Pollack Wetland Enhancement Project

Feral Animal Impact Survey

Year Two Summary - Autumn 2020

Striking a Balance

Western Murray
Land Improvement Group Inc.

NSW GOVERNMENT | Local Land Services

Dan Hutton June 2020

Acknowledgements: I acknowledge the Barapa Barapa people, Traditional Owners of The Pollack and surrounding country; and thank them for their continued generosity, support and friendship. My thanks to staff at Forestry Corporation of NSW for providing access to the Pollack 2018/19 Watering Event data. My appreciation goes to Graham & Tanya Heffer for their continued support and contributions the improvement of the condition of the Pollack. This project is funded by the Murray Local Land Services through the Australian Governments National Landcare Program.

Front cover images: Fox, Fallow deer hind and young feral pig all taken at the Pollack 2019/20

Background

The Pollack Wetland Enhancement Project is a 4 year project commencing in late 2018. Funded by the Murray Local Land Services (subject to annual funding) the project intentioned to enhance and maintain the ecological condition of the Pollack Wetland and Flora Reserve. The project aims to achieve the following 4 outcomes;

- Reducing the infestation of pest weeds
- Reducing the impacts of feral animals on wetland sites
- Reducing populations of pest animals
- Educate and raise awareness about wetland functions.

A number of activities are planned to reduce the populations and impacts of feral animal, these include the expansion of an existing fox baiting program and feral pig control.

A requirement of the funding contract is to conduct seasonal, ground-based surveys to measure and record outcomes of these activities. Surveys and reporting are planned to occur during years 1 and 4 of project, a summary of these appears in below.

- Year 1: Baseline survey and reporting on;
    - Pest animal species present and abundance
    - Types and incidence of environmental impacts
    - Turtle presence and nest predation.
- Years 2 & 3
    - Collection of relevant data.
- Year 4: Repeat survey and reporting on;
    - Pest animal species present and abundance
    - Types and incidence of environmental impacts
    - Turtle presence and nest predation
    - Comparison and evaluation of variations to year 1 survey.

Note: This survey summary is additional to the contract schedule requirements.

Methodologies

The survey methodologies used are as follows;

- Conduct 2 transect surveys in the autumn to record presence and impacts of pest animal species
- Conduct 1 predated turtle nest survey within known nesting areas
- Deploy motion sensor cameras to record pest animal presence
- Collate and utilise data from fox baiting programs
- Collate and utilise data from pig trapping programs and
- Collate and utilise incidental observation during managed watering event.

Photographs from the 3 surveys and motion sensor camera together with the turtle survey data appear in Appendix 1, 2, 3, 4 & 5.

Surveys

The 3 year 2 surveys were conducted in March 2020 and collated with additional data sourced from the FCNSW 2019/20 watering event. At the time of the survey the 2019/20 watering event was in natural recession. Water remained the length of Pollack lagoon to a maximum depth of 1m, a shallow pool of under 1ha remained in the swamp. Domestic grazing stock had been voluntarily excluded from the site by the leaseholder to maximise the ecological benefits.

Results

Survey 1 & 2: Pest animal presents and impacts

Table 1: Recorded presence and impacts from survey 1 & 2

	Survey #1		Survey #2		Total Incidence Recorded		
Pest Animal Species	**Presence**	**Impacts**	**Presence**	**Impacts**	**Presence**	**Impacts**	**Total**
European Fox *(Vulpes vulpes)**	3	1	4	0	7	1	**8**
Feral Cat *(Felis catus)*	2	0	2	0	4	0	**4**
Feral Pig *(Sus scrofa)*	1	2	1	4	2	6	**8**
Fallow Deer *(Dama dama)**	1	3	2	5	3	8	**11**
European Hare *(Lepus europaeus)**	0	0	1	0	1	0	**1**

Presence = identification by sight, tracks or scats
Impact = environmental impact directly attributable to species

