DEPARTMENT OF AGRICULTURE, WATER AND THE ENVIRONMENT

To: Andrew McNee, Assistant Secretary, Assessments and Governance Branch (for decision)

Approval Decision Brief (recommendation report) – Flying-fox relocation measures, 151 Abbott Street, Cairns, Queensland (EPBC 2019/8424) FOI 200512 Document 1 Timing: 15 May 2020 - Statutory timeframe. **Recommendations:** Consider the recommendation report at Attachment A. Considered Delease discuss 2. Consider the responses to the invitation for comment on the proposed decision at Attachment B. Considered please discuss 3. Approve the action for each controlling provision as summarised in the table below. Approved / Not approved Agree to attach the conditions of approval as set out in <u>Attachment F</u>. Agreeg 5. Sign the notice of your decision at Attachment F. Not signed Signed 6. If you agree to 3 and 4, accept the reasoning in the departmental briefing package as the reasons for your decision. Accepted) Please discuss Sign the letters at Attachment G advising the person proposing to take the action, and other relevant parties, of your decision. Signed Not signed Summary of recommendations on each controlling provision: **Controlling Provisions** Recommendation for the action Approve Refuse 6ve Listed threatened species and communities (s18, s18A) Approve lulthe Date: 15 May 2020 Andrew McNee Assistant Secretary Assessments and Governance Branch Comments:

Background

- Cairns Regional Council (the proponent) proposes to use deterrent and dispersal measures to permanently relocate a population of the endangered Spectacled Flying-fox (*Pteropus conspicillatus*) from a nationally important flying-fox camp at 155 Abbott Street, Cairns, Queensland (the Cairns Library site) to the Cairns Central Swamp.
- 2. The proposed action was referred to the Department on 8 April 2019. On 24 May 2019, a delegate of the Minister determined the proposed action was a controlled action.
- 3. The Cairns Library site contains between 3,000-8,000 individuals of the Spectacled Flyingfox, depending on seasonal variation. At the time of the referral in April 2019, the Spectacled Flying-fox population at the Cairns City Library was considered to be in a period of significant population stress following heat related stress events in November 2018.
- 4. The National Flying-fox monitoring program's counts for the Cairns City Library site in May 2019 (3,200 individuals) and November 2019 (3,300 individuals) indicate that the numbers of Spectacled flying-foxes are returning to previously recorded levels.
- 5. On 11 June 2019 (the recommendation report incorrectly stated 11 June 2017), the Department requested further information from the proponent to allow a full assessment of impacts of the proposed action on listed threatened species and communities.
- On 22 April 2020, as recommended in the proposed approval briefing package (<u>Attachment A</u>), a delegate of the Minister proposed to approve the proposed Flying-fox relocation measures, 151 Abbott Street, Cairns, Queensland.
- 7. Also on this date, in accordance with sections 131 and 131AA of the EPBC Act, a delegate of the Minister wrote to the proponent and the Queensland Department of Environment and Science (DES) inviting comment on the proposed decision.
- 8. The proposed decision was not published on the internet for public comment.
- Except for the matters discussed in this brief, the matters for consideration and factors to be taken into account in making your decision remain as set out in the proposed approval briefing package at <u>Attachment A</u>.

Responses to invitation to comment on proposed approval

- 10. The proponent provided comments on the proposed decision on 22 April 2020 and 12 May 2020. The comments largely related to minor clarifications (**Attachment B**).
- 11. The Department met with the proponent on 30 April 2020, to discuss their comments on the proposed conditions and the draft Flying-fox Dispersal and Relocation Implementation Plan (implementation plan).
- 12. On 12 May 2020, the proponent provided a final version of the Implementation Plan and accepted the amended proposed conditions (<u>Attachment B</u>).
- On 7 May 2020, DES advised the Department that the Queensland flying-fox roost management framework and code of practise – for the ecological sustainable management of flying-fox roost had been revised and was released on 15 February 2020 (<u>Attachment C</u>).
- 14. The Queensland Department of Environment and Science also noted that in January 2020 a panel was convened, at the request of the DES Director General, to seek expert advice on

best practise in establishing alternative flying fox roost sites and the potential impacts of the proposed dispersal in Cairns on the spectacled flying-fox, as a species.

- 15. The overall advice of relevant experts was that the proposed dispersal and relocation from the Cairns Library site would not pose a threat to the conservation of the spectacled flyingfox as a species (<u>Attachment C</u>).
- 16. On 11 May 2020, the Department Post Approval and Policy Branch provided comments on the proposed conditions (<u>Attachment D</u>).
- 17. Noting the comments received, the Department has made a number of administrative changes to improve consistency and clarity of the conditions. Those changes do not materially alter the intent of the approval or reduce the protection of the species.
- 18. A version of the recommended approval notice, showing all tracked changes since your proposed decision, is provided at <u>Attachment E</u>. The approval decision notice for your signature is at <u>Attachment F</u>.
- 19. Letters advising the proponent, and DES are at <u>Attachment G</u> for your signature.
- 20. The final decision will be made publicly available on the Department's website.

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Director	Queensland North Assessments
Queensland North Assessments	s22
Assessments and Governance Branch	
s22	
14 May 2020	

ATTACHMENTS

- A: Proposed approval decision briefing package
- B: Proponents response to invitation to comment on proposed decision
- C: Queensland Department of Environment and Science response to invitation to comment on proposed decision
- D: Comments from Post Approvals and Policy Branch
- E: Notice of Decision showing track changes from proposed approval decision
- F: Notice of decision FOR SIGNATURE
- G: Letters to relevant parties FOR SIGNATURE

DEPARTMENT OF AGRICULTURE, WATER AND THE ENVIRONMENT

To: Andrew McNee, Assistant Secretary, Assessments and Governance Branch (for decision)

Proposed Approval Decision Brief (recommendation report) – Flying-fox relocation, 151 Abbott Street, Cairns, Queensland (EPBC 2019/8424)

Timing: as soon practicable - to allow for mandatory comment prior to final decision (7 May 2020 - statutory timeframe).

Recommendation/s: 1. Consider the recommendation report at Attachment A. Considered please discuss Consider the finalised preliminary documentation at <u>Attachment B</u>. Considered please discuss Agree that the recommended decision on page 1 of the recommendation report (Attachment A), and summarised in the table below, reflects your proposed decision. Agreed Not greed 4. Sign the letters at Attachment D to consult the proponent, person proposing to take the action and relevant Commonwealth Ministers on your proposed decision. Signed Not signed Agree to not publish the proposed decision at Attachment C on the internet for public comment. Agreed Not agreed Summary of recommendations on each controlling provision: **Controlling Provisions** Recommendation for the action Approve Refuse Approve Listed threatened species and communities (ss 18, 18A) Approve Culle Date: 22/4/2020 Andrew McNee Assistant Secretary Assessments and Governance Branch Comments:

Key Points:

- 1. Cairns Regional Council (the proponent) proposes to use deterrent and dispersal measures to permanently relocate a population of the endangered Spectacled Flying-fox (*Pteropus conspicillatus*) from a nationally important flying-fox camp at the Cairns Library site to the Cairns Central Swamp.
- 2. The Cairns City Library site is 4000 m² and is on the fringe of the Cairns Central Business District (CBD). The contains between 3,000-8,000 individuals of the Spectacled Flying-fox, depending on seasonal variation.
- Cairns Regional Council is of the view that relocation is necessary due to the diminishing quality of habitat at the Cairns Library site and ongoing impacts associated with considerable urban impacts associated with the inner city location, including heat impacts, new high rise construction projects and the associated noise.
- 4. The proposed action is to conduct dispersal and deterrent activities using non-lethal pyrotechnics, high intensity lighting, audio Hyperspike (LRAD) and other audio, visual and olfactory negative reinforcers. The activities will commence at the end of the 2019-2020 pupping season (by 1 July and continue for 1 month from commencement). Once the camp has been abandoned, passive deterrent works, including tree pruning, will be undertaken to further enforce the negative association.
- 5. The Department notes that while proposed deterrent and dispersal activities are non-lethal, the ongoing use of these measures has the potential to cause stress which may reduce the likelihood of successful breeding and recruitment of the Spectacled Flying-fox population.
- The Recommendation Report (<u>Attachment A</u>), prepared in accordance with Section 95C of the EPBC Act, concludes that the proposed action should be approved under section 130 and 133 of the EPBC Act subject to the proposed conditions of approval at <u>Attachment C</u>. The recommended proposed conditions of approval include:
 - restrictions on the timeframe, duration and location in which the relocation and deterrent activities can be undertaken (conditions 1,2 and 3),
 - specific performance criteria and stop work measures related to meeting performance criteria (conditions 7and 10 to 14);
 - monitoring of the Spectacled Flying-fox at regular intervals during relocation and dispersal activities, for the life of the proposal (condition 7);
 - requires the implementation of a Dispersal and Relocation Implementation Plan and regular review and update of the plan (conditions 4 to 9); and
 - restricts the action from occurring if the population becomes stressed as defined in the referral guidelines.
- 7. Based on the information available to the Department, the measures proposed by the proponent to avoid, mitigate and manage impacts, and assuming compliance with the proposed conditions of approval, the Department concludes the proposed action will not have an unacceptable impact on the Spectacled Flying-fox.
- This conclusion was reached by having regard to the likely impact of the proposed action for the purposes of each controlling provision and the relevant social and economic considerations under to section 136 of the EPBC Act.

Background

- 9. On 24 May 2019, a delegate of the Minister determined the proposal was a 'controlled action' due to likely significant impacts on listed threatened species and communities (s18 and s18A). On the same day it was determined that the proposal would be assessed by preliminary documentation with further information required to inform the assessment and approval decision-making process under the EPBC Act.
- 10. The Department requested further information on 11 June 2019 relating to:
 - the potential and likely impacts of dispersal and relocation of the flying-fox camp on the short and long-term health and behaviour on the species, including on breeding and recruitment; and
 - identification and suitability of other potential sites to avoid further human interactions and provide for the long term viability of the population.
- 11. On 17 December 2019, Cairns Regional Council submitted draft preliminary documentation, including an updated Flying-fox Monitoring Plan and a Dispersal and Relocation Management Plan.
- On 18 December 2019, Cairns Regional Council was directed to publish the draft preliminary documentation for public comments. The public comment period closed on 31 January 2020.
- 13. The final preliminary documentation was submitted on 9 March 2020.
- 14. Cairns Regional Council received 596 public submissions on the draft preliminary documentation. The key issues raised include (<u>Attachment B</u>):
 - the proposed relocation with remove an important roost site from the overall roosting habitat for the species;
 - there has been little or no consideration of alternatives, particularly given the high likelihood of failure to relocate the camp;
 - potential for aviation strike due to the proximity to Cairns Airport and associated flight path;
 - cost of the proposal to rate payers and impact to tourism in the Cairns region;
 - the lack of clear, consistent information and evidence-based reasons for undertaking he proposed action;
 - insufficient details on the proposed methods including monitoring, success contingency plans; and
 - risk of harm to Spectacled Flying-fox and humans as a result of the proposed relocation activities.
- The public submissions (<u>Attachment B</u>) have been taken into consideration in drafting the recommendation report (<u>Attachment A</u>) and proposed decision on approval (<u>Attachment C</u>).

Consultation:

- 16. The Department's Office of Compliance advised that there is no indication that Cairns Regional Council has an adverse environmental history.
- 17. The Department's Protected Species and Communities Branch have been consulted to ensure all approved conversation advices, recovery plans and threat abatement plans relevant to the proposed action have been considered and included (Attachment E). The approved Conversation Advice and Recovery Plan relevant to the proposed action are attached at Attachment F.
- 18. The Department's Office of Compliance and the Post Approvals Section will be consulted on the proposed conditions of approval (Attachment C) during the 10 comment period.
- 19. The Department recommends that you inform and invite comments on the proposed decision from the proponent and the Queensland Department of Environment and Science. Letters for your signature are at Attachment D.

s22 Director **Queensland Assessments North** Assessments and Governance Branch s22

s22 **Queensland Assessments North** s22

21 April 2020

ATTACHMENTS

- A: Recommendation report
- B: Preliminary Documentation-Cairns Flying-fox Relocation Management Plan and Cairns Cairn Flying-fox Relocation Implementation Plan, Public comments
- C: **Decision notice**
- D: Letters to proponent and relevant ministers
- E: Statutory documents report
- F: Conservation Advice and Recovery Plan
- G: ERT report dated 16 April

RECOMMENDATION REPORT

Flying-fox relocation measures, 151 Abbott Street, Queensland (EPBC 2019/8424)

Recommendation

That the proposed action, to use deterrent measures to relocate a nationally important flying-fox camp located at the Cairns City Library, 151 Abbott Street, Cairns, Queensland be approved under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) subject to the conditions of approval specified below.

Part A	 Conditions specific to the action 					
1.	The proposed relocation activities must only be undertaken within the flying-fox management areas shown in Figure 1 unless otherwise agreed in writing by the Minister .					
2.	 To ensure there are no adverse impacts on the Spectacled Flying-Fox (<i>Pteropus conspicillatus</i>) (SFF) from the action, relocation activities must: a. be carried out using non-lethal measures; b. be limited to a maximum of 2 periods, of up to 2.5 hours, in each 24 hour period, and be conducted before sunrise and after sunset; c. be maximum of 30 days for each period of relocation activities; d. must not commence during or immediately after a period of significant population stress. 					
3.	 To ensure there are no adverse impacts on the SFF from the action, relocation activities must: a. be carried out using non-lethal measures; a. only be undertaken in the key locations identified in Figure 1 b. be discontinued when monitoring detects the presence of heavily pregnant females (in last trimester), dependent young SFF, sick, injured or dead SFF. 					
4.	The approval holder must implement the Cairns Flying-fox Relocation Implementation Plan.					
5.	Within 60 days of the completion of each period of relocation activities , the approval holder must undertake a review of the Cairns Flying-fox Relocation Implementation Plan for the purposed of amending the Cairns Flying-fox Relocation Implementation Plan .					
6.	The review and any amendments to the Cairns Flying-fox Relocation Implementation Plan must be undertaken by a independant suitably qualified expert .					
7.	 The amended Cairns Flying-fox Relocation Implementation Plan must include: a. an assessment of the performance against the relocation success indicators; b. the outcomes of the monitoring program described in the Cairns Flying-fox Relocation Implementation Plan; c. any changes to Cairns Flying-fox Relocation Implementation Plan required to avoid adverse effects on SFF. 					
8.	The amended Cairns Flying-fox Relocation Implementation Plan must be submitted to the Department for the written approval of the Minister , prior to the commencement of relocation activities .					
9.	If the Cairns Flying-fox Relocation Implementation Plan is approved by the Minister, the amended Cairns Flying-fox Relocation Implementation Plan must be					

implemented.

- 10. The SFF camp and the alternative relocation sites must be monitored in accordance with the monitoring program described in the Cairns Flying-fox Relocation Implementation Plan to detect changes to SFF numbers, extent of roosting, ill health, death or injury to SFF, changes in SFF flying or roosting behaviour and any signs of stress in the SFF colony attributable to the action.
- **11.** The results of the monitoring must be reviewed each day by a **suitably qualified expert** to:
 - a. determine the impacts of the relocation activities on SFF; and
 - b. decide if **relocation activities** can continue.
- 12. If the approval holder detects through monitoring required at condition 7 that a relocation success indicator has been reached, the approval holder must report this to the Minister within one business day of the detection.
- **13.** The approval holder must cease **relocation activities** within one business day following determination that a **relocation success indicator** has been reached.
- **14.** The approval must not **recommence relocation activities** until agreed to by the Department.

Part B – Standard administrative conditions

- **15.** The approval holder must notify the **Department** in writing of the date of **commencement of the action** within 10 **business days** after the date of **commencement of the action**.
- **16.** If the **commencement of the action** does not occur within 5 years from the date of this approval, then the approval holder must not **commence the action** without the prior written agreement of the **Minister**.
- **17.** The approval holder must maintain accurate and complete **compliance records**.
- 18. If the Department makes a request in writing, the approval holder must provide electronic copies of compliance records to the Department within the timeframe specified in the request.

Note: **Compliance records** may be subject to audit by the **Department** or an independent auditor in accordance with section 458 of the **EPBC Act**, and or used to verify compliance with the conditions. Summaries of the result of an audit may be published on the **Department**'s website or through the general media.

19. The approval holder must:

- a. submit plans electronically to the Department for approval by the Minister;
- b. publish each plan on the website within 20 business days of the date the plan is approved by the Minister or of the date a revised action management plan is submitted to the Minister or the Department, unless otherwise agreed to in writing by the Minister;
- c. exclude or redact **sensitive ecological data** from **plans** published on the **website** or provided to a member of the public; and
- d. keep **plans** published on the **website** until the end date of this approval.
- **20.** The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval, is prepared in accordance with the **Department's** *Guidelines for biological survey and mapped data* (2018) and submitted electronically to the

Department within 30 business day.
21. The approval holder must prepare a compliance report for each 12 month period
following the date of commencement of the action , or otherwise in accordance with an
annual date that has been agreed to in writing by the Minister . The approval holder must:
 a. publish each compliance report on the website within 60 business days following the relevant 12 month period; b. notify the Department by email that a compliance report has been published on the website and provide the weblink for the compliance report within five
 c. keep all compliance reports publicly available on the website until this approval expires;
 exclude or redact sensitive ecological data from compliance reports published on the website; and
 e. where any sensitive ecological data has been excluded from the version published, submit the full compliance report to the Department within 5 business days of publication.
Note: Compliance reports may be published on the Department's website.
 22. The approval holder must notify the Department in writing of any: incident; non-compliance with the conditions; or non-compliance with the commitments made in plans. The notification must be given as soon as practicable, and no later than two business days after becoming aware of the incident or non-compliance. The notification must specify:
 a. any condition which is or may be in breach; b. a short description of the <i>incident</i> and/or non-compliance; and c. the location (including co-ordinates), date, and time of the <i>incident</i> and/or non-compliance. In the event the exact information cannot be provided, provide the best information available.
23. The approval holder must provide to the Department the details of any incident or non- compliance with the conditions or commitments made in plans as soon as practicable and no later than 10 business days after becoming aware of the incident or non- compliance, specifying:
 a. any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future; b. the potential impacts of the incident or non-compliance; and c. the method and timing of any remedial action that will be undertaken by the approval holder.
24. The approval holder must ensure that independent audits of compliance with the conditions are conducted as requested in writing by the Minister.
25. For each independent audit, the approval holder must:
 a. provide the name and qualifications of the independent auditor and the draft audit criteria to the Department; b. only commence the independent audit once the audit criteria have been approved in writing by the Department; and c. submit an audit report to the Department within the timeframe specified in the approved audit criteria.
26. The approval holder must publish the audit report on the website within 10 business days of receiving the Department's approval of the audit report and keep the audit

report published on the **website** until the end date of this approval.

