

Queensland Flying-Fox Management Update

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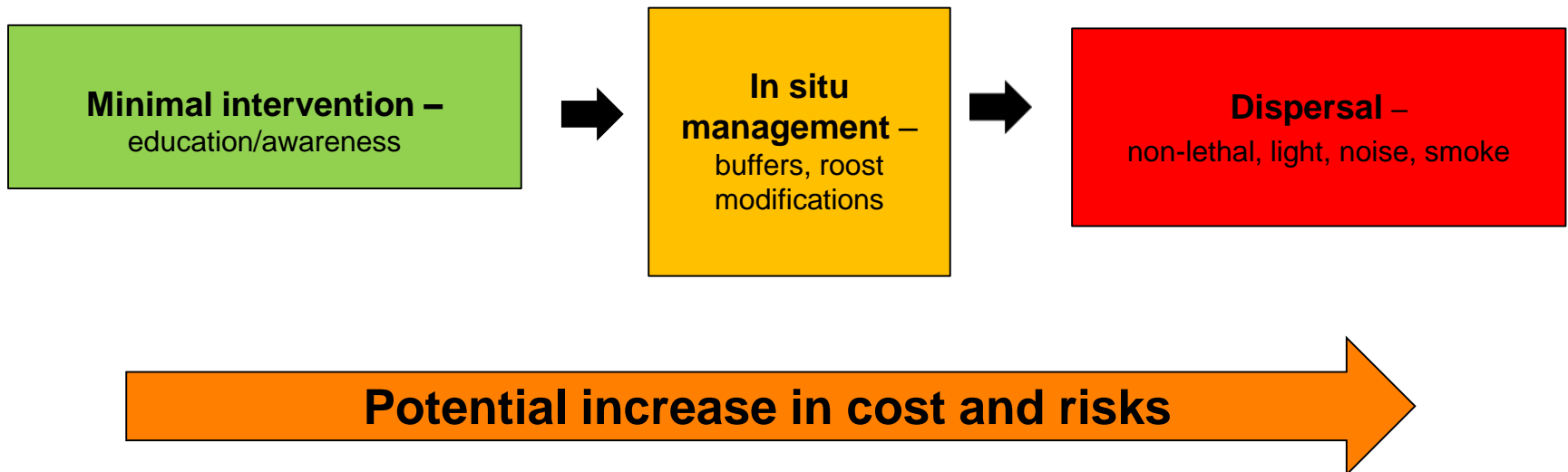


Statutory tools for Flying-Fox Management

- **Codes of Practice**
- **Flying-fox Roost Management Permits**
- **3-year flying-fox roost management plans for entire local government area**
- **Lethal and Non-lethal DMPs for crop protection.**
- **Compliance provisions**
- **Conservation status listingCAM**



Flying -fox roost management – scaled approach



Codes of Practice for Flying-fox Management

CoP – ecologically sustainable management of flying-fox roosts

- Applies in designated urban areas
- Allows short-term management actions.
- Local Governments may use ‘as of right’ (no DES approval) to:
 - Modify or destroy a flying-fox roost;
 - Drive flying-foxes from a roost; or
 - Disturb a flying-fox roost
 - Seeks to prevent harm to the animals

CoP – low impact activities affecting flying-fox roosts

- Allows low impact (park management) activities such as weeding, mulching, mowing or tree trimming without a permit from DES