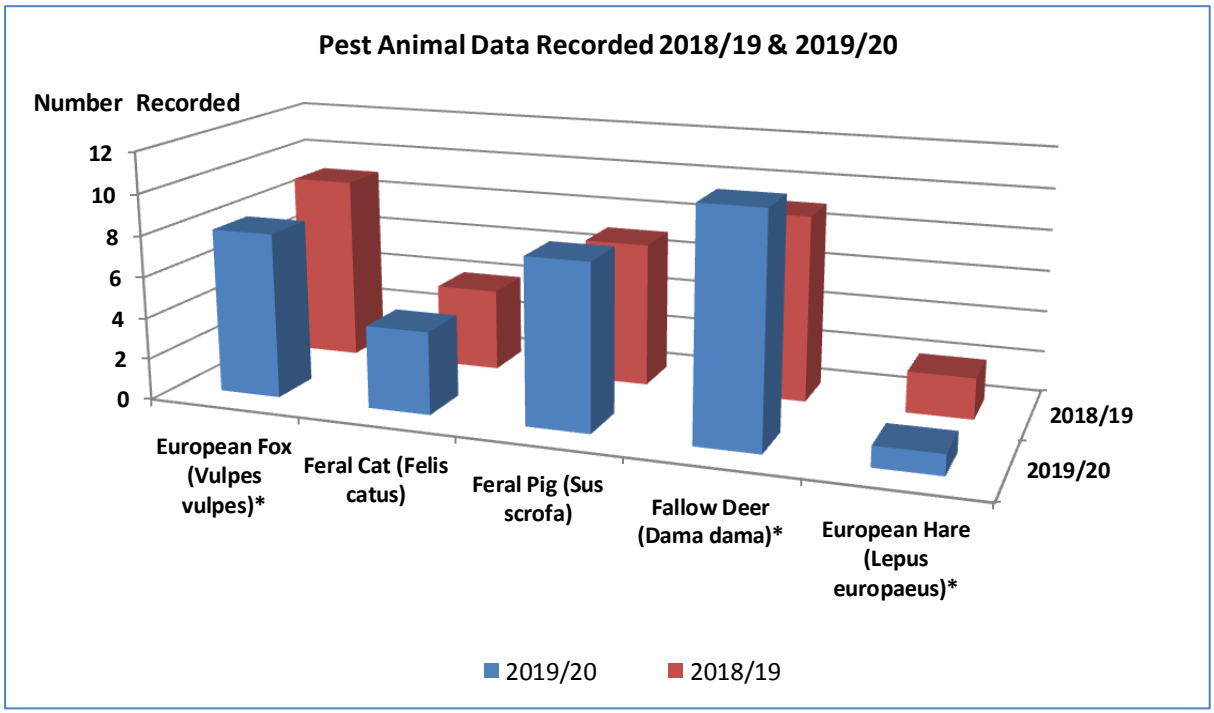

Figure 1: Graph comparing year 1 and year 2 survey data

Survey 3: Turtle presence and predated nests

Table 2: Recordings from survey 3 and FCNSW data

Turtle Species	Alive	Dead	Predated nests	Total incidence
Eastern long-necked turtle *Chelodina longicollis*	7	2	1	**10**