27. Within 30 days after the **completion of the action**, the approval holder must notify the **Department** in writing and provide **completion data**.

Part C - Definitions:

In these conditions, except where contrary intention is expressed, the following definitions are used:

Adverse impacts -means an exceedance of a limit as a result of the project

Business day means a day that is not a Saturday, a Sunday or a public holiday in the state or territory of the action.

Cairns Flying-fox Relocation Implementation Plan means the Cairns Flying-fox Relocation Implementation Plan dated 27 March 2020 or any subsequent amended **Cairns Flying-fox Relocation Implementation Plan** approved by the Minister.

Commencement/recommencement of the action means the first instance of any specified activity associated with the action.

Completion data means an environmental report and spatial data clearly detailing how the conditions of this approval have been met. The **Department**'s preferred spatial data format is **shapefile**.

Completion of the action means all specified activities associated with the action have permanently ceased.

Compliance records means all documentation or other material in whatever form required to demonstrate compliance with the conditions of approval in the approval holder's possession or that are within the approval holder's power to obtain lawfully.

Compliance reports means written reports:

- i. providing accurate and complete details of compliance, **incidents**, and non-compliance with the conditions and the **plans**;
- ii. consistent with the **Department's** Annual Compliance Report Guidelines (2014)
- iii. include a **shapefile** of any clearance of any **protected matters**, or their habitat, undertaken within the relevant 12 month period; and
- iv. annexing a schedule of all **plans** prepared and in existence in relation to the conditions during the relevant 12 month period.

Department means the Australian Government agency responsible for administering the **EPBC Act**.

EPBC Act means the Environment Protection and Biodiversity Conservation Act 1999 (Cth).

Event means heat stress events, cyclone or bush fire events (which result in either significant mortality or server food shortages).

Incident means any event which has the potential to, or does, impact on one or more **protected matter(s)**.

Independent audit: means an audit conducted by an independent and **suitably qualified person** as detailed in the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines* (2019)

Monitoring data means the data required to be recorded under the conditions of this approval.

Minister means the Australian Government Minister administering the **EPBC Act** including any delegate thereof.

Nationally important means camps that have contained \geq 16,000 spectacled flying-foxes in more than one year in the last 10 years, or have been occupied by spectacled flying-foxes in at least 50 per cent of the surveys over the last 10 years.

Non-lethal measures means metal clangers, pool noodles, long-range acoustice devices, lights, low pressure water sprayers, inflatable devices and foggers. Non-lethal measures do not include the use of non-lethal firearms, drones and helicopers.

Plan(s) means any of the documents required to be prepared, approved by the **Minister**, and/or implemented by the approval holder and published on the **website** in accordance with these conditions (includes action management plans and/or strategies).

Relocation activities means the use of **non-lethal measures** to disperse SFF from the **SFF camp** and deter SFF from roosting at the **SFF camp** and other unsuitable areas in the Cairns CBD area.

Relocation success indicators means the relocation success indicators described in the **Cairns Flying-fox Relocation Implementation Plan.**

Sensitive ecological data means data as defined in the Australian Government Department of the Environment (2016) *Sensitive Ecological Data – Access and Management Policy V1.0.*

Significant population stress means, in the year prior to the proposed date of the action taking place, an **event** has occurred which results in the mortality of 1.5 percent or more of the national population of spectacled flying-fox.

SFF camp means the **nationally important** Spectacled Flying-fox camp located at 151 Abbot Street, Cairns.

Suitably qualified person means a person who has professional qualifications, training, skills and/or experience related to the nominated subject matter and can give authoritative independent assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and/or literature.

Website means a set of related web pages located under a single domain name attributed to the approval holder and available to the public.



Background

Description of the project and location

- Cairns Regional Council (the proponent) are proposing to use dispersal and deterrent measures (relocation measures) to permanently relocate a nationally important Spectacled Flying-fox (*Pteropus conspicillatus*) camp currently located at the Cairns City Library, 151 Abbott Street, Cairns, Queensland.
- Deterrent measures will be used to discourage Spectacled Flying-fox from landing at the Cairns Library site and other non-preferred sites around the Cairns CBD, dispersal measures will be used to encourage flying-fox to leave Cairns Library site and non-preferred roost sites, in the event that they are found to be roosting in these sites.
- 3. The Cairns City Library site is 4000 m² and is on the fringe of the Cairns Central Business District (CBD). The site has landscaped gardens used by the Spectacled Flying-fox for roosting, in particular, four fig trees and a single Golden Penda.
- The site is an established camp for the endangered Spectacled Flying-fox containing between 3,000-8,000 individuals, depending on seasonal variation. Works are proposed to commence at the end of the 2019-2020 breeding season (generally October to April) i.e. by 1 July and continue for 1 month from commencement.
- 5. The proponent considers the proposed action is required due to considerable urban impacts, including elevated urban heat impacts to the camp, habitat loss from construction projects and the associated construction and traffic noise encompassing the entire roost site. The trees remaining at the library site have also been subject to more intensive and persistent use as a result of habitat loss within the CBD and surrounds.
- 6. Council is wanting to encourage the Spectacled Flying-fox camp to relocate to a new location because it will likely mitigate some of the negative impacts associated with the current inner-city location. The Council considers that the objective of the relocation of the colony to a more suitable location, is to reduce pup mortality and contribute to the objective of avoiding a long-term decline in the national population of the species.
- 7. Council is proposing to undertake dispersal and deterrent activities to encourage the relocation of the established Spectacled Flying-fox to several identified interim roost locations, in close proximity to the Cairns Central Business District (CBD) or fringes of the city. The ultimate aim is to move the population to a suitable permanent roosting location which contains favourable habitat characteristics and where there is a low risk of conflict with humans.
- 8. The proposed action is to conduct dispersal and deterrent activities over consecutive nights until the original roosting location has been abandoned. Passive deterrent works, including tree pruning, will be undertaken at and surrounding the library site to further enforce the negative association with the camp.

Controlling provisions, assessment approach and public consultation

- 9. The proposed action was referred to the Department on 8 April 2019. The referral was published on the Department's website and public comment invited for 10 business days.
- 10. A total of 299 public submissions were received on the referral (<u>Attachment B</u>). None of the submissions supported the proposed action. The submissions raised the following key matters:

- There is no evidence to support the forced relocation would be successful as no dispersals undertaken to date have resulted in the successful relocation of flying-foxes away from human-wildlife conflict zones.
- The species has suffered both a food shortage and a heat stress event in November 2018 and March 2019, increasing the likelihood of the proposed action having a significant impact due to poor body condition.
- Flying-foxes may relocate to less desirable locations where there is increased humanwildlife interaction.
- There is no assessment in the referral of the stress that the use of proposed dispersal measures might have on flying-fox.
- The Council's Flying-fox Advisory Committee does not support the proposed management actions to relocate flying-fox from the library site.
- 11. On 24 May 2019, a delegate of the Minister determined the proposed action was a controlled action due to likely significant impacts on listed threatened species and communities (sections 18 and 18A), to be assessed by preliminary documentation (further information required).
- 12. On 11 June 2017, the Department requested further information from the proponent to allow a full assessment of impacts of the proposed action on listed threatened species and communities. The request for further information included the requirement for:
 - an assessment of the likelihood of success of the proposed dispersal and deterrent activities in relocating the SFF camp;
 - an assessment of the potential and likely impacts of relocation of the SFF camp on the short and long-term health and behaviour on the species, including on breeding and recruitment; and
 - a study which provides an assessment of the suitability of other potential sites which can support an SFF camp.
- 13. On 17 December 2019, the Council submitted draft preliminary documentation which was determined by the Department as adequate to allow the public to make informed comment and for an assessment of the proposed action.
- 14. On 18 December 2019, a delegate of the Minister directed the proponent to publish the draft preliminary documentation and invite public comment from 6 January 2020 to 31 January 2020 (19 business days) under section 95A of the EPBC Act.
- 15. Following the publication period, the proponent notified the Department that 596 individual public submissions had been received. The submissions raised the following key issues:
 - the proposed relocation with remove an important roost site from the overall roosting habitat for the species
 - there has been little or no consideration of alternatives, particularly given the high likelihood of failure to relocate the camp
 - potential for aviation strike due to the proximity to Cairns Airport and associated flight path
 - cost of the proposal to rate payers and impact to tourism in the Cairns region

- the lack of clear, consistent information and evidence-based reasons for undertaking the proposed action
- insufficient details on the proposed method including monitoring, success and contingency plans
- risk of harm to Spectacled Flying-fox and humans as a result of the proposed relocation activities.
- 16. The Department has considered matters raised in public submission on the referral and the draft preliminary documentation in drafting the recommended decision and proposed conditions of approval.
- 17. On 23 March, the final preliminary documentation was published for a minimum of20 business days for public information in accordance with section 95B (2) of the EPBC Act.
- 18. A decision on whether or not to approve the proposed action is due on 7 May 2020.

State/Territory Assessment and Approval

- 19. The Spectacled Flying-fox is listed as vulnerable under the Nature Conservation Act 1992 (Qld) (NC Act). The Department of Environment and Science (DES) administers the NC Act and are responsible for the regulation and protection of flying-foxes in Queensland.
- 20. The referral states that Councils have an 'as of right authority' to undertake management actions in accordance with the Code of Practice 'Ecologically sustainable management of flying fox roosts' allowing actions to drive away or attempt to drive away or destroy a flying-fox roost.
- 21. Council has informed the DES Wildlife Management Branch of the intent to undertake roost disturbance 'management actions' to include deterrent activities to be undertaken at the fly in times when individuals are returning to roost. If management actions directed at Spectacled Flying-fox for roost relocation are not consistent with the Code of Practice, Council will seek to conduct works under a flying-fox roost management permit.
- 22. The Code of Practice 'Ecologically sustainable management of flying fox roosts', updated in February 2020, sets out how local governments may undertake managements actions which may destroy a flying-fox roost, drive away or attempt to drive away a flying-fox from a roost or disturb a flying-fox in a flying-fox roost.
- 23. The Department notes that all management actions must immediately cease, and DES be notified if a flying-fox is killed, injured, or found on the ground. Management actions may only recommence after receiving expert advice that resuming management actions poses no risk to other flying-foxes at or near the roost.

<u>Assessment</u>

Mandatory Considerations – section 136(1)(a) Part 3 controlling provisions

24. Under section 136 of the EPBC Act, in deciding whether or not to approve an action and what conditions to attach to the approval, the Minister must consider matters relevant to any matter protected by the controlling provisions (a matter of national environmental significance [MNES]), so far as they are not inconsistent with any other requirement of Subdivision B, Division 1 of Part 9 of the EPBC Act. 25. The proposed action was determined a controlled action for listed threatened species and ecological communities (sections 18 and 18A).

Listed threatened species and ecological communities (sections 18 and 18A)

- 26. The Department's Environmental Reporting Tool (ERT) indicates that a total of 48 listed threatened species and two ecological communities may occur within five kilometres of the proposed action. However, based on the nature and location of the action, the Department considers the proposed action is likely to impact on the endangered Spectacled Flying-fox (*Pteropus conspicillatus*).
- 27. All data on the above species has been sourced from the Department's Species Profile and Threats (SPRAT) database, unless otherwise stated. The information in SPRAT includes conservation advice, a recovery plan and policy advice.

Spectacled Flying-fox (Pteropus conspicillatus) - Endangered

Description

- 28. The Spectacled Flying-fox is black over most of its body, generally with a prominent yellow neck ruff and straw-coloured fur on its muzzle and around its eyes. Spectacled Flying-fox primarily eats fruit, and to a lesser extent nectar and pollen. They source their food in a broad range of habitats including from fruit trees in suburban backyards and orchards.
- 29. The peak mating season is between March and May with most pups born between October and December. Mature females devote most of their time to various stages of reproduction and juveniles are nursed for 3-5 months. From 3-5 months, they begin to become independent of their mothers; however, they receive some parental care for a number of months afterward.
- 30. The species has experienced continuing decline which recently accelerated with the unprecedented November 2018 heat stress event which resulted in the loss of approximately 32% of the national population.

Presence

- 31. The site is an established camp for the endangered Spectacled Flying-fox containing between 3,000-8,000 individuals, depending on seasonal variation. Works are proposed to be undertaken at the end of the 2019-2020 breeding season. The preliminary documentation states that the Spectacled Flying-fox has a high fidelity to the Cairns City Library camp and contains, on average, approximately 12 percent of the population of Spectacled Flying-fox.
- 32. The preliminary documentation notes that high rates of pup mortality have been recorded at the Cairns City Library site over each breeding seasons since 2014-2015. The reasons for the high rates of pup mortality are unknown, however the preliminary documentation concludes that this may be in part due to the diminishing quality of the roost site, construction activities in the immediate surrounds and more recently, heat events.

Habitat assessment

33. The Cairns City Library site is 4000 m² and is on the fringe of the Cairns Central Business District. The site has landscaped gardens with five large trees (*Ficus elastic, F. benjimina, Xanthostemon chrysanthus*) used by the Spectacled Flying-fox for roosting. The trees are protected under the State Heritage listing of the Cairns City Library property. Removal of the trees is not permitted under the heritage status of the site.

34. The preliminary documentation states that the progressive loss of roost trees from surrounding areas of the Cairns CBD has increased reliance on a small number of roost trees around the Cairns City Library site. The more intensive and persistent us of the roost trees surrounding the library is causing more frequent and sustained damage to the trees, reducing the health of the trees, further loss of roosts and increasing potential for falling branches.

Proposed action

- 35. The proposed action is to conduct deterrent activities using non-lethal pyrotechnics, high intensity lighting, audio Hyperspike (LRAD) and other audio, visual and olfactory negative reinforcers for up to 2.5 hours at sunrise and sunset on consecutive days for one month. Once the original roosting location, at the Cairns Library, has been abandoned, passive deterrent works, including tree pruning, will be undertaken to further enforce the negative association.
- 36. The proponent states that deterrent activities will be undertaken over a three to five-year period, with continuation governed by the demonstrated achievement of agreed performance outcomes to be determined as part of an ongoing monitoring program. The results of the monitoring program will determine whether the action should continue or cease.
- 37. The Council has undertaken an assessment of potential suitable relocation sites within 5 km to the west, south and east of the action site and has identified the preferred relocation site as two parcels of land at Cairns Central Swamp.
- 38. The Cairns Central Swamp is considered the preferred relocation site due to the presence of suitable habitat, location, current and previous land use and zoning (conservation). The site is adjacent to low to medium density and is considered less likely to result in adverse human and bat interactions. In particular, the Cairns Central Swamp site:
 - is a former roost site for Spectacled Flying-fox;
 - recent surveys have confirmed that the site contains approximately 30 hectares of remnant rainforest and paperbarks swamp suitable for Spectacled Flying-fox;
 - is located close to a permanent fresh water source;
 - is within a suitable proximity to the Cairns Library site; and
 - the vegetation has been calculated to have an average tree cover comparable to other sites occupied by Spectacled Flying-fox in the Cairns region.
- 39. The Department notes that the Cairns Central Swamp site has been surveyed to determined baseline habitat condition and presence of other flora and fauna. The Cairns Central Swamp site will be monitored for the purpose of assessing unintended consequences to other flora and fauna.

Impact assessment

40. The EPBC Act *Referral guidelines for management actions in grey-headed and spectacled flying-fox camps* (2015) states that dispersals to manage flying-foxes which are proposed during times of significant population stress have a higher risk of having a significant impact, even if mitigation measures are in place.

- 41. A time of significant population stress is considered to be more likely when an event/s has in the year prior to the proposed date of the action taking place, resulted in the mortality of 1.5 percent or more of the national population of Spectacled flying-fox.
- 42. The Department notes that prior to submission of the referral, high numbers of Spectacled Flying-fox pups had been found abandoned at the camp following stress events in November 2018 and March 2019 which were estimated to have caused the death of over 23,000 (approximately 32 percent) Spectacled Flying-fox nationally.
- 43. The Department notes that while proposed deterrent measures are non-lethal, the impact of the proposed use of pyrotechnics, high intensity lighting, audio Hyperspike and other audio, visual and olfactory negative reinforcers on the species have the potential to cause further and ongoing stress which will impact on breeding success of the Spectacled Flying-fox.
- 44. Experience with other flying-camps has shown a low likelihood of successful dispersal, involving continual disturbance of the animals to keep them out of the current location or other undesired sites. This continued disturbance may reduce the likelihood of successful breeding and recruitment to the Spectacled Flying-fox population.

