Area	1 ha	
Location:	Flats, offsite to the north west of the site (50 m)	
Connectivity:	In the north eastern corner of a larger Black Box stand that adjoins the Bogan River	
Land use/disturbance:	Man made dam with unsealed roads surrounding it (washed out in places causing sedimentation)	
Dominant Overstorey:	Black Box and Bimble Box trees are found around the dam	
Regeneration:	Some regeneration present in the surrounding woodland	
Understorey:	Cumbungi fringes the dam	
Habitat features:	Deep open water, cumbungi stands in the shallows, aquatic invertebrates including yabbies	
Comments:	Potential to attract foraging wetland species but disturbance by 4WDers and dogs is likely to disrupt any nesting attempts	

Appendix C HABITAT FEATURES DATA

Datum used GDA94, Error on the coordinates is approximately 5m.

Hollow bearing Trees recorded within the Development envelope

The table below contains the raw data collected for hollow bearing trees recorded within the Development Envelope. This data excludes trees outside the development envelope but within the site boundary.

Hollow sizes correspond to the following measurements Small hollows (S) = <5cm, Medium Hollows (M)= 5-10cm, Large hollows (L)=>10cm

Tree species	Hollow number & size				Latitude	Longitude
	sm	m	lg	v lg		
Black Box	1	1	.	.	-31.585702	147.213796
Bimble Box	.	1	1	.	-31.590188	147.209073
Bimble Box	5	3	.	.	-31.593923	147.208323
Black Box	3	.	1	.	-31.583333	147.196920
Black Box	3	2	.	.	-31.584104	147.195942
Bimble Box (4 trees)	.	2	.	.	-31.584147	147.195410
Bimble Box (18 trees)	20	.	.	.	-31.582197	147.192724

Other Habitat features

Latitude	Longitude	Feature	Number
-31.585309	147.187448	Babbler nest	1
-31.583401	147.186739	Babbler nest	1
-31.581450	147.196403	Babbler nests	3
-31.584408	147.197695	Babbler nest	1
-31.591733	147.218540	Babbler nest	1
-31.582179	147.197077	Babbler nests	3
-31.583058	147.196976	Babbler nests	4
-31.596559	147.229095	Babbler nests	3
-31.597027	147.235988	Babbler nest	1
-31.590314	147.219615	Babbler nests	4
-31.598051	147.223517	Babbler nests	2
-31.581538	147.193636	Babbler nests	4
-31.588151	147.198890	Babbler nest	1
-31.582969	147.197190	Black-shouldered Kite nest	1
-31.596005	147.225210	Dam	1
-31.599653	147.225381	Dam	1
-31.583737	147.196712	Dam	1
-31.582968	147.212258	Dam	2
-31.586432	147.186569	Pile of iron	1
-31.584768	147.192218	Timber burn piles	8 (within 200m)

Appendix D THREATENED SPECIES EVALUATION

The tables below evaluate the potential for threatened species, ecological communities and endangered populations that occur or have the potential to occur within or near the study area to be adversely affected by the works. Threatened entities with potential to occur were identified by the following searches;

- **Central West CMA Region – Canbelego Downs and Bogan - Macquarie sub-regions (DECCW threatened species tool)**
- **EPBC Act Matters of National Significance search tool - 25 kilometre radius**
- **Atlas of NSW Wildlife – additional records for the local region**

Species ecology and presence of habitat has been determined using the DEWHA and DECCW species habitat profiles, including vegetation types, for the Central West Bioregion. The likelihood of occurrence is based on presence of habitat, proximity of nearest records and mobility of the species (where relevant). Whether there may be a potential impact is based on the nature of the Proposal, the ecology of the species and whether it is likely to occur. Species with the potential to be impacted are highlighted.

NB Marine and migratory wetland species were not included as the Proposal is unlikely to impact on these species.

Flora and ecological communities

Species and status	Ecology and distribution	Vegetation community	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Forbs						
<i>Swainsona murrayana</i> Slender Darling-pea V EPBC V TSC	Found throughout NSW, it has been recorded in the Jerilderie and Deniliquin areas of the southern riverine plain, the Hay plain as far north as Willandra National Park, near Broken Hill and in various localities between Dubbo and Moree. The species has been collected from clay-based soils, ranging from grey, red and brown cracking clays to red-brown earths and loams. Grows in a variety of vegetation types including bladder saltbush, black box and grassland communities on level plains, floodplains and depressions and is often found with Maireana species. Plants have been found in remnant native grasslands or grassy woodlands that have been intermittently grazed or cultivated. Plants produce winter-spring growth, flower in spring to early summer and then die back after flowering. They re-shoot readily and often carpet the landscape after good cool-season rains. Swainsona species contain a poisoning principle, swainsonine, which affects the nervous system and is toxic to stock.	• North-west Plains Shrublands • Riverine Chenopod Shrublands • Riverine Plain Grasslands • Semi-arid Floodplain Grasslands • Western Slopes Grasslands • Floodplain Transition Woodlands • Inland Floodplain Woodlands • North-west Floodplain Woodlands • Riverine Plain Woodlands	Yes	Moderate	No	Moderate

Species and status	Ecology and distribution	Vegetation community	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
<i>Swainsona plagiotropis</i> Red Darling-pea V EPBC V TSC	A small prostrate forb to about 15cm high. It occurs in the upper Murray River valley in the south western plains of NSW and extends into Victoria. Generally grows on flat grassland in heavy red soil and red-brown-clay-loams derived from quaternary sediments. Often seen on roadsides, especially in table drains, and has also been recorded from rail reserves, stock routes and areas of lightly grazed unimproved pasture. Associated species include <i>Austrostipa aristiglumis</i> , <i>A. nodosa</i> , <i>A. setacea</i> , <i>Homopholis proluta</i> , <i>Chloris truncata</i> , <i>Austrodanthonia caespitosa</i> , <i>A. duttoniana</i> , <i>Enteropogon acicularis</i> , <i>Hordeum</i> spp., <i>Lolium rigidum</i> , <i>Rhodanthe corymbiflora</i> , <i>Calotis scabiosifolia</i> , <i>Microseris lanceolata</i> and <i>Chrysocephalum apiculatum</i> . It flowers from August to November.	• Riverine Plain Grasslands • Semi-arid Floodplain Grasslands • Riverine Plain Woodlands	Yes	Moderate	No	Moderate
<i>Swainsona recta</i> Small Purple Pea E EPBC E TSC	An erect perennial herb to 30 cm high. Predominately known from Queanbeyan and Wellington-Mudgee areas it is typically associated with the grassy understorey of woodlands and open forests typical of Yellow Box – Blakely's Red Gum Woodland and associated Dry Grass Forests. Associated understorey dominants include Kangaroo Grass <i>Themeda australis</i> , poa tussocks <i>Poa</i> spp. and spear-grasses <i>Austrostipa</i> spp. Flowers through spring, peaking in October.	• Western Slopes Dry Sclerophyll Forests • Floodplain Transition Woodlands • Southern Tableland Grassy Woodlands • Western Slopes Grassy Woodlands	No	None	No	No