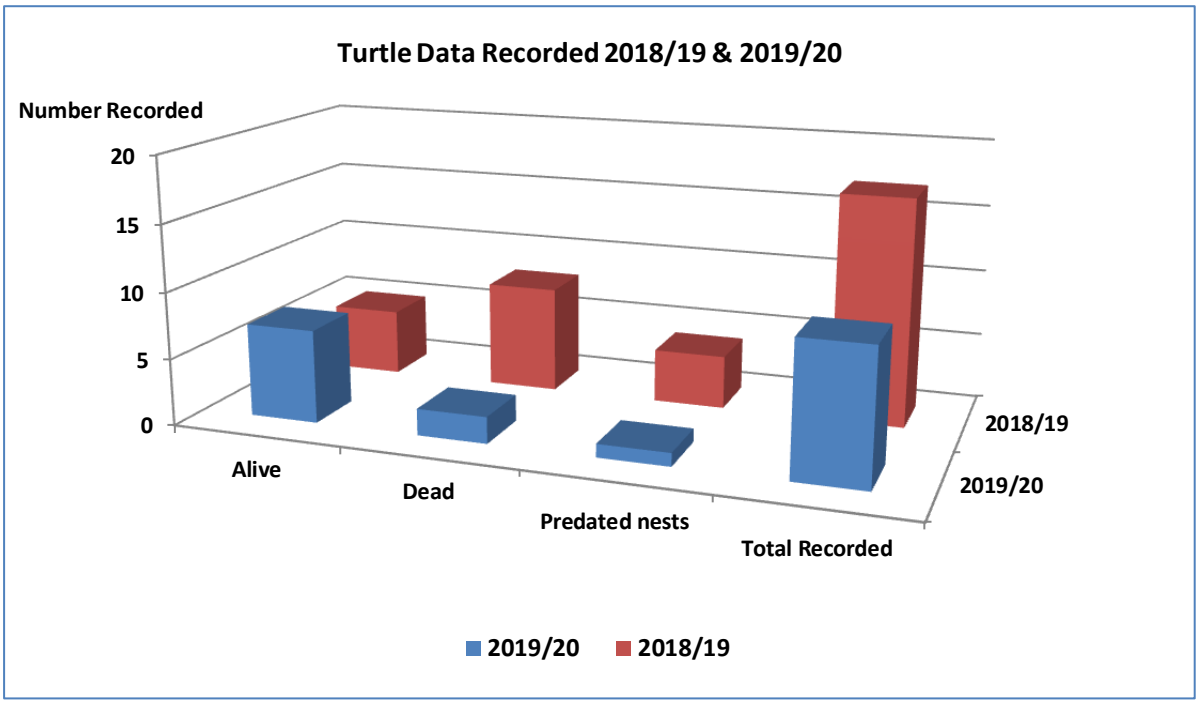

Figure 2: Graph comparing the year 1 & 2 survey data

Table 3: Recorded turtle data

Code	Date	Species	Sex	Live/dead	Easting	Northing
ELT_D_09	22/10/2019	Eastern Long-necked	Male	Dead	242087	6061248
ELT_D_10	4/01/2020	Eastern Long-necked	Male	Dead	242204	6061458
ELT_L_06	9/11/2019	Eastern Long-necked	Female	Live	242202	6061453
ELT_L_07	23/11/2019	Eastern Long-necked	Male	Live	242191	6061407
ELT_L_08	6/12/2019	Eastern Long-necked	Male	Live	242112	6061165
ELT_L_09	20/12/2019	Eastern Long-necked	Female	Live	242054	6060965
ELT_L_10	20/12/2019	Eastern Long-necked	Male	Live	240911	6060428
ELT_L_11	4/01/2020	Eastern Long-necked	Male	Live	241135	6060261
ELT_L_12	25/01/2020	Eastern Long-necked	Female	Live	242496	6060186
Nest_5	29/03/2020	Eastern Long-necked	Nest	Predated	242037	6061094

