



Statement of Management Intent

For

Flying-fox roost management

In

FRASER COAST REGIONAL
COUNCIL

Local Government Area

Statement of Management Intent – Flying-fox roost management



This Statement of Management Intent was endorsed by Council on 6 July 2016 and has effect from that date until superseded.

1. Authority

Under the *Nature Conservation Act 1992*, local governments in Queensland have an as-of-right authority to undertake roost management at flying-fox roosts in designated Urban Flying-Fox Management Areas (UFFMAs). An UFFMA for a local government area is defined by maps available from the website of the Department of Environment and Science (DES). This map is provided in section 3 of this document for public advice.

Councils within Queensland may only undertake disturbance of a roost in compliance with the “Code of Practice – Ecologically sustainable management of flying-fox roosts” as developed by EHP.

Outside an UFFMA, a local government requires a flying-fox roost management permit (FFRMP), available from EHP. Applicants other than Councils require a FFRMP from EHP irrespective of the location of the roost.

Further information on the Queensland Government’s roost management framework is available by searching ‘roost management’ on the DES webpage www.ehp.qld.gov.au

Any individual or organisation (including Council), wishing to undertake roost management actions must do so in compliance with the relevant code of practice developed by Qld DES. This code of practice can be found by searching ‘**Code of Practice – Ecologically sustainable management of flying-fox roosts**’ on DES’ website.

Residents are advised that if a roost is on private land(s), low impact activities may be undertaken by the landholder(s) under an as-of-right within the relevant code of practice. The code of practice can be found by searching ‘**Code of practice – Low impact activities affecting flying-fox roosts**’ on DES’ website.

2. Purpose

The purpose of this Statement of Management Intent (SOMI) is to provide to the public the actions that Fraser Coast Regional Council (FCRC) will take in regards to the management of flying-fox roosts in Fraser Coast LGA.

3. Location of the Urban Flying Fox Management Area (UFFMA) in Fraser Coast Regional Council LGA

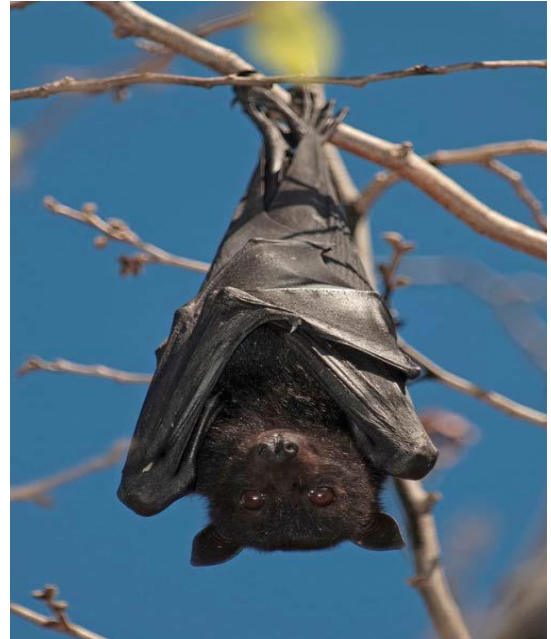
A broad-scale map of known flying fox roosts within the FCRC LGA as at February, 2016 and a map of the Urban Flying Fox Management Area (UFFMA), as determined and mapped by the State Department of Environment & Science (DES) are included as Attachments 1 and 2.

Residents who may wish to view a map of their own property in relation to the UFFMA can do this. Maps are available by searching ‘flying fox map request’ on DES’ website.

4. General information on Flying Fox species in Fraser Coast LGA

The following information and advice is provided to residents to assist in the identification of flying fox species within the Fraser Coast Regional Council LGA and to provide advice on how to co-exist with flying foxes when they are in close proximity to residential areas. Council’s website also provides links to additional information on flying foxes.

Black flying fox - *Pteropus alecto*



Black flying fox are generally black in colour but can have a red or golden collar and are the largest species of flying fox in Australia.

They travel long distances at night (up to 50 km) foraging for food.

This long distance foraging, coupled with a fast digestive system means that they are an extremely effective long distance pollinator for native forests. Peak conception occurs between March and April, with pups generally born in the warmer months between September and December.

Pups will be carried for around four weeks before they are left at the roost in a 'crèche' while their mothers forage at night. Once they are two to three months of age, young will begin to leave the roost to forage.