Species and status	Ecology and distribution	Vegetation community	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Ferns						
<i>Cheilanthes sieberi</i> subsp. <i>pseudovellea</i> E TSC	Perennial fern covered with entire brown scales. Only one specimen recorded from NSW at Mount Foster NW of Warren. It grows in soil pockets in rocky areas of arid mountain ranges in shaded rock crevices, under rock ledges and between boulders in damper areas.	Inland Rocky Hill Woodlands	No	None	No	No
Grasses						
<i>Dichanthium setosum</i> Bluegrass V EPBC V TSC	An upright grass less than 1m tall. Occurs on the New England tablelands, North West Slopes and Plains and the Central Western Slopes of NSW. It is associated with Heavy basaltic black soils and often found in moderately disturbed areas such as cleared woodland, grassy roadside remnants and highly disturbed pasture. Associated species include <i>Eucalyptus albens</i> , <i>Eucalyptus melanophloia</i> , <i>Eucalyptus melliodora</i> , <i>Eucalyptus viminalis</i> , <i>Myoporum debile</i> , <i>Aristida ramosa</i> , <i>Themeda triandra</i> , <i>Poa sieberiana</i> , <i>Bothriochloa ambigua</i> , <i>Medicago minima</i> , <i>Leptorhynchos squamatus</i> , <i>Lomandra</i> aff. <i>longifolia</i> , <i>Ajuga australis</i> , <i>Calotis hispidula</i> and <i>Austrodanthonia</i> , <i>Dichopogon</i> , <i>Brachyscome</i> , <i>Vittadinia</i> , <i>Wahlenbergia</i> and <i>Psoralea</i> species.	- Riverine Plain Grasslands - Semi-arid Floodplain Grasslands - Western Slopes Grasslands - Western Slopes Grassy Woodlands	No	None	No	No

Species and status	Ecology and distribution	Vegetation community	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Orchids						
<i>Diuris tricolor</i> (Syn. <i>D. sheaffiana</i>) Pine Donkey Orchid V TSC V EPBC	Sporadically distributed from Narrandera across the western slopes to northern NSW, usually in grassy Callitris woodland on sandy soils in flat country or on top of small hills. Associated species include <i>Callitris glaucophylla</i> , <i>Eucalyptus populnea</i> , <i>Eucalyptus intertexta</i> , Ironbark and <i>Acacia</i> shrubland. The understorey is often grassy with herbaceous plants such as <i>Bulbine</i> species. Flowering period is Sept-Nov (Bishop 1996).	- North-west Slopes Dry Sclerophyll Woodlands - Floodplain Transition Woodlands - Western Slopes Grassy Woodlands - North-west Alluvial Sand Woodlands	Yes (marginal)	Low	No	Low

Species and status	Ecology and distribution	Vegetation community	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
<i>Pterostylis cobarensis</i> Greenhood Orchid V EPBC V TSC	A terrestrial orchid mostly known from the Nyngan-Cobar-Bourke district in the far western plains of NSW. Other recorded districts in NSW include Narrabri, Nymagee, Mt Gundabooka, Mt Grenfel and Mutawintji National Park. Favoured habitats appear to be eucalypt woodlands, open mallee or <i>Callitris</i> shrublands. Associated species include <i>Eucalyptus morrisii</i> , <i>E. viridis</i> , <i>E. intertexta</i> , <i>E. vicina</i> , <i>Callitris glaucophylla</i> , <i>Geijera parviflora</i> , <i>Casuarina cristata</i> , <i>Acacia doratoxylon</i> , <i>Senna</i> spp. and <i>Eremophila</i> spp. This species flowers from September to November.	- Western Slopes Dry Sclerophyll Forests - Rocky cliffs, major rock outcrops etc - Inland Rocky Hill Woodlands - Sand Plain Mallee Woodlands - Western Peneplain Woodlands	Yes (marginal)	Low	No	Low

E TSC = listed as Endangered under Schedule 1 of the NSW *TSC Act 1995*

E EPBC = listed as Endangered under the Commonwealth *EPBC Act 1999*

V TSC = listed as Vulnerable under Schedule 2 of the *TSC Act 1995*.

V EPBC = listed as Vulnerable under the Commonwealth *EPBC Act 1999*

Ecological communities	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Artesian Springs Ecological Community (TSC)	No	Nil	No	No
Brigalow within the Brigalow Belt South; Nandewar and Darling Riverine Plains Bioregions (TSC)	Yes	Moderate	No	No
Coolibah-Black Box woodland of the northern riverine plains in the Darling Riverine Plains and Brigalow Belt South bioregions (TSC)	Yes	Present	Yes	Yes
Fuzzy Box on alluvials of South West Slopes, Darling Riverine Plains and the Brigalow Belt South (TSC)	No	Nil	No	No
Inland Grey Box Woodland in the Riverina, NSW South Western Slopes, Cobar Peneplain, Nandewar and Brigalow Belt South Bioregions (EPBC & TSC)	No	Nil	No	No
Myall Woodland in the Darling Riverine Plains; Brigalow Belt; South; Cobar Peneplain; Murray-Darling Depression; Riverina and NSW South western Slopes bioregion (EPBC & TSC)	Yes	Present	Yes	Yes

Fauna

Species status*	and Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Amphibians					
Sloane's Froglet <i>Crinia sloanei</i> V TSC	A small ground-dwelling frog, typically associated with periodically inundated areas in grassland, woodland and disturbed habitats: similar to habitats occupied by the related <i>Crinia parsignifera</i> (NSW Scientific Committee Determination).	Yes			
Aves					
Australasian Bittern <i>Botaurus poiciloptilus</i> V TSC	This species is considered widespread in their distribution, however, they are uncommon in south-eastern Australia (DEC 2006). They are known to inhabit permanent freshwater wetlands with tall, dense vegetation, particularly bullrushes (<i>Typha</i> spp.) and spikerushes (<i>Eleocharis</i> spp.) (DECCW, 2009).	No	Nil	No	No
Australian Bustard <i>Ardeotis australis</i> E TSC	Inhabits mostly tussock grasslands; also occurs in hummock grassland, low shrubland, low open grassy woodland and occasionally seen in pastoral and cropping country. Breeds on bare ground on low rises in ecotones between grassland and protective cover. Known to occur in the Bogan-Macquarie sub-region in association with arid shrublands, dry sclerophyll forest, grassy and semi-arid woodlands, grasslands and forested wetlands (DECCW 2010).	Yes	Low	No	Low-moderate

