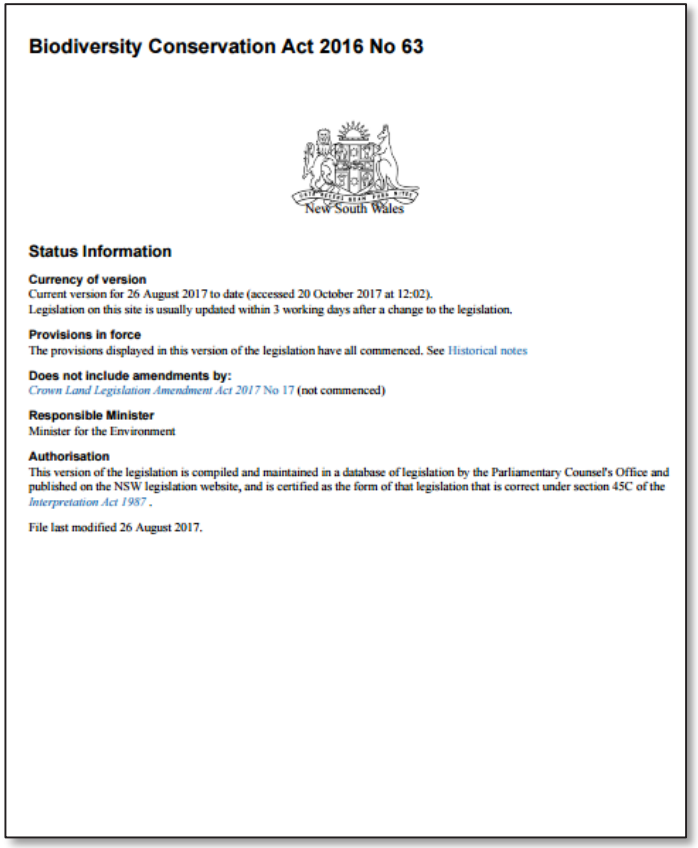
NSW GOVERNMENT | Office of Environment & Heritage

Flying-fox conservation and camp management in NSW

Matthew Mo, Saving our Species

Legislation and Regulation



Biodiversity Conservation Act 2016 No 63

New South Wales

Status Information

Currency of version
Current version for 26 August 2017 to date (accessed 20 October 2017 at 12:02).
Legislation on this site is usually updated within 3 working days after a change to the legislation.

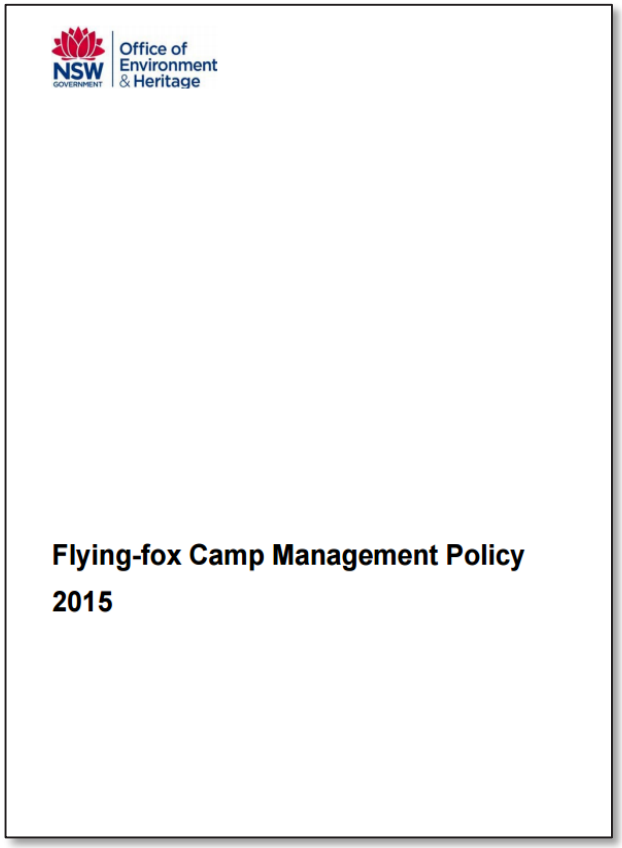
Provisions in force
The provisions displayed in this version of the legislation have all commenced. See Historical notes

Does not include amendments by:
Crown Land Legislation Amendment Act 2017 No 17 (not commenced)

Responsible Minister
Minister for the Environment

Authorisation
This version of the legislation is compiled and maintained in a database of legislation by the Parliamentary Counsel's Office and published on the NSW legislation website, and is certified as the form of that legislation that is correct under section 45C of the *Interpretation Act 1987* .

