OUR HEALTHY ENVIRONMENTS

Statement of Management Intent - Flying Fox Colonies

Version 3 - September 2023

Contents

Version Control		
Version	**Author**	**Date**
Version 1	Moreton Bay Regional Council Regional - Environmental Service MBRC reference - A15130799 - not formally adopted by Council	September 2018
Version 2	Moreton Bay Regional Council Regional - Environmental Service MBRC reference - A19599912 - formally adopted by Council on the 25 November 2020. Administrative review in 2021 and 2022 - no amendments required.	25 November 2020
Version 3	Document reviewed and updated including: • use of approved City of Moreton Bay template; • detailed information regarding flying fox colonies and associated ecological information; • detailed information about roost management actions and • updated flying fox colony map. Document ID reference - 66623541	8 September 2023

Acknowledgement

We acknowledge the Kabi Kabi, Jinibara and Turrbal Peoples as the Traditional Custodians of the lands and waterways of the Moreton Bay region, and pay our respects to their Elders, past, present and emerging. We recognise that the Moreton Bay region has always been a place of cultural, spiritual, social and economic significance to First Nations people.

We are committed to working in partnership with Traditional Custodians and other First Nations communities to shape a shared future that celebrates First Nations history and culture as an irreplaceable foundation of our region's collective identity.

Disclaimer

Council and its officers accept no responsibility for any loss whatsoever arising howsoever from any person's act or omission in connection with any information, expressed or implied, contained within this document. Nothing in this document should be taken as legal advice.

Purpose

The purpose of this Statement of Management Intent (SoMI) is to articulate the approach that City of Moreton Bay (Council) will take to manage flying fox colonies that can be found throughout its local government area (LGA).

Council has adopted the term 'colony' when referring to flying fox management opposed to the term 'roost' or 'camp' which are defined under the State Government's *Nature Conservation Act 1992* and the Federal Government's *Environment Protection and Biodiversity Conservation Act 1999*.

Council defines a flying fox colony as an area that contains a congregation of flying foxes (greater than 50 individuals) between sunrise and sunset.

Within this document there is reference to a flying fox roost; this is in reference to the official title of the relevant State Government documentation.

Council is aware that flying fox colonies can cause concern and impact residents living adjacent to them, with commonly expressed concerns including:

- Noise;
- Odour;
- Aesthetic amenity of parks and surrounds;
- Damage from droppings;
- Damage to fruit trees; and
- Concerns in relation to diseases such as Australian Bat Lyssavirus (ABLV).

Under the State Government's *Nature Conservation Act 1992*, local governments in Queensland have an as-of-right authority to manage flying fox colonies within designated Urban Flying-fox Management Areas (UFFMAs). While the as-of-right authority permits local governments to undertake actions to manage flying fox roosts, it is not compulsory for a local government to enact its as-of-right.

An UFFMA for a local government area is defined by maps developed by the State Government's Department of Environment and Science (DES). The designated UFFMA's within the Council region are shown in Appendix A. Within UFFMAs, Council is authorised to use non-lethal management actions to manage colonies in accordance with the State Government's Code of Practice – Ecologically sustainable management of flying fox roosts (https://www.qld.gov.au/__data/assets/pdf_file/0008/221021/cp-wl-ff-roost-management.pdf).

Colony management outside an UFFMA and permitted actions prescribed by the State Government's Code of Practice – Ecologically sustainable management of flying fox roosts, will require Council to obtain a Flying Fox Roost Management Permit (FFRMP) from DES.

Background

Flying Foxes of City of Moreton Bay

There are over 45 known flying fox colonies within the Moreton Bay LGA (refer to Appendix B), which can consist of a single species of flying fox or, more commonly, are comprised of a mix of up to three (3) species.

Grey-headed Flying Fox

Black Flying Fox

Little Red Flying Fox

Photo Credit - Cathie Howie

Grey-headed Flying Fox (*Pteropus poliocephalus*)

Grey-headed flying foxes are a large flying fox (up to 29cm long), mostly dark grey except for a rusty-brown mantle encircling the shoulders, chest and neck. The wing membranes are black. The wingspan can be up to 1m. This species is classified as vulnerable under the Federal Government's *Environment Protection and Biodiversity Conservation Act 1999*.

Grey-headed flying foxes are known to breed at several colonies within the Moreton Bay LGA.

Black Flying Fox (*Pteropus alecto*)

Black flying foxes are a large flying fox (up to 28cm long) with black fur, often with a mantle of reddish-brown fur on the back of the neck. The wing membranes are black and can spread to 1m in total wingspan.

