Assessment site 15 - Magazine Creek Wetlands

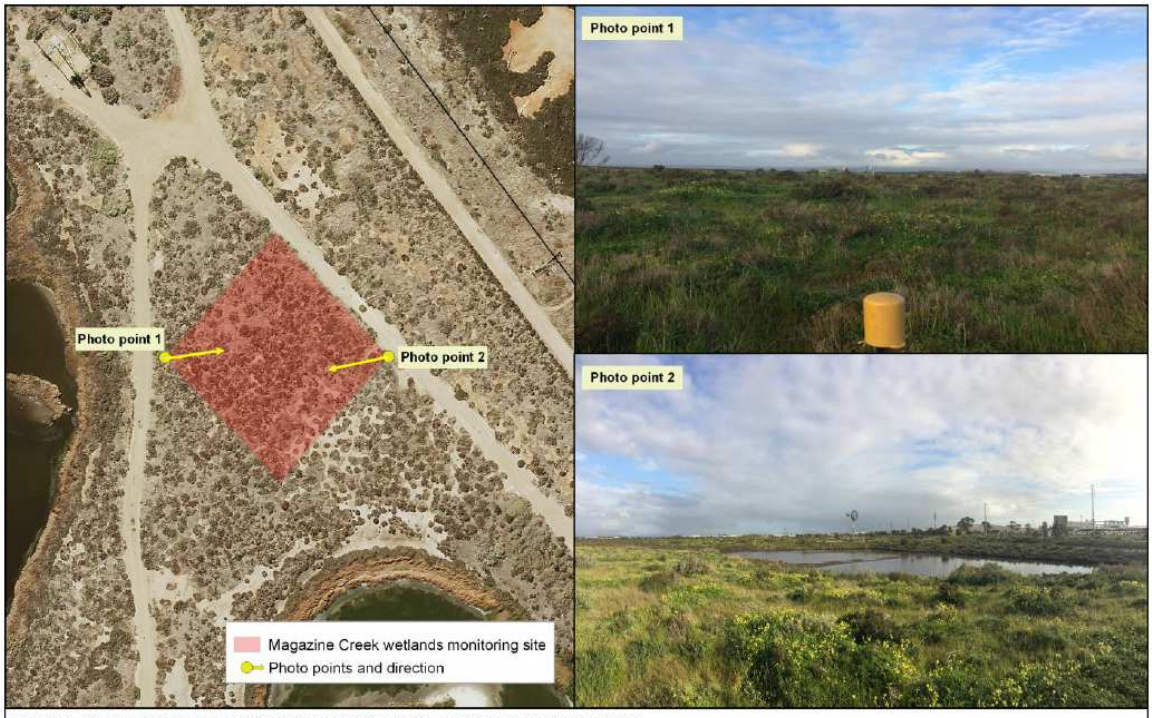

Figure 3. Magazine Creek wetlands monitoring site - photo points and reference photos

Important notes: (i) This map is not guaranteed to be free from error or omissions, and has been produced for the exclusive use of the Client and Seed Consulting Services (ii) Any contours are suitable only for the purpose of this plan; their accuracy has not been verified and no reliance should be placed upon them for any purpose other than the original purpose of this map (iii) Aerial photos and imagery have been overlaid as best fit on the boundaries shown and precision is approximate only (iv) Scale shown is correct for original plan and any copies of this plan should be verified by checking against the scale bar (v)This figure may not be copied unless this note is included.

Site details

Quadrate size: 30 x 30m
Site Location: 27328E, 6143202N
Quadrate bearings: Facing sighter post (gate in neighbouring property) approximately 60m away bearing 52° north-east. Other photo points: eastern corner of site facing south-west.
Survey by: SEED Consulting Services (24/07/16).

Table 1: Bushland condition monitoring records at Magazine Creek Wetlands assessment site15 for year 2015.

