Feral Animal Control Program

Bunbury-Harvey Regional Council
Banksia Road Waste Facility

AUGUST 2018

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1 Introduction

This is the first feral animal control program that Animal Pest Management Services (APMS) have conducted at the Banksia Road Waste Facility Site (BRWFS).

This report outlines the program undertaken during August 2018, with results, findings and recommendations.

2 Program and Methodology

The emphasis of this program was to reduce the number of feral cats and foxes at the BRWFS due to the high population level present.

Feral cat and fox trapping was undertaken simultaneously in order to maximise efficiency.

The impact that foxes have on native fauna is likely to be equal, if not greater than that of feral cats. In fact, foxes are regarded as a keystone species as they reduce biodiversity and impact on the survival rates of native animal through predation throughout large areas of entire ecosystems. Foxes are also considered a threat to 14 species of birds, 48 species of mammals, 12 species of reptiles and two (2) species of amphibians.

Significant research has demonstrated the effects of fox predation, as described below. Foxes are seen as a major pest species threatening the long-term survival of a range of native fauna (G. Saunders *et al* 1995). Foxes have been identified as a factor limiting the success of seven out of 10 mainland reintroductions of native fauna (Managing Vertebrate Pests; Foxes 1995). Foxes have had a significant impact across mainland Australia through predation on both native wildlife and introduced domestic animals (National Parks and Wildllife NSW 1999.). Predation by the fox is considered to be a major threat to the survival of native Australian fauna. Small ground dwelling mammals between 35 grams and 5.5kg and ground-nesting birds are at greatest risk (Burbidge and McKenzie, 1989 and National Parks and Wildllife NSW 1999).

We therefore implemented a trapping program tailored to target both foxes and feral cats simultaneously. This trapping program was undertaken between the 6th and 10th of August (inclusive).

Both feral cats and foxes are likely to have a detrimental impact on native fauna, especially any quenda (*Isodon obesulus*) that are present throughout site through predation.

The primary objective of the control program was to reduce the negative impact on the native fauna population caused by foxes and feral cats through predation as well as reduce the level of feral cat activity in the area as feral cats are known to transmit some diseases to humans such as toxoplasma.

Feral cat control was carried out in the BRWFS using only cage traps. These traps were strategically set in areas where recent feral cat activity was present, or where experience and history suggested that feral cat activity was likely to occur within the vicinity, or where recent sightings had been reported to.

The cage traps were set late each evening and checked early each morning. Once checked each morning, all cage traps were closed off with the bait/lure removed. This was to avoid capturing any non-target species during the heat of the day. Traps were also set in areas where they would reduce the chance of capturing a non-target species.

Any feral cats caught in traps were assessed for any domestication such as collar, microchip, tattoo or even domestic tendencies or behavioural traits. Cats which were deemed feral were humanely euthanised in a safe location and disposed of by burial.

Fox control consisted of using rubber-jawed foot-hold traps set strategically in areas where recent fox activity was present, or where experience and history suggested that fox activity was likely to occur, or where recent sightings had been reported to.

Once the foot-hold traps were set, they remained set for the duration of the control program. The traps were checked early each morning. Traps were also set in areas or in certain ways where they would reduce the chance of capturing a non-target species.

3 Findings and Results

During the trapping program, a total of 12 feral cats were caught. The details of the feral cats can be seen below in Table 2. The trapping program was undertaken over 4 consecutive nights.

Table 1. Details of the feral cats captured during the control program.

Date captured	Sex	Weight	Colouration	Stomach contents	Comments
7th August	Female	3.2 kg	Tabby	Empty	Pregnant with 6 foetus
7th August	Male	5.5 kg	Black & white	Empty	
7th August	Female	3.5 kg	Tabby	Food scraps	
7th August	Female	3.7 kg	Tabby	Food scraps	Pregnant with 5 foetus
7th August	Male	4.7 kg	Black & white	Vegetation	
7th August	Male	4.9 kg	Black & white	Empty	
7th August	Female	1.8 kg	Black	Food scraps	Not sexually mature
7th August	Male	6.0 kg	Black with white	Bird feathers	Quite a large tom feral cat
8th August	Male	4.4 kg	Motley	Empty	
8th August	Female	1.5 kg	Motley	Food scraps	Estimated 10-12 weeks old
9th August	Female	4.4 kg	Black & white	Food scraps	Pregnant with 5 foetus
10th August	Female	3.3 kg	White	Empty	Pregnant with 4 foetus

During the trapping program, we also caught two (2) foxes. These were both males foxes. The details of these foxes can be seen below in Table 2. The trapping program was undertaken over 4 consecutive nights.