Little red flying fox - *Pteropus scapulatus*



Smaller in size, this species has short red-brown fur and pale brown wings that appear translucent in flight. Little red flying fox can tolerate varying climates and as a result are highly nomadic. They feed primarily on nectar, but supplement with cultivated fruits, other plant parts and insects. They will generally only stay at one site for around six weeks before moving on when food becomes scarce, unless they are breeding. Peak conception times are November to January and birthing generally occurs between March and May. Breeding cycles have been known to vary when animals have been subjected to periods of high stress. Pups become capable of independent flight at around two months of age after suckling their mothers in the roost.

Grey-headed flying fox - *Pteropus poliocephalus*



The grey-headed flying fox is generally found within 200 km of the coast; with Rockhampton representing the northern extent of this species distribution. It forages and roosts in rainforests, open forests or closed and open woodlands, often within urban or peri urban areas. Peak conception occurs between March and April, gestation between May and August and birthing generally between September and October.

5. Further information for residents – Living near Flying Foxes

A loss of habitat in recent years across the entire range of all species of flying fox has led to a redistribution of flying-fox populations into urban and peri-urban areas. There are often misconceptions about the health risks of living in close proximity to a flying-fox roost. Queensland Health advises that the disease risks are generally low and simple to mitigate. Below are some tips for residents living near flying-foxes:

- Park cars under shelter where possible.
- Don't leave washing out at night. Pull it in before sunset when bats begin foraging.
- Install netting around fruit trees (or put bags around fruit). It is preferable to use white thick-knitted netting pulled tight rather than black netting, to reduce the risk of wildlife becoming entangled.
- Avoid the use of barbed wire fences near flowering plants so that flying-foxes can't become ensnared.
- If you see a sick, injured or orphaned flying-fox, contact your local wildlife care organisation or RSPCA Queensland. They will put you in contact with a licensed and vaccinated wildlife rescuer.
- Don't attempt to pick up or touch a flying-fox and ensure that children are aware that they need to report any sick, injured or orphaned flying fox to a responsible adult.
- Don't purposely disturb flying-foxes. Disturbed colonies will often be the noisiest and most highly stressed. As with humans and a case of the common cold, higher stress within an environment can cause higher viral loads, increasing the risk of transmission of viruses between individuals. Disturbance can also impact on the effectiveness of management actions. If animals are too exhausted from being disturbed all day, they are less likely to be able to relocate to another area. Disturbances can impact on breeding success; this coupled with habitat destruction could contribute to localised and general extinction events in the future.

Horse owners concerned about the potential health risks relating to Hendra virus can follow these simple steps:

- Discuss horse vaccination with your local vet.
- Cover horse feed and water containers.
- Remove horses from paddocks containing flowering/fruited trees.
- Clean up any fruit on the ground in horse paddocks.
- Isolate any horse that becomes sick until a veterinarian's opinion has been obtained.

Residents are reminded that activities that result in the disturbance of flying-fox camps can result in prosecution under the *Nature Conservation Act 1992*, *Environmental Protection and Biodiversity Conservation Act 1999* and/or *Animal Care and Protection Act 2001*. Low impact activities (such as mulching, mowing or weeding) can be undertaken near flying-fox roosts where the activities are not directed at destroying the roost or disturbing the animals. These activities must be undertaken in accordance with the *Code of Practice – Low Impact Activities Affecting Flying-fox Roosts* as developed by DES.

For further information see:

<https://www.ehp.qld.gov.au/wildlife/livingwith/flyingfoxes/pdf/cp-wl-low-impact-ff-roosts.pdf>

You can learn more about Hendra virus by visiting the following websites:

- Biosecurity Queensland: <http://www.daff.qld.gov.au>
- Queensland Health: <http://www.health.qld.gov.au>.

Management of roosts on privately owned land is the responsibility of the land owner. If a resident is concerned about a roost that is on private land or falls outside of the Fraser Coast Regional Council's UFFMA, they can apply to the Department of Environment and Science (DES) for a roost management permit.

For further information go to:

<https://www.ehp.qld.gov.au/wildlife/livingwith/flyingfoxes/roost-management.html>.

Anyone approved by DES to undertake roost management actions must do so in compliance with the *Code of Practice – Ecologically Sustainable Management of Flying-fox Roosts*, which is available at the following webpage:

<https://www.ehp.qld.gov.au/licences-permits/plants-animals/documents/cp-wl-ff-roost-management.pdf>

Should residents wish to find out more, they can browse the DES website:

www.ehp.qld.gov.au, or contact Council on 1300 79 49 29

6. Council intentions and considerations

Fraser Coast Regional Council has several significant roosts located within its area of responsibility. Over the last several years Council has been approached by landholders who have been affected by flying fox roosts, and Council's approach has been not to disturb the sites. Generally, these sites have "self-managed" over a period of time by emptying and moving on of their own accord.