Avoidance and mitigation measures

- 45. The proponent has prepared a Flying Fox Relocation Management Plan and a Dispersal and Relocation Implementation Plan to inform implementation and management of the proposed action (<u>Attachment B</u>). The Dispersal and Relocation Implementation Plan includes measures to minimise impacts to the Spectacled Flying-fox during relocation and deterrent activities. The proposed action:
 - is time limited and continuation is to be determined by the demonstrated achievement of objectives and performance criteria;
 - will occur between May and September, outside the pup rearing season;
 - will cease if heavily pregnant females and dependent pups are found to be present or if a flying-fox death is recorded due to the action.
- 46. The Dispersal and Relocation Implementation Plan also includes a monitoring and reporting program that will be undertaken to assess success against the objectives of the proposed action and performance criteria.
- 47. Monitoring is proposed at both the Cairns City Library and the Cairns Central Swamp sites. The monitoring will be undertaken by a suitably qualified expert and include:
 - pre-relocation monitoring- to determine the baseline biocondition of the Cairns Central Swamp, and preliminary counts of Spectacled Flying-fox at known roost sites at the Cairns City Library and within the Cairns region;
 - during relocation daily monitoring will be undertaken at both sites and any intermediate sites;
 - following relocation- annual monitoring of the Spectacled Flying-fox habitat condition at Cairns Central Swamp and Cairns City Library to evaluate the tree health; and
 - regular monitoring of Spectacled Flying-fox (monthly counts) at known roost sites in the Cairns region including but not limited to Cairns City Library and the Cairns Central Swamp sites.

- 48. The preliminary documentation states that monitoring is required to validate success and allow timely intervention to avoid adverse impacts. The performance criteria for the action, as set out in the preliminary documentation is:
 - no Spectacled Flying-fox deaths as a result of the deterrent activities;
 - no Spectacled Flying-fox deaths as a result of the relocation;
 - no increasing trend in pup mortality at the relocation site, as measured against data available for the Cairns City Library site, due to the action.
 - no significant impacts to non-target environmental values.
- 49. The Department notes that the Spectacled Flying-fox population at the Cairns Library site is monitored on a quarterly basis as part of the National Flying-fox Monitoring Program. The results of this program, which commenced in late 2012, are made available on the Departments website at: <u>http://www.environment.gov.au/webgis-framework/apps/ffc-wide/ffc-wide.jsf</u>

Conservation Advice, Recovery and Threat Abatement Plans

- 50. The *Conservation Advice* Pteropus conspicillatus *spectacled flying-fox* outlines the primary conservation and management actions to support the recovery of the Spectacled Flying-fox and is available at:<u>http://www.environment.gov.au/cgi-bin/sprat/public/publicspecies.pl?taxon_id=185</u>
- 51. The conservation advice states that the primary conservation actions are to:
 - protect habitat, including important roost and foraging sites from clearing and fragmentation; and
 - engage with the public to resolve conflicts between humans and flying foxes in ways which do not harm the species.
- 52. The preliminary documentation states that if the current situation prevails that there is a real risk that roosting habitat will be lost. In addition, there is the potential to perpetuate the conflict surrounding the risk of flying-foxes to human health. The proponent notes that education officers will liaise with the community prior to and during the implementation of the proposed action.
- 53. The National recovery plan for the spectacled flying fox Pteropus conspicillatus (2010) states that the key threats to the species are loss of habitat, illegal killing and incidental mortality, harassment by humans, natural events and increased incidence of tick paralysis. Many threats are localised, for example, tick paralysis tends to be a major issue in the Atherton Tablelands and disturbance of camps is an issue around residential areas.
- 54. The recovery plan states that the overall objectives of recovery are to secure the long-term protection of the species through a reduction in the impact of threats to species' survival and to improve the standard of information to guide recovery.
- 55. Relevant to the recovery plan, the proponent considers the proposed action will aid recovery through relocation of a nationally significant flying-fox colony from a site where the viability of the colony is diminishing to a more suitable relocation site.
- 56. The Department also considers the proposed action will assist in recovery of the species:

- through monitoring of the current camp site and relocation site to assess the short and long term population size and trends of the Spectacled Flying-fox in the Cairns CBD area; and
- through the proposed monitoring program, will increase knowledge of Spectacled Flying-fox roosting requirements.
- 57. The Department considers that, based on the information available, the proposed action to undertake dispersal and deterrent activities, is not inconsistent with the recovery objectives of the *National recovery plan for the spectacled flying fox* Pteropus conspicillatus (2010).

Proposed conditions of approval

- 58. To manage impacts to the Spectacled Flying-fox, the Department recommends that inclusion of conditions that:
 - restricts the timeframe, duration and location in which the deterrent and dispersal activities can be undertaken (conditions 1, 2 and 3),
 - includes specific performance criteria and stop work measures related to meeting performance criteria (conditions 7 and 10 to 14);
 - requires monitoring of the Spectacled Flying-fox at regular intervals during deterrent and dispersal activities, for the life of the proposed action (condition 7);
 - requires the implementation of a Dispersal and Relocation Implementation Plan and regular review and update of the plan (conditions 4 to 9); and
 - restricts the action from occurring if the population becomes stressed as defined in the referral guidelines.
- 59. The Department considers that the recommended proposed conditions will assist in ensuring that the proposed action is undertaken in a manner that reduces the risk of impacts to the Spectacled Flying-fox and includes appropriate time frames and measures to discontinue the action in the event that objectives and performance criteria are not met.

Conclusion

60. Based on the information available to the Department, the proposed measures to mitigate and manage impacts, and assuming compliance with the proposed conditions of approval, the Department concludes the proposed action will not have an unacceptable impact on the Spectacled Flying-fox.

Considerations for Approval and Conditions

Mandatory considerations – section 136(1)(b) Economic and social matters

- 61. Under section 136 of the EPBC Act, in deciding whether or not to approve an action and what conditions to attach to the approval, the Minister must consider economic and social, so far as they are not inconsistent with any other requirement of Subdivision B, Division 1 of Part 9 of the EPBC Act. The Department has considered economic and social matters in the assessment of the proposed action and in recommending the approval of the proposed action.
- 62. The Council has noted that if no action is undertaken it is likely to result in the loss of roost trees at the Cairns City Library site, reducing the aesthetic qualities of the area, and

potential for injury associated with the health of the trees (e.g. falling limbs). It may also result in perpetuating the human health risk associated flying foxes, and further harm to the species.

- 63. The aim of the proposed action is to relocate the Spectacled Flying-fox from their current site to a preferred site out of the Cairns CBD. In selecting a suitable relocation site, the proponent has taken into consideration potential conflicts with community facilities, business and residential areas.
- 64. The preliminary documentation states that the proponent has consider the cost associated with the deterrence methods, and this cost has been accommodated in Council budgets.
- 65. The cost of ongoing management actions was raised in the public submissions on the draft preliminary documentation. The proponent noted that further studies will be undertaken to explore approaches to flying-fox deterrents and management with the aim of reducing the future financial cost.

Factors to be taken into account

- 66. In considering the above matters, under section 136(2) of the EPBC Act, the Minister must take the following factors into account:
 - (a) the principles of ecologically sustainable development (section 136(2)(a)) and the precautionary principle (section 391(2));
 - (b) the final preliminary documentation given to the Minister under section 95B of the EPBC Act, and this recommendation report given to the Minister under section 95C of the EPBC Act (section 136(2)(c));
 - (c) any other information the Minister has on the relevant impacts of the proposed action (section 136(2)(e));
 - (d) any relevant comments given to the Minister in accordance with an invitation under section 131, 131AA or 131A of the EPBC Act (sections 136(2)(f) and 131AA(6));
 - (e) any relevant advice obtained by the Minister from the IESC in accordance with section 131AB of the EPBC Act (section 136(2)(fa)); and
 - (f) any information in a notice given to the Minister under section 132A of the EPBC Act.

Principles of ecologically sustainable development section 136(2)(a) and the precautionary principle (section 391(2))

- 67. In deciding whether or not to approve the taking of an action and the conditions to attach to an approval, section 136(2)(a) of the EPBC Act provides that you are required to take into account the principles of ecologically sustainable development (ESD). The principles of ESD, as defined in Part 1, section 3A of the EPBC Act, are:
 - (a) decision-making processes should effectively integrate both long-term and short-term economic, environmental, social and equitable considerations;
 - (b) if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation;

- (c) the principle of inter-generational equity that the present generation should ensure that the health, diversity and productivity of the environment is maintained or enhanced for the benefit of future generations;
- (d) the conservation of biological diversity and ecological integrity should be a fundamental consideration in decision-making;
- (e) improved valuation, pricing and incentive mechanisms should be promoted.
- 68. In addition, section 391 of the EPBC Act provides that you must take into account the precautionary principle in deciding whether or not to approve the taking of an action. The precautionary principle requires that, if there are threats of serious or irreversible environmental damage, lack of full scientific certainty should not be used as a reason for postponing measures to prevent environmental degradation.
- 69. This recommendation report and the preliminary documentation (<u>Attachment B</u>) contain information on the long-term and short-term economic, environmental, social and equitable considerations that are relevant to the decision and are presented for your consideration.
- 70. The Department has considered the biodiversity principle and ecological integrity in relation to relevant MNES and in recommending that the proposed action be approved. The Department considers the proponent's commitments to mitigate the impacts of the proposed action, particularly the implementation of management plans and the recommended proposed conditions of approval, allow for the proposed action to not have serious or irreversible impacts on biological diversity and ecological integrity.
- 71. The Department considers the costs of mitigation measures for any relevant impacts provide appropriate pricing and incentive mechanisms for the protection of MNES.
- 72. Overall, the Department considers there is sufficient information to conclude the proposed action is unlikely to have unacceptable impacts on MNES if it is undertaken in accordance with the proponent's commitments to mitigate the impacts of the proposed action and the proposed conditions of approval.

Preliminary documentation, and the recommendation report, relating to the proposed action (section 136(2)(bc))

- 73. In accordance with section 136(2)(bc)(i), the final preliminary documentation relating to the action has been given to the Minister (<u>Attachment B</u>) under section 95B(1) of the EPBC Act.
- 74. In accordance with section 136(2)(bc)(ii), this document forms the recommendation report relating to the action given to the Minister in accordance with section 95C of the EPBC Act.

Any other information the Minister has on the relevant impacts of the action (section 136(2)(e))

75. A total of 596 individual comments were received on the draft preliminary documentation (<u>Attachment B</u>).

Any relevant comments given to the Minister in accordance with an invitation under section 131, 131AA or 131A (section 136(2)(f) and section 131AA(6))

76. Letters notifying and inviting comment from the proponent and the Queensland Department of Environment and Science on the proposed decision are at <u>Attachment C</u> for your signature.

77. The above parties will be given 10 business days to comment on the proposed decision and conditions of approval. Any comments received in response to these invitations will be included in the final decision briefing package for consideration.

Any information given to the Minister in accordance with a request under section 132A (section 136(2)(g))

- 78. To date, the Minister has not requested a notice under section 132A of the EPBC Act.
- 79. The Minister may reconsider the possible application of section 132A when the final decision on whether or not to approve the taking of the proposed action is made and what conditions, if any, to attach to an approval.

Other considerations

Person's environmental history – section 136(4)

- 80. In deciding whether or not to approve the taking of the proposed action, and what conditions to attach to the approval, the Minister may, under section 136(4) of the EPBC Act, consider whether the person proposing to take the action is a suitable person to be granted an approval, having regard to:
 - the person's history in relation to environmental matters;
 - if the person is a body corporate the history of its executive officers in relation to environmental matters; and
 - if the person is a body corporate that is a subsidiary of another body or company (the parent body) – the history in relation to environmental matters of the parent body and its executive officers.
- 81. The Department has conducted a search of its compliance database to determine whether the proponent has an adverse compliance history in respect of the EPBC Act. No adverse environmental history for Cairns Regional Council was found, and no compliance action has been taken against the Cairns Regional Council it in relation to the EPBC Act.
- 82. Taking into consideration of the above, the Department considers that Cairns Regional Council is a suitable person to be granted an approval.

Considerations in deciding on condition – section 134

Section 134(1)

- 83. In accordance with section 134(1), the Minister may attach a condition to the approval of the action if he or she is satisfied that the condition is necessary or convenient for:
 - protecting a matter protected by a provision of Part 3 for which the approval has effect (whether or not the protection is protection from the action); or
 - repairing or mitigating damage to a matter protected by a provision of Part 3 for which the approval has effect (whether or not the damage has been, will be or is likely to be caused by the action).

Section 134(2)

84. In accordance with section 134(2), the Minister may attach a condition to the approval of the action if he or she is satisfied that the condition is necessary or convenient for:

- protecting from the action any matter protected by a provision of Part 3 for which the approval has effect; or
- repairing or mitigating damage that may or will be, or has been, caused by the action to any matter protected by a provision of Part 3 for which the approval has effect.
- 85. Section 134(2) does not limit section 134(1).
- 86. As discussed in the Assessment section above, and in the Department's proposed decision briefing package, all proposed conditions of approval are necessary or convenient to protect, repair and/or mitigate impacts on a matter protected by provision of Part 3 for which the approval has effect.

Section 134(3)

- 87. Section 134(3) provides examples of the kinds of conditions that the Minister may attach to an approval. The Department has recommended a number of proposed conditions consistent with this section of the EPBC Act.
- 88. The Department considers the proposed conditions of approval at <u>Attachment C</u> are within the scope of the Minister's powers under section 134 of the EPBC Act.

Section 134(4)

- 89. In accordance with section 134(4), in deciding whether to attach a condition to an approval, the Minister must consider:
 - any relevant conditions that have been imposed, or the Minister considers are likely to be imposed, under a law of a State or self-governing Territory or another law of the Commonwealth on the taking of the action;
- 90. The preliminary documentation notes that the proposed action will be undertaken in accordance with the Code of Practice Ecologically Sustainable management of flying-fox roots under the Queensland *Nature Conservation Act 1992*. The Department has considered the code in preparing the proposed conditions.
 - (aa) information provided by the person proposing to take the action or by the designated proponent of the action;
- 91. All relevant information provided by the proponent has been included in the Department's proposed decision briefing package to consider in deciding whether to attach the proposed conditions of approval. The proponent will be given 10 business days to comment on the proposed decision and conditions of approval. The comments provided by the proponent will be included in the final approval decision briefing package for consideration.
 - the desirability of ensuring as far as practicable that the condition is a cost effective means for the Commonwealth and a person taking the action to achieve the object of the condition.
- 92. The Department considers the proposed conditions of approval will be cost effective for both the proponent and Commonwealth and will ensure that MNES are protected over time.

Requirements for decisions about listed threatened species and communities (section 139)

- 93. In deciding whether or not to approve for the purposes of a subsection of section 18 or section 18A the taking of an action, and what conditions to attach to such an approval, the Minister must not act inconsistently with:
 - (a) Australia's obligations under:
 - (i) the Biodiversity Convention; or
 - (ii) the Apia Convention; or
 - (iii) CITES; or
 - (b) a recovery plan or threat abatement plan.

94. lf:

(a) the Minister is considering whether to approve, for the purposes of a subsection of section 18 or section 18A, the taking of an action; and

(b) the action has or will have, or is likely to have, a significant impact on a particular listed threatened species or a particular listed threatened ecological community;

• the Minister must, in deciding whether to so approve the taking of the action, have regard to any approved conservation advice for the species or community.

The Biodiversity Convention

- 95. The Biodiversity Convention is available at: http://www.austlii.edu.au/au/other/dfat/treaties/ATS/1993/32.html.
- 96. The objectives of the Biodiversity Convention, to be pursued in accordance with its relevant provisions, are the conservation of biological diversity, the sustainable use of its components and the fair and equitable sharing of the benefits arising out of the utilisation of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding.

Consideration

- 97. The proposed action was assessed by preliminary documentation which included a process for public review and comment. A revised draft preliminary documentation was also published by the proponent for public review and comment.
- 98. The preliminary documentation identified the impacts of the proposed action on MNES and included commitments to mitigate and manage those impacts. These commitments are discussed in the Assessment section above.
- 99. In addition to the commitments proposed by the proponent, the Department has recommended proposed conditions of approval which require mitigation and management measures for relevant MNES. The proposed conditions of approval require information related to the proposed action to be publicly available to ensure equitable sharing of information and improved knowledge relating to biodiversity.
- 100. The Department considered the Biodiversity Convention's ultimate aim of conservation of listed threatened species and communities in the wild when recommending the proposed conditions of approval.

- 101. The Department considers that, taking into account the information in the preliminary documentation, the proponent's avoidance, mitigation and management measures, and the proposed conditions of approval, the proposed action will not have an unacceptable impact on listed threatened species and communities.
- 102. As such, the Department is satisfied that the approval of the proposed action, and the proposed conditions of approval, are not inconsistent with Australia's obligations under the Biodiversity Convention.
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)
- 103. CITES is available at: <u>www.austlii.edu.au/au/other/dfat/treaties/ATS/1976/29.html</u>.
- 104. CITES is an international agreement between governments. Its aim is to ensure that international trade in specimens of wild animals and plants does not threaten their survival.

Consideration

105. The Department is satisfied that the approval of the proposed action, and the proposed conditions of approval, are not inconsistent with CITES as the proposed action does not involve international trade in fauna or flora.

Convention on the Conservation of Nature in the South Pacific (Apia Convention)

106. The Apia Convention is available at:

http://www.austlii.edu.au/au/other/dfat/treaties/ATS/1990/41.html.

107. The Apia Convention encourages the creation of protected areas which together with existing protected areas will safeguard representative samples of the natural ecosystems occurring therein (particular attention being given to endangered species), as well as superlative scenery, striking geological formations, and regions and objects of aesthetic interest or historic, cultural or scientific value.

Consideration

- 108. The Apia Convention was suspended with effect from 13 September 2006. While this Convention has been suspended, Australia's obligations under the Convention have been taken into consideration.
- 109. The Department is satisfied that the approval of the proposed action, and the proposed conditions of approval, are not inconsistent with Australia's obligations under the Apia Convention.

Recovery Plans and Threat Abatement Plans

110. The Recovery Plan relevant to the proposed action and assessment is:

Queensland Department of Environment and Resource Management (2010). *National recovery plan for the spectacled flying fox* Pteropus conspicillatus. Report to the Department of Sustainability, Environment, Water, Population and Communities, Canberra. Available from: <u>http://www.environment.gov.au/biodiversity/threatened/recovery-plans/national-recovery-plan-spectacled-flying-fox-pteropus-conspicillatus</u>.