Table 2. Fox Capture Details

Date captured	Sex	Weight	Stomach contents	Comments
8th August	Male	7.3 kg	Rabbit	Very large fox estimated > 5 years old
10th August	Male	5.1 kg	Kangaroo foot	

During one night we also conducted a spotlight and shoot. This was implemented to firstly gauge the level of fox activity in the area, as well as assist the trapping program with controlling foxes through shooting. Unfortunately no foxes were shot as part of this, however one fox was sighted near the weigh bridge. Due to the surrounding infrustructure a safe shot could not be achieved, therefore no shot was taken.

With the abundant resources of food and habitat, it is likely that neighbouring foxes are going to migrate into this area after the removal of these residential adult foxes. Migration will probably occur quite quickly as the surrounding area has a high population of foxes due to lack of control or irregular control.

It is also likely that there is a female fox active in the area as it is common for male foxes to be partnering with females during this time of year as it is the peak breeding season.

Figure 1. 8 feral cats caught on the 7th August.

Figure 2. 2 feral cats caught on the 8th August.

Figure 3. A pregnant female feral cat caught on the 9th.

Figure 4. A pregnant feral cat caught on the 10th August.

Figure 5. A very large male fox caught on the 8th August.

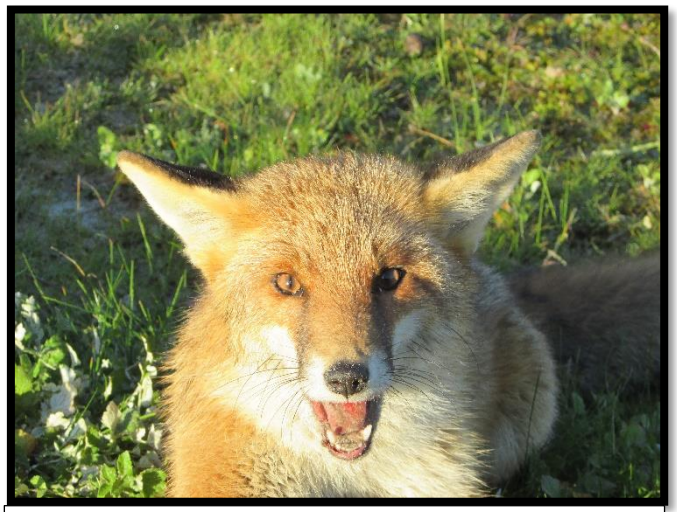

Figure 6. Another large male fox caught on the 10th August.

3.1 Non-target Capture

No non-target animals were caught during the program either. This is probably attributed to the areas and way APMS set up the traps in order to reduce non-target captures.

4 Discussion

The presence of foxes within BRWFS is a cause for concern, as significant research has demonstrated the effects of fox predation. This is described below in further detail. The capture of two adult foxes, is a good result and trapping should be undertaken again in the near future.

Foxes are seen as a major pest species threatening the long-term survival of a range of native fauna (G. Saunders *et al* 1995). Foxes have been identified as a factor limiting the success of seven out of 10 mainland reintroductions of native fauna (Managing Vertebrate Pests; Foxes 1995). Foxes have had a significant impact across mainland Australia through predation on both native wildlife and introduced domestic animals (National Parks and Wildllife NSW 1999.). Predation by the fox is considered to be a major threat to the survival of native Australian fauna. Small ground dwelling mammals between 35 grams and 5.5kg and ground-nesting birds are at greatest risk (Burbidge and McKenzie, 1989 and National Parks and Wildllife NSW 1999).

Based on foxes being present within site and the above facts about the detrimental impact foxes have upon native fauna in Australia, we recommend that foxes continue to be targeted specifically through trapping and shooting programs which should be conducted regularly.

Feral cats have threatened the survival of over 100 native fauna species within Australia. They have caused the extinction of some ground-dwelling birds and small to medium-sized mammals. They are a major cause of decline for many land-based endangered animals which include; the bilby, bandicoot (quenda), bettong and numbat. Many native animals are struggling to survive or unable to reproduce at a rate where population growth can occur so reducing the number of these native animals that are killed by feral cats will allow their populations to propagate (Australian Government, Department of the Environment).

Predation by feral cats is listed as a key threatening process under section 188 of Australia's national environment law, the Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act 1999). Feral cats also pose the potential risk for spreading diseases which are transmissible to humans, such as toxoplasmosis.

The capture of 12 feral cats on site is quite an effective result. This will lessen the impact that feral cats have on native fauna through predation, however control should be continued through regular trapping events in order to maintain low numbers and low impacts on the environment.