Flying-Fox Roost Management Permits

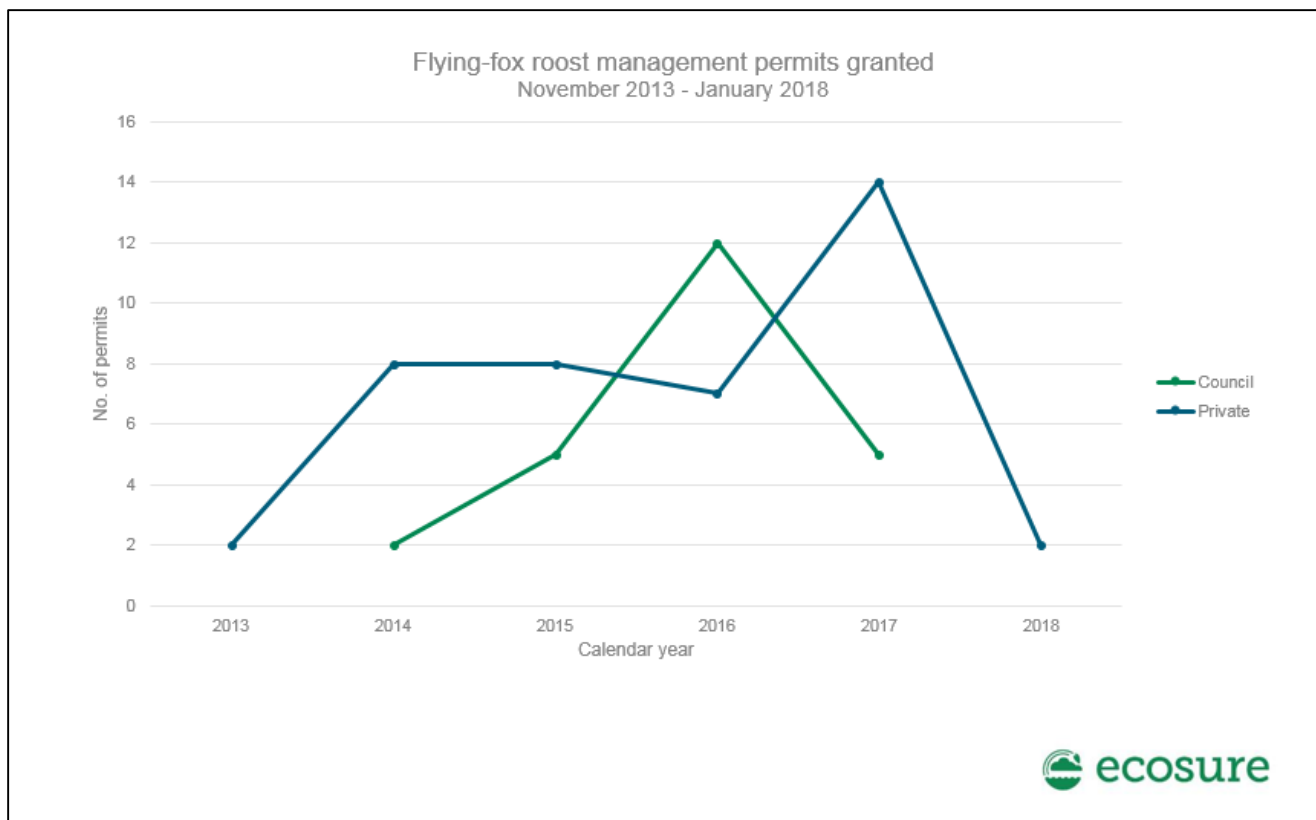
- Flying-Fox Roost Management Permits allow roost management actions outside those set out in the Codes
- Seek to balance protecting amenity with species' conservation
- Allow Councils and other landholders to take action on their properties to manage the nuisance impacts of flying-fox roosts
- Must be assessed by DES on a case-by-case basis – time!
- Again, animals must not be harmed



Number of council 'as-of-right' notifications



Number of flying-fox roost management permits



DMPs to Protect Commercial Fruit Crops

- First preference is for non-lethal control measures (e.g. prevention using netting; noise; light; smoke, etc.)
- Lethal take DMPs issued only where other methods tried and failed
- Strict quotas for each flying-fox species – 8,780 overall in 2019/19
- Also max. limit by species per permit (< 90 LR; < 90 B; < 60 GHFF)



Lethal DMPs for Commercial Fruit Growers

Year	No. of DMPs approved	Quota	Quota unallocated
2018/19	4	8780	8240
2017/18	21	8780	6110
2016/17	18	8780	5910
2015/16	16	8780	6105
2014/15	14	10,580	8220
2013/14	16	10,580	7660
2012/13	10	10,580	8635

Flying-fox Roost Surveys and Assessments

- **Surveys:**
 - quarterly estimates of camp populations, species, size, distribution, abundance and trends
 - seasonal/weekly for management purposes: numbers, species, reproductive state
- **Method:** point-based distance sampling
 - estimate number of animals based on flying-fox density, species and camp area
- **Data:** forms important part of the National Flying-fox Monitoring Program (NFFMP) in collaboration with CSIRO and other jurisdictions



Human-flying-fox conflict – DES has 2 major research projects

1. Managing conflict with little red flying foxes: strategic communication and on ground trials (in Charters Towers)
1. Alternative management strategies for problem urban flying-fox roosts in north Queensland

State funded; focussed around Charters Towers – but findings applicable elsewhere



Research into problems caused by little red flying-foxes

Focus on northern Queensland

A poorly understood species and significant cause of roost/camp conflicts in Qld:

- How many little red flying-foxes are there?
- Where do they come from?
- Why are they in our local area?
- Why do they roost/camp at particular sites?
- What can we do to minimise their impacts on people near roost/camps?