111. As discussed in the Assessment section above, the Recovery Plan has been considered in making the recommendations for the Spectacled Flying-fox. The Department is satisfied the

approval of the proposed action, and proposed conditions of approval, are not inconsistent with the Spectacled Flying-fox Recovery Plan.

Threat Abatement Plan(s)

112. There are no relevant Threat Abatement Plan(s) relevant to this action.

Conservation Advice

113. The approved conservation advice(s) relevant to this proposed action is:

Threatened Species Scientific Committee (2019). Conservation Advice Pteropus conspicillatus spectacled flying-fox. Canberra, ACT: Department of the Environment and Energy. Available from:

http://www.environment.gov.au/biodiversity/threatened/recovery-plans/national-recovery-plan-spectacled-flying-fox-pteropus-conspicillatus

114. As discussed in the Assessment section above, the Department has had regard to the approved Conservation Advice relevant to the proposed action and has considered the likely impacts of the proposed action on the Spectacled Flying-fox throughout this recommendation report. For those reasons, the Department considers the approval of the proposed action, and proposed conditions of approval, have taken into account the approved Conservation Advice for the Spectacled Flying-fox.

Bioregional Plans section 176(5)

- 115. In accordance with section 176(5), the Minister is required to have regard to a bioregional plan in making any decision under the Act to which the plan is relevant.
- 116. The proposed action is not located within or near an area designated by a bioregional plan. The Department considers that there are no bioregional plans relevant to the proposed action.

Minister not to consider other matters

117. In deciding whether or not to approve the taking of an action, and what conditions to attach to an approval, the Minister must not consider any matters that you are not required or permitted, by Subdivision B, Division 1, Part 9 of the EPBC Act, to consider.

Condition-setting Policy

- 118. The Department has considered the likely scope and severity of the impacts on listed threatened species and communities and the proposed mitigation and management measures and considers that the proposal is likely to result in a significant impact on the Spectacled Flying-fox.
- 119. Accordingly, the Department considers it is necessary and convenient to apply proposed conditions of approval to the proposed action, as detailed in <u>Attachment C</u>.
- 120. In applying this analysis, the Department has had regard to the *EPBC Act Condition-setting Policy* (2016).

Duration of approval

121. The proponent states the proposed action will occur over three to five years with continuation determined by performance indicators. The preliminary documentation notes

that deterrent activities will continue until the Spectacled Flying-fox has abandoned the Cairns City Library site (<u>Attachment B</u>).

122. The Department recommends the approval remain valid for a period of 3 years to allow sufficient time to undertake the deterrent and relocation activities and determine if the actions have been effective in meeting the objective of permanently relocating the Spectacled Flying-fox population at the Cairns City Library.

Conclusion

- 123. The Department considers the impacts of the proposed action on relevant MNES will not be unacceptable, provided the proposed action is undertaken in accordance with the proposed mitigation and management measures described in the preliminary documentation, and assuming compliance with the proposed conditions of approval.
- 124. Having considered all matters and factors required to be considered under the EPBC Act in deciding whether or not to approve the action, the Department recommends the proposed action be approved, subject to the proposed conditions of approval.

Material used to prepare Recommendation Report

- 125. The following material has been used in preparing he recommendation report:
 - Final Preliminary documentation
 - Public comments on draft PD
 - Conservation Advice *Pteropus conspicillatus* spectacled flying-fox
 - National recovery plan for the spectacled flying fox Pteropus conspicillatus
 - EPBC Act Referral guidelines for management actions in grey-headed and spectacled flying-fox camps (2015)
 - Code of Practice 'Ecologically sustainable management of flying fox roosts' (2020)
 - ERT report dated 16 April.



Cairns Flying-fox Relocation Implementation Plan

Cairns Regional Council

Document Control Summary

NRA Environmental Consultants

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	Report Summary
Key Words	Cairns Regional Council, CRC, Spectacled Flying-fox, SFF, colony, Relocation Implementation Plan, EPBC Act, referral, monitoring, DAWE
Abstract	The Commonwealth Department of Agriculture, Water and the Environment is assessing a Commonwealth <i>Environment</i> <i>Protection and Biodiversity Conservation Act</i> 1999 referral application prepared by Cairns Regional Council (CRC) (EPBC 2019/8424) to relocate the Cairns City Flying-fox Colony through the <i>preliminary documentation</i> process. NRA prepared a revised Flying-fox Relocation Management Plan (FFRMP) on behalf of CRC. One of the commitments of the FFRMP was to prepare a Flying-Fox Relocation Implementation Plan (FFRIP).

Citation

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1. Background

1.1 Objective and summary of progress

Cairns Regional Council (CRC) proposes to relocate a roosting colony of Spectacled Flyingfox (*Pteropus conspicillatus*) (SFF)¹ at the Cairns City Library (Cairns City flying-fox colony 658, hereafter referred to as the Cairns City FF colony (DoEE 2019)). The objective is to relocate the Cairns City FF colony to a suitable alternative site.

A referral application (EPBC 2019/8424) under the Commonwealth *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act) for the proposed relocation was submitted to the Commonwealth Department of the Environment and Energy (DoEE)² for assessment. The decision notice from DoEE, dated 24 May 2019, advised that the proposed action was a *controlled action* and that the assessment approach would be via *preliminary documentation*. CRC engaged NRA Environmental Consultants (NRA) to prepare information to address the *preliminary documentation* requirements. This included the preparation of a revised Flying-fox Relocation Management Plan (FFRMP) (NRA 2019). CRC submitted the final *preliminary documentation* documents to the Department of Agriculture, Water and the Environment (DAWE) on 9 March 2020. DAWE confirmed in correspondence with CRC³ that an opportunity exists for an Implementation Plan to be submitted and considered as part of the decision on the referral.

1.2 Location of proposed relocation

The proposed relocation focuses on the current site of the Cairns City FF colony (Cairns City Library). NRA (2019) undertook a desk-based assessment of potential relocation sites, focusing on SFF roost site suitability. Cairns Central Swamp was identified as the proposed relocation site (NRA 2019); this site comprises the following land parcels (**Figure 1**):

- Lot 115 on NR800836 (which also contains Cairns Cemetery)
- Lot 122 on SP136287.

The focal area for relocation is being refined. Background studies by NRA (2020, in prep.) indicate that the most suitable area for relocation, based on habitat suitability and a lower risk of impacts to non-target environmental values (*ie* other flora and fauna; see **Section 3.1**), is in the central southern and western portion of Lot 122 on SP136287 (**Figure 1**).

CRC anticipates that the proposed relocation will require the use of deterrence and dispersal methods at other locations within 3 km of the Cairns City FF colony. Further details on these locations are provided in **Section 2.2.4**. CRC recognises that the relocation may lead to land use conflicts and/or direct conflicts between humans and flying-foxes farther afield in the Cairns region.

¹ Spectacled Flying-fox (SFF) is currently listed as endangered under the Commonwealth *Environment Protection and Biodiversity Conservation Act* 1999 and is a Matter of National Environmental Significance.

² Now the Commonwealth Department of Agriculture, Water and the Environment (DAWE).

³ Email correspondence between DAWE and CRC, dated 12 March 2020.



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1.3 Key management issues and risks

The relocation requires a coordinated approach to ensure adequate consultation, planning, resource allocation and instruction are provided to achieve the objectives. A summary of the known risks associated with the relocation is provided in **Table 1**. The risk of environmental harm is minimised through a combination of measures, as follows.

- Relocation site selection.
- Deterrence and relocation methods will be undertaken under the direction of a Suitably Qualified Person(s), ensuring the relevant statutory controls will be applied by practitioners with appropriate skills and experience.
- CRC work procedures will be adopted, and modified as relevant, for the relocation. These procedures include *CRC Flying-fox Colony Management Policy*, *CRC Flying Fox Assessment Matrix*, and *Site Specific Job Safety Analysis* (NRA 2019).
- Application of site-specific deterrence methods that are permissible, the costs of which are known and have been accommodated in CRC budgets, and proven to be effective.
- Application of methods used in other locales.
- Stakeholder consultation program.
- Publicly available reporting.
- Complaints register.
- Change management matrix.
- Contingency planning.

The risk that the methods are not suited to the relocation of the Cairns City FF colony is addressed in **Section 3.5**.
Risk	Comment	Management response
Health risks	Operational staff may interact with flying-foxes when undertaking	All personnel who are likely to physically interact with flying-foxes
	management actions. The general public and domestic animals	should be rabies/lyssavirus vaccinated, trained in roost
	could be at risk of flying-fox exposure. Stressed and/or exhausted	management, equipped with appropriate personal protective
	flying-foxes may fall to the ground and/or females may abort or	equipment and follow appropriate OH&S procedures. Where
	drop young, thus increasing the potential for human/pet exposure to	possible, the public are to be excluded from sites relevant to the
	flying-foxes. Stressed animals may also shed viruses at an increased	relocation, with signage and barriers to be erected.
	rate (Plowright et al. 2015).	
Impacts that interfere with the	Management actions may adversely affect the recovery of SFF,	Actions that could cause distress or harm to SFF should be planned
recovery objectives for SFF	particularly if conducted at times of the year when SFFs are	to coincide with times of the year when SFF are not breeding.
	breeding or rearing their young.	Actions should be planned and overseen by a Suitably Qualified
		Person who is knowledgeable about SFF behaviour. Procedures on
		the care and management of injured SFFs are to be documented and
		communicated to all personnel participating in deterrence/dispersal
		activities.
SFF injury/mortality (general)	SFF may be injured or killed during management actions.	A Suitably Qualified Person and/or Wildlife Carer who is
		knowledgeable about flying-fox behaviour should be in attendance
		or nearby and on call during management activities that have the
		potential to injure or kill SFFs. If an injury or mortality is observed,
		operations must cease immediately and DAWE and the Queensland
		Department of Environment and Science (DES) must be notified.
Injury/fatality due to aviation	Aviation strike may lead to injury or death.	A risk assessment needs to be undertaken to evaluate hazards and
strike (humans and SFF)		minimise the level of risk through avoidance or mitigation
		measures.
Legal breaches	Relocation could expose CRC to an increased risk of litigation.	All required Commonwealth and State Government approvals will
		be obtained prior to undertaking the relocation. The relocation will
		be undertaken in accordance with relevant Commonwealth approval
		conditions and the 'Code of Practice Ecologically sustainable
		management of flying-fox roosts' under the Queensland Nature
		Conservation Act 1992 (NC Act). The relocation will be attended by
		a Suitably Qualified Person who is knowledgeable about flying-fox
		behaviour.

Risk	Comment	Management response
Transferring or proliferating the problem	Dispersing flying-foxes from Cairns City FF colony may lead to increased human-flying-fox interactions at other locations. This	A suitable relocation site, alternative long-term roosts and potential intermediate roosts have been identified as part of the
	consequence is not arways predictable and may result in a larger or complex problem.	flying-foxes from moving to sensitive areas (<i>eg</i> deterrence barrier
		acknowledges that ongoing deterrence and potential follow-up
		dispersals may be required. This has been accommodated in
		implementation planning. CRC also proposes to undertake a pilot
		deterrence (for future implementation at the Cairns City FF colony).
Public safety at relocation site	Cairns Central Swamp has relatively limited security and safety	CRC will seek the necessary approvals to build a flying-fox release
	amenity. This poses a safety risk for members of the public,	enclosure (for care and release of rehabilitated flying-foxes) at the
	following relocation.	measures, such as fencing, lighting and surveillance cameras to improve public safety at the site.
	Lot 115 on NR800836 (which includes Cairns Cemetery) contains a	
	large area of potential roosting habitat for SFF (approximately	In the event that flying-foxes roosts in trees within Cairns
	21 ha). The majority of this habitat was assessed as being a suitable	Cemetery, and where conflicts are likely, CRC will allocate
	conflict between flying-foxes and visitors to the Cairns Cemetery.	habitat.
Impacts to non-target	The relocation and establishment of a new flying-fox roost in Cairns	CRC has commissioned a baseline study (NRA in prep.) to assess
environmental values	Central Swamp could have impacts on other flora and fauna values	the potential for impacts to flora and fauna values. The outcomes of
	at this location.	that assessment have influenced a focal area for a relocation within
		Cairns Central Swamp (Section 1.2). CRC will undertake further
		monitoring of non-targeted environmental values post-relocation to
		assess possible impacts and identify compensatory measures. Further details on monitoring are presented in Section 3
		r urmer actans on monitoring are presented in Section 5.

1.4 Consultation

Consultation has been undertaken with regulatory agencies relevant to the relocation. These include:

- DAWE
- DES
- The Commonwealth Civil Aviation Safety Authority (CASA).

Further consultation with regulatory agencies and other stakeholders (Section 2.2.3) will occur as implementation progresses.

CRC has been proactive in informing the community of its intention to relocate the Cairns City FF colony at forums, in the media and as part of the assessment process for the referral (*ie* the requirements of *preliminary documentation*). CRC published the revised FFRMP on 6 January 2020 and made it available for public comment between 6 and 31 January 2020. CRC engaged NRA to prepare a document that provided a summary of the public comments as well as responses to the summarised comments. This document is available on CRC's website. Further details on community consultation as part of implementation planning are provided in **Section 2.2.5**.

1.5 Overview of the relocation

The relocation will be undertaken in the following stages:

- Stage 1: baseline monitoring
- Stage 2: risk assessment, consultation and habitat enhancement
- Stage 3: relocation
- Stage 4: post-relocation deterrence and monitoring.

The following subsections provide an overview of each stage and an indication of timing, and the expected outcome.

1.5.1 Baseline monitoring

Baseline surveys of habitat and non-target environmental values at the proposed relocation site have been undertaken (NRA 2020, in prep.). Monthly monitoring of the SFF population in the Cairns region has commenced (NRA 2020). Baseline monitoring reporting will be completed in April 2020, with monthly monitoring to continue. Further details on monitoring and reporting are provided in **Section 3**.

1.5.2 Risk assessment, consultation and relocation site enhancement

A risk assessment needs to be undertaken to evaluate hazards and minimise the level of risk through avoidance or mitigation measures. The assessment is planned for completion by May 2020.

Consultation with key stakeholders will commence by May 2020, pending a decision on the EPBC Act referral. It is anticipated that all consultation will be completed by the end of June 2020.

CRC will seek the necessary approvals to install a flying-fox release enclosure (for care and release of rehabilitated flying-foxes) at the proposed relocation site in Cairns Central Swamp (**Figure 1**). A release enclosure was recently established by CRC in Edmonton, and CRC

will draw from this past experience to construct the same type of enclosure in Cairns Central Swamp. CRC plans to install the enclosure by the end of June 2020.

1.5.3 Relocation

The relocation will focus on moving flying-foxes away from the Cairns City FF colony. Therefore, relocation efforts will be centred on Cairns Library and potential roosting habitat within 500 m of this location. During relocation, dispersal and deterrence methods will be deployed concurrently. The relocation is planned to commence by 1 July 2020 and will continue for one month from commencement. Further details on relocation and the timing of relocation are presented in **Sections 2.1** and **2.2**.

1.5.4 Post-relocation deterrence and monitoring

Following relocation, deterrence will continue in key locations within 3 km of Cairns Library until the end of September 2020. After September, deterrence will continue indefinitely at locations within 500 m of the Cairns City FF colony at Cairns Library.

To improve the efficiency of deterrence in Cairns CBD, CRC will commission a pilot study into the management of flying-fox roosting behaviour, including improved deterrent methods (NRA 2019).

1.5.5 Expected outcome

As noted by NRA (2019), while the habitat remains in place, and while a population of SFFs persists in the broader landscape, the need for management of SFFs in Cairns City is highly likely to persist in perpetuity. CRC intends that the installation of a flying-fox release enclosure at the proposed relocation site (**Figure 1**) will ensure that the relocation achieves the establishment of a roost site in Cairns Central Swamp.

1.6 Implementation plan updates

The Cairns Flying-fox Relocation Implementation Plan is a 'live' document that will be responsive to changes in project planning, stakeholder priorities and risk assessment findings. Notwithstanding the evolution of the document in response to an expanding knowledge base, the logic behind the Cairns Flying-fox Relocation Implementation Plan should remain.

2. Relocation and Deterrence

2.1 Timing of relocation

The relocation will occur between May and September (*ie* outside of the SFF pup rearing season in accordance with DoE (2015))⁴. This aims to avoid a disruption to the species' breeding cycle. The relocation is planned to occur over one month, commencing by 1 July 2020. This timing is dependent on completion of implementation planning (see **Section 1.5.2**).

2.2 Relocation approach

2.2.1 Tools to be deployed

Relocation will be undertaken through established methods using tools and procedures best suited to the task⁵. In addition to established methods, CRC will consider using drones or a helicopter (if approved), which would be used to create and/or patrol a deterrence barrier between the Cairns City FF colony and Cairns Airport (further detail in **Section 2.2.4**). A list of tools that may be used for dispersal and deterrence during relocation is in **Table 2**.

Accented method	Cairns City	/ FF colony	Intermediate and	non-target sites
Accepted method -	Dispersal	Deterrence	Dispersal	Deterrence
Metal clangers	Х	Х	Х	Х
Pool noodles	Х	Х	Х	Х
Long-range acoustic device	Х	Х	Х	Х
Lights	-	Х	-	Х
Low-pressure water sprayers	Х	-	Х	-
Foggers	Х	-	Х	-
Non-lethal firearms ¹	Х	Х	-	Х
Drones or helicopter ²	-	-	-	X

 Table 2: Dispersal and deterrence tools relevant to the relocation

¹ With licensed operators and use of 'Birdfrite' or equivalent cartridges; pending approval following consultation with Emergency Services and DES.

² Pending approval by Air Services Australia (ASA) and CASA.

2.2.2 Roles and responsibilities

The roles and responsibilities of personnel will vary depending on a range of factors; in general, the following personnel will be involved.

