

Corporate Plan Reference:	Theme 1: The Noosa Environment 20 Year goal: Our environment is protected and enhanced and is valued by the community
Endorsed by Council:	September 2023
Policy Author:	Noosa Council in consultation with Ecosure

This Statement of Management Intent was developed with funding support from the Queensland Government's Local Government Flying-Fox Roost Management Grants Program.

POLICY PURPOSE

The purpose of this Statement of Management Intent (SoMI) is to articulate Noosa Shire Council's approach to flying-fox management on Council controlled land within the Noosa Shire Local Government Area (LGA), and provide clear guidance to staff, contractors, and private landholders on management actions. This document has considered the Department of Environment and Science's (DES) *Flying-fox roost management guideline (2020)*¹.

POLICY SCOPE

This is a Shire-wide policy and applies to the management of flying-fox roost impacts on Council controlled land.

POLICY BACKGROUND

Ecological importance of flying-foxes

Flying-foxes are native mammals that have provided essential ecological services in Noosa for many thousands of years. They are a key pollinator of our forest trees, especially gums (Eucalyptus and Corymbia) and paperbarks (Melaleuca), and they disperse seeds from fruiting plants including our magnificent figs. Their ability to distribute seed and cross-pollinate over significant distances during single foraging trips is particularly important in the context of contemporary fragmented landscapes. Several permanent and temporary flying-fox roosts exist within urban and non-urban areas across the Noosa Shire LGA.

Species of flying-foxes found within the Noosa Shire

There are four species of flying-fox found on mainland Australia. Three of these four species have been known to occur at different times within the Noosa Shire, including little-red flying foxes (*Pteropus scapulatus*), black flying-fox (*Pteropus lecto*) and grey-headed flying-fox (*P. poliocephalus*). An overview of the ecology of each flying-fox species found within the Noosa Shire is provided on the following page.

¹ Flying fox roost management guideline (DES 2020) is available at:
https://www.qld.gov.au/__data/assets/pdf_file/0009/221022/Guideline-Roost-Management.pdf

Grey-headed flying-foxes (*Pteropus poliocephalus*)



The grey-headed flying fox is Australia's largest flying-fox, with a head and body length of 23-29cm. It has dark grey fur on the body, lighter grey fur on the head and a russet collar encircling the neck. The wing membranes are black, and the wingspan can be up to 1 m. It can be distinguished from other flying-foxes by the leg fur, which extends to the ankle.

During the mating season (March-April) large camps are formed. Females give birth to single young in October-November, which is carried by the mother for up to five weeks. The young are then left at the camp while the mother forages and are dependent on their mother for up to four months.

Black flying-foxes (*Pteropus alecto*)



A large flying-fox, this species grows to approximately 26cm. They have short black fur over their entire body and sometimes the fur on their neck may be reddish. The wing membranes are black. The wingspan can be up to 1m.

They can travel up to 50km in a night foraging for food, and this coupled with their fast digestive systems makes them critical long-distance pollinators for native bushland trees.

The period in which the black flying foxes give birth to young is between September and November, with the young being dependent on their mother until late March.

Little-red flying-foxes (*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 South East Queensland during the summer months following the flowering patterns of *Corymbia intermedia* (pink bloodwoods).

Their breeding cycle differs from the other species, with birthing from April to June. Little-red flying-foxes generally breed outside the Noosa Shire.

For further information on flying fox ecology is available at: <https://www.qld.gov.au/environment/plants-animals/animals/living-with/bats/flying-foxes/roost-monitoring-locations/flying-fox-roost-monitoring-and-locations>

Impacts of flying-foxes on the community

Council acknowledges that living near a flying-fox roost can at times, result in significant impacts to residents, including:

- Noise
- Odour
- Faecal drop and associated financial impacts on properties/assets
- Human health concerns
- Being unable to utilise outdoor areas, especially during dusk fly-out
- Impacts to work (when working from home), sleep and mental wellbeing
- Vegetation damage from roosting flying-foxes, including falling branches and trees under the weight of large numbers of roosting flying-foxes
- Decrease in recreational amenity of bushland reserves and parks during large influxes

Flying-foxes rest and socialise during the day in roosts or camps, leaving each night to forage. They appear to be more frequently roosting and foraging in urban areas, likely due to a combination of habitat clearing, human encroachment and drought, combined with the opportunities presented by year-round food availability from native and exotic species in urban areas.