At the sites that are permanently occupied, for example Hervey Bay Botanic Gardens and Toon Toon Creek, the level of complaints are generally low.

While it is recognized that those sites that are periodically occupied do present some inconvenience and nuisance to nearby residents, the impacts are generally of a reasonably short duration.

The basis for Council taking this stance in the past has been the experiences of other land management agencies in various states of Australia that the disturbance and relocation of flying fox roosts is an expensive and uncertain operation. Recent studies (Roberts & Eby, 2013) into flying fox roost relocations have shown that they have a low success rate, are generally expensive, fail to resolve conflict with roost neighbours and commit the land management authority to an on-going program of management actions.

A summary of that research appears as Attachment 3 to this SOMI.

This SOMI expresses the clear intent of Fraser Coast Regional Council that it will not undertake any actions aimed at the disturbance / relocation of flying fox roosts located at any location in the FCRC area, regardless of whether the roost is located within or outside of a mapped UFFMA.

Council may, on a case by case basis consider the modification of vegetation within a roost located inside an UFFMA where such modification is considered to be necessary for the safety of community property or the public, and where such modification is not considered to be significant enough to relocate the roost or to make the site less attractive for its continued occupation.

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It should be noted however, that any modification of a site does carry a risk that the roost may abandon that site for a location that may impact upon a greater number of residents. In those cases, a full risk analysis will be undertaken prior to any action taking place.

Residents are also advised that should they be dissatisfied with Council's approach to a particular roost site, they may apply for a permit directly from DES. The application form can be found by searching '**FFRMP application form**' on DES' website.

7. Further information

Residents who have concerns regarding flying foxes are advised to visit Council's website to view the information sheets provided. Further advice is also available from the Department of Environment & Science website. For advice regarding specific roost sites, contact can be made with Fraser Coast Regional Council 1300 79 49 29.

Attachment 1. – Flying fox camps within Local Government Areas of Queensland

Attachment 2. - Urban Flying-Fox Management Area

Attachment 3. - Review of past Flying Fox dispersal actions (1990 – 2013) Roberts & Eby, (2013)

