

1 February 2019

1. Title:

Kalamunda Environmental Advisory Committee

Recommended Fox Control Program for the City of Kalamunda

2. Author

Fox Control Working Group: Kevin Goss, Mark Schilling and City Officers

3. Executive Summary

The KEAC fox control working group was formed at the request of the Chief Executive Officer of the City of Kalamunda at 26th June 2018 Ordinary Council Meeting.

REQUEST the Chief Executive Officer to form a working group comprising of KEAC members and the City of Kalamunda to undertake research to determine a best practice approach to fox management that balances effectiveness of control method with humaneness considers appropriate sites for placement, including minimising the risk to other animals, and to prepare a report for council that clarifies the future direction of the program.

This request was borne from community concern in response to the accidental trapping of a pet dog in the fox control program which commenced on 28th May 2018, that fox control in the City of Kalamunda was not being undertaken humanely or applied best practice.

Investigation of the incident confirmed that all statutory and regulatory requirements were met by both the City and the City's contractor and that the owner of the dog had not observed site warning signage, particularly those on the track adjacent to the location of the traps. The dog was not restrained on a lead as required for users of the reserve.

This paper considers impacts from foxes in the City of Kalamunda and recommends the most effective program for future fox control activities on consideration of current techniques available and applicable frameworks.

4. Background

Control of foxes is important for the protection of local and regional biodiversity, as well as agricultural and private livestock in the City of Kalamunda. Foxes predate and negatively impact populations of native wildlife such as Bandicoots, Woylies and Possums and are one of the species which has contributed to the extinction of around 11% of Australia's mammal species.

Under the Biosecurity and Agricultural Management (BAM) Act 2007 foxes are a declared pest. It is the responsibility of the landholder or land administrator to control foxes found on their land. Under the Act, it is stated that there should be some form of management applied to alleviate the harmful impact, reduce numbers and distribution and contain the spread of the organism.

Significant reductions in numbers of foxes is readily achieved through the effective use of a number of prescribed methods including:

- 1080 and other poisoned baits
- Shooting

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- Trapping
- Den destruction
- Den fumigation

Poisoning using 1080, a Schedule 7 poison, and use and discharge of a firearm on public land in urban areas are not permitted. Therefore, the City of Kalamunda may only employ physical den destruction and trapping methods in an urban and peri-urban environment.

The City of Kalamunda began a small-scale fox control program in January 2013 at Maida Vale Reserve in response to community reports of fox sightings in the area. This was a "once-off" response with no long term aims to decreasing fox activity within the reserve, or for the City's application over a long period of time. The single program saw three foxes captured.

A formalised program for fox control began in 2017 with an allocated budget of \$4,400 to engage a contractor to decrease the impact of fox predation on the biodiversity of key reserves in the City of Kalamunda.

The City engaged the services of Animal Pest Management Services (APMS) who advised that the budget would be most efficiently utilised by the use of soft-Jawed leg hold traps. The use of soft catch jawed traps is regulated by the Animal Welfare Regulations (2003) and can only be used if the jaws are padded and modified so that the captured animal is unlikely to suffer significant injury.

Five reserves were selected by the contractor based upon data gathered through reconnaissance of our highest priority reserves:

- Ray Owen
- Maida Vale (2)
- Hartfield Park (1)
- Ledger Rd (2)
- Brine Moran (1) (foxes caught)

Recommendations from the contractor after the successful program was to undertake regular fox trapping as the foxes removed from the program would be replaced by other foxes moving into the area.

Following this advice, the contractor was engaged to trap for foxes in the same reserves during May – June 2018 with an allocated budget of \$5,000. The program began on Monday 28th May before being halted on the 29th May due to the capture of a domestic dog. One fox was trapped at Hartfield Park.