Similar to the Grey-headed flying foxes, black flying foxes are known to breed at several colonies within the Moreton Bay LGA.

Little Red Flying Fox (*Pteropus scapulatus*)

Little red flying foxes are a smaller flying fox (up to 20cm long) with reddish-brown to light brown fur. The wing membranes are pale and appear translucent in flight.

They are a nomadic species which can gather in very large numbers for short periods, generally appearing in Southeast Queensland during the summer months following the flowering patterns of *Corymbia sp.* (Bloodwoods).

Little red flying foxes are generally six (6) months out of sync with the Black and Grey-headed flying fox breeding cycles. Further, Little red flying foxes are not known to breed within the Council LGA.

Flying Fox Ecology

Colony Ecology

Flying foxes are nocturnal animals, that can congregate in large groups during the day. They are often found in large trees, mangroves, swamps, rainforest, or open forest, usually beside a waterbody. These locations are known as colonies. Colony numbers fluctuate, and they may contain between dozens, or up to tens or even hundreds of thousands of flying foxes.

Colonies may be permanently, seasonally, or sporadically occupied by flying foxes, with many colonies containing multiple species within the one location. In addition to a safe place to rest during the day, flying foxes may use some colony locations to birth and raise their young.

Generally, colonies are at their noisiest during the breeding season, as males will vocalise to defend territories and mothers and pups call to one another. It is during this breeding period that flying fox colonies are sensitive to disturbance and/or significant impact. Figure 1 below shows a general representation of the flying fox lifecycle over a year within the Moreton Bay LGA.

<table>
<tr><th></th><th>January</th><th>February</th><th>March</th><th>April</th><th>May</th><th>June</th><th>July</th><th>August</th><th>September</th><th>October</th><th>November</th><th>December</th></tr>
<tr><td>Grey-headed and Black Flying Fox</td><td colspan="2">Young dependent on their mothers</td><td>Mating and young dependant on their mothers</td><td colspan="4">Preferred management action period</td><td colspan="4">Birthing and young dependent on their mothers</td></tr>
<tr><td>Little Red Flying Fox</td><td colspan="3">May be present in the region</td><td colspan="6">Generally, absence in the region</td><td colspan="2">May be present in the region</td></tr>
</table>

Figure 1: Lifecycle of flying fox within the Moreton Bay LGA.

Foraging

Flying foxes are known to travel vast distances in search of food and do not generally feed where they roost. Recent studies have found that flying foxes can travel up to 50km in a single night and can cover thousands of kilometres throughout the year as they move across the region and across Queensland and interstate.

The flying fox diet consists of pollen, nectar and fruit from a wide variety of vegetation including native and exotic species. This means that throughout the year it is likely that residents may experience flying foxes foraging on vegetation within their backyards or neighbourhood.

Council acknowledges that at times foraging flying foxes can affect aesthetics as they may dislodge and discard flowers, leaves and fruit. In addition, popular feed trees (such as figs) can accumulate droppings from the large number of individual flying foxes that visit to forage each night. There are limited options that will safely deter foraging flying foxes from a food source. Generally, foraging impacts are temporary and once the flower and/or fruiting event is over, they will move to another food source.

Management Action

Council's management of flying fox colonies is based on a co-existence principle. Flying foxes are a key pollinator of native plants and are critical to the health and genetic diversity of our natural areas and bushland.

Dispersal of flying fox colonies is not considered to be an appropriate management action and Council does not support dispersal due to the following:

- Uncertainty of outcomes;
- Potential to splinter colonies;
- Additional disruption to the community;
- Long-term impacts to the ecology of the LGA;
- Animal welfare concerns;
- High costs; and
- Likelihood of the requirement for on-going/follow up dispersal efforts that may take years.

Management actions are carried out after careful and thorough planning and assessment of numerous factors, including but not limited to:

- The likelihood of the management action addressing the impacts;
- Latest information from researchers and other land managers;
- General health of the flying fox population in a regional context - eg: starvation and heat stress events, etc;
- Ecological function and sensitivities of the site;
- Legislative requirements;
- Social and economic impacts from the flying foxes and/or management actions; and
- Surrounding land use.