During flying-fox influxes on Council controlled land, Council will look to work with residents and the Department of Environment and Science (DES) to manage the situation in accordance with this SoMI and within site-specific constraints, resources available and legislative obligations.

Human health and wellbeing impacts associated with flying-foxes

This SoMI does not address health concerns associated with flying-foxes. Council is also not positioned to provide specific health advice to the community regarding flying-foxes. Queensland Health is responsible for the management of health-related impacts and concerns associated with flying-foxes. For further information please call 13 43 25 84 or visit:

<http://conditions.health.qld.gov.au/HealthCondition/condition/14/217/14/bats-and-human-health>

Council also acknowledges how difficult it can be for some residents living nearby flying-foxes, and the associated social and psychological impacts on some people. If residents are feeling impacted, they are encouraged to reach out to Lifeline on 13 11 14 or a mental health professional.

Community consultation on draft SoMI

Council has considered feedback provided on the draft SoMI through 'Your Say Noosa' and associated publicity through media releases, social media, and mail. Council has also undertaken direct consultation with impacted residents and application of the SoMI at the several high conflict roosts. Council has updated the SoMI to incorporate this feedback and key learnings.

POLICY CONTEXT

All flying-foxes are native species protected under the Queensland *Nature Conservation Act 1992* (NC Act). The grey-headed flying-fox is nationally threatened due to population decline, affording it

additional protection under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act). An overview of relevant Commonwealth and State legislation are provided below.

Commonwealth legislation

The Commonwealth's EPBC Act 1999 provides protection for the environment, specifically Matters of National Environmental Significance (MNES). A referral to the Commonwealth Department of Climate Change, Energy, the Environment and Water is required under the EPBC Act for any action that is likely to significantly impact on an MNES. The grey-headed flying fox is listed as a vulnerable species under the EPBC Act, meaning it is classified as an MNES.

State legislation

All flying-foxes and their roost habitat are protected under the Queensland NC Act. Under this legislation, administered by the DES, it is an offence to harm the animals, or disturb flying-foxes from daytime roosts² without approval.

Under the NC Act, the Queensland Government provides local governments with an 'as-of-right' authority to manage flying-fox roosts within designated Urban Flying-Fox Management Areas (UFFMAs). The UFFMAs for the Noosa region are outlined in Figure 1. This authority allows local governments to undertake non-lethal actions to manage flying-fox roosts within UFFMAs in accordance with the Queensland Government [Code of Practice – Ecological sustainable management of flying-fox roosts](#) (Management COP). It is important to note that this authority does not obligate Council to manage flying-fox roosts or provide exemptions to other legislation and policies.

To undertake roost management activities outside designated UFFMAs, or for any action not authorised under the Management COP, Council is required to obtain a [flying-fox roost management permit](#) (FFRMP) from the DES. A non-council applicant is required to obtain a FFRMP to undertake any activity under the Management COP, irrespective of the location of the roost. A separate [Code of Practice – Low impact activities affecting flying-fox roosts](#) (Low Impact COP) details activities that anyone can undertake at or near a flying-fox roost without a FFRMP. Any activities that have the potential to destroy a flying-fox roost, drive away flying-foxes, or disturb flying-foxes in any way (e.g. impacting roost vegetation or intentionally disturbing flying-foxes) are not permitted under the Low Impact COP and cannot be undertaken without authority to do so. Any action with the potential to impact on the nationally significant grey-headed flying-fox (or a nationally important roost) must also follow the Commonwealth framework pursuant to the EPBC Act.