File last modified 26 August 2017.



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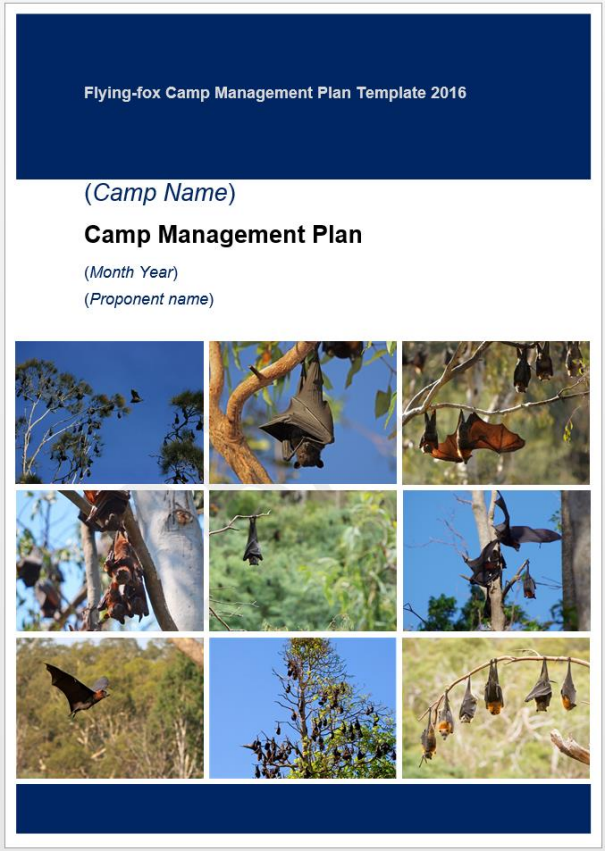
Flying-fox Camp Management Policy 2015

Camp Management Plan Template 2016

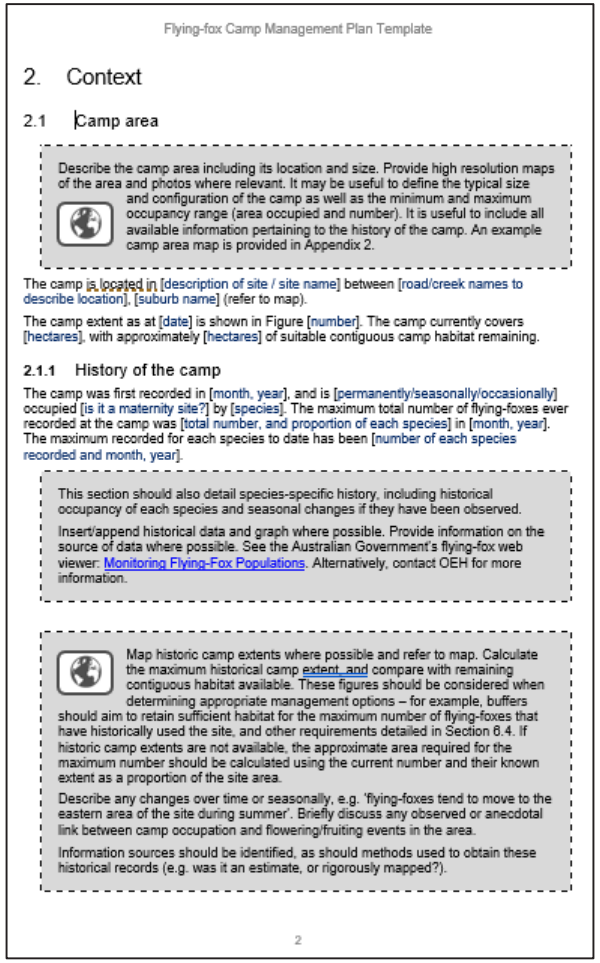

Flying-fox Camp Management Plan Template 2016

(*Camp Name*)

Camp Management Plan

(*Month Year*)

(*Proponent name*)


Flying-fox Camp Management Plan Template

2. Context

2.1 Camp area

Describe the camp area including its location and size. Provide high resolution maps of the area and photos where relevant. It may be useful to define the typical size and configuration of the camp as well as the minimum and maximum occupancy range (area occupied and number). It is useful to include all available information pertaining to the history of the camp. An example camp area map is provided in Appendix 2.