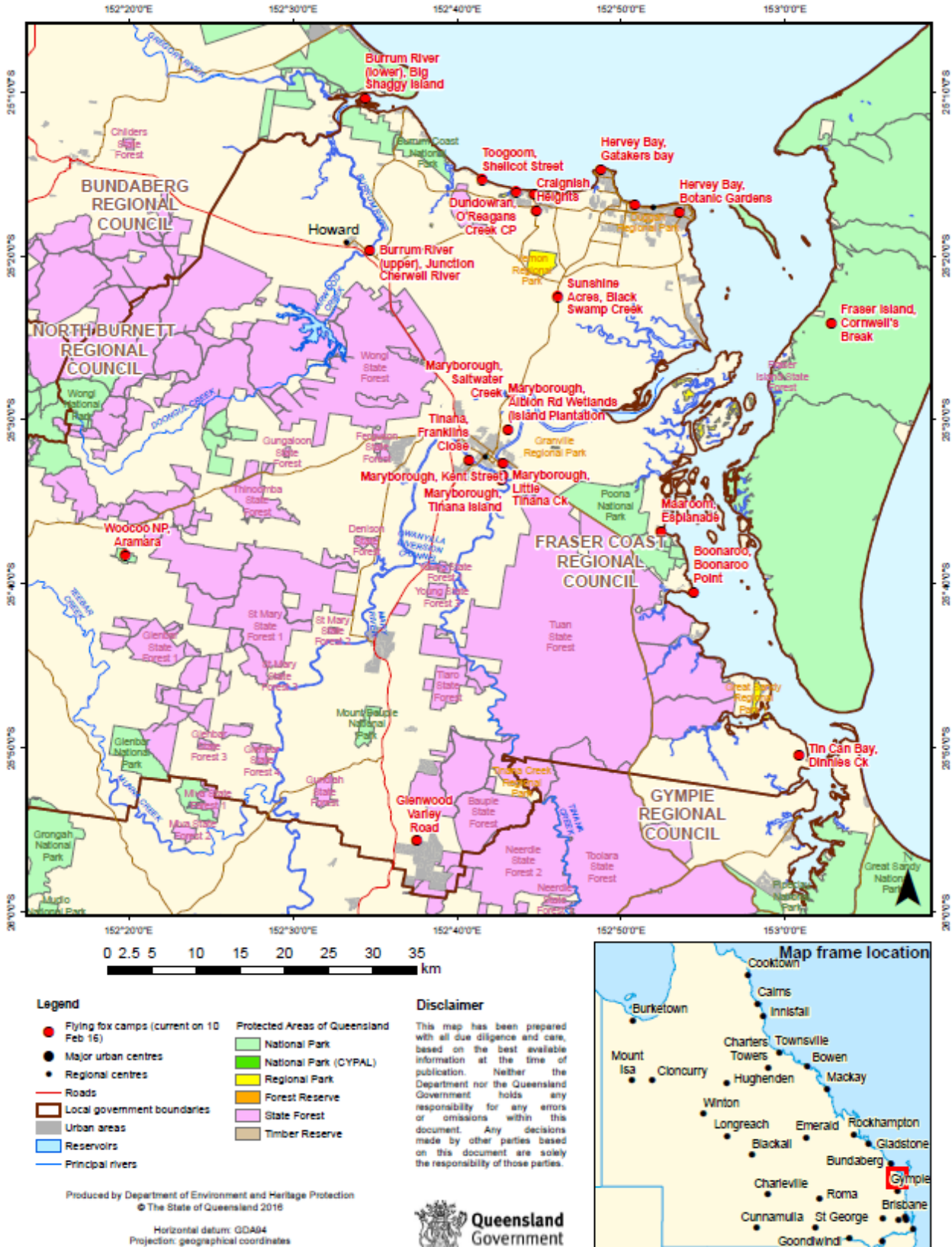
Acknowledgements

Central Highlands Regional Council, (2014) *Statement of Management Intent for the Management of Flying Fox Roosts*