Research Project 1: Managing conflict with LRFF

Strategic communication and on-ground trials (DES):

- Trial of novel and innovative management approaches
- Collaboration with Charters Towers Regional Council (CTRC) and CSIRO to develop a communication strategy about influx events.
 - DES staff attend monthly advisory group meetings
 - Micro documentaries and useful information
 - Animated snippets using new media
 - Attendance at community events
- On-ground trials of different management approaches



Research Project 2 (Mainly CSIRO):

Alternative management strategies for problem flying-fox roosts in North Queensland

1. Monitor LRFF in tropical Queensland

2. Movement ecology

3. Habitat and resource use dynamics of LRFF

4. Resources Distribution and dynamics

5. Camp site selection

6. Review of camp management outcomes

7. Review of Charters Towers experience of management

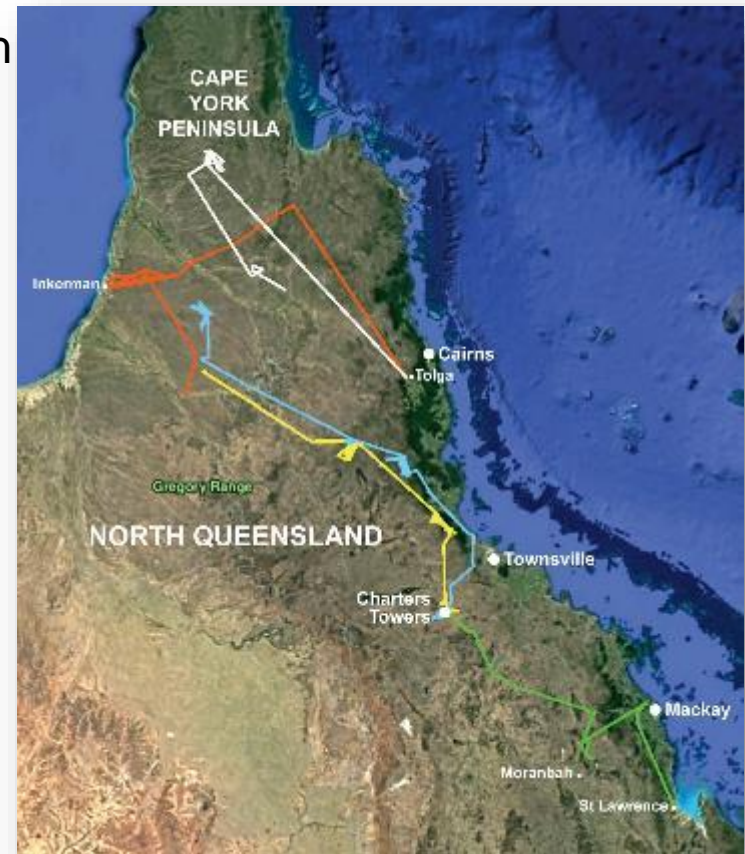
1. Monitor LRFF Roosts in Northern Queensland (DES)

- Identify flying-fox camps sites across N & FN QLD
- Engagement of ILS ranger groups, QPWS, NRM groups & Councils
- Focus on Councils from Mackay north and with a multiple Councils providing data on camps within their areas
- Incorporate strategic monitoring for LRFF into the National Flying-Fox Monitoring Program – important to collect long-term data



2. Movement ecology of LRFF (CSIRO-led)

- Data obtained using satellite telemetry with the trapping focused around Charters Towers
- Tracking movement across the state/country – helped identify unreported roost/camp locations
 - 21 animals tagged to date
 - On average tags operative over 100 days
 - Average animal travelling 3000kms while being tracked



Project 2. Alternative management strategies for managing problem flying-fox roosts – other projects:

3. Habitat and resource use dynamics of LRFF in North Queensland (CSIRO-led) – data on habitat and resource use to inform population modelling, using tissue, pollen and faecal sampling (including from captured animals).

4. Resources Distribution and Dynamics (Qld Herbarium for CSIRO) – distribution, abundance, quality, dynamics of available food sources to predict LRFF distribution (incl. CC)

5. Camp/Roost Site Selection (CSIRO), micro and macro scale characterisation of characteristics of roosts/camps;

- Vegetation type and structure
- Location in the landscape
- Proximity to food resources
- Seasonality impacts



Project 2. Alternative management strategies for managing problem flying-fox roosts – other projects, ctd....

6. Review of Flying-fox Roost Management Actions and Outcomes in Qld (Ecosure for CSIRO)

- collate and analyse available data on methods used and effectiveness over time
- roost management decision tree and guidelines
- recommendations for improvements

7. Review of Charters Towers' historic experience of FF management (CSIRO) – roosts reported since 1800's, review historical media, archived and local records.



What's Next?

- Review of flying-fox management policy framework in Qld
- Guidance attained from findings of little red flying-fox research
- Cooperative Management Framework (CAM) changes
- Increased inter-jurisdictional cooperation and information sharing at all levels of government – green shoots!
- Citizen Science – engaging and explaining to the community