Flying Fox Management on Private Property

Council does not carry out management actions on private property, however Council may provide advice and assistance to residents and landowners about flying foxes, asset protection and buffer management options. This may include:

- Support to landowners to conduct low impact activities (e.g. spreading of mulch, mowing or weeding under or near colony trees) under the State Government's *Code of Practice – Low impact activities affecting flying fox roosts (https://www.qld.gov.au/__data/assets/pdf_file/0014/221027/cp-wl-ff-low-impact-roosts.pdf);*
- Advice about flying fox ecology, the State Government and Federal Government's flying fox legislative framework and approval requirements (Flying Fox Roost Management Permits);
- Providing advice, data and information to a landowner to develop a Flying Fox Management Plan for asset protection and/or buffer management purposes only; and
- Providing advice and information about native vs. exotic/non-endemic species on their properties and information regarding environmental overlays, management constraints and other related considerations for their properties.

Council's assistance does not include the following:

- The development of Flying Fox Roost Management Plans or Flying Fox Roost Management Permit applications in relation to land development (Reconfiguration of a Lot, Material Change of Use, or Operational Works) and building applications;
- Support for the development of a Flying Fox Roost Management Plan or Permit for colony dispersal or for activities that will likely result in the dispersal of a colony (e.g. destruction of a colony location);
- Direct financial assistance for the costs associated with the development of a flying fox roost management plan and/or lodgement of a Flying Fox Roost Management Permit application;
- Direct financial assistance to undertake approved flying fox management works; and
- Supervising works and monitoring flying foxes while works are being undertaken.

Flying Fox Colony Management on Council Controlled Land

Council will only carry out flying fox colony management actions on Council-controlled land and will not undertake works to manage flying foxes on State or Federal controlled land.

The implementation of the management actions delivered are at Council's discretion and in some cases, Council may elect not to take action.

Regional Management

Council acknowledges that flying foxes are a nomadic species and that management within the LGA needs to take a holistic and strategic approach. As part of its strategic approach towards flying fox management, Council supports the investigation and implementation of:

- Flying fox colony refuges in identified low conflict locations throughout the region;
- Development of informed land use planning tools and associated policies in relation to managing flying fox colonies;
- Research projects in collaboration with universities, other Councils, Government organisations and land managers, for example Bat OneHealth (multiple organisations) and Resolving human-flying fox conflict in the face of environmental change (The University of Melbourne), where interests in flying fox management align;
- New innovative and novel approaches to flying fox colony management; and
- Community education about flying fox ecology and how to co-exist with flying fox colonies.

Site Specific Management

Council's site-specific management of flying fox colonies adopts a staged approach, which considers multiple factors to ensure a balanced and sustainable approach to colony management, including:

- Location, size and permanency of the colony;
- Species present (e.g. Little red flying foxes are highly nomadic);
- Time of year and flying fox breeding/rearing activity;
- Community concerns;
- Surrounding land use;
- Environmental impacts (e.g. vegetation/erosion/waterways);

- Latest information from researchers;
- Cost of management actions, and
- The likelihood of management actions addressing community concerns.

Upon becoming aware of a flying fox colony within the LGA, Council may implement the staged approach to management (refer to Figure 2). It is important to note that Council is not obliged to progress through the stages and/or may choose to implement stages out of the order present in this document based on site parameters and local impacts.