Magazine Creek Wetland - Bushland Condition Monitoring												
	BCM condition indicator score											
Bushland Condition Monitoring Period	1. Plant species diversity	2. Weed abundance and threat	3a. Structural diversity A - ground Cover	3b. Structural diversity B - life form	4. Shrub regeneration	5. Shrub health - dieback	6. Tree habitat features	7. Feral animal abundance	7. Feral animal frequency	8. Total grazing pressure	9. Fauna species diversity	10. Bushland degration risk
2015	4	12	4	4	n/a - no trees or fallen logs			22		0		
Indicator condition			Very poor		Poor		Moderate		Good		Excellent	
Biodiversity asset risk			Very high		High		Moderate		Minimal risk		No risk	

Table 2: Flora species - 2015 results from survey

Species name	Common name
*Lolium multiflorum**	Annual ryegrass
*Medicago sp.**	Medic (clover)
Nitraria billardierei	Nitre bush
*Oxalis pes-caprae**	Soursob
*Poa annua**	Wintergrass

*denotes exotic or non-local species

Table 4. Terrestrial vertebrate fauna species identified in and around the Magazine Creek monitoring site (July 2015).

Codes in the table are as follows:

Exotic species: if yes = Y;

Conservation status listing: F = federal *Environment Protection and Biodiversity Conservation Act 1999*; S = State legislation, either the *Natural Resources Management Act 2004* (indicated with an asterisk *) or *National Parks and Wildlife Act 1972*; R/L = regional/local as relevant to the Adelaide and Mount Lofty Ranges region; CE = critically endangered; D = declared key threatening process; E = endangered; I = invasive species; NT = near threatened; R = rare; T = threatened; V = vulnerable.

EPBC Other MNES (EPBC Act's other matters of national environmental significance): **listed migratory** status: wetland, marine or terrestrial; **listed marine** status: Y = yes; **International agreements** listing: A = ACAP, B = Bonn Convention, C = CAMBA, E = EEAFP; J = JAMBA, R = ROKAMBA; an asterisk (*) next to an International agreement letter indicates the species is listed as threatened by that agreement.

Survey technique: An = Anabat; BC = 20min bird census; I = incidental; T/T = track or trace; V = vocal.

A dash (-) indicates information is not relevant or available.

			Conservation Status			EPBC Other MNES			
Scientific Name	**Common Name**	**Exotic**	**F**	**S**	**R/L**	**Listed Migratory**	**Listed Marine**	**International Agreements**	**Survey Technique**
AMPHIBIANS									
Crinia signifera	Common froglet	-	-	-	-	-	-	-	V
Limnodynastes tasmaniensis	Spotted marsh frog	-	-	-	-	-	-	-	V
BIRDS									
Acrocephalus australis	Australian reed-warbler	-	-	-	R	-	-	-	I
Anas castanea	Chestnut teal	-	-	-	-	-	-	-	BC; I
Anas gracilis	Grey teal	-	-	-	-	-	-	-	BC; I
Anas rhynchotis	Australasian shoveler	-	-	R	NT	-	-	-	BC; I
Anas superciliosa	Pacific black duck	-	-	-	V	-	-	-	BC; I
Aythya australis	Hardhead	-	-	-	-	-	-	-	BC; I
Cacatua sanguinea	Little corella	-	-	-	-	-	-	-	I

			Conservation Status			EPBC Other MNES			
Scientific Name	**Common Name**	**Exotic**	**F**	**S**	**R/L**	**Listed Migratory**	**Listed Marine**	**International Agreements**	**Survey Technique**
Calidris ferruginea	Curlew sandpiper	-	CE	-	CE	Wetlands	Y	C; E; J; R	I
Carduelis carduelis	European goldfinch	Y	-	-	-	-	-	-	I
Chroicocephalus novaehollandiae	Silver gull	-	-	-	-	-	-	-	BC; I
Columba livia	Rock dove (feral pigeon)	Y	-	-	-	-	-	-	I
Corvus mellori	Little raven	-	-	-	-	-	-	-	I
Cygnus atratus	Black swan	-	-	-	R	-	-	-	BC; I
Egretta garzetta	Little egret	-	-	R	-	-	-	-	I
Egretta novaehollandiae	White-faced heron	-	-	-	-	-	-	-	I
Elanus axillaris	Black-shouldered kite	-	-	-	-	-	-	-	I
Elseyornis melanops	Black-fronted dotterel	-	-	-	R	-	-	-	I
Epthianura albifrons	White-fronted chat	-	-	-	V	-	-	-	I
Erythrogonys cinctus	Red-kneed dotterel	-	-	-	V	-	-	-	BC; I
Falco berigora	Brown falcon	-	-	-	-	-	-	-	I
Fulica atra	Eurasian coot	-	-	-	-	-	-	-	BC; I
Gallinula tenebrosa	Dusky moorhen	-	-	-	-	-	-	-	BC; I
Grallina cyanoleuca	Magpie-lark	-	-	-	-	-	-	-	I
Gymnorhina tibicen	Australian magpie	-	-	-	-	-	-	-	BC; I
Haliastur sphenurus	Whistling kite	-	-	-	V	-	-	-	I
Himantopus himantopus	Black-winged stilt	-	-	-	-	-	Y	-	BC; I
Hirundo neoxena	Welcome swallow	-	-	-	-	-	-	-	BC; I
Malacorhynchus membranaceus	Pink-eared duck	-	-	-	R	-	-	-	BC; I
Malurus leucopterus	White-winged fairy-wren	-	-	-	CE	-	-	-	I
Microcarbo melanoleucos	Little pied cormorant	-	-	-	-	-	-	-	I
Ocyphaps lophotes	Crested pigeon	-	-	-	-	-	-	-	BC; I
Passer domesticus	House sparrow	Y	-	-	-	-	-	-	BC; I