• Project Manager – The Project Manager will be responsible for coordinating, planning and overseeing management activities, including engaging contractors. The Project Manager will be responsible for implementing relocation and ensuring that activities

⁴ The SFF birthing and pup rearing season occurs between October and April each year (Van Dyck & Strahan 2008). Actions in SFF colonies during this time pose a significant risk of disrupting the breeding cycle of the species (DoE 2015). In accordance with relevant guidelines (DoE 2015, EHP 2013), dispersal will take place outside of the pup-rearing season (*ie* between May and September).

⁵ The tools and procedures undertaken are to: be within the bounds of current legislation that addresses the management of flying-fox roosts in general (EHP 2013, DES 2013), and SFF in particular (DoE 2015); be granted animal ethics approval; and cause the least disturbance to non-target environmental values.

comply with legislative obligations. The Project Manager will liaise with CRC's Chief Executive Officer or delegate and other relevant department heads.

- Suitably Qualified Person The Suitably Qualified Person(s) will provide advice about the behaviour and ecology of flying-foxes, and associated environmental matters. The Suitably Qualified Person(s) will work closely with the Project Manager and other personnel to ensure that activities comply with legislative obligations, and will provide advice to facilitate effective management.
- The Relocation Supervisor The Relocation Supervisor will be responsible for managing the on-the-ground activities and will liaise with the Project Manager daily and other relevant entities as necessary.
- Contractors Suitably qualified contractors will undertake components of the activity, for example, relocation, deterrence and monitoring.
- Wildlife Care Personnel The Project Manager will facilitate the involvement of appropriate qualified Wildlife Carers in relocation. Existing procedures on how to deal with injured flying-foxes, and who to contact, will be used.
- Council Education/Media Officers Education/Media Officers will be responsible for communicating information about the planned activity.
- Additional Human Resources Additional resources may be deployed to assist with management activities and subsequent activities. They will be trained in aspects of flying-fox management relevant to their role.

2.2.3 Stakeholders

The following agencies and stakeholders will be consulted (or continue to be consulted) during implementation:

- DAWE
- DES
- CASA
- ASA
- Australian Airline Pilots Association (AAPA)
- Australian Aviation Wildlife Hazard Group (AAWHG)
- Queensland Health
- Cairns Airport
- Emergency Services
- Cairns Hospital
- Cairns Port Authority
- Commonwealth Department of Defence
- Trinity Bay State High School
- Parramatta State School
- NRMA Cairns Holiday Park
- Cairns High State School
- TAFE (Cairns Campus)
- CRC departments, including:
 - Planning and Environment
 - Community, Sport and Cultural Services
 - Water & Waste
 - Infrastructure Services.

2.2.4 Relocation method

The relocation method presented here is being developed and will be subject to further review. Development of the method involves planning and logistics, including the consideration of staged relocation events and intermediate relocation sites, stakeholder consultation, risk assessment and associated management response, mobilisation and conduct of relocation, monitoring and response, and corrective actions (NRA 2019). The risk that the established method is not suited to the relocation of the Cairns City FF colony is addressed in **Section 3.5**.

During relocation, dispersal and deterrence will be conducted concurrently. For planning purposes, the detailed methods have been created with specific reference to relocation categories, which are presented in **Figure 2**. These categories are as follows.

- Roost dispersal and deterrence area.
- Peripheral deterrence area.
- Airport deterrence barrier.
- Proposed relocation site.
- Alternative long-term roost.
- Potential intermediate roost.

A description of the relocation methods specific to each relocation category is provided in the following sections. The relocation categorisation and proposed methods specific to each land parcel are provided in **Table 3**.

Roost dispersal and deterrence area

This category addresses the current location of the Cairns City FF colony, as well as land parcels and street trees within 500 m of the Cairns City FF colony. Dispersal will occur daily for up to one month. To achieve effective dispersal and facilitate relocation, the plan will be enacted as follows.

- Deterrence in areas within 500 m of the Cairns City FF colony will occur between approximately 0400 and 0600 hours to encourage flying-foxes to land at the Cairns City FF colony (*ie* Cairns Library; as per CRC's existing daily management practices).
- Between approximately 0600 and 0700 hours, flying-foxes will be dispersed from Cairns City FF colony, with the aim of sending flying-foxes in a westerly direction. Deterrence in surrounding locations will continue during this time.

Peripheral deterrence area

This addresses land parcels >500 m from Cairns City FF colony. Most are on Strategic Port Land, and are a priority for deterrence. In these areas, the following methods apply.

- These sites will be monitored daily during relocation for signs of flying-fox roosting.
- Resources will be allocated following report and subsequent confirmation of flying-fox roosting.
- If roosting is confirmed, and resources are available within three hours of fly-in (*ie* approximately within the window of 0400-0700 hours), dispersal will be undertaken.
- Resources will be allocated and deterrence is to be undertaken for up to three days following confirmation of roosting or attempted roosting.

Airport deterrence barrier

The Cairns Airport is approximately 3.6 km north of the Cairns City FF colony. During relocation, there is an increased chance of aircraft strike due to flying-foxes flying into the path of aircraft following dispersal and deterrence. To reduce the likelihood, CRC plans to

maintain an airport deterrence barrier, spanning from Cairns Esplanade to the northern edge of the proposed relocation site. It is intended that the barrier will reduce the opportunity for dispersed flying-foxes to roost closer to the Cairns Airport and/or fly into the path of air traffic. The placement of this barrier (**Figure 2**) is indicative and will be refined in discussions with CASA, ASA and Cairns Airport.

There are three options being explored for creating the barrier.

- 1. Drones will be deployed and fitted with noise making devices and/or other non-lethal deterrents (*eg* fireworks or flashing lights). These will be operated by licensed and experienced commercial pilots with a radio licence and demonstrated experience in communicating with the ASA tower.
- 2. A helicopter will be used to patrol the barrier and deter flying-foxes with its presence. Spotters will be present on the ground and in the helicopter to alert the pilot to flying-fox movements in the area.
- 3. A ground crew of 20–30 personnel will form a disconnected chain with noise making implements. This could be used in combination with options 1 or 2. If option 3 is chosen alone, consideration will be given to use of firearms loaded with non-lethal 'Birdfrite' or equivalent cartridges.

Proposed relocation site

A flying-fox release enclosure (similar to the one recently constructed by CRC at Arthur Strike Park in Edmonton) will be constructed to encourage flying-fox roosting at the site. The approximate location of the enclosure is shown on **Figure 1**. The installation is to include security measures, such as fencing, lighting and surveillance cameras to improve public safety at the site. CRC intends that the presence of the enclosure, and specifically flying-foxes undergoing rehabilitation, will attract flying-foxes while dispersal and deterrent activities are being undertaken in other areas.

As noted in **Table 1**, CRC recognises a potential for conflict between flying-foxes and visitors to Cairns Cemetery. If flying-foxes start roosting in trees in Cairns Cemetery in places where conflicts are likely to occur, CRC will allocate resources to 'nudge' (*ie* deter or locally disperse) flying-foxes toward areas identified as suitable habitat by NRA (2020) within the relocation site.

Alternative long-term roost

Alternative long-term roosts are land parcels within 3 km of the Cairns City FF colony that are not currently occupied by a flying-fox roost (DoEE 2019). They present an alternative to the proposed relocation site as they have suitable tenure and the broad habitat characteristics typical of a SFF roost site. They are considered inferior to the proposed relocation site due to one or more of the following reasons.

- The land parcel is difficult to access for management and monitoring purposes.
- The land parcel contains a habitat area that is smaller than the area available in the proposed relocation site.

Potential intermediate roost

Potential intermediate roosts are located broadly in-between Cairns City FF colony and the proposed relocation site. These sites have conflicts that make them unsuitable as a long-term roost. However, due to their location and the presence of suitable habitat, they have been identified suitable short-term roosts. Dispersal and deterrence are planned for these land parcels. The intention is for dispersal and deterrence to be done strategically with reference to the tolerance timeframes specified in **Table 3**.



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Site	Distance from Cairns City FF colony (km)	Area of potential roosting habitat (ha)	Evidence of past use by SFF ¹	Zoning of relevant land parcels ²	Other zoning of adjacent land parcels ²	On-ground access for relocation management, contingency planning and post- relocation monitoring	Location relative to air traffic ³	Relocation planning categories	Deterrence frequency	Comments	Indicative staff resourcing
Lots 701–707, 727–730, C1981 and Lot 708, SP104594 (Cairns Library) and street trees	0-0.5	1.4	Yes	Community Facilities	 Principal Centre Tourist Accommodation Mixed Use 	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Roost dispersal and primary deterrence area	Daily (in perpetuity)	 During relocation, Cairns Library will be the focal site for dispersal If required, dispersal to occur on daily basis for one month Deterrence to occur in surrounding streets concurrent with dispersal Deterrence will be ongoing 	 Up to 20 deterrence personnel; two Suitably Qualified Persons to attend during dispersal One Suitably Qualified Person to attend during deterrence
Lot 202 SP210231 (Novotel Cairns Oasis Resort)	0.1	0.01	Yes	Tourist Accommodation	 Mixed Use Community Facilities 	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Roost dispersal and deterrence area	Daily (in perpetuity)	• A spill-over roost site associated with the Cairns City FF colony	 Up to one deterrence personnel to be allocated One Suitably Qualified Person on call to attend during deterrence
Lots 16 and 17, SP155099, Cairns Esplanade	0.3	0.8	Yes	Open Space	Strategic Port Land	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Roost dispersal and deterrence area	Daily (in perpetuity)	 Tourism amenity Not suitable as an intermediate site due to being in wrong direction for relocation 	 Up to three deterrence personnel to be allocated One Suitably Qualified Person to attend during deterrence
Lot 775, CP903631, Cairns Esplanade	0.2	0.8	Yes	Open Space	 Tourist Accommodation Principal Centre 	Yes	 Within typical flight path Within 3–8km wildlife hazard zone 	Roost dispersal and deterrence area	Daily (in perpetuity)	 Tourism amenity Not suitable as an intermediate site due to being in wrong direction for relocation 	 Up to four deterrence personnel to be allocated One Suitably Qualified Person on call to attend during deterrence
Lot 4, SP160326, Cairns Esplanade	0.3	0.8	Yes	Open Space	 Strategic Port Land Principal Centre 	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Roost dispersal and deterrence area	Daily (in perpetuity)	 Tourism amenity Not suitable as an intermediate site due to being in wrong direction for relocation 	 Up to three deterrence personnel to be allocated One Suitably Qualified Person on call to attend during deterrence
Lot 12, CP898622, Cairns Esplanade	0.5	0.3	Yes	Open Space	 Principal Centre Strategic Port Land 	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Roost dispersal and deterrence area	Daily (in perpetuity)	 Tourism amenity Not suitable as an intermediate site due to being in wrong direction for relocation 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person on call to attend during deterrence
Lot 13, SP214821, Cairns Wharf	0.5	0.5	Yes	Strategic Port Land	 Open Space Principal Centre	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Roost dispersal and deterrence area	Daily (in perpetuity)	 Strategic Port Land is a priority for deterrence (land use is not compatible with flying-fox roosting) 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person on call to attend during deterrence
Lot 11, C198325	0.6	0.5	No	Open Space	Tourist Accommodation	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Peripheral deterrence area	Daily during relocation (if required)	 Community amenity Not suitable as an intermediate site due to being closer to Cairns Airport and in wrong direction for relocation 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person to on call to attend during deterrence
Lot 3, NR810262, Cairns State High School	0.8	1.2	No	Community Facilities	 Tourist Accommodation Mixed Use	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Peripheral deterrence area	Daily during relocation (if required	 If roosting confirmed and action can be taken within three hours of the fly in time, attempt dispersal Allocate staff and deter for up to three days following an attempted roosting detection 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence

Table 3: Implementation plan for land parcels with potential for flying-fox roosting within 3 km of Cairns City FF colony

Site	Distance from Cairns City FF colony (km)	Area of potential roosting habitat (ha)	Evidence of past use by SFF ¹	Zoning of relevant land parcels ²	Other zoning of adjacent land parcels ²	On-ground access for relocation management, contingency planning and post- relocation monitoring	Location relative to air traffic ³	Relocation planning categories	Deterrence frequency	Comments	Indicative staff resourcing
Lot 1, SP113635, Cairns Wharf	0.8	0.1	No	Strategic Port Land	 Open Space Principal Centre	Yes	 Within typical flight path Within 3–8km wildlife hazard zone 	Peripheral deterrence area	Daily during relocation (if required)	 If roosting confirmed and action can be taken within three hours of the fly in time, attempt dispersal Allocate staff and deter for up to three days following an attempted roosting detection 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence
Lot 10, SP214821, Cairns Wharf	0.6	0.4	No	Strategic Port Land	 Principal Centre Open Space 	Yes	 Within typical flight path Within 3–8km wildlife hazard zone 	Peripheral deterrence area	Daily during relocation (if required)	 If roosting confirmed and action can be taken within three hours of the fly in time, attempt dispersal Allocate staff and deter for up to three days following an attempted roosting detection 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence
Lot 9, SP113632, Cairns Wharf	0.9	0.2	No	Strategic Port Land	 Principal Centre Open Space Special Purpose 	Yes	 Within typical flight path Within 3–8km wildlife hazard zone 	Peripheral deterrence area	Daily during relocation (if required)	 If roosting confirmed and action can be taken within three hours of the fly in time, attempt dispersal Allocate staff and deter for up to three days following an attempted roosting detection 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence
Lot 463, SP207571, Portsmith	2.0	0.5	No	Strategic Port Land	 High Impact Industry 	Yes	 Within typical flight path Within 3–8km wildlife hazard zone 	Peripheral deterrence area	Daily during relocation (if required)	 If roosting confirmed and action can be taken within three hours of the fly in time, attempt dispersal Allocate staff and deter for up to three days following an attempted roosting detection 	 Up to three deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence
Lot 183, SP207572, Portsmith	1.8	0.1	No	Strategic Port Land	 High Impact Industry Special Purpose 	Yes	 Within typical flight path Within 3–8km wildlife hazard zone 	Peripheral deterrence area	Daily during relocation (if required)	 If roosting confirmed and action can be taken within three hours of the fly in time, attempt dispersal Allocate staff and deter for up to three days following an attempted roosting detection 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence
Lot 142, SP205281, TAFE Queensland – Cairns	1.9	0.7	No	Community Facilities	 Low-Medium Density Residential Mixed Use Conservation Sports and Recreation 	Yes	 Outside typical flight path Within 3–8 km wildlife hazard zone 	Peripheral deterrence area	Daily during relocation (if required	 If roosting confirmed and action can be taken within three hours of the fly in time, attempt dispersal Allocate staff and deter for up to three days following an attempted roosting detection 	 Up to three deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence
Lot 4, RP725356, Portsmith	2.9	0.4	No	Medium Impact Industry	Community Facilities	Yes	 Outside typical flight path Within 3–8 km wildlife hazard zone 	Peripheral deterrence area	One occasion following each confirmation of roosting	 If roosting confirmed and action can be taken within three hours of the fly in time, attempt dispersal Allocate staff and deter for up to three days following an attempted roosting detection 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence
Lot 49, RP714522, Bungalow	2.7	0.2	No	Open Space	 Medium Impact Industry 	Yes	 Outside typical flight path Within 3–8 km wildlife hazard zone 	Peripheral deterrence area	One occasion following each confirmation of roosting	 Site is a community park; potential for conflict between humans and flying-foxes If roosting confirmed, allocate staff and deter the following day 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence

Site	Distance from Cairns City FF colony (km)	Area of potential roosting habitat (ha)	Evidence of past use by SFF ¹	Zoning of relevant land parcels ²	Other zoning of adjacent land parcels ²	On-ground access for relocation management, contingency planning and post- relocation monitoring	Location relative to air traffic ³	Relocation planning categories	Deterrence frequency	Comments	Indicative staff resourcing
Lot 3, CP881052	1.3	0.4	No	Community Facilities	 Mixed Use Medium Density Residential Low–Medium Density Residential 	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Peripheral deterrence area	One occasion following each confirmation of roosting	 Planted trees above a car park Other roosting habitat is present in adjacent land parcels, with fewer conflicts If roosting confirmed, allocate staff and deter the following day 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence
Lot 711, SP122864, Cairns Esplanade	0.7	1.3	No	Open Space	 Specialised Centre Tourist Accommodation Principal Centre 	Yes	 Within typical flight path Intersects 3 km wildlife hazard zone 	Airport deterrence barrier	Daily during relocation	• Deterrence method to be agreed in consultation with CASA and ASA	 Deterrence barrier will involve an allocation of approximately 20–30 deterrence personnel
Lot 71, SP136285 (Lily Street Environmental Reserve) and Lot 20, CP889332, Manunda	2.6	4.1	No	Conservation	 Open Space Medium Density Residential Low–Medium Density Residential 	Yes	 Within typical flight path Partially within 3 km wildlife hazard zone 	Airport deterrence barrier	Daily during relocation	• Deterrence method to be agreed in consultation with CASA and ASA	 Deterrence barrier will involve an allocation of approximately 20–30 deterrence personnel
Lot 615, SP201236 and Lot 401, SP201236	2.9-3.0	30	No	Open Space	 Conservation Tourist Accommodation Medium Density Residential Community Facilities 	Yes	 Edge of typical flight path Within 3 km wildlife hazard zone 	Airport deterrence barrier	Daily during relocation	Deterrence method to be agreed in consultation with CASA and ASA	 Deterrence barrier will involve an allocation of approximately 20–30 deterrence personnel
Lot 122, SP136287 (Cairns Central Swamp)	2.0	23.2	Yes	Conservation	 Low Impact Industry Low–Medium Density Residential Community Facilities Medium Density Residential 	Yes	 Outside typical flight path Within 3–8 km wildlife hazard zone 	Proposed relocation site	Not applicable	 This area contains suitable habitat for a flying-fox roost (NRA 2020) and is the intended relocation site CRC will manage conflicts if they arise; CRC will allocate resources to manage SFF at this site, including the installation of a flying-fox release enclosure to encourage roosting at this location 	• Not applicable
Lot 115, NR800836 (Cairns Central Swamp)	2.8	20.6	Yes	Conservation, Community Facilities	 Medium Density Residential Special Purpose Commercial, Sport and Recreation Mixed Use 	Yes	 Edge of typical flight path Partially within 3 km wildlife hazard zone 	Proposed relocation site	As required (if conflicts arise with cemetery)	 This area contains suitable habitat for a flying-fox roost (NRA 2020) and it may supplement the preferred roosting habitat in Lot 122 on SP136287 CRC will allocate resources to manage SFF at this site, but will not install infrastructure to encourage roosting due to proximity to Cairns Airport 	 Up to three deterrence personnel to be allocated (if required) One Suitably Qualified Person to attend during local dispersal (if required)
Lot 124 SP288898, Manunda	2.9	2	No	Conservation	 Low Impact Industry Mixed Use 	Yes	 Outside typical flight path Within 3–8 km wildlife hazard zone 	Alternative long- term roost	Not applicable	 Adjacent to the relocation site; identical habitat to a nearby roost (Anderson Street Flying-fox colony; Figure 2) May supplement roosting habitat in the proposed relocation site 	• Not applicable