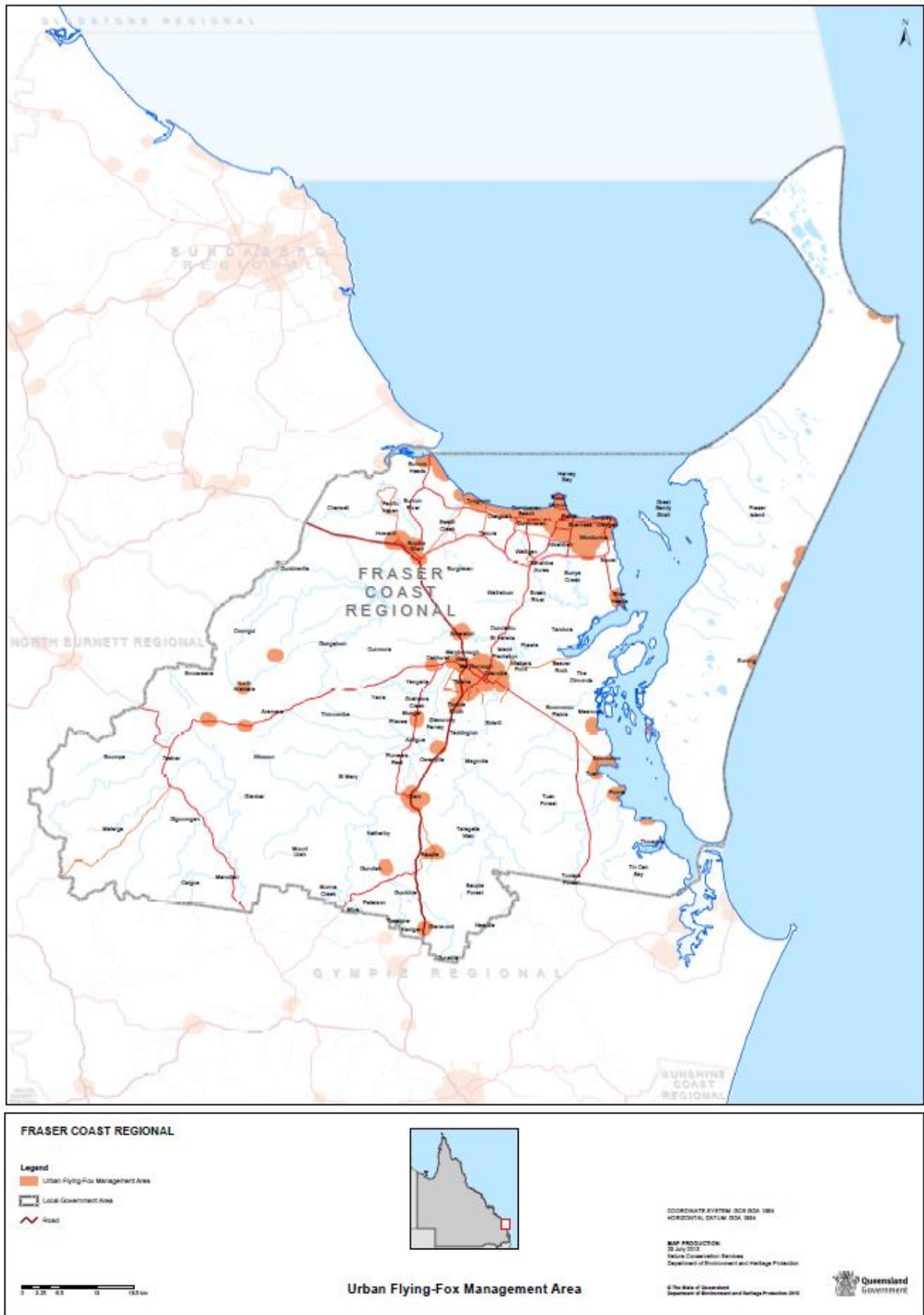
Attachment 1

Flying fox camps within Local Government Areas of Queensland

Map 14: Fraser Coast Regional Council



Attachment 2



Attachment 3

Review of past flying-fox dispersal actions between 1990-2013.

Prepared by Billie Roberts and Peggy Eby June 2013

To understand the utility of dispersals as a management tool to resolve conflict between humans and flying-foxes, the outcomes of 17 recent camp dispersal attempts were systematically reviewed. The review identified a set of common outcomes of camp dispersals that should guide their use in Australia. A further observation was that the outcomes of dispersals are often not known for several years.

1. In all cases, **dispersed animals did not abandon the local area**¹.
2. In 16 of the 17 cases, **dispersals did not reduce the number of flying-foxes in a local area.**
3. **Dispersed animals did not move far** (in approx. 63% of cases the animals only moved <600m from the original site, contingent on the distribution of available vegetation). In 85% of cases, new camps were established nearby.
4. In all cases, it was **not possible to predict where replacement camps would form.**
5. **Conflict was often not resolved.** In 71% of cases conflict was still being reported either at the original site or within the local area years after the initial dispersal actions.
6. **Repeat dispersal actions were generally required** (all cases except extensive vegetation removal).
7. The **financial costs of all dispersal attempts were high** ranging from tens of thousands of dollars for vegetation removal to hundreds of thousands for active dispersals (e.g. using noise, smoke etc).

There were a few exceptions to these patterns, but they only occurred when there were abundant financial and human resources (e.g. RBG Melbourne and RBG Sydney) and/or specific landscape characteristics (e.g., isolation from neighbours (Batchelor, NT) or habitat link to 'acceptable' location (RBG Melbourne)).

Further reading:

Roberts B.J., Catterall C.C., Eby P., and Kanowski J.K. (2012a) Long-distance and frequent movements of the flying-fox *Pteropus poliocephalus*: implications for management. *PLoS ONE*, 7(8): e42532. doi:10.1371/journal.pone.0042532.

Roberts B.J., Eby P., Catterall C.C., Kanowski J.K. and Bennett G. (2012b) The outcomes and costs of relocating flying-fox camps: insights from the case of Maclean, Australia, pp. 277-287 in *The Biology and Conservation of Australasian Bats*, edited by B. Law, P. Eby, D. Lunney and L. Lumsden. Royal Zoological Society of NSW, Mosman, NSW, Australia.

¹ Local area is defined as the area within a 20 km radius of the original site = typical feeding area of a flying-fox.

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Table 1 Summary of known documented attempts to disperse Australian flying-fox camps using non-lethal methods, during 1990 to 2013.