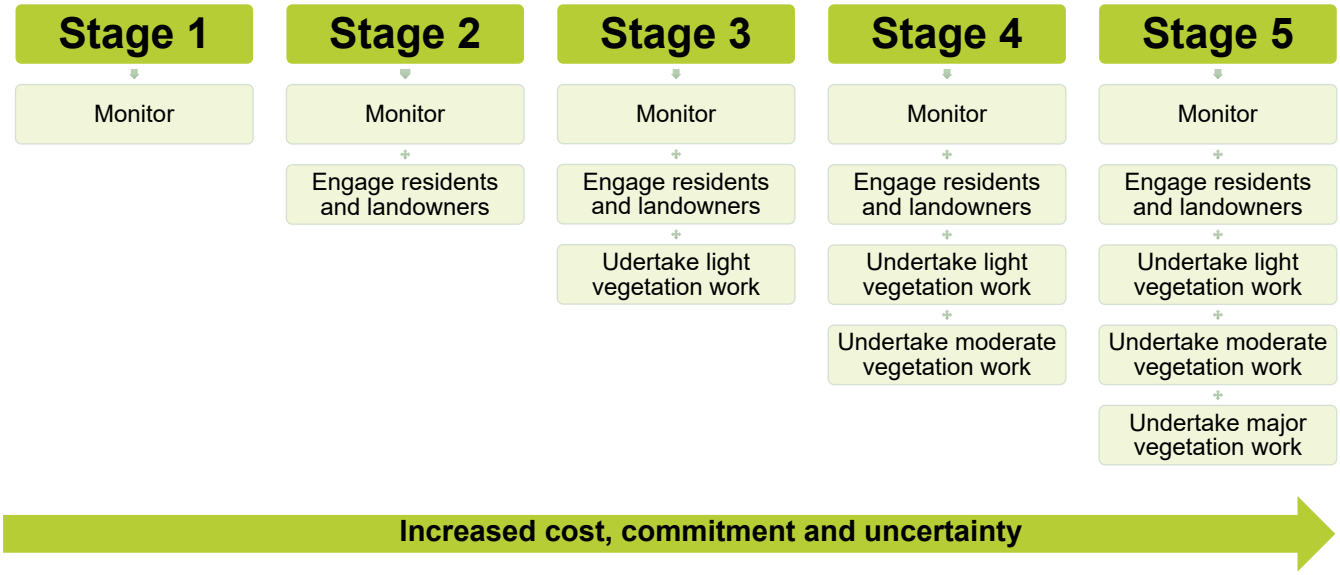


Figure 2: Stages of colony management

Stage 1 - Monitoring

Flying fox colonies on Council land will be monitored on a regular basis with the results published on Council's website: https://www.moretonbay.qld.gov.au/Services/Environment/Local-Wildlife/Flying-Foxes. Council may also monitor colonies on private land where access is permitted or from adjacent Council-controlled land.

Information obtained from monitoring is utilised to understand patterns of influx and occupancy and informs management decisions for each unique colony location. Monitoring also identifies the status of flying fox breeding and rearing activity, and whether there are dependent young present.

Stage 2 - Engage residents and landowners

Council will respond to resident and landowner concerns with information about flying fox ecology and management, informed by the latest science. Concerns about human health will be referred to Queensland Health, and concerns about Hendra virus will be referred to Biosecurity Queensland.

Council may also hold community meetings with residents to provide information about planned management actions at colonies.

Stage 3 - Light vegetation management

Light vegetation management focusses exclusively on non-native vegetation. In some instances, the works proposed may require approval from the State or Federal Governments. Works may include:

- Control of understorey non-native vegetation (e.g. spraying, slashing, mechanical, etc);
- Removal of non-native tree saplings (e.g. Chinese celtis) from colony areas;
- Trimming of non-native colony trees; and
- Stem-injection of non-native colony trees.

Stage 4 - Moderate vegetation management

Moderate vegetation management may include native species within the understorey of the colony. The removal of native vegetation may require approval from State and Federal Governments. Works may include:

- Removal of large sections of the understorey within the colony location (e.g. using machinery such as a forestry mulcher), with a focus on environmental weeds;
- Possible removal of native saplings <100mm diameter;
- Trimming of native trees;
- Removal of selected non-native trees which flying foxes are known to roost during the day; and
- Ongoing maintenance of managed areas (buffer zones).

Where large sections of understorey have been removed, Council may plant low native shrubs and groundcovers to replace lost vegetation and assist with erosion and sediment control.

Stage 5 - Major vegetation management

Major vegetation management may include the removal of canopy tree species both native and non-native within the colony to reduce the roosting habitat. The removal of native vegetation may require approval from the State and Federal Governments.

Removal of significant amounts of vegetation in an area occupied by flying foxes will only be undertaken upon flying foxes vacating or being absent from the colony of their own accord. This stage is a last resort and not untaken lightly as this management has the potential to impact other native fauna species not just flying foxes.

Additional Site Specific Management

In some circumstances Council may implement other site specific management options that do not target site vegetation.

It is important to note that these options are not always a viable option for all sites and the decision to implement these will be assessed on a case by case basis.

Deterrents

Deterrents (e.g. canopy mounted sprinklers) aim to discourage flying foxes from roosting in undesirable areas or manage a colony within a location (e.g. improve the buffer zone).

Application of deterrents may require approval from State and Federal Government.

Infrastructure modification

In some instances, Council may choose to modify or relocate infrastructure on Council land to assist with the co-existence between flying fox colonies and the community. For example, realignment of a footpath.

The decision to implement site modification is dependent on several factors including social, economic and ecological practicalities and that the modifications will improve the co-existence between the flying fox colony and community.

Depending on the timing and scope of works, approval from the State and Federal Government may be required prior to implementation of any infrastructure modification works.