The camp is located in [description of site / site name] between [road/creek names to describe location], [suburb name] (refer to map).

The camp extent as at [date] is shown in Figure [number]. The camp currently covers [hectares], with approximately [hectares] of suitable contiguous camp habitat remaining.

2.1.1 History of the camp

The camp was first recorded in [month, year], and is [permanently/seasonally/occasionally] occupied [is it a maternity site?] by [species]. The maximum total number of flying-foxes ever recorded at the camp was [total number, and proportion of each species] in [month, year]. The maximum recorded for each species to date has been [number of each species recorded and month, year].

This section should also detail species-specific history, including historical occupancy of each species and seasonal changes if they have been observed.

Insert/append historical data and graph where possible. Provide information on the source of data where possible. See the Australian Government's flying-fox web viewer: Monitoring Flying-Fox Populations. Alternatively, contact OEH for more information.

Map historic camp extents where possible and refer to map. Calculate the maximum historical camp extent, and compare with remaining contiguous habitat available. These figures should be considered when determining appropriate management options – for example, buffers should aim to retain sufficient habitat for the maximum number of flying-foxes that have historically used the site, and other requirements detailed in Section 6.4. If historic camp extents are not available, the approximate area required for the maximum number should be calculated using the current number and their known extent as a proportion of the site area.

Describe any changes over time or seasonally, e.g. 'flying-foxes tend to move to the eastern area of the site during summer'. Briefly discuss any observed or anecdotal link between camp occupation and flowering/fruiting events in the area.

Information sources should be identified, as should methods used to obtain these historical records (e.g. was it an estimate, or rigorously mapped?).

2

Review of flying-fox camp management actions

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
Duaringa, 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
Maclean, 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