Site	Distance from Cairns City FF colony (km)	Area of potential roosting habitat (ha)	Evidence of past use by SFF ¹	Zoning of relevant land parcels ²	Other zoning of adjacent land parcels ²	On-ground access for relocation management, contingency planning and post- relocation monitoring	Location relative to air traffic ³	Relocation planning categories	Deterrence frequency	Comments	Indicative staff resourcing
Lot 617, SP136301, Manunda	2.8	0.3	No	Low Impact Industry	Conservation	Yes	 Outside typical flight path Within 3–8 km wildlife hazard zone 	Alternative long- term roost	Not applicable	 Adjacent to the preferred roost May be used supplement roosting habitat in the proposed relocation site However, habitat extent is limited 	• Not applicable
Lot 10, SP296225, Portsmith	2.6	4.5	No	Conservation	 Medium Impact Industry Special Purpose 	Yes	 Outside typical flight path Within 3–8 km wildlife hazard zone 	Alternative long- term roost	Not applicable	 Limited conflicts Location offers limited shelter from inclement weather 	• Not applicable
Lot 1, AP13712, Portsmith	2.9	2	No	Conservation	 High Impact Industry Special Purpose 	No (limited nearby road access)	 Outside typical flight path Within 3–8 km wildlife hazard zone 	Alternative long- term roost	Not applicable	 No expected conflicts Difficult to access for roost management and monitoring 	• Not applicable
Lot 32, NR3051 (Admiralty Island)	2.5-3.5	600	Yes	Conservation		No (surrounded by water)	 Within typical flight path Within 3–8 km wildlife hazard zone 	Acceptable (non- preferred) roost	Not applicable	 Former roost site No conflicts Challenging to access for roost management and monitoring 	• Not applicable
Lot 158, NR5877 (East Trinity)	1.7	30	No	Rural	 Conservation Special Purpose 	No (on other side of Cairns inlet)	 Outside typical flight path Within 3–8 km wildlife hazard zone 	Alternative long- term roost	Not applicable	 Potential conflicts with future planning May be difficult to access for roost management and monitoring 	• Not applicable
Lot 123, SP136287, Parramatta Park	1.7	7.4	No	Conservation	 Medium Density Residential Low Density Residential 	Yes	 Edge of typical flight path Within 3–8 km wildlife hazard zone 	Alternative long- term roost	Not applicable	 No conflicts Challenging to access for roost management and monitoring 	• Not applicable
Lot 120, SP136287, Parramatta Park	1.6	4.9	No	Conservation	 Medium Density Residential Low–Medium Density Residential Community Facilities 	Yes	 Edge of typical flight path Within 3–8 km wildlife hazard zone 	Alternative long- term roost	Not applicable	 A small number of residences adjacent CRC will manage conflicts if they arise 	• Not applicable
Lot 119, SP136287, Westcourt	1.5	3.3	No	Conservation	 Medium Density Residential Low–Medium Density Residential Sports and Recreation Community Facilities 	Yes	 Edge of typical flight path Within 3–8 km wildlife hazard zone 	Potential intermediate roost	Daily for up to three days following roosting detection	 Habitat is adjacent to residences with potential for conflict If conflicts are reported and if repeat roosting occurs for four days, attempt dispersal Commence deterrence on day following dispersal and deter for up to three days following an attempted roosting detection 	 Up to three deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence

Site	Distance from Cairns City FF colony (km)	Area of potential roosting habitat (ha)	Evidence of past use by SFF ¹	Zoning of relevant land parcels ²	Other zoning of adjacent land parcels ²	On-ground access for relocation management, contingency planning and post- relocation monitoring	Location relative to air traffic ³	Relocation planning categories	Deterrence frequency	Comments	Indicative staff resourcing
Lot 3, RP701078, Cairns North	1.5	0.5	No	Open Space	 Medium Density Residential Community Facilities Special Purpose 	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Potential intermediate roost	Daily for up to three days following roosting detection	 Site is community open space that could tolerate occasional roosting If conflicts arise, commence deterrence as soon as practicable following report of conflicts and deter for up to three days following an attempted roosting detection 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person to attend during deterrence
Lot 43, SP188087, Portsmith	1.2	0.6	No	Community Facilities	 Mixed Use Specialised Centre 	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Potential intermediate roost	Daily for up to three days following roosting detection	 Site is a community facility that could tolerate roosting on a short- term basis If repeat roosting occurs for two or more days, attempt dispersal Commence deterrence on day following dispersal and deter for up to three days following an attempted roosting detection 	 Up to five deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence
Lot 750, CP912877, Parramatta Park	1.5	0.5	No	Specialised Centre	 Special Purpose Medium Density Residential Mixed Use 	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Potential intermediate roost	Daily for up to three days following roosting detection	 Site contains sporting facilities, but could tolerate roosting on a short-term basis If repeat roosting occurs for four days, attempt dispersal Commence deterrence on day following dispersal and deter for up to three days following an attempted roosting detection 	 Up to three deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence
Lot 768, NR6238, Parramatta Park	1.3	0.4	No	Specialised Centre	 Special Purpose Medium Density Residential Mixed Use Community Facilities 	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Potential intermediate roost	Daily for up to three days following roosting detection	 Site is a community facility that could tolerate roosting on a short- term basis If repeat roosting occurs for two days, attempt dispersal Commence deterrence on day following dispersal and deter for up to three days following an attempted roosting detection 	 Up to three deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence
Lot 1, SP284128 (Munro Martin Park)	0.4	1	Yes	Open Space	 Mixed Use Tourist Accommodation Community Facilities 	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Potential intermediate roost	Daily for up to three days following roosting detection	 Site is community open space that could tolerate occasional roosting for approximately one day on each occasion If repeat roosting occurs, attempt dispersal Commence deterrence on day following dispersal and deter for up to three days following an attempted roosting detection 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence

Site	Distance from Cairns City FF colony (km)	Area of potential roosting habitat (ha)	Evidence of past use by SFF ¹	Zoning of relevant land parcels ²	Other zoning of adjacent land parcels ²	On-ground access for relocation management, contingency planning and post- relocation monitoring	Location relative to air traffic ³	Relocation planning categories	Deterrence frequency	Comments	Indicative staff resourcing
Lot 813, C1987 (McLeod St Pioneer Cemetery)	1.2	1.6	No	Community Facilities	 Special Purpose Medium Density Residential Tourist Accommodation 	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Potential intermediate roost	Daily for up to three days following roosting detection	 Site is a community facility that could tolerate occasional roosting for approximately one day on each occasion If repeat roosting occurs, attempt dispersal Commence deterrence on day following dispersal and deter for up to three days following an attempted roosting detection 	 Up to three deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence
Lot 102, SP153989, Parramatta Park	1.1	0.6	No	Open Space	 Medium Density Residential Low Density Residential Community Facilities 	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Potential intermediate roost	Daily for up to three days following roosting detection	 Site is community open space that could tolerate occasional roosting for approximately one day on each occasion If repeat roosting occurs, attempt dispersal Commence deterrence on day following dispersal and deter for up to three days following an attempted roosting detection 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence
Lot 14, SP165248, Parramatta Park	0.9	0.5	No	Open Space	 Tourist Accommodation Mixed Use Medium Density Residential Low Density Residential 	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Potential intermediate roost	Daily for up to three days following roosting detection	 Site is community open space that could tolerate occasional roosting for approximately one day on each occasion If repeat roosting occurs, attempt dispersal Commence deterrence on day following dispersal and deter for up to three days following an attempted roosting detection 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence
Lot 766, NR6566, Parramatta Park	1.2	0.5	No	Open Space	 Low Density Residential Community Facilities Medium Density Residential 	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Potential intermediate roost	Daily for up to three days following roosting detection	 Site is community open space that could tolerate occasional roosting for approximately one day on each occasion If repeat roosting occurs, attempt dispersal Commence deterrence on day following dispersal and deter for up to three days following an attempted roosting detection 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence
Lot 3, RP701079, Cairns North	1.4	0.6	No	Open Space	 Medium Density Residential Community Facilities Special Purpose 	Yes	 Within typical flight path Within 3–8 km wildlife hazard zone 	Potential intermediate roost	Daily for up to three days following roosting detection	 Site is community open space that could tolerate occasional roosting for approximately one day on each occasion if repeat roosting occurs, attempt dispersal Commence deterrence on day following dispersal and deter for up to three days following an attempted roosting detection 	 Up to two deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence

Site	Distance from Cairns City FF colony (km)	Area of potential roosting habitat (ha)	Evidence of past use by SFF ¹	Zoning of relevant land parcels ²	Other zoning of adjacent land parcels ²	On-ground access for relocation management, contingency planning and post- relocation monitoring	Location relative to air traffic ³	Relocation planning categories	Deterrence frequency	Comments	Indicative staff resourcing
Lot 140, NR4198 (Trinity Bay High School)	2.5	3.9	Yes	Community Facilities	 Low-Medium Density Residential Conservation Sport and Recreation 	Yes	 Edge of typical flight path Within 3–8 km wildlife hazard zone 	Potential intermediate roost	Daily for up to three days following roosting detection	 Habitat is adjacent to residences and community facilities with potential for conflict If repeat roosting occurs for four days and if conflicts are reported, attempt dispersal Commence deterrence on day following dispersal and deter for up to three days following an attempted roosting detection 	 Up to three deterrence personnel to be allocated One Suitably Qualified Person to attend during dispersal and deterrence

¹As reported in Garnett et al. (1999) or by DoEE (2019). Also includes areas within 0.5 km of the Cairns City FF colony where SFF may seek roosting opportunities.

² Zones identified with reference to CRC (2019).

³ Assessed with reference to Appendix F in NRA (2019).

2.2.5 Community consultation and engagement

CRC's communications team will engage with the community during the implementation process. Consultation will be conducted via, but not limited to, information dissemination through existing tools, public meetings, mail questionnaires, and interviews with key stakeholders.

2.2.6 Animal welfare and conservation

For the relocation, CRC will engage the assistance of Wildlife Carers and Suitably Qualified Persons in the Cairns region. The personnel acting in these roles will provide guidance on animal welfare during relocation. Suitably Qualified Persons will hold current animal ethics approval⁶. Stop triggers will be in place to prompt a halt to activities and review in the event of a death as part of the relocation (see **Section 3.5**).

2.2.7 Human safety

During relocation, there will be an increased risk of humans coming in to contact with flying-foxes. To manage this risk, the following measures will be implemented.

- All ground personnel are to be vaccinated against Australian Bat Lyssavirus (Rabies vaccine) and are to be educated to avoid direct contact with flying-foxes.
- All ground personnel are to attend a project induction and will operate under CRC's Job Hazard Analysis for flying-fox management and deterrence.
- Barricades are to be installed at target locations in the roost dispersal and deterrence area to reduce the risk of public exposure to flying-foxes.

2.3 Ongoing deterrence approach

2.3.1 Tools to be deployed

Existing non-lethal procedures and tools will be used for ongoing deterrence (see **Section 2.2.1**). The tools that may be used for deterrence are listed in **Table 2**.

2.3.2 Deterrence method

The existing deterrence method will be used for ongoing deterrence. The method involves background planning and logistics, stakeholder consultation, risk assessment and associated management response, mobilisation and conduct of deterrence, monitoring and response, and corrective actions. The risk that the established method is not suited to the deterrence of the Cairns City FF colony is addressed in **Section 3.5**.

2.3.3 Animal welfare and conservation

The existing deterrence method is undertaken by a third-party contractor engaged by CRC (2017 to current). During this period, no animal deaths due to the deterrence method have been recorded⁷. CRC will engage the assistance of Wildlife Carers and Suitably Qualified Persons in the Cairns region, when required. The risk that the established method is not suited to the deterrence of the Cairns City FF colony is addressed in **Section 3.5**.

⁶ Issued by Queensland Department of Agriculture and Fisheries Animal Ethics Committee.

⁷ CRC records of deterrence, 29 April 2017 – 2 August 2019.

2.3.4 Human safety

For ongoing deterrence, the following measures will be implemented.

- All ground personnel are to be vaccinated against Australian Bat Lyssavirus (Rabies vaccine) and are to be educated to avoid direct contact with flying-foxes.
- All ground personnel will operate under CRC's Job Hazard Analysis for flying-fox management and deterrence.

3. Monitoring and Reporting

3.1 Environmental values to be monitored

The following $TNT\&M^8$ flora and fauna values relevant to the relocation and/or likely or known to occur in the relocation site will be monitored.

- Spectacled Flying-Fox (*Pteropus conspicillatus*) Endangered, EPBC Act and NC Act.
- Bare-rumped Sheathtail Bat (*Saccolaimus saccolaimus nudicluniatus*) Vulnerable, EPBC Act; Endangered, NC Act.
- White-throated Needletail (*Hirundapus caudacutus*) Vulnerable, EPBC Act and NC Act.
- Ant-plant (*Mymecodia beccari*) Vulnerable, EPBC Act and NC Act.
- Apollo Jewel (Hypochrysops apollo apollo) Vulnerable, NC Act.
- Macleay's Fig-parrot (Cyclopsitta diopthalma macleayana) Vulnerable, NC Act.
- Fork-tailed Swift (*Apus pacificus*) Migratory, EPBC Act; Special Least Concern, NC Act.
- Oriental Cuckoo (*Cuculus optatus*) Migratory, EPBC Act; Special Least Concern, NC Act.
- Black-faced Monarch (*Monarcha melanopsis*) Migratory, EPBC Act; Special Least Concern, NC Act.
- Spectacled Monarch (*Symposiachrus trivirgatus*) Migratory, EPBC Act; Special Least Concern, NC Act.
- Rufous Fantail (*Rhipidura rufifrons*) Migratory, EPBC Act; Special Least Concern, NC Act.
- Short-beaked Echidna (Tachyglossus aculeatus) Special Least Concern, NC Act.

3.2 Monitoring program

The following monitoring methods are reproduced from NRA (2019). Monitoring of SFF, their habitat and non-target environmental values (*ie* TNT&M flora and fauna in **Section 3.1**) at the current site of the Cairns City FF colony and Cairns Central Swamp will occur, where appropriate. This will be undertaken by a Suitably Qualified Person(s) as follows.

- Pre-relocation (in progress):
 - baseline monitoring for the purpose of habitat assessment at Cairns Central Swamp, which will include BioCondition monitoring in accordance with EHP (2017)
 - baseline monitoring at Cairns Central Swamp for the purpose of assessing unintended consequences to other flora and fauna, which is to be undertaken cognisant of accepted methods (*eg* Eyre *et al.* 2018)

⁸ Flora and fauna species listed under the Queensland Nature Conservation Act 1992 (NC Act) and/or Commonwealth Environment Protection and Biodiversity Conservation Act 1999 (EPBC Act) as Critically Endangered, Endangered, Vulnerable, Near Threatened, Migratory or Special Least Concern.

- preliminary monitoring of SFF (monthly counts) at known roost sites in the Cairns region⁹, in accordance with methods used by DAWE for the national monitoring program (DoEE 2019), including at least one survey for the presence of dependant pups at the Cairns City FF colony on the day prior to commencement of relocation.
- During relocation:
 - daily monitoring of SFF at the current site of the Cairns City FF colony
 - daily monitoring of SSF at Cairns Central Swamp
 - daily monitoring of SFF at intermediate sites should these occur as a component of relocation to Cairns Central Swamp.
- Following relocation (and to continue for three years):
 - annual monitoring of SFF habitat condition at Cairns Central Swamp
 - periodic monitoring at Cairns Central Swamp (*ie* once in the wet season and once in the dry season)¹⁰ to assess unintended consequences to other flora and fauna, which is to be undertaken cognisant of accepted methods (*eg* Eyre *et al.* 2018)
 - annual monitoring at the current site of the Cairns City FF colony undertaken following the wet season to evaluate tree condition
 - regular monitoring of SFF (monthly counts) at known roost sites in the Cairns region, including (but not limited to) the current site of the Cairns City FF colony and the relocation site at Cairns Central Swamp.

Reporting will be conducted for each relevant component at each stage of the program (detailed in **Section 3.2.1**). The monitoring program will be subject to annual review and any revisions agreed in writing with DAWE.

3.2.1 Overview of sites, timeframes, frequency and reporting

An overview of monitoring sites, timeframes and frequency of monitoring is provided in **Table 4.**

Component	Environmental values	Sites	Timeframe	Frequency	Reporting
Pre- relocation (baseline)	SFF (habitat)	Proposed relocation site	Pre-relocation (undertaken in 2019) ¹	Once	One report, complete (NRA 2020)
	Flora and fauna listed in Section 3.1	Proposed relocation site	Pre-relocation (undertaken in 2020) ²	Once	One report, in progress (NRA in prep.)
	SFF	Cairns region ³	Pre-relocation (commenced October 2019) ¹	Monthly	One report, issued annually

Table 4: Monitoring of environmental values

⁹ In accordance with the research of Westcott and McKeown (2014), SFFs move regularly between colonies and numbers can fluctuate strongly on a daily basis. Therefore, regular monitoring of SFF in the Cairns region will be completed (commencing October 2019) on a single day each month prior to relocation to provide a snapshot of the overall SFF population within the region.