Survey Maps

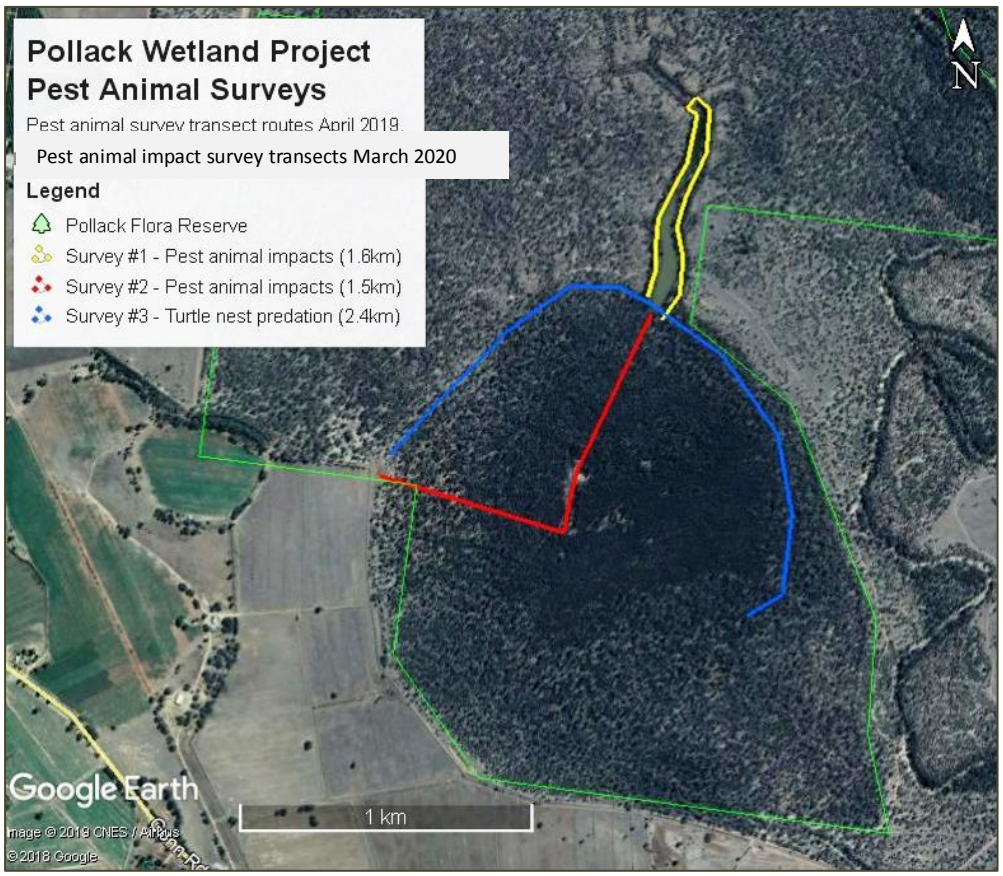

Figure 3: Map showing the location of all three transects survey.