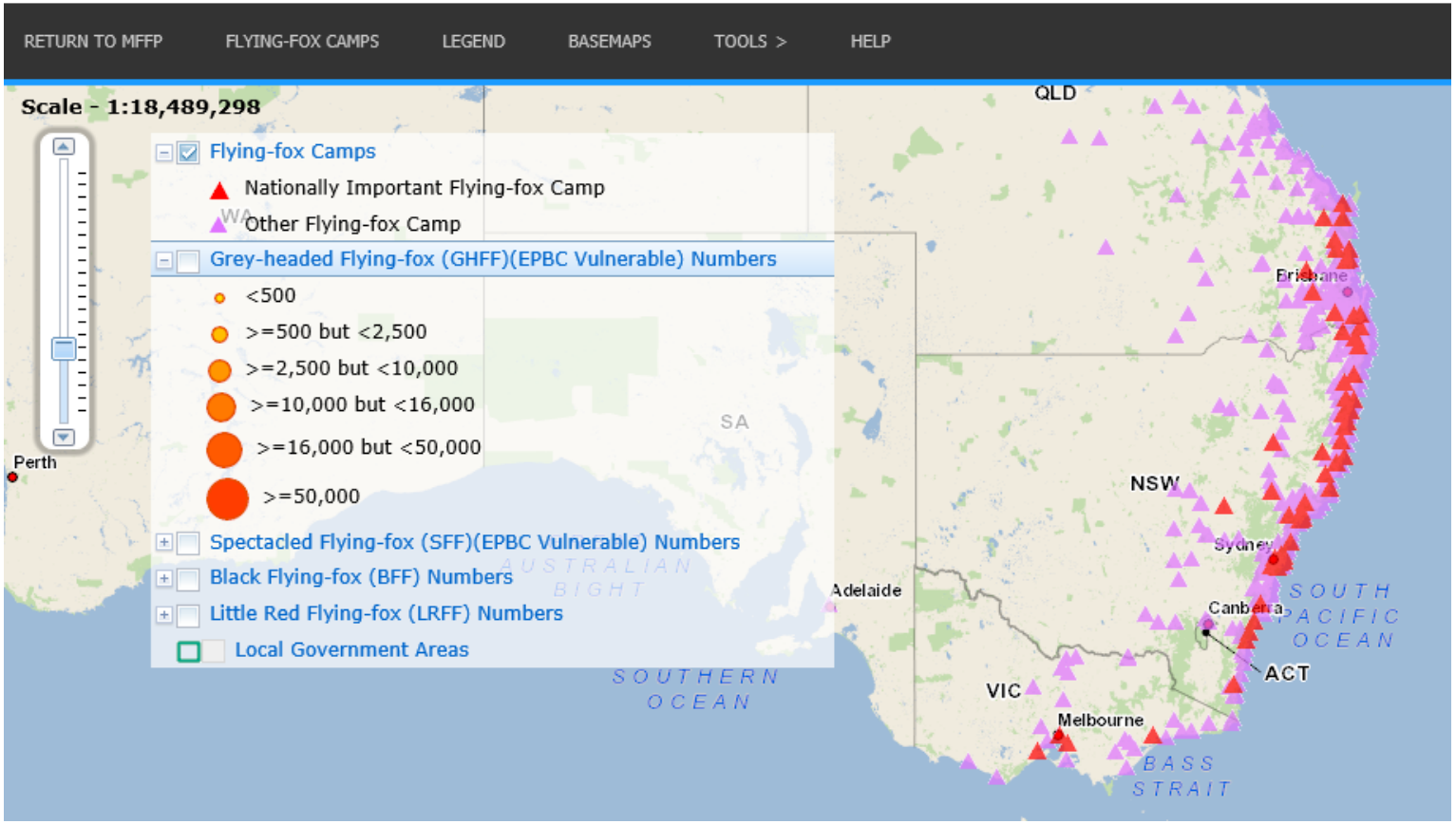
Roberts and Eby 2013

Can you help?