			Conservation Status			EPBC Other MNES			
Scientific Name	**Common Name**	**Exotic**	**F**	**S**	**R/L**	**Listed Migratory**	**Listed Marine**	**International Agreements**	**Survey Technique**
Pelecanus conspicillatus	Australian pelican	-	-	-	R	-	-	-	BC; I
Phalacrocorax carbo	Great cormorant	-	-	-	R	-	-	-	I
Phalacrocorax sulcirostris	Little black cormorant	-	-	-	-	-	-	-	I
Phylidonyris novaehollandiae	New Holland honeyeater	-	-	-	-	-	-	-	I
Platalea regia	Royal spoonbill	-	-	-	V	-	-	-	I
Poliocephalus poliocephalus	Hoary-headed grebe	-	-	-	NT	-	-	-	BC; I
Porphyrio porphyrio	Purple swamphen	-	-	-	-	-	-	-	I
Ptilotula penicillata	White-plumed honeyeater	-	-	-	-	-	-	-	I
Ptilotula virescens	Singing honeyeater	-	-	-	-	-	-	-	BC; I
Recurvirostra navaehollandiae	Red-necked avocet	-	-	-	-	-	Y	-	BC; I
Rhipidura leucophrys	Willie wagtail	-	-	-	NT	-	-	-	BC; I
Spilopelia chinensis	Spotted dove	Y	-	-	-	-	-	-	BC; I
Sturnus vulgaris	Common starling	Y	-	-	-	-	-	-	BC; I
Tachybaptus novaehollandiae	Australasian grebe	-	-	-	-	-	-	-	BC; I
Tadorna tadornoides	Australian shelduck	-	-	-	V	-	-	-	I
Threskiornis moluccus	Australian white ibis	-	-	-	-	-	-	-	I
Tribonyx ventralis	Black-tailed native-hen	-	-	-	-	-	-	-	BC; I
Tringa glareola	Wood sandpiper	-	-	R	E	Wetlands	Y	B; C; J; R	I
Turdus merula	Common blackbird	Y	-	-	-	-	-	-	BC; I
Vanellus miles	Masked lapwing	-	-	-	-	-	-	-	BC; I
MAMMALS									
Chalinolobus gouldii	Gould's wattled bat	-	-	-	-	-	-	-	An
Hydromys chrysogaster	Water rat	-	-	-	R	-	-	-	I
Mormopterus planiceps	Southern free-tailed bat	-	-	-	-	-	-	-	An
Vulpes vulpes	Red fox	Y	I	D*	-	-	-	-	T/T

Survey methodology used:
Birds Australia 2020 Shorebird Survey Form

Date of shorebird monitoring:
1st November 2010 – 2nd December 2015

Magazine Creek Wetlands
Bird SA assisted with the setting up and recording of the shorebird surveys from December 2010 to December 2015. Bird watching generally went for a few hours when the tide was medium to low. While shorebirds were the targeted bird type, all species observed were recorded.

Since 2011, 21 bird surveys have been undertaken throughout 2012 and 2015 by Birds SA to monitor shorebirds and other avian species that inhabit these wetlands.