Survey 1: Pest Animal Incidence and Impacts

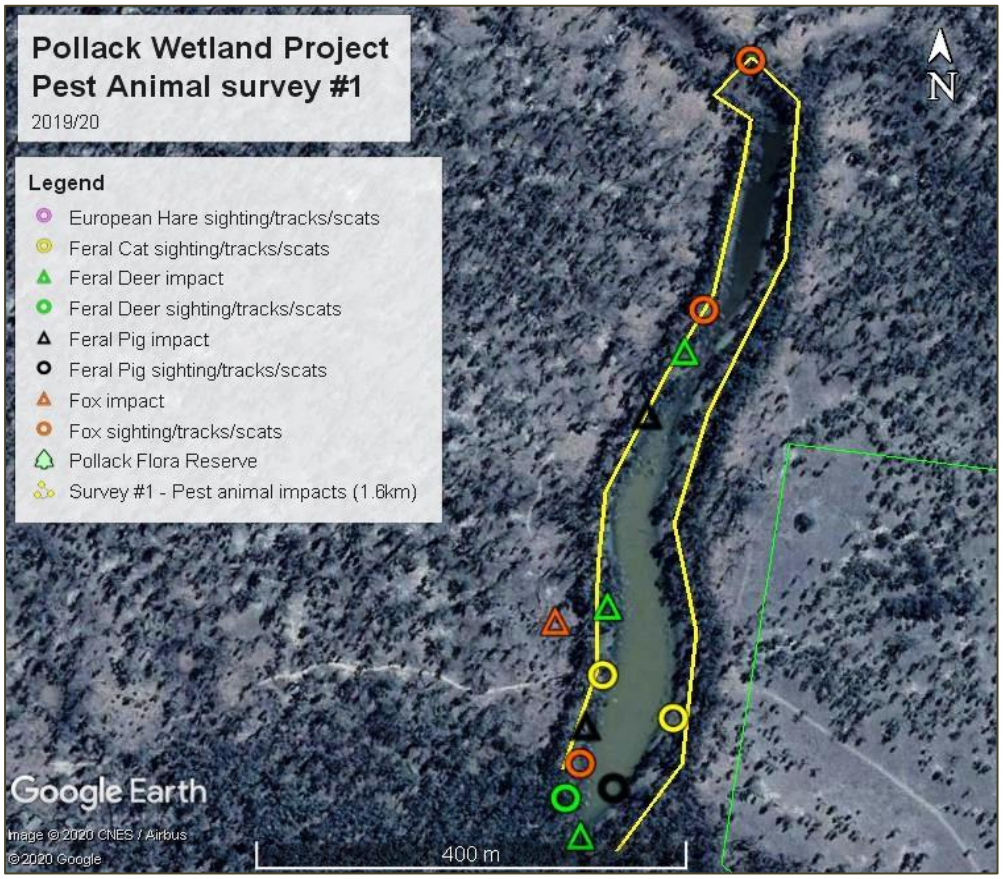

Figure 4: Map showing the survey 1 transect and the location of the recorded pest animal species presence and impacts

Survey 2: Pest Animal Incidence and Impacts

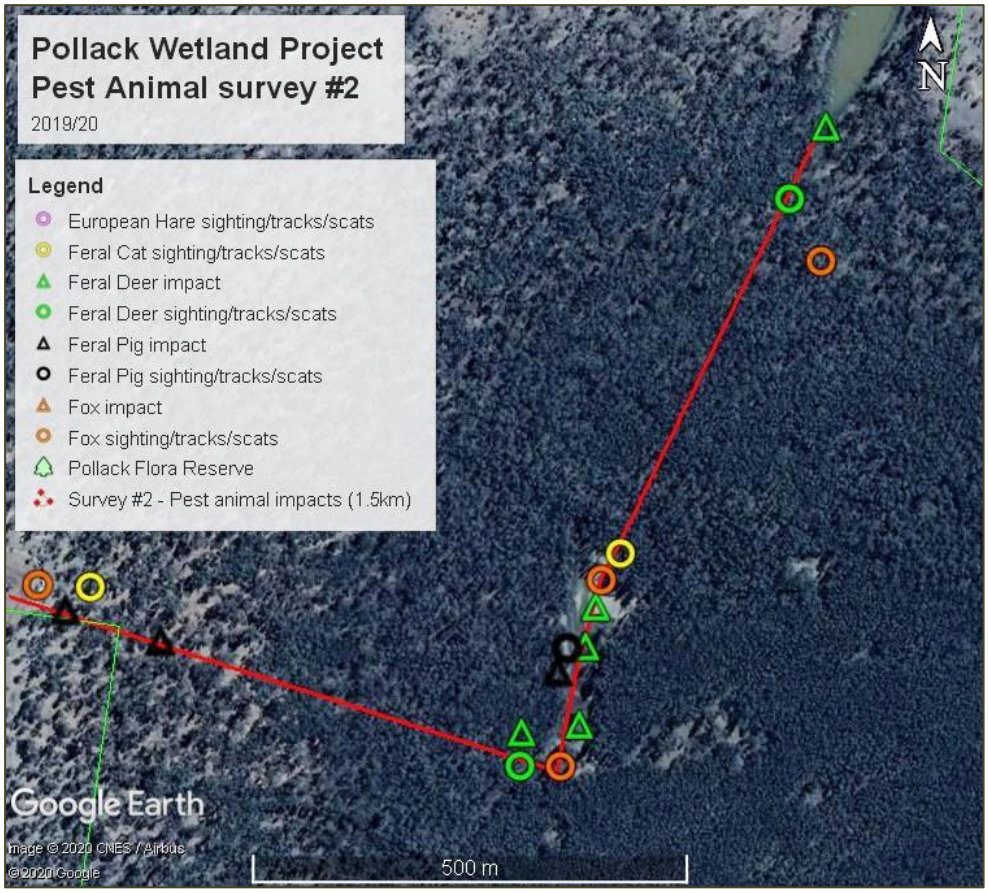

Figure 5: Map showing of survey 1 transect and the location of the recorded pest animal species presence and impacts

Survey 3: Turtle presence and predated nests

Figure 6: Map showing the survey 3 transect and the location of the recorded turtle presence and impacts