Species status*	and	Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Australian Painted Snipe <i>Rostratula australis</i> V EPBC		Inhabits shallow terrestrial freshwater (occasionally brackish) wetlands, including temporary and permanent lakes, swamps and claypans. They also use inundated or waterlogged grassland or saltmarsh, dams, rice crops, sewage farms and bore drains. Typical sites include those with rank emergent tussocks of grass, sedges, rushes or reeds, or samphire; often with scattered clumps of lignum <i>Muehlenbeckia</i> or canegrass or sometimes tea-tree (<i>Melaleuca</i>).	No	Low	No	No
Barking Owl <i>Ninox connivens</i> V TSC		This is a species that, although is found throughout Australia except for the central arid regions and Tasmania, it is rarely recorded in the coastal and escarpment forests (NPWS 2003c). The species can be found in open forests and woodlands and along watercourses. During the day, Barking owls will roost along creeklines, especially where Acacia forms dense thickets (NPWS 2003c). They live alone or in pairs and occupy territories from 30 to 200 hectares where birds are present all year round (NPWS 2003c).	Yes	High	No	Low-moderate
Black Breasted Buzzard <i>Hamirostra melanosternon</i> V TSC		Found sparsely in areas of less than 500mm rainfall; in NSW found inland. Lives in a range of inland habitats, especially along timbered watercourses which is the preferred breeding habitat. Also hunts over grasslands and sparsely timbered woodlands. Breeds from August to October near water in a tall tree. The stick nest is large and flat and lined with green leaves. Normally two eggs are laid (DECCW 2010)	Yes	Low	No	No

Species status*	and Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Black-chinned Honeyeater (eastern subspecies) <i>Melithreptus gularis gularis</i> V TSC	This species is widespread west of the Great Dividing Range, although has declined throughout its range due to removal and fragmentation of habitat. It inhabits the upper levels of drier open forests or woodlands most often dominated by box and ironbark eucalypts, particularly Mugga Ironbark, White Box, Grey Box, Yellow Box and Forest Red Gum (DECCW 2009). A gregarious species usually seen in pairs and small groups of up to 12 birds and occupies large home ranges of at least 5 hectares. Local populations appear not to persist in remnants less than 200 ha in area (NSW Scientific Committee, 2001).	Yes	Low	No	Low
Black-necked Stork <i>Epphippiorhynchus asiaticus</i> E TSC	Associated with forested and freshwater or saline wetlands, grasslands and semi-arid woodland. Breeds in live or dead trees within or near foraging habitat, including isolated paddock trees. May occur in marginal vegetation surrounding wetlands including farm dams, grassland and paddocks. Mainly forage in still shallow water. Known from the Bogan-Macquarie subregion (DECCW 2010).	No	Low	No	No
Black-tailed Godwit <i>Limosa limosa</i> V TSC	This species is a migratory wading bird that breeds in the northern hemisphere, visiting Australia during summer and leaving in March (NSW NPWS 1999a). It is primarily found on coastal sandspits, mudflats and lagoons and prefers shallow water where it feeds on a variety of invertebrates.	No	Low	No	No

Species status*	and Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Blue-billed Duck <i>Oxyura australis</i> V TSC	This species is widespread in NSW although is most common in the southern Murray-Darling Basin area. During spring and summer birds travel up to 300km from non-breeding areas on the Murray River system and coastal lakes to breed in deep swamps of inland NSW. They are often seen in coastal areas in summer and during drought (DECCW 2009). Feeding occurs in permanent freshwater wetlands and swamps with deep water and dense aquatic vegetation. Nesting occurs in <i>Cumbungi</i> over deep water or in dense wetland vegetation.	No	Low	No	No
Brolga <i>Grus rubicunda</i> V TSC	Brolgas are dependant on wetlands although will also feed in dry grassland, desert claypans or ploughed paddocks. It is known from the Bogan-Macquarie subregions, where it may occur in arid shrublands, forested and freshwater wetlands, grasslands and semi-arid woodland (DECCW 2010).	Yes	Low-moderate	No	Low
Bush Stone-curlew <i>Burhinus grallarius</i> E TSC	This is a species of open woodland, forest edges and sparsely treed ranges throughout most of mainland Australia. (Schodde and Tidemann, 2007). Roost on ground during day in litter, fly up to 20km to forage (Schodde and Tidemann, 2007). Recorded 40km to the east of the subject site.	Yes	Low	No	Low-moderate
Brown Treecreeper <i>Climacteris picumnus</i> V TSC	This species is found in a variety of eucalypt woodlands (including Box-Gum Woodland and River Red Gum) and dry open forest across the inland slopes and plains west of the Great Dividing Range where it enjoys an open grassy understorey. The presence of fallen timber is an important habitat component for foraging for this species.	Yes	High	Yes	Moderate-high

Species status*	and	Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Cotton goose <i>Nettapus coromandelianus</i> E TSC	Pygmy-	Occurs on freshwater lakes, lagoons, swamps and dams, particularly where vegetation with waterlilies and other floating and submerged vegetation. Roosts and breeds in hollow-bearing stags close to water. Known from the Bogan-Macquarie region (DECCW 2010).	No	Nil	No	No
Diamond Firetail <i>Stagonopleura guttata</i> V TSC		This species is considered to be found across most of NSW with a concentration of these records on the western slopes of the Great Dividing Range. It is generally found in grassy eucalypt woodlands such as box-gum woodlands and snow gum woodlands. It can often be seen around riparian areas and lightly wooded agricultural areas (DECCW, 2009).	Yes	Moderate	No	Low moderate
Flame Robin <i>Petroica phoenicea</i> V TSC		In NSW, it breeds in upland areas and in winter, many birds move to the inland slopes and plains. It is likely that there are two separate populations in NSW, one in the Northern Tablelands, and another ranging from the Central to Southern Tablelands. Breeds in upland tall moist eucalypt forests and woodlands, often on ridges and slopes. In winter lives in dry forests, open woodlands and in pastures and native grasslands, heathland and coastal shrubland. Prefers clearings or areas with open understoreys (DECCW 2010).	Yes	Low	No	Low