Additional Information

For further information about the management of flying fox colonies please visit the following webpages:

- City of Moreton Bay Flying Fox webpage
    - https://www.moretonbay.qld.gov.au/Services/Environment/Local-Wildlife/Flying-Foxes
- State Government Department of Environment and Science's Living with Flying Foxes webpage
    - https://www.qld.gov.au/environment/plants-animals/animals/living-with/bats/flying-foxes/about-flying-foxes/living-near-flying-foxes
- State Government Department of Environment and Science's Authorise flying fox roost management webpage
    - https://www.qld.gov.au/environment/plants-animals/animals/living-with/bats/flying-foxes/managing-impacts-of-flying-foxes/authorised-flying-fox-roost-management

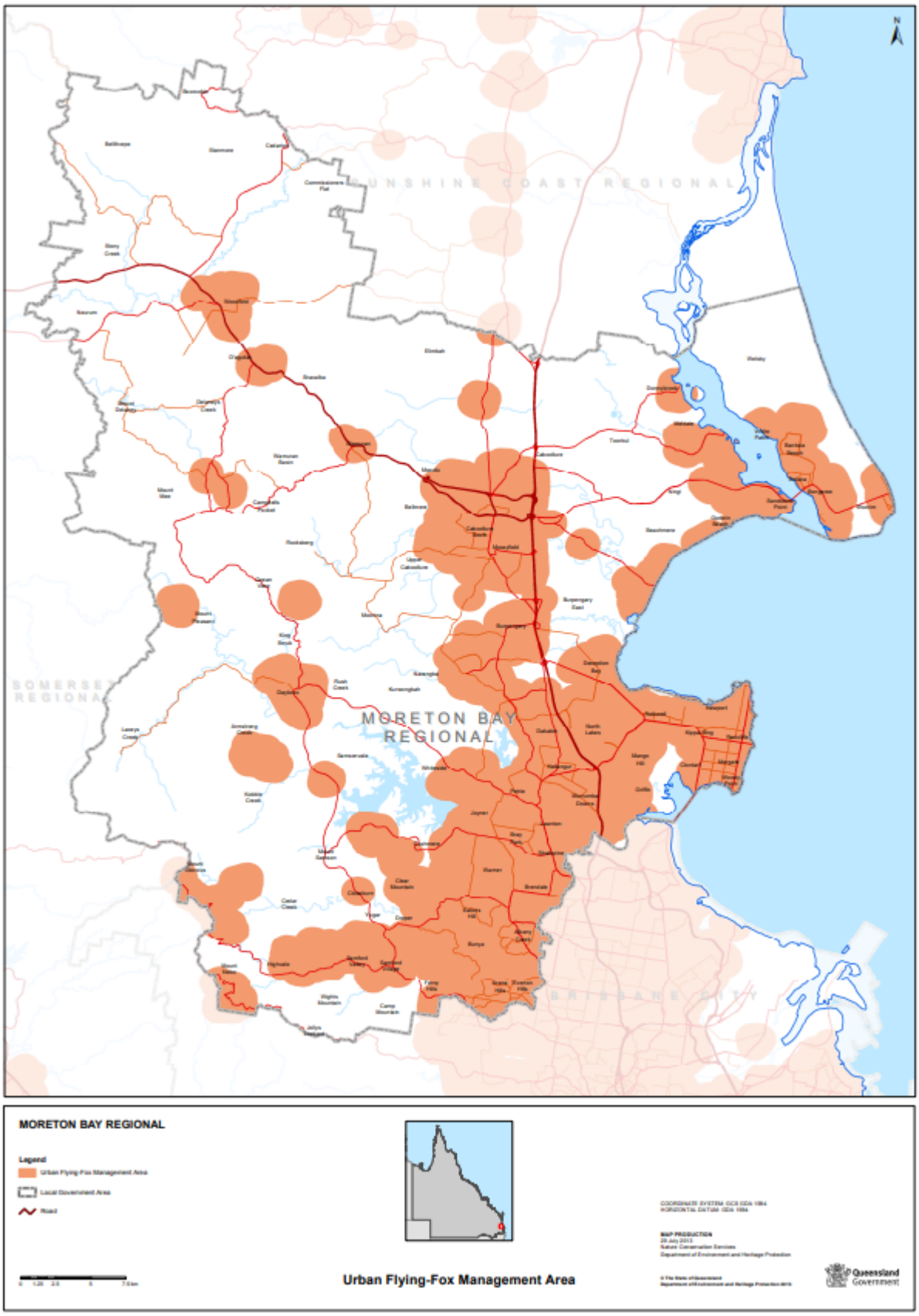
Review Timeframe

This SoMI will be reviewed every five (5) years or as determined by a resolution of Council. A review of this SoMI may occur prior to the formal five (5) year period. Triggers for an early review may include findings from research, evaluation of management, changes in legislation, etc.