Council's primary obligation is to undertake management actions of flying-fox roosts on Council-controlled land, and Council will not undertake management actions on State or Commonwealth controlled land. Council does not undertake management actions on private land; however, Council is committed to providing advice and assistance to occupants affected by a flying-fox roost, including landowners, residents, businesses, schools, health care facilities, and other commercial operations. Where a roost crosses Council and non-Council land, Council will work cooperatively with the affected occupants to develop mitigation actions. The dispersal of flying-foxes or destruction of roosts is not supported by Council. Attempts to disperse flying-fox roosts are usually unsuccessful

² There are legislative differences between a 'roost', where breeding has been confirmed, and a daytime camp where breeding has not occurred.

and can cause further issues by shifting flying-foxes into other residential areas.

Noosa Council and Urban Flying-fox Management Areas (UFFMAs)

Designated UFFMAs within the Noosa Shire (combined with Sunshine Coast Regional Council) are shown in orange on the map below (Figure 1), as defined by DES (generated 29 July 2013).

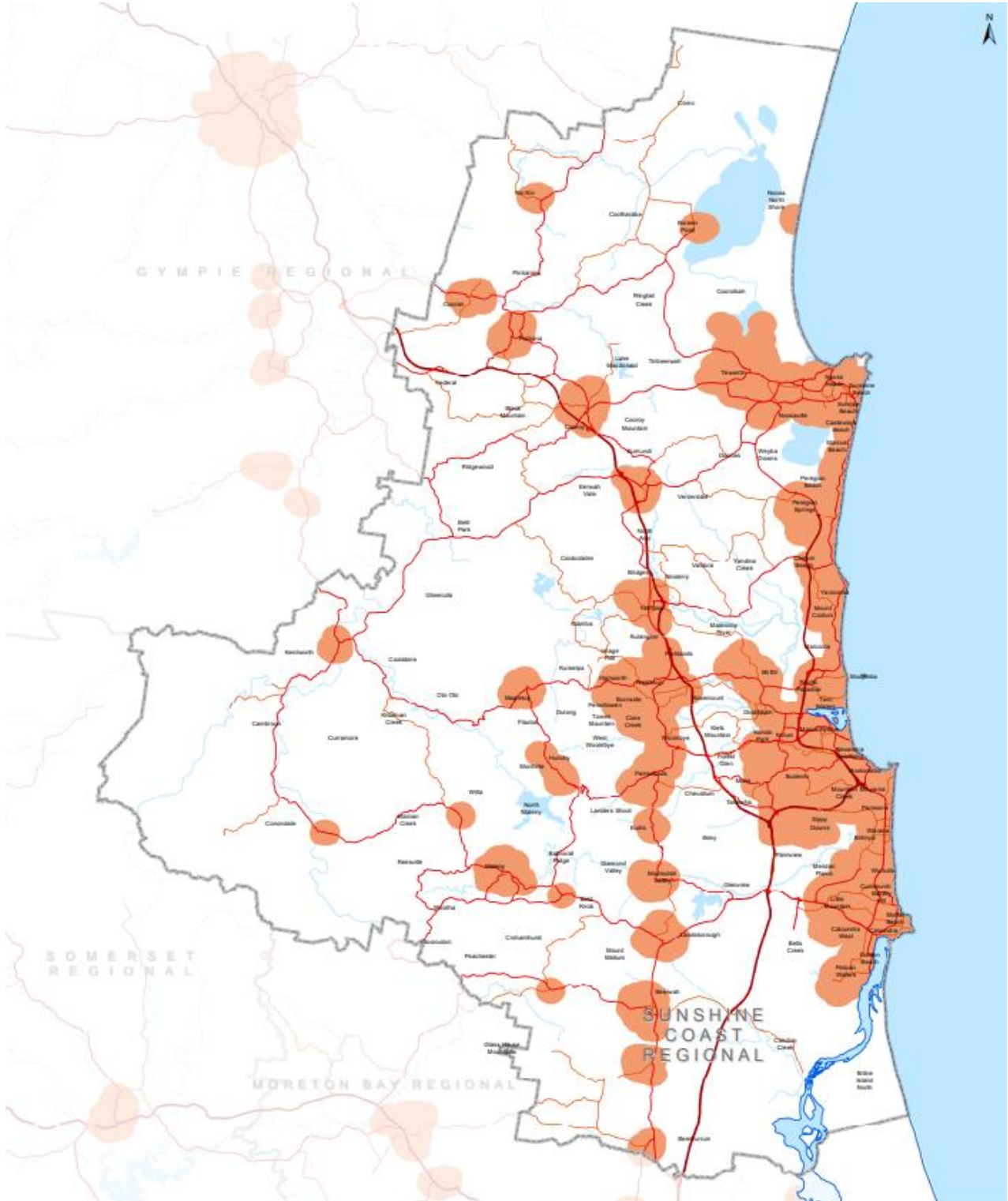


Figure 1. Designated Urban Flying-fox Management Areas (UFFMA) within the Sunshine Coast Region, including the Noosa Shire (shown in orange), as defined by DES (correct as of August 2023).

COUNCIL POLICY

Council recognises the need to support impacted communities while also conserving flying-foxes and the critical ecological services they provide. This SoMI outlines how Council plans to manage flying-fox populations, temporary and permanent roosts, and associated community impacts within the Noosa LGA on Council controlled land.

Roost management roles and responsibilities

Roosts located on State land or private land

Council will not carry out management actions at flying-fox roosts located solely on State land(s) or private lands(s), or a combination of the two. Council may provide information to residents and landholders about flying-foxes, asset protection and management options.

Where required, Council will also refer residents to relevant Queensland Government departments such as DES, Queensland Health, and Biosecurity Queensland. Council will not support management activities that will risk flying-fox welfare and/or worsening impacts to other residents or areas of the community.

Roosts located on Council controlled land

Council will coordinate the management of flying-fox roosts on Council owned or State land placed under the control of Council pursuant to the *Land Act 1994* (i.e. Council controlled land) within and outside the UFFMA in the Noosa LGA.