Species status*	and	Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Freckled Duck <i>Stictonetta naevosa</i> V TSC		This species can be found primarily in south-eastern and south-western Australia, otherwise occurring as a vagrant. During drier periods, they have been known to move from ephemeral breeding swamps to more permanent waters such as lakes, reservoirs, farm dams and sewage ponds (DECCW, 2009). Species depends on dense vegetation (Cumbungi, Lignum or Tea-tree) in large shallow swamps and permanent waters during times of drought (DECCW, 2009; Schodde and Tidemann, 2007).	No	Nil	No	No
Gilbert's Whistler <i>Pachycephala inornata</i> V TSC		This species is sparsely distributed from the western slopes of NSW to the Western Australian. Occurs in a range of habitats; key feature seems to be dense shrub layer. In woodland habitats, the understorey comprises dense patches of shrubs, particularly thickets of regrowth <i>Callitris</i> pine, native cherry (<i>Exocarpus</i> species) appear to be an important habitat component. Forages on or near the ground in shrub thickets and in tops of small trees. Pairs may hold and defend territories all year round (DECCW 2010)	No	Low	No	No
Glossy Cockatoo <i>Calyptohynchus lathamii</i> V TSC	Black	This is a species of open forests and woodland, dependent mainly on the seeds of <i>Allocasuarina</i> trees as a food source (Blakers et al., 1984). Large trees with hollows are required for breeding sites (DECCW, 2009; Emison et al., 1987). Competition for hollows increases with openness of habitat and can be a threat to this species (DECCW, 2009).	Marginal	Low	No	Low

Species status*	and	Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Grey-crowned Babbler (eastern subspecies) <i>Pomatostomus temporalis temporalis</i> V TSC		This species. In NSW this species occurs west of the Great Dividing Range and on the coast near the Hunter Valley and several locations on the north coast of NSW. It prefers Box-Gum Woodlands although also inhabits open forests, scrub lands, even farmlands and suburbs (DECCW 2009; Pizzey et al., 2003). The species is gregarious and forage on the ground on invertebrates on tree trunks and branches and by foraging amongst litter and tussocks. Territories of family groups range from one to fifty hectares (DECCW 2009).	Yes	High	Yes	Moderate
Grey Falcon <i>Falco hypoleucos</i> V TSC		Usually restricted to shrubland, grassland and wooded watercourses of arid and semi-arid regions, although it is occasionally found in open woodlands near the coast. Also occurs near wetlands where surface water attracts prey. Preys primarily on birds, especially parrots and pigeons, using high-speed chases and stoops; reptiles and mammals are also taken (DECCW 2010).	Yes	Low	No	Low
Hooded Robin (south-eastern form) <i>Melanodryas cucullata cucullate</i> V TSC		Widespread, occurring in pairs or solitary in lightly timbered country (Schodde and Tidemann 2007). Spends much of its time on the ground in woodland foraging for insects. It frequents places with dead trees and fallen timber (Schodde and Tidemann 2007), nesting on dead limbs or stumps. Populations are unable to survive in remnants smaller than 100-200 hectares (DECCW 2009).	Yes	Moderate-high	No	Low
Little Eagle <i>Hieraaetus morphnoides</i> V TSC		The Little Eagle is found throughout the Australian mainland except the most densely forested parts of the Dividing Range escarpment. It occurs as a single population throughout NSW (DECCW 2010).	Yes	Moderate	No	Low

Species status*	and Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Malleefowl <i>Leipoa ocellata</i> E TSC	There are occasional records outside of known population areas (refer to DECCW 2010). Inhabit mostly mallee communities, may also occur in other inland woodland. They are predicted to occur in the Bogan-Macquarie and Canbelego Downs subregions (DECCW 2010).	Marginal	Low	No	Low
Magpie Goose <i>Anseranas semipalmate</i> V TSC	A wetland species, only vagrant in southern NSW.	No	Low	No	Low
Masked Owl <i>Tyto novaehollandiae</i> V TSC	This species forages in a range of forest and woodland types but requires large tree hollows for nesting. Forested areas adjacent to areas of dense and sparse ground cover within close proximity are required for foraging (Garnett 1992 & Peake <i>et al.</i> 1993). Also occurs in fragmented forest-pastoral land usually near creek lines and in open grassy woodland (Kavanagh 2004). This owl forages on ground-dwelling prey, particularly Bush Rats, introduced Black Rat and House Mouse.	Yes	Low	No	Low
Painted Honeyeater <i>Grantiella picta</i> V TSC	This species primarily occurs on the inland slopes of the Great Dividing Range, although is nomadic and may occur in low densities in other parts of NSW in suitable habitat. It inhabits dry open forests and woodland including Boree, Brigalow and Box-Gum Woodlands and Box-Ironbark open forests, also paperbark and casuarinas (DECCW 2009; Pizzey <i>et al.</i> , 2003). It is a specialist feeder on mistletoe, particularly of genus <i>Amyema</i> , and generally requires 5 or more mistletoes per hectare (DECCW 2009). Seasonal migrant, movements are linked to the fruiting of mistletoe.	Yes	Low-moderate	No	Low

Species status*	and	Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Pied Honeyeater <i>Certhionyx variegates</i> V TSC		Widespread throughout acacia, mallee and spinifex scrubs of arid and semi-arid Australia. Occasionally occurs further east, on the slopes and plains and the Hunter Valley, typically during periods of drought. Inhabits wattle shrub (primarily Mulga, <i>Acacia aneura</i>), mallee, spinifex and eucalypt woodlands, usually when shrubs are flowering. Highly nomadic (DECCW 2010)	Yes	Low	No	Low
Pink Cockatoo <i>Cacatua leadbeateri</i> V TSC		Dependant on tree hollows for nesting, otherwise inhabits a wide range of treed and treeless inland habitats, always near water. Feeds on seeds including from saltbush, wattle and cypress pine. Known from the CMA subregions, occurring in arid shrubland, dry sclerophyll forest, grasslands, grassy and semi-arid woodland, dry rainforest and forested wetlands (DECCW 2010).	Yes	High	No	Moderate-high
Rainbow eater <i>Merops ornatus</i> M EPBC	Bee-	A common species that occurs mainly in open forests and woodlands, shrublands, and in various cleared or semi-cleared habitats, including farmland and areas of human habitation. It usually occurs in open, cleared or lightly-timbered areas that are often, but not always, located in close proximity to permanent water. On migration, the Rainbow Bee-eater may also fly over the top of non-preferred habitats such as rainforest or treeless plains (DEWHA 2010).	Yes	Moderate	No	Low