¹⁰ The dry season and the wet season are nominally from 1 April to 31 October and 1 November to 31 March, respectively.

Component	Environmental values	Sites	Timeframe	Frequency	Reporting
Relocation	SFF	Cairns City FF	During	Daily	One report
		colony	relocation		issued
		Proposed			following
		relocation site	_		completion
		Intermediate			of relocation
		roost sites (see			
		Table 3)			
Post-	SFF (habitat)	Proposed	Three years	Annual	One report,
relocation		relocation site	post-relocation		issued
					annually
	Flora and fauna			Once in wet	One report,
	listed in			season, once	issued
	Section 3.1			in dry season	annually
	Heritage-listed	Cairns City FF	-	Annual	One report,
	trees	colony			issued
			_		annually
-	SFF	Cairns region ³	_	Monthly	One report,
		_		-	issued
					annually

¹ NRA (2020).

² NRA (in prep.).

³ 'Cairns region' refers to Flying-fox colonies with observations of SFF within 30 km of Cairns City FF colony as shown on the National Flying-fox Monitoring Viewer (DoEE 2019) (NRA 2020).

3.3 Relocation success indicators

Monitoring is required to validate success and to allow for timely intervention to avoid impacts. The overarching objective of the action is to achieve relocation and avoid harm. The success criteria for the objective are presented in **Table 5**.

Table 5: Success criteria for deterrence and relocation (adapted and expanded from NRA (2019))

Component Cairns City FF colony current Relocation Nil SFF deaths Post-relocation Nil SFF deaths deterrence and Vil SFF deaths	Success criterion			
	Cairns City FF colony current site	Relocation site (Cairns Central Swamp)		
Relocation	Nil SFF deaths	Not applicable		
Post-relocation	Nil SFF deaths	No increasing trend in SFF pup mortality		
deterrence and		relative to estimated population ¹		
monitoring		No significant impacts to non-target		
		environmental values ²		

¹No increasing trend as measured against the available data for the breeding seasons from 2014 recorded at Cairns City FF colony, due to the action (NRA 2019).

² As measured against significant impact criteria in DoE (2013) and EHP (2014).

3.4 Relocation stop triggers

As noted in NRA (2019), contingency planning seeks to identify incipient failures in the relocation and, where failure has occurred, to minimise environmental harm by mitigating impacts through a timely response.

Contingency planning provides a framework for responding to a failure as opposed to itemising all possible failure events (and the magnitude of failure). The monitoring program serves to provide warning of pending failure.

Failure to achieve direct relocation may occur and is accounted for in the relocation method through allowing for temporary roosting at intermediate sites.

However, response to significant failure events needs to be handled in consultation with relevant stakeholders. The following mechanisms for avoiding significant impacts will be implemented.

- During pre-relocation, the relocation is be rescheduled when:
 - one or more dependant pups are detected and verified by a Suitably Qualified Person(s)¹¹.
- During relocation, stop works when:
 - the action has resulted in the death of an SFF as determined by a Suitably Qualified Person(s)
 - one or more dependant pups are detected and verified by a Suitably Qualified Person(s).

3.5 Change management

As noted in NRA (2019), it is possible that some tools or procedures will require modification as the relocation is implemented. The modifications may be minor, moderate or significant. Moderate and minor changes will occur, and it is expected that significant modifications will be the exception. To accommodate the range of circumstances likely to occur, a change management decision matrix is presented in **Table 6**.

	Minor	Moderate		Significant
Authority required	Switch between accepted methods (Table 2)	Confirm suitability and timeframe of interim relocation sites	Implement new dispersal method	Change final relocation destination
The Relocation	√	×	×	×
Supervisor				
Project Manager	-	✓	×	*
Suitably Qualified	√	-	×	×
Person				
DES	-	-	✓	×
DAWE	-	✓	✓	✓

Table 6: Change management decision matrix (modified from NRA (2019))

✓ Authorised to undertake.

* Not authorised to undertake.

- Denotes that authority level is not required.

3.6 Criteria to determine the need for further roost management

3.6.1 Cairns City FF colony

The following criterion will determine the need for further roost management at the Cairns City FF colony.

 SFFs continuing to roost at the Cairns City FF colony (or in the CBD within 500 m of the Cairns City FF colony) following completion of relocation.

¹¹ The relocation action is to be rescheduled to occur when no dependant pups can be detected by a Suitably Qualified Person(s) at the current site of the Cairns City FF colony.

3.6.2 Relocation site

The following criteria will determine the need for further roost management at the proposed relocation site.

- Confirmation of a decreasing trend in habitat quality in the results of annual monitoring.
- An increasing trend in pup mortality detected at the proposed relocation site¹².

3.6.3 Intermediate and non-target sites

The following criteria will determine the need for further roost management at potential intermediate roosts and alternative long-term roosts.

- If significant conflicts arise between humans and flying-foxes and require intervention.
- If empirical or anecdotal data provide a clear indication that the roost is not meeting the recovery objectives of the national recovery plan (DERM 2010) and there is an opportunity (*ie* access for management purposes and approvals in place) for CRC to intervene.

¹² As measured against the available data for the available breeding seasons from 2014 onward recorded at Cairns City FF colony (NRA 2019).

4. Review

4.1 Scope

Review of this Implementation Plan will include an evaluation of the approaches to relocation and ongoing deterrence, monitoring and reporting. The review will be conducted at relocation completion, and thereafter on an annual basis. Each review will provide an opportunity to evaluate overall project progress, successes and lessons learned.

4.2 Implementation

4.2.1 Approach

The following aspects of the method will be reviewed.

- Relocation approach:
- tools
- roles and responsibilities
- stakeholder consultation
- method
- community consultation and engagement
- animal welfare and conservation
- human safety
- overall effectiveness of approach (to inform further roost management, if required).
- Deterrence approach:
 - tools
 - method
 - animal welfare and conservation.
 - human safety
 - overall effectiveness of approach.

4.2.2 Monitoring

The following aspects of the method will be reviewed:

- environmental values to be monitored
- method
- success indicators
- stop triggers
- change management
- criteria to determine the need for further roost management.

4.2.3 Reporting

The review of reporting will include the following.

- Evaluation of overall project progress, successes and lessons learned.
- Review of the effectiveness of reporting in communicating the monitoring results.

4.3 Continuous improvement

This implementation plan is intended to be a live document (see **Section 1.6**). The outcomes of each review will be used to inform updates to the Implementation Plan. Any revisions to the Implementation Plan will be agreed in writing with DAWE.

5. References

CRC 2019, *CairnsPlan 2016 Version 2.1* [Current version of the planning scheme; adopted by Cairns Regional Council on 23 October 2019 and commenced on and from 11 November 2019].

DERM 2010, *National recovery plan for the spectacled flying fox Pteropus conspicillatus*, prepared by Queensland Department of Environment and Resource Management for the Commonwealth Department of Sustainability, Environment, Water, Population and Communities, Canberra.

DES 2013, Code of Practice – Ecologically sustainable management of flying-fox roosts Queensland Nature Conservation Act 1992, Conservation and Biodiversity Operations Branch, Department of Environment and Science, November 2013.

DoE 2013, *Matters of National Environmental Significance – Significant impact guidelines* 1.1, Australian Government, Department of the Environment, Canberra.

DoE 2015, Referral Guideline for Management Actions in Grey-headed and Spectacled Flying-fox Camps, EPBC Act Policy Statement September 2015, Australian Government Department of the Environment, Canberra.

DoEE 2019, *National Flying-fox monitoring viewer*, Department of the Environment and Energy, Canberra, viewed 22 July 2019, http://www.environment.gov.au/webgis-framework/apps/ffc-wide/ffc-wide.jsf.

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EHP 2014, *Queensland Environmental Offsets Policy Significant Residual Impact Guideline: Nature Conservation Act* 1992, *Environmental Protection Act* 1994, *Marine Parks Act* 2004, Biodiversity Integration and Offsets, Ecosystem Outcomes, Queensland Department of Environment and Heritage Protection, December 2014.

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Eyre, TJ, Ferguson, DJ, Hourigan, CL, Smith, GC, Mathieson, MT, Kelly, AL, Venz, MF, Hogan, LD & Rowland, J 2018, *Terrestrial Vertebrate Fauna Survey Assessment Guidelines for Queensland Version 3.0*, Department of Environment and Science, Brisbane.

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NRA 2019, *Cairns Flying-fox Relocation Management Plan*, R07, prepared by NRA Environmental Consultants for Cairns Regional Council, 13 December 2019.

NRA 2020, *Cairns Central Swamp Baseline Flying-fox Habitat Condition Assessment*, R01, Prepared by NRA Environmental Consultants for Cairns Regional Council, 24 January 2020.

NRA in prep, *Cairns Central Swamp Targeted Flora and Fauna Assessment*, in preparation by NRA Environment Consultants for Cairns Regional Council.

Plowright, RK, Field, HE, Smith, C, Divljan, A, Palmer, C, Tabor, G, Daszak, P & Foley, JE 2008, 'Reproduction and nutritional stress are risk factors for Hendra virus infection in little red flying-foxes (*Pteropus scapulatus*)', *Proceedings of the Royal Society of London B: Biological Sciences*, 275, 861–869.

Van Dyck, S & Strahan, R (eds) 2008, *The mammals of Australia*, New Holland Publishers, Sydney, 887pp.

Westcott, D & McKeown, A 2014, *Spectacled flying-fox monitoring in the Wet Tropics Region*, Report to the National Environmental Research Program, Reef and Rainforest Research Centre Limited, Cairns.



Environmental Approval & Compliance Solutions

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Natural Resource Assessments Pty Ltd trading as NRA Environmental Consultants. ABN: 77 011 073 135 Certified Integrated Management System: AS/NZS ISO 9001:2015 (Quality), AS/NZS ISO 14001:2015 (Environment), AS/NZS 4801:2001 (Safety).



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Australian Government Department of Agriculture, Water and the Environment

PROPOSED APPROVAL

Flying-fox relocation measures, 151 Abbott Street, Cairns, Queensland, (EPBC 2019/8424)

This decision is made under sections 130(1) and 133(1) of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*. Note that section 134(1A) of the EPBC Act applies to this approval, which provides in general terms that if the approval holder authorises another person to undertake any part of the action, the approval holder must take all reasonable steps to ensure that the other person is informed of any conditions attached to this approval, and that the other person complies with any such condition.

Details

Person to whom the approval is granted (approval holder)	Cairns Regional Council
ACN or ABN of approval holder	ABN 24 310 025 910
Action	To implement deterrent measures to disperse and permanently relocate a nationally important population of Spectacled Flying-fox (<i>Pteropus conspicillatus</i>) located at 151 Abbott Street, Cairns, Queensland (see EPBC Act referral 2019/8424).

Proposed Approval decision

My decision on whether or not to approve the taking of the action for the purposes of the controlling provision for the action is as follows.

Controlling Provisions

Listed Threatened Species and Communities		
Section 18	Approve	
Section 18A	Approve	

Period for which the approval has effect

This approval has effect until 1 October 2023

Decision-maker

Name and position	Andrew McNee	
	First Assistant Secretary	
	Environment Approvals Division	
	Department of Agriculture, Water and the Environment	
Signature	PROPOSED DECISION - DO NOT SIGN	_
Date of decision	PROPOSED DECISION - DO NOT DATE	

Conditions of approval

This approval is subject to the conditions under the EPBC Act as set out in ANNEXURE A.

ANNEXURE A – CONDITIONS OF APPROVAL

Part A – Conditions specific to the action

- 1. The proposed relocation activities must only be undertaken within the flying-fox management areas shown in Figure 1 unless otherwise agreed in writing by the **Minister**.
- 2. To ensure there are no **adverse impacts** on the Spectacled Flying-Fox (*Pteropus conspicillatus*) (SFF) from the action, **relocation activities** must:
 - a. be carried out using **non-lethal measures**;
 - b. be limited to a maximum of 2 periods, of up to 2.5 hours, in each 24 hour period, and be conducted before sunrise and after sunset;
 - c. be maximum of 30 days for each period of relocation activities;
 - d. must not **commence** during or immediately after a period of **significant population stress.**
- 3. To ensure there are no **adverse impacts** on the SFF from the action, **relocation activities** must:
 - a. be carried out using non-lethal measures;
 - a. only be undertaken in the key locations identified in Figure 1
 - b. be discontinued when the monitoring detects the the presence of heavily pregnant females (in last trimester), dependent young SFF, sick, injured or dead SFF.

Action Management Plan

- 4. The approval holder must implement the Cairns Flying-fox Relocation Implementation Plan.
- 5. Within 60 days of the completion of each period of **relocation activities**, the approval holder must undertake a review of the **Cairns Flying-fox Relocation Implementation Plan** for the purposed of amending the **Cairns Flying-fox Relocation Implementation Plan**.
- 6. The review and any amendments to the **Cairns Flying-fox Relocation Implementation Plan** must be undertaken by a independent **suitably qualified expert**.
- 7. The amended Cairns Flying-fox Relocation Implementation Plan must include:
 - a. an assessment of the performance against the relocation success indicators;
 - b. the outcomes of the monitoring program described in the **Cairns Flying-fox Relocation Implementation Plan**;
 - c. any changes to **Cairns Flying-fox Relocation Implementation Plan** required to avoid **adverse effects** on SFF.
- 8. The amended **Cairns Flying-fox Relocation Implementation Plan** must be submitted to the **Department** for the written approval of the **Minister**, prior to the commencement of **relocation activities**.
- 9. If the **Cairns Flying-fox Relocation Implementation Plan** is approved by the Minister, the amended **Cairns Flying-fox Relocation Implementation Plan** must be implemented.

Cease relocation activities provisions

- 10. The **SFF camp** and the **alternative relocation sites** must be monitored in accordance with the monitoring program described in the **Cairns Flying-fox Relocation Implementation Plan** to detect changes to SFF numbers, extent of roosting, ill health, death or injury to SFF, changes in SFF flying or roosting behaviour and any signs of stress in the SFF colony attributable to the action.
- 11. The results of the monitoring must be reviewed each day by a **suitably qualified expert** to:
 - a. determine the impacts of the relocation activities on SFF; and
 - b. decide if **relocation activities** can continue.

- 12. If the approval holder detects through monitoring required at condition 7 that a **relocation success indicator** has been reached, the approval holder must report this to the **Minister** within one **business day** of the detection.
- 13. The approval holder must cease **relocation activities** within one business day following determination that a **relocation success indicator** has been reached.
- 14. The approval must not recommence relocation activities until agreed to by the Department.

Part B – Standard administrative conditions

Notification of date of commencement of the action

- 15. The approval holder must notify the **Department** in writing of the date of **commencement of the action** within 10 **business days** after the date of **commencement of the action**.
- 16. If the **commencement of the action** does not occur within 5 years from the date of this approval, then the approval holder must not **commence the action** without the prior written agreement of the **Minister**.

Compliance records

- 17. The approval holder must maintain accurate and complete **compliance records**.
- 18. If the **Department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **Department** within the timeframe specified in the request.

Note: Compliance records may be subject to audit by the **Department** or an independent auditor in accordance with section 458 of the **EPBC Act**, and or used to verify compliance with the conditions. Summaries of the result of an audit may be published on the **Department**'s website or through the general media.

Publication of plans

19. The approval holder must:

- a. submit **plans** electronically to the **Department** for approval by the **Minister**;
- b. publish each **plan** on the **website** within 20 **business days** of the date the **plan** is approved by the **Minister** or of the date a revised action management plan is submitted to the **Minister** or the **Department**, unless otherwise agreed to in writing by the **Minister**;
- c. exclude or redact **sensitive ecological data** from **plans** published on the **website** or provided to a member of the public; and
- d. keep **plans** published on the **website** until the end date of this approval.
- 20. The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval, is prepared in accordance with the **Department's** *Guidelines for biological survey and mapped data* (2018) and submitted electronically to the **Department** within 30 business day.

Annual compliance reporting

- 21. The approval holder must prepare a **compliance report** for each 12 month period following the date of **commencement of the action**, or otherwise in accordance with an annual date that has been agreed to in writing by the **Minister**. The approval holder must:
 - a. publish each **compliance report** on the **website** within 60 **business days** following the relevant 12 month period;
 - b. notify the **Department** by email that a **compliance report** has been published on the **website** and provide the weblink for the **compliance report** within five **business days** of the date of publication;

- c. keep all compliance reports publicly available on the website until this approval expires;
- d. exclude or redact **sensitive ecological data** from **compliance reports** published on the **website**; and
- e. where any **sensitive ecological data** has been excluded from the version published, submit the full **compliance report** to the **Department** within 5 **business days** of publication.

Note: Compliance reports may be published on the Department's website.

Reporting non-compliance

- 22. The approval holder must notify the **Department** in writing of any: **incident**; non-compliance with the conditions; or non-compliance with the commitments made in **plans**. The notification must be given as soon as practicable, and no later than two **business days** after becoming aware of the **incident** or non-compliance. The notification must specify:
 - a. any condition which is or may be in breach;
 - b. a short description of the incident and/or non-compliance; and
 - c. the location (including co-ordinates), date, and time of the **incident** and/or non-compliance. In the event the exact information cannot be provided, provide the best information available.
- 23. The approval holder must provide to the **Department** the details of any **incident** or noncompliance with the conditions or commitments made in **plans** as soon as practicable and no later than 10 **business days** after becoming aware of the **incident** or non-compliance, specifying:
 - a. any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future;
 - b. the potential impacts of the incident or non-compliance; and
 - c. the method and timing of any remedial action that will be undertaken by the approval holder.