Where a flying-fox roost occurs on a combination of Council controlled and either State land(s) or private land(s), Council will undertake appropriate management actions on parts of the roost that occur on Council controlled land only. Where actions affecting the entire roost are considered, Council will engage with the relevant landholder/s to negotiate implementation of roost management actions. Costs relating to the management of the flying-fox roost will be the responsibility of both Council and the relevant landholders, proportionate to land ownership. Management actions and costs must be mutually agreed prior to the application for or implementation of any permit or action.

Possible management actions for flying-fox roosts

Council will consider the following to decide what management action is appropriate at a particular site:

- location of the roost and land tenure
- size, occupancy, and history of the roost
- community concerns and impacts
- flying-fox species present (i.e., little-red flying foxes) and timing of breeding
- ecological values and impacts including threatened fauna and/or flora species and communities
- cost of management actions and Council funds available
- risks associated with management

- the likelihood of management actions being successful and addressing community concerns
- latest research and best practice information on flying-fox roost management

Council has several management actions available to manage flying-fox roosts and these are detailed below.

Flying-fox roost monitoring

Monitoring should always be the first stage when responding to resident concerns to determine what management actions (if any) may be required. Council will undertake monitoring of flying-fox roosts in accordance with Table 2. This allows Council to maintain current knowledge of the site and determine what (if any) management actions may be appropriate with consideration to flying-fox numbers and extent.

Community consultation and education

This option involves comprehensive and targeted flying-fox education and awareness program to provide accurate information to the local community about flying-foxes including information about managing impacts and alleviating concern about health and safety issues associated with flying-foxes, options available to reduce impacts from roosting and foraging flying-foxes, and information about flying-fox numbers and flying-fox behaviour at the roost. Noosa Shire Council has a history of managing flying-foxes through education and community engagement to foster awareness and understanding.

Noosa Council's Flying-fox Subsidy Program

Council currently has an (annual) subsidy allowance for eligible households located directly adjacent to medium and high conflict roosts. Providing a range of services and items may encourage tolerance of living near a roost, promote conservation of flying-foxes, can be undertaken quickly and will not impact on the roost. The types of services or products that may be subsidised include contracted pressure cleaning of outside areas and solar panels, along with the provision of car and other equipment covers and interior fragrance dispensers or deodorisers.