Table 3: Numbers of Migratory birds (including shorebirds) in Stormwater Treatment Wetland in 2012 recorded by Bird SA

Common Name	Scientific name	Stormwater treatment (no. of birds) wetlands	shorebird	EPBC Act.	NPW Act.	CAMBA	ROKAMBA	JAMBA
Masked Lapwing	*Vanellus miles*	**29**	✓					
Eastern Great Egret	*Egretta alba*	**9**	✓	Mi/Ma		✓		✓
Sharp-tailed Sandpiper	*Calidris acuminata*	**20**	✓	Mi/Ma		✓	✓	✓
Red-kneed Dotteral	*Erythrogonys cinctys*	**89**	✓					
Black-winged Stilt	*Himantopus himantopus*	**149**	✓					
Red-necked Avocet	*Recurvirostra rufogularis*	**13**	✓					
Wood Sandpiper	*Tringa glareola*	**1**	✓	Mi/Ma	R	✓	✓	✓

Table 4: Numbers of Migratory birds (including shorebirds) in Stormwater Treatment Wetland in 2013 recorded by Bird SA

Common Name	Scientific name	Stormwater treatment (no. of birds) wetlands	shorebird	EPBC Act.	NPW Act.	CAMBA	ROKAMBA	JAMBA
Masked Lapwing	*Vanellus miles*	**10**	✓					
Eastern Great Egret	*Egretta alba*	**15**	✓	Mi/Ma		✓		✓
Sharp-tailed Sandpiper	*Calidris acuminata*	**9**	✓	Mi/Ma		✓	✓	✓
Red-kneed Dotteral	*Erythrogonys cinctys*	**218**	✓					
Black-winged Stilt	*Himantopus himantopus*	**96**	✓					
Red-necked Avocet	*Recurvirostra rufogularis*	**7**	✓					
Wood Sandpiper	*Tringa glareola*	**2**	✓	Mi/Ma	R	✓	✓	✓

Conservation codes
EPBC Act: Mi = Migratory listing, Ma = Marine listing (Commonwealth waters)
NPW Act: LC = Least Concern, NT = Near Threatened, VU = Vulnerable, EN = Endangered
CAMBA: China-Australia Migratory Bird Agreement
ROKAMBA: Republic of Korea-Australia Migratory Bird Agreement
JAMBA: Japan-Australia Migratory Bird Agreement

Table 5: Numbers of Migratory birds (including shorebirds) in Stormwater Treatment Wetland in 2014 recorded by Bird SA

Common Name	Scientific name	Stormwater treatment (no. of birds) wetlands	shorebird	EPBC Act.	NPW Act.	CAMBA	ROKAMBA	JAMBA
Masked Lapwing	*Vanellus miles*	**3**	✓					
Eastern Great Egret	*Egretta alba*	**5**	✓	Mi/Ma		✓		✓
Sharp-tailed Sandpiper	*Calidris acuminata*	**2**	✓	Mi/Ma		✓	✓	✓
Red-kneed Dotteral	*Erythrogonys cinctys*	**80**	✓					
Black-winged Stilt	*Himantopus himantopus*	**102**	✓					
Red-necked Avocet	*Recurvirostra rufogularis*	**7**	✓					
Wood Sandpiper	*Tringa glareola*	**3**	✓	Mi/Ma	R	✓	✓	✓

Table 6: Numbers of Migratory birds (including shorebirds) in Stormwater Treatment Wetland in 2015 recorded by Bird SA

Common Name	Scientific name	Stormwater treatment (no. of birds) wetlands	shorebird	EPBC Act.	NPW Act.	CAMBA	ROKAMBA	JAMBA
Masked Lapwing	*Vanellus miles*	**17**	✓					
Eastern Great Egret	*Egretta alba*	**3**	✓	Mi/Ma		✓		✓
Sharp-tailed Sandpiper	*Calidris acuminata*	**11**	✓	Mi/Ma		✓	✓	✓
Red-kneed Dotteral	*Erythrogonys cinctys*	**84**	✓					
Black-winged Stilt	*Himantopus himantopus*	**146**	✓					
Red-necked Avocet	*Recurvirostra rufogularis*	**28**	✓					
Wood Sandpiper	*Tringa glareola*	**8**	✓	Mi/Ma	R	✓	✓	✓

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Common migratory shorebirds found at Magazine Creek Wetland