Species status*	and	Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Red-backed Button-quail <i>Turnix maculosa</i> V TSC		Nocturnal and crepuscular, this species forages on the ground for seeds and insects. Occurs in grasslands, grassy woodlands, pasture and cropping land (although usually only where annual rainfall exceeds 400mm), heathland and appear to prefer sites close to water. May be associated with grass species <i>Heteropogon spp.</i> , <i>Imperata cylindrica</i> , <i>Triodia</i> , <i>Sorghum</i> , <i>Cenchrus ciliaris</i> . Breed on ground in dense grass near water. Known from Bogan-Macquarie subregion (DECCW 2010).	Yes	Low	No	Low
Red-tailed Cockatoo <i>Calyptorhynchus banksii samueli</i> V TSC	Black	Found in a variety of habitats although appear to prefer eucalypt forest and woodlands, particularly forested wetlands (i.e. riparian zone). Also utilise grassland, shrubland. Known from Bogan-Macquarie subregion, where distribution is restricted to north of Nyngan (DECCW 2010).	Yes	Low-Moderate	No	Low
Scarlet Robin <i>Petroica boodang</i> V TSC		The Scarlet Robin lives in dry eucalypt forests and woodlands from the coast to the inland slopes. The understorey is usually open and grassy with few scattered shrubs. Habitat usually contains abundant logs and fallen timber. This species lives in both mature and regrowth vegetation (DECCW 2010).	Yes	Low	No	Low

Species status*	and Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Speckled Warbler <i>Pyrrholaemus saggitatus</i> V TSC	The species is most frequently reported from the hills and tablelands of the Great Dividing Range, and rarely from the coast. There has been a decline in population density throughout its range, with the greatest decline where no vegetation remnants larger than 100ha remain. The Speckled Warbler inhabits a wide range of <i>Eucalyptus</i> dominated woodland communities with a grassy understorey, often on rocky ridges or in gullies. Typical habitat would include scattered native tussock grasses, a sparse shrub layer, some eucalypt regrowth and an open canopy (DECCW, 2009; Schodde and Tidemann, 2007).	Marginal	Low-moderate	No	Low
Spotted Harrier <i>Circus assimilis</i> V TSC	The Spotted Harrier occurs throughout the Australian mainland, except in densely forested or wooded habitats of the coast, escarpment and ranges, including highly disturbed areas. Individuals disperse widely in NSW and comprise a single population (DECCW 2010).	Yes	Moderate-high	No	Low
Square-tailed Kite <i>Lopoitinia isura</i> V TSC	This species' preferred habitat is open eucalypt forest and woodland (DECCW, 2009). Here it predates in and above the forest canopy, nesting in tall trees (Klippel, 1992). Resident pairs have territories of greater than 100 km ² . The species is partially nomadic and utilises a range of habitats (Schodde and Tidemann, 2007).	Yes	Low	No	No
Superb Parrot <i>Polytelis swainsonii</i> V TSC V EPBC	Nesting habitat on SW Slopes is often open Yellow Box, Blakely's Red Gum Woodland or isolated paddock trees. Nest in small colonies, often with more than one nest in a single tree. May forage up to 10 km from nesting sites. Feed in trees and understorey shrubs and on the ground and their diet consists mainly of grass seeds and herbaceous plants	Yes	High	Yes	Low-moderate

Species status*	and	Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Turquoise Parrot <i>Neophema pulchella</i> V TSC		Lives on the edges of eucalypt woodland adjoining clearings, timbered ridges and creeks in farmland. Usually seen in pairs or small, possibly family, groups and have also been reported in flocks of up to thirty individuals. Prefers to feed in the shade of a tree and spends most of the day on the ground searching for the seeds or grasses and herbaceous plants, or browsing on vegetable matter. Nests in tree hollows, logs or posts, from August to December (DECCW 2010).	Yes	Low-moderate	No	Low-moderate
Varied Sittella <i>Daphoenositta chrysoptera</i> TSC - V		A sedentary species inhabiting eucalypt forests and woodlands, especially rough-barked species and mature smooth-barked gums with dead branches, mallee and <i>Acacia</i> woodland. The Varied Sittella feeds on arthropods gleaned from crevices in rough or decorticated bark, dead branches, standing dead trees, and from small branches and twigs in the tree canopy. It builds a cup-shaped nest of plant fibres and cobweb in an upright tree fork high in the living tree canopy, and often re-uses the same fork or tree in successive years (DECCW 2010).	Yes	Moderate	No	Low
White-bellied eagle <i>Haliaeetus leucogaster</i> M EPBC CAMBA	Sea	This species occurs around coastal areas, islands and estuaries, but is also found in inland areas where it is known from large rivers, wetlands and reservoirs (DECCW, 2009). Usually forages, perches and roosts around waterways (Schodde and Tidemann, 2007).	No	Low	No	Low

Species status*	and	Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
White-fronted Chat <i>Epthianura albifrons</i> TSC - V		White-fronted Chats are distributed across southern Australia from Western Australia to NSW. This species inhabits salt marshes, heaths, lake edges, agricultural land and other damp habitats with low vegetation. Often feeds in flocks where insect prey is at high densities. Breeding begins in late winter and several clutches can be raised during the breeding season in low nests built in shrubs. Breeding birds can form loose colonies with nests being as close as 5m. Generally sedentary however nomadic movements are thought to occur, particularly in the drier parts of its range.	Yes	Moderate	No	Low-moderate
White-throated Needletail <i>Hirundapus caudacutus</i> M EPBC		The White-throated Needletail is almost exclusively aerial, from heights of less than 1 m up to more than 1000 m above the ground. They are recorded most often above wooded areas, including open forest, rainforest, heathland, and may also fly between trees or in clearings, below the canopy. They are less commonly recorded flying above woodland, grassland, beaches, mudflats and swamps. Over cleared areas, they often recorded above remnant vegetation at the edge of paddocks. Often use coastal cliffs and other areas with prominent updraughts, such as ridges and sand-dunes (DEWHA 2010)	Yes	Moderate to High	No	No
Mammalia						
Greater-eared Bat <i>Nyctophilus timoriensis</i> V EPBC	Long-	Inhabits a variety of vegetation types including dry and riparian forest, mallee and woodland communities. Roosts in tree hollows, crevices or under loose bark. Hunts within the understorey or on the ground. It is predicted to occur in Bogan-Macquarie and Canbelego Downs subregions (DECCW 2010).	Yes	Low	No	Moderate