Contact Matthew.Mo@environment.nsw.gov.au

National Flying-fox Monitoring Program

Australian Government
Department of the Environment



Flying-foxes Grants Program

- $1 million available to councils
- Stream 1

  Emergency management measures

  $134k
- Stream 2

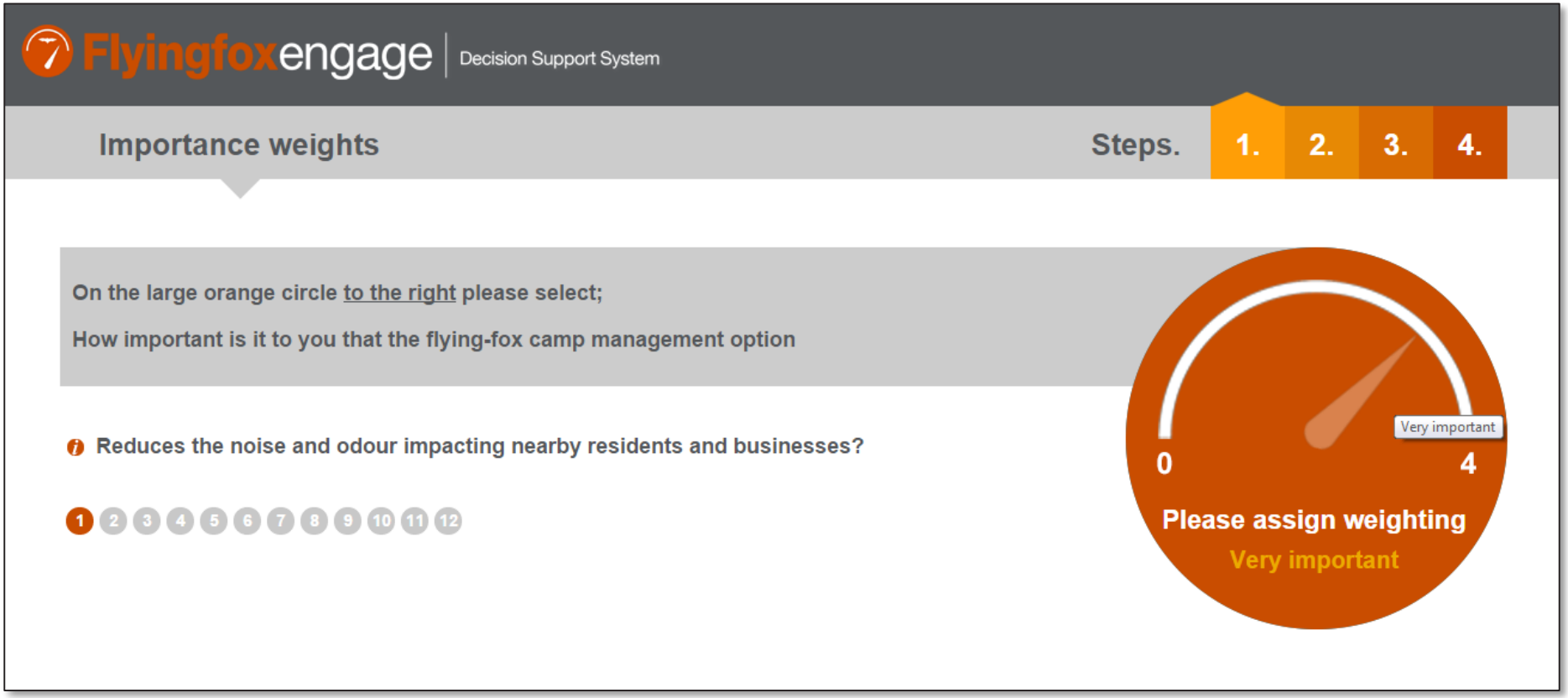
  Preparation of camp management plans

  $341k
- Stream 3

  Implementation of approved actions in camp management plans

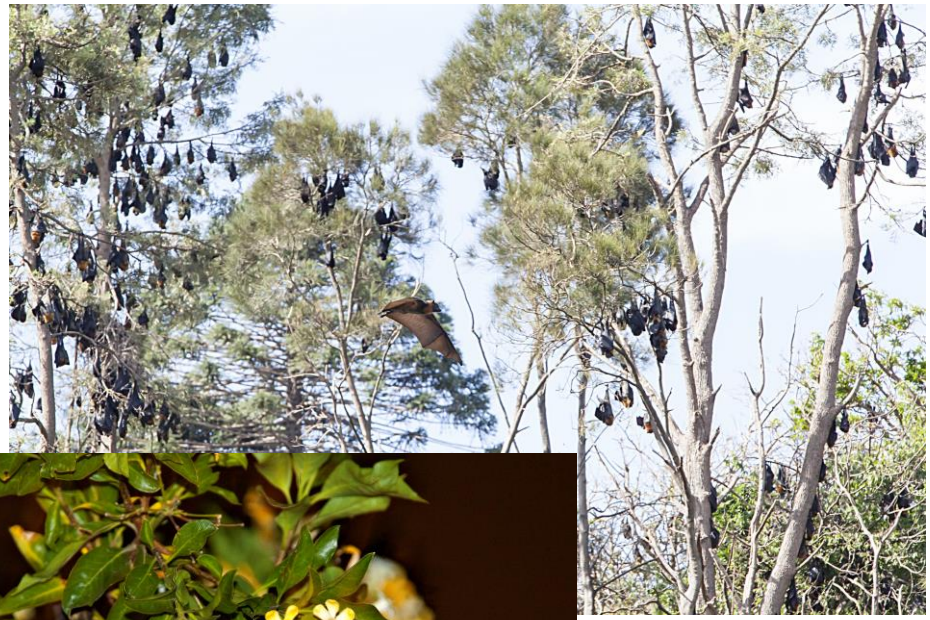
  $500k

Flying-fox Engage

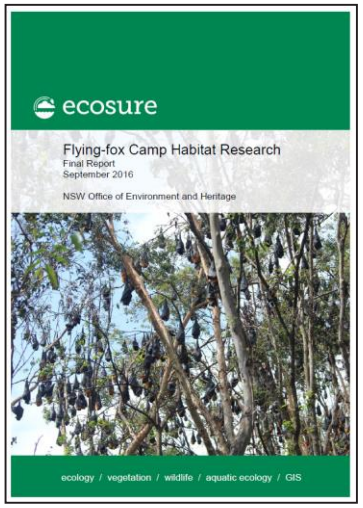


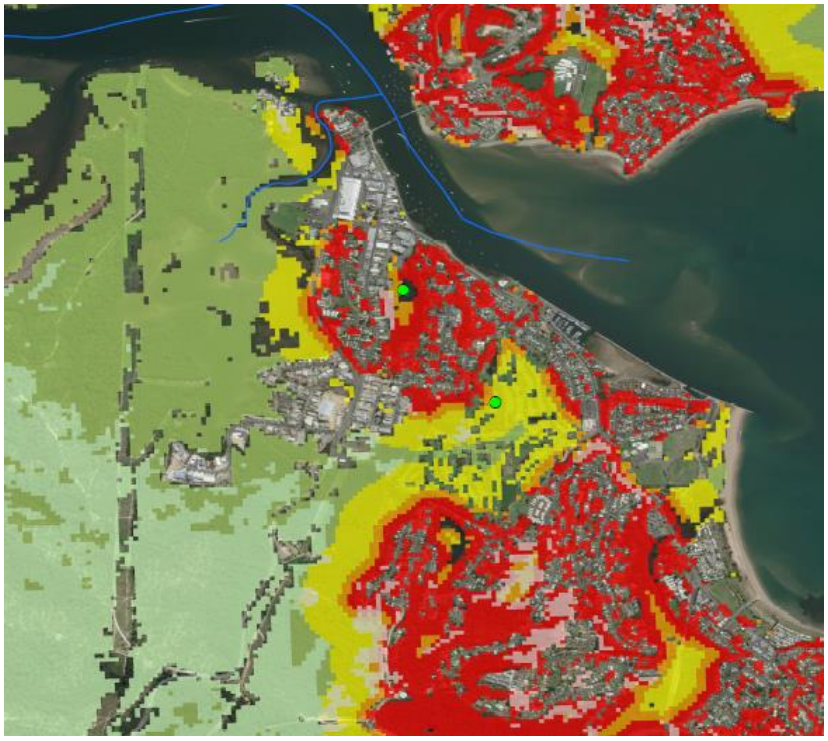
Flying-fox Habitat Restoration Program

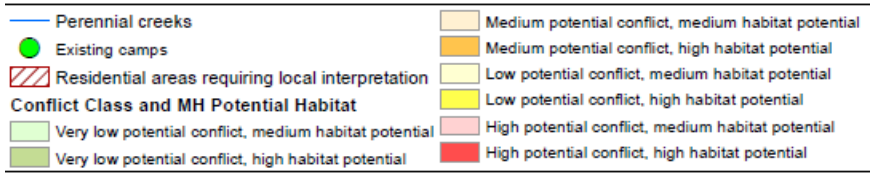
- Funded by the NSW Environmental Trust
- Administered by Local Government NSW
- One-year establishment phase
- 10 years of implementation, subject to Trust approval

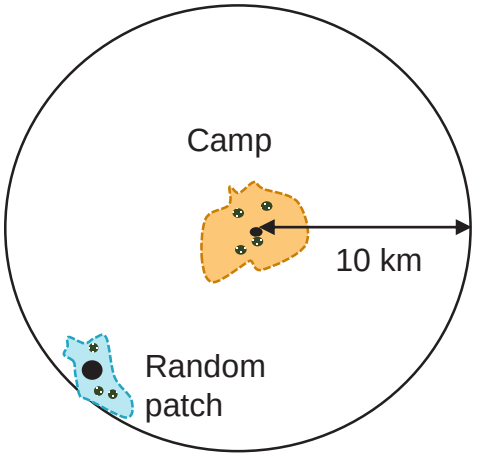


Predictive habitat modelling









Threat	Action description	Scale
Loss of foraging sites	Increase the extent and viability of foraging habitat for the Grey-headed Flying-fox that is productive during winter and spring through dedicated habitat creation and restoration using guides published by OEH.	Site, Area
Loss of foraging sites	Negotiate agreements with landholders, particularly in-perpetuity covenants or stewardship agreements that promote the protection and retention of high quality foraging habitat for landscape pollinators including Grey-headed Flying-foxes.	Site, Area
Loss of roosting sites	Rehabilitate degraded flying-fox roost sites through weed management, planting new roost trees, managing understorey vegetation to maintain suitable microclimate conditions, establishing buffers between roost camps and nearby human settlements to minimise conflict.	Site