Location	Species	FF population estimate at time of dispersal	Method	Did the animals leave the local area?	Did the local population reduce in size?	How far did they move?	Were new camps formed (number of new camps if known)?	Number of separate actions	Cost (if known)	Was conflict resolved at the original site?	Was conflict resolved for the community?	Source+
Barcaldine, Qld	R	>50,000	VN	no	no	≈2 km	yes (1)	trees in township felled		yes	no	1,2
Batchelor, NT	B	200	BNS	no	no	<400 m	yes (1)	2		yes	yes	3,4
Boyne Island, Qld	BR	25,000	LNS	no	no	<500 m	yes (2)	3		yes	no	5,6,7
Bundall, Qld	GB	<400	V	no	no	uk, but 4 camps were within 5 km	yes (3)	1		yes	uk	8,9,10
Charters Towers, Qld	RB	variable	HLNPOW	no	no	200 m	no (returned to original site)	repeated since 2000	>\$500,000	no	no	11,12
Dallis Park, NSW	BG	28,000	V	no	yes	300 m	yes (1)	2		yes	no	13
Duarina, Qld	R	>30,000	VNFO	no	no	400 m	yes	1	\$150,000	yes	uk	14
Gayndah, Qld	RB	200,000	VN	no	no	600 m	yes	3 actions, repeated		yes	no	9
Macleay, NSW	BGR	20,000	NS	no	no	350 m	yes (7)	>23	>\$400,000 and ongoing	no	no	13
Mataranka, NT	BR	>200,000	BHLNOSW	no	no	<300 m	uk	>9		no	no	13
North Eton, Qld	B	4800	VNFB	uk	no	<1.5 km initially	yes (≈4 majority temporary)	2	\$45,000	yes	yes (conflict at one site)	10,15,16, 17

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Royal Botanic Gardens, Melbourne, Vic	G	30,000	NS	no	no	6.5 km	yes (2)	6 mths	\$3 million	yes	yes, ongoing management required	13
Royal Botanic Gardens, Sydney, NSW	G	3,000	LNPOW	no	no	4 km	no	ongoing daily actions for 12 mths	>\$1 million and ongoing	yes	yes	13,18,19
Singleton, NSW	GR	500	LNuw	no	no	<900 m	no (returned to original site)	>3	\$117,000 and ongoing	no	no	13,20
Townsville, Qld	BR	35,000	BNS	no	no	400 m	no (returned to original site)	5		no	no	13
Wanwick, Qld	GRB (dispersal targeted R)	200,000	NLBP	no	no	≈1 km	no (site known to be previously occupied by GB)	5 days	\$28,000	yes	uk (complaints persisted until migration)	8,21,22
Young, NSW	L	<5000	VN	no	no	<600 m	yes (1)	uk		yes	no	23

* G = grey-headed flying-fox; B = black flying-fox; R = little red flying-fox

B = "birdfrite"; F = fog; H = helicopter; L = lights; N = noise; P = physical deterrent; O = odour; S = smoke; U = ultrasonic sound; V = extensive vegetation removal; W = water.

+ 1 Storm Stanford (Wildlife carer, pers comm. 2013); 2 Louise Saunders (Bats Qld, pers comm. 2013); 3 Phillips *et al.* (2007) Displacement of Black flying-foxes *Pteropus alecto* at Batchelor, Northern Territory *Australian Zoologist* 34: 119-124; 4 John McCarthy (Northern Territory Government, pers comm. 2010); 5 Roberts (2006) *Management of Urban Flying-fox Camps: Issues of Relevance to Camps in the Lower Clarence, NSW*. Valley Watch Inc., Maclean; 6 Information from Gladstone Regional Council in 2010 and 2013; 7 Joe Adair (formerly DEHP, pers. comm. 2010); 8 Trish Wimberly (Australia Bat Clinic pers. comm. 2013); 9 Information obtained from Department of Environment and Heritage Protection (DEHP) in 2013; 10 Billie Roberts unpublished data; 11 Scott Sullivan (DEHP, pers. comm. 2010); 12 Information from Charters Towers Regional Council in 2010 and 2013; 13 Roberts *et al.* (2012b) and additional references within; 14 Perry Deeds (Central Highlands Regional Council, pers. comm 2013); 15 Jarman (2010) *Species Management Plan*, Mackay Regional Council; 16 Heidi Jarman (Mackay Regional Council, pers. comm. 2013); 17 Daryl Barnes (Walkerston resident, per comm. 2013) 18 Peggy Eby (Ecologist, pers comm. 2013) 19 John Martin (RBG, pers comm. 2013); 20 Singleton Council Meeting Minutes; 21 Information from the Southern Downs Regional Council in 2013; 22 Tim Low (pers. comm. 2013); 23 Young Shire Council.