Red-necked Avocet *(Recurvirostra rufogularis)*

Masked lapwing *(Recurvirostra rufogularis)*

Black-winged Stilt (*Himantopus himantopus)*

Sharp-tailed Sandpiper *(Calidris acuminate)*

Table 7: Some other bird species recorded in 2012 at Magazine Creek Wetlands

Common name	Numbers (if recorded)	Common name	Numbers (if recorded)
Freckled Duck	1	Singing Honeyeater	67
Black Swan	72	Red Wattlebird	16
Australian Shelduck	12	New Holland Honeyeater	10
Pink-eared Duck	4	Australian Magpie	9
Australasian Shoveler	15	Willie Wagtail	31
Grey Teal	994	Black-tailed Native-hen	85
Chestnut Teal	282	White-faced Heron	20
Pacific Black Duck (Mallard Cross Breeds)	331	Little Egret	10
Hardhead	129	Nankeen Night-Heron	6
Australasian Grebe	258	Australian White Ibis	231
Hoary-headed Grebe	225	Royal Spoonbill	5
Spotted Dove *	161	Black-shouldered Kite	7
Crested Pigeon	122	Swamp Harrier	4
Little Black Cormorant	23	Purple Swamphen	24
Little Pied Cormorant	50	Dusky Moorhen	120
Eastern Great Egret	12	Black-winged Stilt	149
		Eurasian Coot	297

TOTAL Number of species = 33 (including migratory birds)

Table 8: some other bird species recorded in 2013 at Magazine Creek Wetlands

Common name	Numbers (if recorded)	Common name	Numbers (if recorded)
Freckled Duck	14	Singing Honeyeater	44
Black Swan	77	Red Wattlebird	13
Australian Shelduck	16	New Holland Honeyeater	37
Pink-eared Duck	134	Australian Magpie	6
Australasian Shoveler	73	Willie Wagtail	62
Grey Teal	1075	Black-tailed Native-hen	205
Chestnut Teal	143	White-faced Heron	66
Pacific Black Duck (Mallard Cross Breeds)	146	Little Egret	22
Hardhead	150	Nankeen Night-Heron	38
Australasian Grebe	164	Australian White Ibis	66
Hoary-headed Grebe	208	Royal Spoonbill	19
Spotted Dove *	110	Black-shouldered Kite	4
Crested Pigeon	108	Swamp Harrier	1
Little Black Cormorant	47	Purple Swamphen	83
Little Pied Cormorant	44	Dusky Moorhen	98
Eastern Great Egret	15	Black-winged Stilt	136

TOTAL Number of species = 32 (including migratory birds)

Table 9: some other bird species recorded in 2014 at Magazine Creek Wetlands

Common name	Numbers (if recorded)	Common name	Numbers (if recorded)
Freckled Duck	1	Singing Honeyeater	51
Black Swan	103	Red Wattlebird	6
Australian Shelduck	29	New Holland Honeyeater	20
Pink-eared Duck	100	Australian Magpie	1
Australasian Shoveler	78	Willie Wagtail	57
Grey Teal	1270	Black-tailed Native-hen	75
Chestnut Teal	98	White-faced Heron	12
Pacific Black Duck (Mallard Cross Breeds)	287	Little Egret	2
Hardhead	83	Australian White Ibis	25
Australasian Grebe	28	Royal Spoonbill	2
Hoary-headed Grebe	224	Black-shouldered Kite	6
Spotted Dove *	90	Swamp Harrier	1
Crested Pigeon	98	Purple Swamphen	14
Little Black Cormorant	32	Dusky Moorhen	46
Little Pied Cormorant	38	Black-winged Stilt	102
Eastern Great Egret	5		

TOTAL Number of species = 32 (including migratory birds)

Table 10: Numbers of Migratory birds (including shorebirds) in Stormwater Treatment Wetland observed on the 15th December 2010 by the Adelaide & Mt. Lofty NRM Board.

Common Name	Scientific name	Stormwater treatment (species nos.) wetlands	shorebird	EPBC Act.	NPW Act.	CAMBA	ROKAMBA	JAMBA
Common Greenshank	*Tringa nebularia*	**1**	1	Mi/Ma		✓	✓	✓
Common sandpiper	*Actitis hypoleucos*	**1**	1	Mi/Ma				✓
Black winged Stilt	*Himantopus himantopus*	**3**	1					
Black fronted Dotterel	*Elseyornis melanops*	**2**	1					
Masked Lapwing	*Vanellus miles*	**10**	1					
Red-necked Avocet	*Recurvirostra rufogularis*	**2**	1					

Conservation codes
EPBC Act: Mi = Migratory listing, Ma = Marine listing (Commonwealth waters)
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