As you can see in Table 1 above, the numbers of feral cats caught dramatically reduced after the first night of trapping. This is a good indication that the majority, if not all feral cats were removed through trapping from this program. Neighbouring feral cats, particularly from the Cleanaway site to the south, will quickly migrate to this area after the removal of a high

number of residential feral cats. It is imperative that control efforts are continued in order to maintain this now low population level.

5 Recommendations

It is our recommendation that feral cat control programs continue around the Banksia Road site on a regular basis. With high population levels, control should be undertaken a minimum of twice annually. We highly recommend that control is also coordinated with neighbouring properties, particularly Cleanaway as it is highly likely that feral cats are active there as well. Those feral cats will quickly migrate over to BRWFS as there is an abundance of food and habitat available. This can increase the effectiveness and efficiency of future programs through coordination as a greater area will be targeted, more feral cat territories will be encompassed and a higher population of feral cats can be controlled.

Control should be undertaken again in summer, possibly following on from the breeding cycle which generally occurs around December/January. Further control should also take place again in autumn prior to the peak breeding season of June/July.

Through conducting regular control programs we will avoid a rise in the feral cat populations and reduce the likelihood of reinvasion from surrounding areas that do not conduct regular control. By conducting regular control programs we can also target any feral cats that have migrated into these areas from neighbouring “uncontrolled” sites, as it is likely that there are other feral cat populations in surrounding areas. Conducting regular control will also assist in protecting any native vertebrate species on site as well, particularly quenda as they are highly susceptible to feral cat predation.

At the moment, the only legal form of feral cat control is through trapping using cage traps. It is highly recommended that feral animal control programs are conducted as a minimum twice annually and are coordinated with adjoining tenures. By coordinating the trapping programs, we can not only reduce the costs because it is more efficient to target multiple properties at the same time, but it will also increase the effectiveness of each program as we can target a greater area, thus likely to remove more feral cats, which will reduce the incursion level onto Banksia Road Waste site.

Sightings or feral cat activity should continuously be reported to Bunbury-Harvey Regional Council Environmental team so that when control is undertaken, these areas can be targeted.

Any control programs for feral animals should be undertaken by experienced, licenced and professional operators, as the welfare of both target and possible non-target animals remains paramount to any control program. Any lapse in welfare outcomes by poorly conducted control programs is a negative result to any animal and should not be tolerated. As APMS can conduct all facets of the trapping program which includes setting traps, checking traps, removing caught animals and euthanizing any feral cats, we can conduct the program effectively and efficiently with humaneness a key aspect of any control program we undertake.

We strongly recommend that targeted fox control is continued in the next trapping program. Targeting foxes through trapping can provide key data on the number of foxes caught and number of foxes remaining (if any) during each control program, whereas 1080 baiting does not provide that information as the baits taken are not a true indication of the fox population as a number. Through trapping we can do the capture-removal method of monitoring where a definite number of foxes have been removed, we can then determine the number of remaining foxes.

By trapping foxes we can also assess the individuals during autopsies, which we conduct on all foxes and feral cats we trap. Important information can come from these autopsies which can allow us to improve future control programs. Such information can be, the sex, weight, age and stomach contents of foxes trapped. If trapping programs are conducted regularly, we can also provide data of numbers caught (similar to that for feral cats as illustrated in above tables and graphs). This can be valuable as it is evidence of whether control is effective in reducing numbers or any differences in populations over time.

APMS also modifies our foot-hold traps (further from that from the manufacture), to improve animal welfare outcomes. We will ensure that in any future trapping programs, the traps used are of a high quality and assembled correctly so there should be no faults. We have recorded every fox caught in foot-hold traps, with information on any injuries incurred to the animal, the trap set up and design. This has allowed us to design our traps in such a manner where we have reduced the number of injuries incurred dramatically, as well as tweaking the trap set to reduce capturing non-target animals.

Trapping foxes must be undertaken by a licenced operator with a minimum accreditation of Certificate III in Vertebrate Pest Management (AHC31810). All APMS staff based in Bunbury have completed a Diploma of Pest Management qualification (AHC51310). This demonstrates our significant training, qualifications and experience in the field of vertebrate pest management and suitability to coordinate and implement control programs.

We highly recommend that foxes are targeted through trapping and shooting twice annually. Control can be incorporated with feral cat trapping in order to maximise efficiency. Shooting can be an effective method of control, particularly when areas cannot be targeted with traps due to associated risks with non-target species such as birds.

All staff have also completed the National Accredited course AHCVPT203A Use firearms to humanely destroy animals. This demonstrates that as a company our staff are highly trained and experienced in the field of humane destruction of animals using firearms and ensures that humane death of target animals is a result from using firearms.

6 References

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