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5. Review of Current Program

The working group reviewed the 2017 to 2018 fox control program and developed recommendations for an effective future program by:

- Review 2018 public survey results to determine the sentiment of residents.
- Benchmark current practices utilised at the City of Kalamunda against practices used at other similar peri-urban Local Governments.
- Consultation with lead researchers from Department Primary industries and Development (DPIRD) and University WA (UWA).
- Investigating current research into alternative methods and any new technology available and suitable for the control of foxes in the City of Kalamunda.

5.1. Public survey

The City of Kalamunda public survey posted on the "have your say" portal of the City's website between 2nd August and 10th September 2018 provided the following information:

- 49 respondents completed the survey.
- The majority of respondents (73%) reported fox activity in their neighbourhood.
- The majority of respondents (75%) were aware of the City's responsibility to undertake fox control on its lands.
- 90% of respondents supported fox control.
- 9% of the respondents who supported fox control were concerned with the current soft jawed leg hold traps method used.
- 10% of respondents did not support fox control by any means.

Conclusions

- a) Facebook posts were mostly highly emotive responses and did not represent the overall views of City Residents.
- b) The small number of survey responses was not considered statistically viable as representative of the City's residents and could be used as a guide only.
- c) Residents were regarded as generally supportive of the requirement to control foxes for biodiversity and stock protection.
- d) There was a proportion of residents supportive of the program, who qualified their support with the necessity to undertake the control as humanely as possible. In some of the responses soft jawed leg hold traps were considered inhumane. Some responses mentioned poisoning being inhumane.
- e) Community expectation and emotion will need to be managed as part of any fox control program.

5.2. Benchmarking

Information regarding methods and data collected from other local government fox control programs was sourced and reviewed.

- The City's service provider presented data relating for twenty (20) clients in the Perth Metropolitan area or other Metropolitan areas. All of their clients use soft jawed leghold traps in their fox control programs.

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- City Officers sought information from eight (8) Local Governments and DBCA Regional Parks in the Perth Metropolitan area known to undertake fox control. Information regarding their programs includes:
 - All LGA's contacted implemented annual or greater (up to 4 /annum) fox trapping programs. Only DBCA had an ad hoc approach based upon sightings and complaints.
 - All LGA's targeted priority bushland reserves only.
 - All LGA's used soft jawed leg hold traps in the program.
 - 50% of LGA's informed their community via their usual communications and media avenues, regarding the trapping.
 - The Shire of Serpentine Jarrahdale in partnership with SJ Landcare worked with landholders to support fox control on private property. The use of soft jawed leg hold traps is one of the recommended methods of control.
- The South West Group, a voluntary regional organisation of six (6) member Councils are currently undertaking a research project with Murdoch University to radio track the movement of foxes through their region. Data will inform future control programs.
- The WESROC group of Local Governments engaged consultants to:
 - record (cameras) fox activity in their reserves.
 - engage with the community (media/comms) of the results and follow-up control.
 - controlled foxes in reserves using soft jawed leghold traps.

Conclusions

- a) Fox control is considered an important role for Local Governments throughout the Perth Metropolitan area and should be considered likewise the City of Kalamunda.
- b) The use of soft jawed leg hold traps is considered best practice and used by all LGA's in their fox control programs and should be utilised in the City of Kalamunda within the regulatory framework.
- c) Community notification is important to the residents of the City of Kalamunda.

5.3. Consultation with Research Organisations

Members of the Working Group met with a number of organisations undertaking research projects related to fox control in WA

- PhD candidate Vandana Subroy and her supervisor from the UWA School of Agriculture and Environment discussed current research and best practice. The meeting did not introduce any information for the control or monitoring of fox populations. However, Vandana's PhD thesis developed a community engagement survey to ascertain people's values for species and invasive predator control strategies, for input into a cost:benefit analysis. This was considered worthwhile for managing community expectations and emotion in future fox control programs.
- Members of the working group had several meetings with Dr Peter Adams, Development Officer Invasive Species DPIRD. Key points from the meetings:

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- Murdoch University are actively researching fox activity in the Perth metropolitan area and contact will be made with the University when term commences in 2019.
- Based on discussion, a long term fox control program based in three (3) timeframes/phases emerged as being most effective:
 1. Short term regular trapping of foxes in priority natural area reserves with an aim to undertake monitoring with cameras to measure success. This is essentially a continuation of the current program, with expansion into other priority biodiversity protection reserves.
 2. In the medium term, develop a community fox control model across public and private lands, utilising the group of residents at Bickley Valley as a trial community. The 2018 consultation identified this as a key priority area for a citizen science project to:
 - monitor foxes using camera traps, supply information to City
 - submit data to city for analysis
 - participate in strategic trapping program
 3. In the longer term, develop a regional scale collaborative to fox control by engaging with:
 - Landholders within the City of Kalamunda and adjacent LGAs; Water Corporation, WAPC, DPLH, DBCA, Shire of Mundaring, City of Swan, City of Armadale and the City of Gosnells
 - Eastern Metropolitan Regional Council
 - Perth Natural Resource Management (Perth NRM)

Conclusions

- a) Considerations that ;
 - the use of recommended poisons such as 1080, para-aminopropiophenone (PAPP) would not be authorised in the City of Kalamunda by the regulatory authority.
 - soft jawed leg hold traps are an important tool for the control of foxes in the City of Kalamunda and is the most appropriate trapping method.
- b) The gathering of data by methods such as cameras and fox radio tracking will increase the effectiveness of any future fox control program and will be important in measuring effectiveness and reporting back to the community.
- c) Partnerships with community through citizen science programs and research organisations such as UWA and Murdoch University is necessary for determining fox control method effectiveness and minimising harm to animals.
- d) A three (3) phased approach, and incremental increase in resourcing is considered the most appropriate to introducing a comprehensive, integrated program for the most effective control of foxes in the City of Kalamunda in the long term.

6. Recommendation

The recommendation of the KEAC working group is to continue in the development of a comprehensive integrated fox control program and is based on information and data gathered from various sources including:

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- City of Kalamunda residents survey on the City's fox trapping program.
- The City's contract service provider for feral animal control with more than thirty (30) years experience in managing pest animals in urban, rural and peri-urban locations.
- Eight (8) LGA's within Perth Metropolitan Area currently undertaking fox control.
- Researchers from UWA School of Agriculture and Environment.
- Development Officer Invasive Species and the Department of Primary Industries and Regional Development (DPIRD).

KEAC **recommend** to the City of Kalamunda that:

1. Fox control in the City of Kalamunda is important for biodiversity and domestic animal protection and should be continued.
2. In the absence of any other regulated methods (1080, PAPP, shooting) for the control of foxes in the City of Kalamunda, the following prescribed methods are considered necessary in any control program;
 - Trapping
 - Den destruction, and
 - Den fumigation
3. Soft jawed leg hold traps are currently the most effective, efficient and least harmful method of trapping foxes in the Perth Metropolitan area and should not be excluded for use in the City of Kalamunda.
4. Managing community expectation and emotion is essential in any future fox control program. Appropriate community communications and engagement processes are essential to the control program. Engagement with UWA to utilize their community engagement survey model for ascertaining people's values for species and invasive predator control strategies, to inform a cost:benefit analysis should be undertaken in the City.
5. The future City of Kalamunda integrated fox control program may be developed over three phases:
 - I. Short term - Regular trapping of foxes in priority reserves with monitoring to measure effectiveness.
 - II. Medium term - Develop a collaborative community fox control model utilising the group of residents in Bickley Valley as a trial, and if proven to be successful, use this approach in other residential communities within the City of Kalamunda.
 - III. Long term - Develop a regional scale collaborative control program by engaging with key landholders within and adjacent to the City of Kalamunda.
6. Quantitative data gathered from rigorous monitoring methodology must form the basis for measuring, evaluating and reporting the effectiveness of the program for controlling foxes and meeting community expectations.