For further information about this document please contact Council on (07) 3205 0555 or email Council@moretonbay.qld.gov.au.

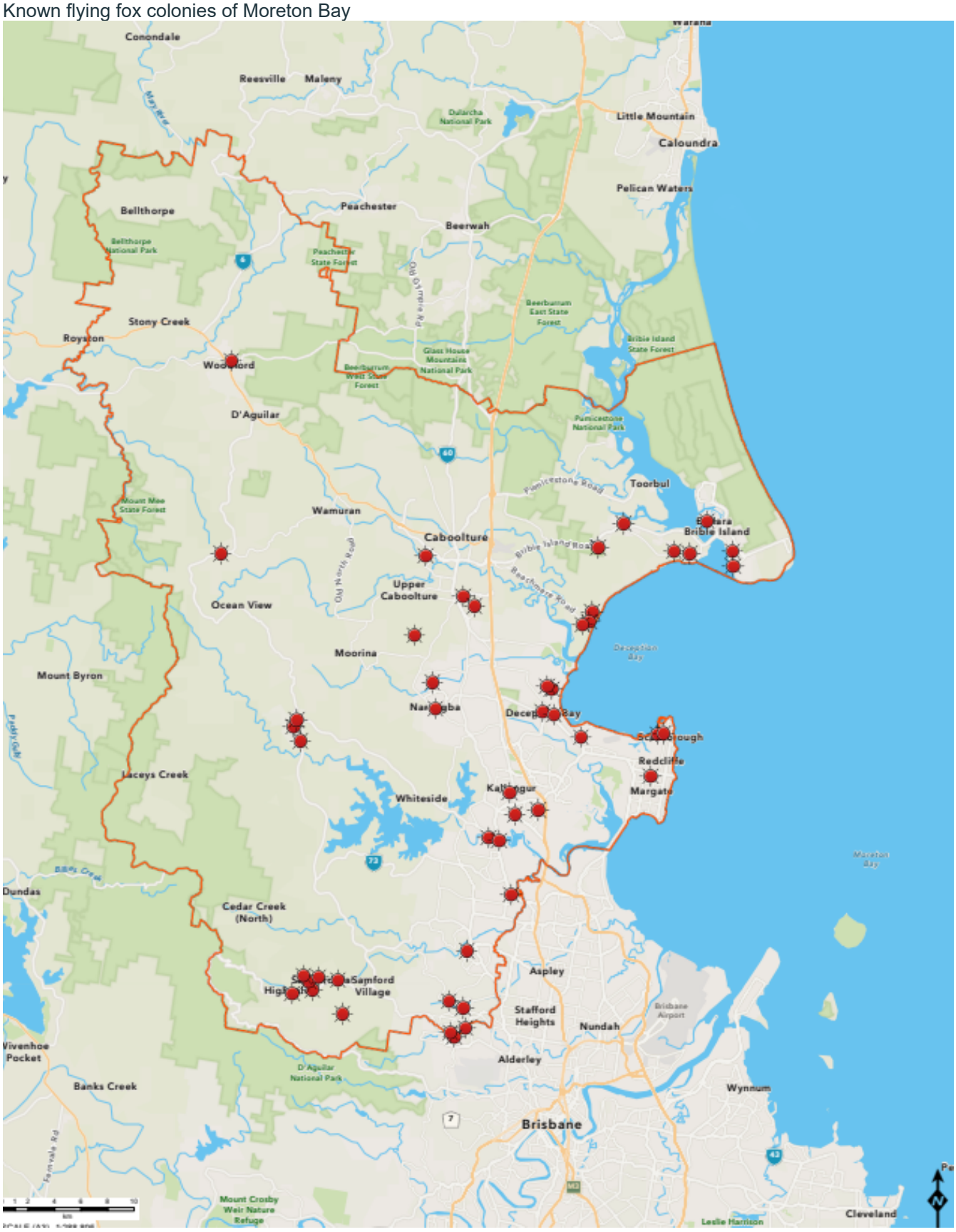
Appendix A

Urban Flying-fox Management Areas



Appendix B

Known flying fox colonies of Moreton Bay



For more information on our new Corporate Plan and Pillars
scan the QR code or visit moretonbay.qld.gov.au

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CITY OF MORETON BAY