Species status*	and Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Grey-headed Flying-fox <i>Pteropus poliocephalus</i> V TSC V EPBC	This species roosts in large camps, generally in wetter vegetation such as rainforest or swamp forest. Groups fly out at night to feed on fruit, nectar and blossom, particularly of <i>Eucalyptus</i> , <i>Melaleuca</i> and <i>Banksia</i> . This species shows fidelity to roosting areas but may feed in orchards. It appears to be showing increasing tolerance to human disturbance.	Marginal	Low	No	Low
Kultarr <i>Antechinomys laniger</i> E TSC	A nocturnal insectivore that occurs at low densities. Shelter during day in hollow logs or tree stumps, under tussocks, in deep cracks in the soil or in the burrows of other animals. Known from the Canbelego Downs subregion where it is associated with arid shrublands, dry sclerophyll forest, grasslands and woodlands (DECCW 2010).	Marginal	Low	No	Low-moderate
Koala <i>Phascolarctos cinereus</i> TSC - V	This species utilises a wide range of forest and woodland types. However in this district they are generally seen only in large areas of continuous forest. They are solitary with distinct home ranges (Strahan 1995) and must utilise a diverse range of eucalypt trees typically present on high nutrient soils (Klippel 1992). On the Western Slopes and Plains, primary feed tree are River Red Gum (<i>Eucalyptus camaldulensis</i>) and Collabah (<i>E.coolabah</i>). Secondary/supplementary feed species include Bimble Box (<i>E.populnea</i>), Blakely's Red Gum (<i>E.blakelyi</i>), Yellow Box (<i>E.melliadora</i>), White Box (<i>E.albens</i>), Orange Gum (<i>E.prava</i>), Black Box (<i>E.largiflorens</i>), amongst many other species (Recovery Plan 2008).	Yes (Bimble Box is a schedule 2 tree under SEPP 44)	Low	No	Low

Species status*	and	Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Little Pied Bat <i>Chalinobus picatus</i> V TSC		Occurs in wetlands, dry and riparian forest, grassy and arid woodland, semi-arid shrubland, mallee and roosts in caves, rock outcrops, mine shafts, tunnels, tree hollows and buildings. Known from both subregions (DECCW 2010)..	Yes	High	No	Moderate-high
Spotted-tail Quoll (Tiger Quoll) <i>Dasyurus maculatus</i> V TSC E EPBC		Sclerophyll forest, rainforest in mountainous country, and coastal habitats can be utilised by this species (Le Souef & Burrell 1926). Habitat attributes which are likely to be critical to the life cycle for the Tiger Quoll are large areas of undisturbed habitat which provide a variety of key food and other resources such as large hollow logs, or small caves (dens) at ground level for denning. Females occupy home ranges up to about 750 hectares and males up to 3500 hectares; usually traverse their ranges along densely vegetated creek lines (DECCW 2009). Quolls appear to be most abundant in areas with few roads and where foxes are either absent or kept in check by dingoes (Resource and Conservation Assessment Council, 1996). Fleming (1996) suggests that foxes may be a threat to Tiger Quolls through predation and competition.	Marginal	Low	No	Low
Squirrel Glider <i>Petaurus norfolcensis</i> V TSC		This species is found in dry sclerophyll woodland, preferring dense, white-barked eucalyptus country (Klippel 1992) and is generally absent from closed forest (Menkhorst <i>et al.</i> , 1988). A mix of eucalypts, banksias and acacias including some winter flowering species and abundant hollows are required by this species. Fragmentation, predation by foxes and cats and inappropriate fire regimes are listed as threats to this species (NSW NPWS 1999b).	Yes	Low	No	Low

Species status*	and Ecology and distribution	Presence of habitat	Likelihood of occurrence	Recorded during survey?	Potential to be impacted
Stripe-faced Dunnart <i>Smithopsis macroura</i> V TSC	Shelter in cracks in soil, under rocks and logs and in tussocks. Known from Bogan-Macquarie subregions where is associated with arid shrublands, forested and freshwater wetlands, grasslands and semi-arid and grassy woodlands (DECCW 2010).	Marginal	Low	No	Low
Yellow-bellied Sheath-tail-bat <i>Saccolaimus flaviventris</i> V TSC	This wide-ranging species roosts in tree hollows, burrows and buildings, foraging above the canopy (DECCW, 2009). It appears to be a summer migrant to the southern mainland and occurs in a range of sclerophyll forest and woodland (Churchill, 1998).	Yes	High	No	Moderate-high
Reptilia					
Pale-headed Snake <i>Hoplocephalus bitorquatus</i> V TSC	This mostly arboreal snake is predicted to occur in the Bogan-Macquarie subregion, where it may be found in dry forest, forested and freshwater wetlands, grassy and semi-arid woodland. Appears to favour streamside locations, and shelters during the day under loose bark or in tree hollows. By night hunts small mammals and frogs (DECCW 2010).				
E TSC = listed as Endangered under Schedule 1 of the NSW <i>TSC Act 1995</i>		V TSC = listed as Vulnerable under Schedule 2 of the <i>TSC Act 1995</i> .			
E EPBC = listed as Endangered under the Commonwealth <i>EPBC Act 1999</i>		V EPBC = listed as Vulnerable under the Commonwealth <i>EPBC Act 1999</i>			
M EPBC = listed as Migratory under the Commonwealth <i>EPBC Act 1999</i>		CAMBA = China-Australia Migratory Bird Agreement			

Appendix E FLORA SPECIES LISTS

The survey area was stratified into 5 relatively homogeneous survey zones based on Proposal elements, vegetation structure and topography:

- WP** Native pasture and Chenopod shrubland (western area): sites 2, 6
- CA** Cropped areas/Improved pasture (central area and far south east): site 7, 9
- BBW** Black Box woodland (central area and scattered in western area): sites 1, 5, 6, 7, 8, 10, 11
- MW** Myall woodland and grassland (eastern area): sites 12, 13, 14
- SS** Disturbed and planted area (around existing sub station): site 3

Cover/abundance assessments are based on visual estimates of foliage cover (after Carnahan 1997), scored using a modified Braun-Blanquet 6-point scale:

- | | |
|---|--|
| 1 | 1 to a few individuals present, less than 5% cover |
| 2 | many individuals present, but still less than 5% cover |
| 3 | 5 - <20% cover |
| 4 | 20 - <50% cover |
| 5 | 50 - <75% cover |
| 6 | 75 - 100% cover. |

Where the cover/abundance of a particular species varies markedly over the random meander survey area, a range of values is provided. In these cases, abundance is based on a standard 20 metre x 20 metre quadrat scale.

Species of conservation significance are bolded. Introduced species are denoted by an asterisk. Noxious weeds declared for the Bogan Shire Council control area under the *Noxious Weeds Act 1993* are indicated with a 'Δ' symbol. Where uncertainty exists due to the unavailability of mature reproductive material, the taxon is preceded by a question mark, or plants are identified to genus level only. Botanical nomenclature follows G.J. Harden (ed) (1990-2002) *Flora of New South Wales*, UNSW Press, except where recent changes have occurred.