Site specific Flying-fox Roost Management Plans (FFRMPs)

At high conflict roost locations where earlier management actions have proven ineffective in reducing human-flying-fox conflict to acceptable levels, Council may consider developing a site-specific flying-fox roost management plan (FFRMP). Site-specific FFRMPs allow Council to undertake a risk-based evaluation of potential management actions for roosts located on Council controlled land. Site-specific FFRMPs are undertaken to:

- minimise impacts to the community and avoid future conflicts
- identify suitable management actions that can be utilised at the roost, and which management actions require permits/approvals
- clearly define roles and responsibilities for management actions
- facilitate an evidence-based, adaptive approach to management actions

- improve community understanding, resilience to flying-fox impacts and appreciation of flying-foxes including their ecological role
- ensure roost management does not contribute to loss of biodiversity or increase threats to threatened species/communities
- effectively communicate with stakeholders during planning and implementation of management activities.

Expansion of Council's Flying-fox Subsidy Program

Under site specific FFRMPs, Council may secure additional funding to increase subsidy allowances to assist nominated properties with larger property-level modifications. Examples of property modifications include shade cloths, air conditioners, double-glazing of windows, door seals or screen planting. Opportunities for funding assistance may be available for management activities that reduce the need to actively manage a roost.

Various property modifications can help alleviate impacts such as noise, smell, and faecal mess which are often the highest community concerns near flying-fox roosts.

Buffering techniques using vegetation trimming/removal and weed management

Vegetation trimming/removal and weed management may be used to create a buffer between residential properties and roosting flying-foxes to reduce noise, smell, and visual impacts. Vegetation removal and weed management aims to alter the area of the buffer habitat sufficiently, so that it is no longer suitable as a roost. The amount of vegetation required to be removed varies between sites and roosts, ranging from some weed removal to removal of most of the canopy vegetation. Council's ability to undertake vegetation trimming/removal and weed management at a flying-fox roost will depend on budgetary constraints, sub-contractors' availability and workplace health and safety legislative requirements.

Management actions that Council does not support

Council generally does not support flying-fox dispersal or destruction of roosts as management action due to the following:

- High risk with unpredictable outcomes, usually with only short-term results and low success rate.
- Flying-foxes regularly re-establishing in the original roost footprint.
- Replacement or splinter camps are often formed within proximity to the original roost and transfer the conflict to other residents.
- High cost and need for long-term ongoing dispersal efforts.

Indicators of human-flying-fox levels of conflict

While Council acknowledges it can be difficult at times to live nearby flying-foxes, this SoMI aims to reduce impacts of flying-fox roosts to acceptable levels for impacted members of the community. Council will implement a staged approach to management actions for all flying-fox roosts across the

Noosa Shire to achieve lower levels of human-flying-fox conflict where possible, while conserving both flying-foxes and our natural values across the Noosa Shire.

General indicators utilised by Council to determine the level of human-flying-fox conflict is presented in Table 1. Council will consider the level of human-flying-fox conflict at a roost to determine suitable management actions which may be implemented at a roost (Table 2).

Table 1: General indicators of human-flying-fox-conflict levels of conflict

Low conflict	Moderate conflict	High conflict
<p>Low number of flying-foxes roosting at the site.</p> <p>Low impact of roost on adjacent sensitive receptors.</p> <p>Relatively large distance between roost and adjacent sensitive receptors.</p>	<p>Medium number of flying-foxes roosting at the site.</p> <p>Moderate impact of roost on adjacent sensitive receptors.</p> <p>Moderate distance between roost and adjacent sensitive receptors.</p>	<p>Large number of flying-foxes roosting at the site, and consistent large seasonal influxes of flying-foxes.</p> <p>High impact of roost on sensitive receptors.</p> <p>Limited or no distance between roost and adjacent sensitive receptors.</p>

Staged management approach to reduce community / flying-fox conflict

Council will undertake a staged management approach across all roosts, regardless of conflict level to achieve a reasonable level of conflict resolution between the community and flying-foxes. Each roost will be risk assessed on a case-by-case basis and effective management will typically require the integration of multiple and staged management actions. Staged management actions will also consider the indicators of conflict level.