Loss of roosting sites	Negotiate agreements with landholders, particularly in-perpetuity covenants or stewardship agreements that promote the protection and retention of roost sites.	Site
Conflict with humans at roost sites	Conduct dedicated engagement programs in communities affected by flying-fox roost sites, building the capacity of all stakeholders to engage in the process of decision-making and developing camp management plans. Provide information about mitigating the impacts of flying-foxes on nearby residences and businesses such as strategic vegetation management, and structural modifications like double-glazing, air conditioning and shade cloths.	Site
Conflict with humans at roost sites	Distribute public education materials to land managers & local community groups working with contentious flying-fox roost sites highlighting species status, reasons for being in urban areas, reasons for decline etc.	Site
Heat stress	Develop site-based heat stress response protocols for camps likely to be affected by heat stress events. Protocols should be based on best practice guidelines (http://www.environment.nsw.gov.au/animals/flying-fox-heat.htm), and should be implemented by licensed fauna rehabilitators. Data should be recorded to inform future management of heat stress events (http://www.environment.nsw.gov.au/resources/animals/150725-flying-fox-heat-data.docx).	Site
Inadequate support for fauna rehabilitation	To be developed	State
10 [Population monitoring]	Undertake quarterly flying-fox counts using established methodology at known roost sites as part of the ongoing National Flying-fox Monitoring Program.	Site

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Please get in contact!

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