Scientific name	Common name	Family	Abundance				
			WP	CA	BBW	MW	SS
TREES							
<i>Acacia harpophylla</i>	Brigalow	Fabaceae	0-1				
<i>Acacia pendula</i>	Weeping Myall	Fabaceae	0-2			0-2	
<i>Apophyllum anomalum</i>	Warrior Bush	Capparaceae			0-1		
<i>Callitris glaucophylla</i>	White Cypress	Cupressaceae			0-1		
<i>Capparis lasiantha</i>	Nepine	Capparaceae	0-1			0-1	
<i>Casuarina cristata</i>	Belah	Casuarinaceae			0-1		
<i>Eremophila ?mitchellii</i>	Budda	Myoporaceae	0-1		0-2		
<i>Eucalyptus campaspe</i>	Silver Gimlet	Myrtaceae					0-1
<i>Eucalyptus largiflorens</i>	Black Box	Myrtaceae	0-3		2-4	0-1	
<i>Eucalyptus sideroxylon</i>	Mugga Ironbark	Myrtaceae	0-1				
<i>Eucalyptus populnea subsp. bimbil</i>	Bimble Box	Myrtaceae	0-1		0-2		0-1
<i>Eucalyptus urna</i>	Merrit	Myrtaceae					0-1
<i>Flindersia maculosa</i>	Leopardwood	Rutaceae	0-1			0-1	
<i>Geijera parviflora</i>	Wilga	Rutaceae	0-2		2	0-1	0-1
<i>Schinus areira</i>	Pepper Tree	Anacardiaceae	0-1				
SHRUBS, SUB-SHRUBS							
<i>Abutilon oxycarpum</i>	Flannel weed	Malvaceae			0-1		
<i>Amyema quandang</i>	Mistletoe	Loranthaceae				0-1	
<i>Atriplex semibaccata</i>	Creeping Saltbush	Chenopodiaceae	0-2		0-2	0-2	0-2
<i>Capparis mitchellii</i>	Wild Orange	Capparaceae			0-1		
<i>Dodonaea viscosa</i>	Sticky Hop-bush	Sapindaceae			0-1		
<i>Eremophila maculata</i>	Spotted Fuchsia-bush	Myoporaceae			0-3		
<i>Δ*Lycium ferocissimum</i>	African Boxthorn	Solanaceae	0-1		0-1	0-2	
<i>Maireana aphylla</i>	Cotton Bush	Chenopodiaceae				0-1	
<i>Maireana appressa</i>		Chenopodiaceae			0-1	0-1	
<i>Maireana brevifolia</i>	Small-leaf Bluebush	Chenopodiaceae	0-2		0-2		
<i>Maireana ?decalvans</i>	Black Cotton Bush	Chenopodiaceae				0-1	
<i>Myoporum montanum</i>	Western Boobialla	Myoporaceae				0-1	
<i>Rhagodia spinescens</i>	Spiny Saltbush	Chenopodiaceae			0-1	0-1	
<i>Salsola tragus subsp. tragus</i>		Chenopodiaceae			0-2		
<i>Sclerolaena birchii</i>	Galvanised Burr	Chenopodiaceae	2		2		2
<i>Sclerolaena bicornis</i>	Goathead Burr	Chenopodiaceae	1-2		1-2		0-2

Scientific name	Common name	Family	Abundance				
			WP	CA	BBW	MW	SS
<i>Sclerolaena diacantha</i>	Grey Copperburr	Chenopodiaceae	2		2	1	2
<i>Sclerolaena tricuspis</i>	Giant Redburr	Chenopodiaceae	2		2	2	2
<i>Solanum esuriale</i>	Quena	Solanaceae				0-1	
<i>Solanum ferrocissimum</i>	Spiny Potato Bush	Solanaceae	0-1				
* <i>Solanum nigrum</i>	Black-berry Nightshade	Solanaceae	0-1				
Δ* <i>Xanthium spinosum</i>	Bathurst Burr	Asteraceae	0-1			0-1	
FORBS							
<i>Brachyscome ciliaris</i> var. <i>subintegrifolia</i>	Variable Daisy	Asteraceae			0-2		0-2
<i>Brachyscome dentata</i>		Asteraceae					0-1
<i>Calotis hispidula</i>	Bogan Flea	Asteraceae	0-1		0-1		0-1
* <i>Capsella bursa-pastoris</i>	Shepherd's Purse	Brassicaceae	0-2				
* <i>Carthamus lanatus</i>	Saffron Thistle	Asteraceae			0-1		
<i>Chamaesyce drummondii</i>	Caustic Weed	Chenopodiaceae	0-2				
<i>Chenopodium curvispicatum</i>		Chenopodiaceae	0-2				
* <i>Chenopodium murale</i>	Nettle-leaf Goosefoot	Chenopodiaceae	0-1		0-1		0-1
<i>Chenopodium pumilio</i>	Small Crumbweed	Chenopodiaceae			0-2		
<i>Cotula australis</i>	Carrot Weed	Asteraceae	0-2				
<i>Dichondra repens</i>	Kidney Weed	Convolvulaceae			0-2		
* <i>Echium plantagineum</i>	Paterson's Curse	Boraginaceae	0-2	1-5			0-3
<i>Einadia nutans</i> subsp. <i>nutans</i>	Climbing Saltbush	Chenopodiaceae	0-1		0-1	0-1	
<i>Einadia polygonoides</i>		Chenopodiaceae			0-1	0-1	
* <i>Erodium cicutarium</i>	Common Storksbill	Geraniaceae	0-1	0-1			0-1
* <i>Hypochaeris radicata</i>	Cat's Ear, Flatweed	Asteraceae		0-1			
? <i>Leiocarpa tomentosa</i>	Woolly Plover-daisy	Asteraceae				0-1	
* <i>Lepidium africanum</i>	Peppergrass	Brassicaceae		0-2			
* <i>Malva parviflora</i>	Small-flowered Mallow	Malvaceae	0-2	0-4			
* <i>Marrubium vulgare</i>	Horehound	Lamiaceae	0-1				0-1
* <i>Medicago ?arabica</i>	Spotted Burr-medic	Fabaceae	2	0-2	1	1-2	
<i>Minuria integerrima</i>	Smooth Minuria	Asteraceae			0-1		
<i>Oxalis perennans</i>	Oxalis	Oxalidaceae	0-1		0-1		
<i>Plantago cunninghamii</i>		Plantaginaceae			0-1		