A general guide on the staged management actions that are available to Council to manage flying-fox roosts based on the conflict level are summarised in Table 2. Not all management actions presented in Table 2 will be available or suitable for use at some Council controlled lands.

Table 2: Management actions to be considered by Council to manage conflict at flying-fox roosts.

Management stage	Management actions to be considered by Council	Human-flying-fox conflict level
1	<ul style="list-style-type: none"> • Monthly flying-fox roost monitoring. • Community consultation and education. • Remove tree/s determined to be a safety risk impacted by roosting flying-foxes by a suitably qualified arborist³. • Council to restrict public access to roost area and erect temporary signage where public safety risks are present (i.e., falling branches). • Inform Council departments of the presence of flying-foxes and ensure they consider this as part of maintenance activities. 	Low
2	<ul style="list-style-type: none"> • Fortnightly flying-fox roost monitoring. • Community consultation and education. • Impacted residents offered access to Council's Flying-fox Subsidy Program, including property modifications or services. • Cease Council's routine maintenance activities near the roost to reduce disturbance. • Implement existing FFRMP (if available) management actions. 	Medium
3	<ul style="list-style-type: none"> • Weekly (independent) flying-fox roost monitoring. • Community consultation and education. • Impacted residents offered access to Council's Flying-fox Subsidy Program, including property modifications or services. • Cease Council's routine maintenance activities near the roost to reduce disturbance. • Undertake priority vegetation trimming/removal and understorey weed management to remove overhanging tree/s and create a buffer between private property boundaries and flying-fox roost (if appropriate)³. • Prepare a site-specific Flying-fox roost management plan (FFRMP) (for permanent roosts only). • Implement recommended roost management actions under site specific FFRMPs. 	High

³ If flying-foxes are present during the day, night works should be conducted. If crèching young are present and works cannot be postponed due to safety reasons, a flying-fox knowledgeable person should be present on site for duration of works, with a wildlife carer ready and on call to receive orphaned young if necessary.

FUTURE ACTIONS

Regional-flying fox management plan

Local governments have the option to develop a regional flying-fox management plan to cover their entire local government area. If the plan is endorsed by DES, local governments will be able to be granted a three-year approval to manage flying-fox roosts outside of urban areas. This will reduce the need for reactive requests for approvals for individual roost sites outside of urban areas.

Council intends to undertake an integrated approach to flying-fox roost management throughout the Noosa Shire. A Regional Flying-fox management plan will be developed by Council within 3 years from endorsement of this SoMI to address public concerns about flying-fox roosts in urban areas, and provide a more detailed approach to roost categorisation and management measures available at known roost locations throughout the Noosa LGA.

Policy review

This SoMI will be reviewed every three years or as determined by a resolution of Council.

Further Information

Further information regarding this document please contact Environmental Services, Noosa Council: environment@noosa.qld.gov.au

Further information regarding flying-foxes is available on [Council's web page](#).

Version control:

Version	Reason/ Trigger	Change (Y/N)	Endorsed/ Reviewed by	Date
1.0	SoMI DRAFT developed by Ecosure Pty Ltd in consultation with Noosa Shire Council	Y	Reviewed by Jess Bracks (Ecosure), Peter Milne and Shaun Walsh (Noosa Shire Council)	4/03/2022
2.0	SoMI DRAFT R1 developed by Ecosure Pty Ltd in consultation with Noosa Shire Council	Y	Reviewed by Jess Bracks (Ecosure), David O'Gorman (Noosa Shire Council)	25/03/2022
3.0	SoMI FINAL developed by Ecosure Pty Ltd in consultation with Noosa Shire Council	Y	Reviewed by Jess Bracks (Ecosure)	8/04/2022
4.0	SoMI updated FINAL	Y	Updated by David O'Gorman and Camille Oliver (Noosa Council)	8/8/2023