Scientific name	Common name	Family	Abundance				
			WP	CA	BBW	MW	SS
<i>?Rostellularia adscendens</i>		Acanthaceae	0-1		0-1	0-2	
<i>Rumex brownii</i>	Native Dock	Polygonaceae			0-1		
<i>*Silybum marianum</i>	Variegated Thistle	Asteraceae	0-1	0-2			
<i>*Sonchus oleraceus</i>	Common Sowthistle	Asteraceae			0-1		
<i>*Sisymbrium orientale</i>	Indian Mustard	Hedge Brassicaceae		0-2	0-2		
<i>Tetragonia tetragonoides</i>	Native Spinach	Aizoaceae				0-1	
<i>*Trifolium sp.</i>	Clover	Fabaceae	0-3	0-3			0-3
<i>*Urtica repens</i>	Small Nettle	Urticaceae			0-2		
GRASSES							
<i>Austrodanthonia setacea</i>	Small-flowered Wallaby Grass	Poaceae			0-2		
<i>Austrodanthonia sp.</i>					0-2		
<i>Chloris truncata</i>	Windmill Grass	Poaceae	2		2	2-3	
<i>Cymbopogon refractus</i>	Barbed-wire Grass	Poaceae			0-1		
<i>*Cynodon dactylon</i>	Couch	Poaceae					0-3
<i>Enteropogon acicularis</i>	Curly Windmill Grass	Poaceae	1-3		1-3	1-3	2
<i>Eragrostis brownii</i>	Browns Lovegrass	Poaceae	0-2		1-3	1-2	
<i>*Eragrostis cilianensis</i>	Stinking Lovegrass	Poaceae	2		0-2	0-2	
<i>Eragrostis parviflora</i>	Weeping Lovegrass	Poaceae	0-3		0-3	0-3	0-2
<i>Eragrostis setifolia</i>	Neverfail	Poaceae				0-2	
<i>*Hordeum leporinum</i>	Barley Grass	Poaceae		0-6			
<i>Lachnagrostis filiformis</i>	Blown Grass	Poaceae	2		2	2	2
<i>Panicum decompositum var. tenuis</i>		Poaceae	2		2	2-3	2
<i>Sporobolus caroli</i>	Fairy Grass	Poaceae	0-1		0-1	0-2	0-1
GRAMINOIDS							
<i>Juncus sp</i>	Rush	Juncaceae	0.1		0-1		

Appendix F FAUNA SPECIES LIST

Common Name	Scientific Name	Recorded O=on site A=adjacent to site
Birds		
Apostlebird	<i>Struthidea cinerea</i>	O
Australasian Grebe	<i>Tachybaptus novaehollandiae</i>	O
Australian Magpie	<i>Gymnorhina tibicen</i>	O
Australian Raven	<i>Corvus coronoides</i>	O
Australian White Ibis	<i>Threskiornis molucca</i>	A
Australian Wood Duck	<i>Chenonetta jubata</i>	O
Banded Lapwing	<i>Vanellus tricolor</i>	O
Black Kite	<i>Milvus migrans</i>	O
Black-faced Cuckoo-shrike	<i>Coracina novaehollandiae</i>	A
Blue Bonnet	<i>Northiella haematogaster</i>	O
Brown Falcon	<i>Falco berigora</i>	A
Brown Treecreeper	<i>Climacteris picumnus</i>	O
Buff-rumped Thornbill	<i>Acanthiza reguloides</i>	A
Chestnut-crowned Babbler	<i>Pomatostomus ruficeps</i>	O
Cockatiel	<i>Nymphicus hollandicus</i>	O
Common Bronzewing	<i>Phaps chalcoptera</i>	A
Common Starling	<i>Sturnus vulgaris</i>	O
Crested Pigeon	<i>Ocyphaps lophotes</i>	O
Galah	<i>Cacatua roseicapilla</i>	O
Grey Fantail	<i>Rhipidura fuliginosa</i>	A
Grey Shrike-thrush	<i>Colluricincla harmonica</i>	A
Grey-crowned Babbler	<i>Pomatostomus temporalis</i>	A
Ground Cuckoo-shrike	<i>Coracina maxima</i>	A
Inland Thornbill	<i>Acanthiza apicalis</i>	A
Jacky Winter	<i>Microeca fascians</i>	A
Laughing Kookaburra	<i>Dacelo novaeguineae</i>	O
Little Raven	<i>Corvus mellori</i>	O
Magpie-lark	<i>Grallina cyanoleuca</i>	O
Noisy Miner	<i>Manorina melanocephala</i>	O
Pacific Black Duck	<i>Anas superciliosa</i>	O
Pied Butcherbird	<i>Cracticus nigrogularis</i>	O
Port Lincoln Ringneck	<i>Barnardius zonarius</i>	O
Red-capped Robin	<i>Petroica goodenovii</i>	A
Red-rumped Parrot	<i>Psephotus haematonotus</i>	O
Restless Flycatcher	<i>Myiagra inquieta</i>	A
Richard's Pipit	<i>Anthus novaeseelandiae</i>	O
Rufous Whistler	<i>Pachycephala rufiventris</i>	A
Singing Honeyeater	<i>Lichenostomus virescens</i>	A
Spiny-cheeked Honeyeater	<i>Acanthagenys rufogularis</i>	A
Striated Pardalote	<i>Pardalotus striatus</i>	A
Superb Parrot	<i>Polytelis swainsonii</i>	O
Tawny Frogmouth	<i>Podargus strigoides</i>	A

Variegated Fairy-wren	<i>Malurus lamberti</i>	O
Wedge-tailed Eagle	<i>Aquila audax</i>	O
Welcome Swallow	<i>Hirundo neoxena</i>	A
Whistling Kite	<i>Haliastur sphenurus</i>	O
White-plumed Honeyeater	<i>Lichenostomus penicillatus</i>	A
White-winged Chough	<i>Corcorax melanorhamphos</i>	A
Willie Wagtail	<i>Rhipidura leucophrys</i>	A
Yellow Thornbill	<i>Acanthiza nana</i>	A
Yellow-rumped Thornbill	<i>Acanthiza chrysorrhoa</i>	A
Mammals		
Brown Hare	<i>Lepus capensis</i>	O
Common Brushtail Possum	<i>Trichosurus vulpecula</i>	A
Eastern Grey Kangaroo	<i>Macropus giganteus</i>	A
European Rabbit	<i>Oryctolagus cuniculus</i>	A
House Mouse	<i>Mus musculus</i>	A
Red Fox	<i>Vulpes vulpes</i>	O
Short-beaked Echidna	<i>Tachyglossus aculeatus</i>	A
Swamp Wallaby	<i>Wallabia bicolor</i>	A
Amphibians		
Green Tree Frog	<i>Litoria caerulea</i>	A
Salmon-striped Frog	<i>Limnodynastes salmini</i>	O
Reptiles		
Boulenger's Skink	<i>Morethia boulengeri</i>	A
Stumpy-tailed Lizard	<i>Tiliqua rugosa</i>	A
Tree Skink	<i>Egernia striolata</i>	A