Independent audit

- 24. The approval holder must ensure that **independent audits** of compliance with the conditions are conducted as requested in writing by the **Minister**.
- 25. For each independent audit, the approval holder must:
 - a. provide the name and qualifications of the independent auditor and the draft audit criteria to the **Department**;
 - b. only commence the **independent audit** once the audit criteria have been approved in writing by the **Department**; and
 - c. submit an audit report to the **Department** within the timeframe specified in the approved audit criteria.
- 26. The approval holder must publish the audit report on the **website** within 10 **business days** of receiving the **Department's** approval of the audit report and keep the audit report published on the **website** until the end date of this approval.

Completion of the action

27. Within 30 days after the **completion of the action**, the approval holder must notify the **Department** in writing and provide **completion data**.

Part C - Definitions

In these conditions, except where contrary intention is expressed, the following definitions are used:

Adverse impacts -means an exceedance of a limit as a result of the project

Business day means a day that is not a Saturday, a Sunday or a public holiday in the state or territory of the action.

Cairns Flying-fox Relocation Implementation Plan means the Cairns Flying-fox Relocation Implementation Plan dated 27 March 2020 or any subsequent amended **Cairns Flying-fox Relocation Implementation Plan** approved by the Minister.

Commencement/recommencement of the action means the first instance of any specified activity associated with the action.

Completion data means an environmental report and spatial data clearly detailing how the conditions of this approval have been met. The **Department**'s preferred spatial data format is **shapefile**.

Completion of the action means all specified activities associated with the action have permanently ceased.

Compliance records means all documentation or other material in whatever form required to demonstrate compliance with the conditions of approval in the approval holder's possession or that are within the approval holder's power to obtain lawfully.

Compliance reports means written reports:

- i. providing accurate and complete details of compliance, **incidents**, and non-compliance with the conditions and the **plans**;
- ii. consistent with the **Department's** Annual Compliance Report Guidelines (2014)
- iii. include a **shapefile** of any clearance of any **protected matters**, or their habitat, undertaken within the relevant 12 month period; and
- iv. annexing a schedule of all **plans** prepared and in existence in relation to the conditions during the relevant 12 month period.

Department means the Australian Government agency responsible for administering the **EPBC Act**.

EPBC Act means the Environment Protection and Biodiversity Conservation Act 1999 (Cth).

Event means heat stress events, cyclone or bush fire events (which result in either significant mortality or server food shortages).

Incident means any event which has the potential to, or does, impact on one or more **protected matter(s)**.

Independent audit: means an audit conducted by an independent and **suitably qualified person** as detailed in the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines* (2019)

Monitoring data means the data required to be recorded under the conditions of this approval.

Minister means the Australian Government Minister administering the **EPBC Act** including any delegate thereof.

Nationally important means camps that have contained \geq 16,000 spectacled flying-foxes in more than one year in the last 10 years, or have been occupied by spectacled flying-foxes in at least 50 per cent of the surveys over the last 10 years.

Non-lethal measures means metal clangers, pool noodles, long-range acoustice devices, lights, low pressure water sprayers, inflatable devices and foggers. Non-lethal measures do not include the use of non-lethal firearms, drones and helicopers.

Plan(s) means any of the documents required to be prepared, approved by the **Minister**, and/or implemented by the approval holder and published on the **website** in accordance with these conditions (includes action management plans and/or strategies).

Relocation activities means the use of **non-lethal measures** to disperse SFF from the **SFF camp** and deter SFF from roosting at the **SFF camp** and other unsuitable areas in the Cairns CBD area.

Relocation success indicators means the relocation success indicators described in the **Cairns Flyingfox Relocation Implementation Plan.**

Sensitive ecological data means data as defined in the Australian Government Department of the Environment (2016) *Sensitive Ecological Data – Access and Management Policy V1.0.*

Significant population stress means, in the year prior to the proposed date of the action taking place, an **event** has occurred which results in the mortality of 1.5 percent or more of the national population of spectacled flying-fox.

SFF camp means the **nationally important** Spectacled Flying-fox camp located at 151 Abbot Street, Cairns.

Suitably qualified person means a person who has professional qualifications, training, skills and/or experience related to the nominated subject matter and can give authoritative independent assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and/or literature.

Website means a set of related web pages located under a single domain name attributed to the approval holder and available to the public.

Figure 1:



Recommended print size: A4

Australian Government

Department of Agriculture, Water and the Environment FOI 200512 Document 6

EPBC Ref: 2019/8424

s47F

Manager Community Developnment Cairns Regional Council 119–145 Spence Street CAIRNS QLD 4870

Dear s47F

Invitation to comment on proposed approval decision Flying-fox relocation, 151 Abbott Street, Cairns, Queensland

I am writing to you in relation to your proposal to implement deterrent measures to disperse and permanently relocate a nationally important population of Spectacled Flying-fox (*Pteropus conspicillatus*) located at 151 Abbott Street, Cairns, Queensland (the proposed action). The Proposed Action was referred and assessed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) for its impacts on listed threatened species and ecological communities (sections 18 and 18A)

I am proposing to approve the proposed action subject to conditions.

My proposed decision of approval is attached. In accordance with the EPBC Act, I invite you to provide comments on my proposed decision of approval, including the conditions which I propose to attach, within 10 business days of the date of this letter.

Please quote the title of the action and EPBC reference, as shown at the beginning of this letter, in any correspondence. You can send comments to:

by letter s22 Queensland North Assessments Department of Agriculture, Water and the Environment GPO Box 787 CANBERRA ACT 2601

by email

If you have any questions about this decision or would like to arrange a meeting to discuss the proposed conditions, please contact the project manager, s22 by email to s22 or telephone s22 and quote the EPBC reference number shown at the beginning of this letter.

Yours sincerely

Ille

s22

Andrew McNee Assistant Secretary Assessments and Governance Branch 22-April 2020
Australian Government



Department of Agriculture, Water and the Environment FOI 200512 Document 7

EPBC Ref: 2019/8424

s47F Director Impact Assessment and Operational Support Department of Environment and Science GPO Box 2454 BRISBANE QLD 4001

Dear s47F

Invitation to comment on proposed approval decision Flying-fox relocation, 151 Abbott Street, Cairns, Queensland

I am writing to you in relation to a proposal to implement deterrent measures to disperse and permanently relocate a nationally important population of Spectacled Flying-fox (*Pteropus conspicillatus*) located at 151 Abbott Street, Cairns, Queensland. The above proposal was referred and assessed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) for its impacts on listed threatened species and communities (sections 18 and 18A).

I am proposing to approve this proposal. My proposed decision is attached.

I understand that you may have administrative responsibilities relating to the action. I invite you to provide comments on my proposed decision within 10 business days of the date of this letter, including on any matters of economic or social concern that should be considered consistent with the principles of ecologically sustainable development.

Please quote the title of the action and EPBC reference, as shown at the beginning of this letter, in any correspondence. You can send information to us:

by letter

Queensland North Assessments Department of Agriculture, Water and the Environment GPO Box 787 CANBERRA ACT 2601

by email

Yours sincerely

6. Mhr.

s22

Andrew McNee Assistant Secretary Assessments and Governance Branch 22_April 2020

EPBC Act Listed Threatened Species and Ecological Communities Statutory Documents Report

Listed threatened species and ecological communities (sections 18 and 18A)

The Department considers that proposed action will have, or likely to have, a significant impact on the following listed threatened species and/or ecological communities:

• Spectacled Flying-fox (*Pteropus conspicillatus*) – Endangered

Approved Conservation Advices

 Threatened Species Scientific Committee (2019). Conservation Advice Pteropus conspicillatus spectacled flying-fox. Canberra, ACT: Department of the Environment and Energy. Available from: <u>http://www.environment.gov.au/biodiversity/threatened/species/pubs/185-conservationadvice-22022019.pdf</u>.

Recovery Plans

 Queensland Department of Environment and Resource Management (2010). National recovery plan for the spectacled flying fox Pteropus conspicillatus. Report to the Department of Sustainability, Environment, Water, Population and Communities, Canberra. Available from: <u>http://www.environment.gov.au/biodiversity/threatened/recovery-plans/nationalrecovery-plan-spectacled-flying-fox-pteropus-conspicillatus</u>.

Threat Abatement Plans

Nil.

EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected. Please see the caveat for interpretation of information provided here.

2019-8424 Flying-fox relocation measures-5km buffer

Report created: 16/04/2020 11:34:44

Summary Details Matters of NES Other Matters Protected by the EPBC Act Extra Information Caveat Acknowledgements



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA Australia Limited



Summary

Matters of National Environment Significance

World Heritage Properties:	2
National Heritage Places:	3
Ramsar Wetlands:	None
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Threatened Ecological Communities:	2
Threatened Species:	54
Migratory Species:	65

Other Matters Protected by the EPBC Act

Commonwealth Lands:	6
Commonwealth Heritage Places:	None
Listed Marine Species:	119
Whales and Other Cetaceans:	12
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Australian Marine Parks:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have

State and Territory Reserves:	8
Regional Forest Agreements:	None
Invasive Species:	31
Nationally Important Wetlands:	1
EPBC Act Referrals:	16
Key Ecological Features (Marine):	None

Details

Matters of National Environmental Significance

World Heritage Properties		[Resource Information]
Name	State	Status
Great Barrier Reef	QLD	Declared property
Wet Tropics of Queensland	QLD	Declared property

National Heritage Places		[Resource Informati	ion]
Name	State	Status	
Indigenous			
Wet Tropics World Heritage Area (Indigenous Values)	QLD	Within listed place	
Natural			
Great Barrier Reef	QLD	Listed place	
Wet Tropics of Queensland	QLD	Listed place	

	Threatened	Ecol	logical	Comm	unities
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For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Status of Vulnerable, Disallowed and Ineligible are not MNES under the EPBC Act.

Name	Status	Type of Presence
Broad leaf tea-tree (Melaleuca viridiflora) woodlands in high rainfall coastal north Queensland	Endangered	Community may occur within area
Littoral Rainforest and Coastal Vine Thickets of Eastern Australia	Critically Endangered	Community likely to occur within area
Threatened Species		[Resource Information]
Status of Conservation Dependent and Extinct are not N Number is the current name ID.	INES under the EPBC Act	
Current Scientific Name	Status	Type of Presence
BIRD		

Calidris canutus

Red Knot, Knot [855]

Endangered

Species or species habitat known to occur within area

[Resource Information]

Current Scientific Name	Status	Type of Presence
<u>Calidris ferruginea</u> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
<u>Calidris tenuirostris</u> Great Knot [862]	Critically Endangered	Roosting known to occur within area
Casuarius casuarius johnsonii Southern Cassowary, Australian Cassowary, Double- wattled Cassowary [25986]	Endangered	Species or species habitat known to occur within area
Charadrius leschenaultii Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Roosting known to occur within area
<u>Charadrius mongolus</u> Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Erythrotriorchis radiatus Red Goshawk [942]	Vulnerable	Species or species habitat likely to occur within area
Fregetta grallaria grallaria White-bellied Storm-Petrel (Tasman Sea), White- bellied Storm-Petrel (Australasian) [64438]	Vulnerable	Species or species habitat likely to occur within area
Hirundapus caudacutus White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area
Limosa lapponica baueri Bar-tailed Godwit (baueri), Western Alaskan Bar-tailed Godwit [86380]	Vulnerable	Species or species habitat known to occur within area
Limosa lapponica menzbieri Northern Siberian Bar-tailed Godwit, Bar-tailed Godwit (menzbieri) [86432]	Critically Endangered	Species or species habitat

may occur within area

Numenius madagascariensis

Eastern Curlew, Far Eastern Curlew [847]

Critically Endangered Sp

Species or species habitat known to occur within area

Rostratula australis Australian Painted Snipe [77037]

Endangered

Species or species habitat known to occur within area

Current Scientific Name	Status	Type of Presence
Turnix olivii Buff-breasted Button-quail [59293]	Endangered	Species or species habitat likely to occur within area
Tyto novaehollandiae kimberli Masked Owl (northern) [26048]	Vulnerable	Species or species habitat likely to occur within area
FROG		
Litoria dayi Australian Lace-lid, Lace-eyed Tree Frog, Day's Big- eyed Treefrog [86707]	Vulnerable	Species or species habitat known to occur within area
Litoria nannotis Waterfall Frog, Torrent Tree Frog [1817]	Endangered	Species or species habitat likely to occur within area
Litoria rheocola Common Mistfrog [1802]	Endangered	Species or species habitat likely to occur within area
MAMMAL		
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat may occur within area
Dasyurus hallucatus Northern Quoll, Digul [Gogo-Yimidir], Wijingadda [Dambimangari], Wiminji [Martu] [331]	Endangered	Species or species habitat likely to occur within area
Dasyurus maculatus gracilis Spotted-tailed Quoll (North Queensland), Yarri [64475]	Endangered	Species or species habitat may occur within area
Hipposideros semoni Semon's Leaf-nosed Bat, Greater Wart-nosed	Vulnerable	Species or species habitat

may occur within area

Macroderma gigas Ghost Bat [174]

Vulnerable

Species or species habitat likely to occur within area

Megaptera novaeangliae Humpback Whale [38]

Vulnerable

Species or species habitat known to occur within area

Current Scientific Name	Status	Type of Presence
Mesembriomys gouldii rattoides		
Black-footed Tree-rat (north Queensland), Shaggy Rabbit-rat [87620]	Vulnerable	Species or species habitat may occur within area
Phascolarctos cinereus (combined populations of Qld. N	NSW and the ACT)	
Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat may occur within area
Pteropus conspicillatus		
Spectacled Flying-fox [185]	Endangered	Species or species habitat known to occur within area
Rhinolophus robertsi		
Large-eared Horseshoe Bat, Greater Large-eared Horseshoe Bat [87639]	Vulnerable	Species or species habitat likely to occur within area
Saccolaimus saccolaimus nudicluniatus		
Bare-rumped Sheath-tailed Bat, Bare-rumped Sheathtail Bat [66889]	Vulnerable	Species or species habitat known to occur within area
Xeromys myoides		
Water Mouse, False Water Rat, Yirrkoo [66]	Vulnerable	Species or species habitat may occur within area
ριαντ		
Bruquiera bainesii		
Haines's Orange Mangrove [88756]	Critically Endangered	Species or species habitat known to occur within area
Canarium acutifolium		
[23956]	Vulnerable	Species or species habitat likely to occur within area
Carronia pedicellata		
[24178]	Endangered	Species or species habitat may occur within area

Dendrobium mirbelianum

Dark-stemmed Antler Orchid, Mangrove Orchid [14310]

Endangered

Species or species habitat may occur within area

Dendrobium nindii an orchid [11289]

Endangered

Current Scientific Name	Status	Type of Presence
Diplazium cordifolium [15585]	Vulnerable	Species or species habitat likely to occur within area
<u>Diplazium pallidum</u> [12764]	Endangered	Species or species habitat may occur within area
Eleocharis retroflexa a sedge [23672]	Vulnerable	Species or species habitat known to occur within area
Myrmecodia beccarii Ant Plant [11852]	Vulnerable	Species or species habitat likely to occur within area
Phaius pictus [22564]	Vulnerable	Species or species habitat likely to occur within area
Polyphlebium endlicherianum Middle Filmy Fern [87494]	Endangered	Species or species habitat likely to occur within area
Vappodes lithocola Dwarf Butterfly Orchid, Cooktown Orchid [78893]	Endangered	Species or species habitat likely to occur within area
Zeuxine polygonoides Velvet Jewel Orchid [46794]	Vulnerable	Species or species habitat may occur within area
REPTILE		
Caretta caretta Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area

Chelonia mydas Green Turtle [1765]

Vulnerable

Breeding known to occur within area

Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]

Endangered

Breeding likely to occur within area

Eretmochelys imbricata Hawksbill Turtle [1766]

Vulnerable

Foraging, feeding or related behaviour known to occur within area

Current Scientific Name	Status	Type of Presence
Lepidochelys olivacea		
Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Breeding likely to occur within area
Natator depressus		
Flatback Turtle [59257]	Vulnerable	Foraging, feeding or related behaviour known to occur within area
SHARK		
Carcharodon carcharias		
White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
Drietie prietie		
Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat known to occur within area
Pristis ziisron		
Green Sawfish, Dindagubba, Narrowsnout Sawfish [68442]	Vulnerable	Breeding likely to occur within area
Rhincodon typus		
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Sphyrna lewini Seellened Llemmerheed [05207]	Concernation Dependent	Creation or or original hebitat
Scalloped Hammernead [85267]	Conservation Dependent	likely to occur within area
Migratory Species		[Resource Information]
Current Scientific Name	Threatened	Type of Presence
Migratory Marine Birds		
Anous stolidus		
Common Noddy [825]		Species or species habitat

Species or species habitat known to occur within area

Apus pacificus

Fork-tailed Swift [678]

Species or species habitat likely to occur within area

Fregata ariel

Lesser Frigatebird, Least Frigatebird [1012]

Species or species habitat known to occur within area

Fregata minor

Great Frigatebird, Greater Frigatebird [1013]

Species or species habitat known to occur within area

Current Scientific Name	Threatened	Type of Presence
<u>Sternula albifrons</u> Little Tern [82849]		Species or species habitat may occur within area
Migratory Marine Species		
Anoxypristis cuspidata Narrow Sawfish, Knifetooth Sawfish [68448]		Species or species habitat likely to occur within area
<u>Balaenoptera edeni</u> Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat may occur within area
Carcharodon carcharias White Shark, Great White Shark [64470]	Vulnerable	Species or species habitat may occur within area
<u>Caretta caretta</u> Loggerhead Turtle [1763]	Endangered	Breeding likely to occur within area
<u>Chelonia mydas</u> Green Turtle [1765]	Vulnerable	Breeding known to occur within area
Crocodylus porosus Salt-water Crocodile, Estuarine Crocodile [1774]		Species or species habitat likely to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Breeding likely to occur within area
Dugong dugon		

Species or species habitat known to occur within area



Eretmochelys imbricata Hawksbill Turtle [1766]

Vulnerable

Foraging, feeding or related behaviour known to occur within area

Lamna nasus

Porbeagle, Mackerel Shark [83288]

Current Scientific Name	Threatened	Type of Presence
Lepidochelys olivacea		,
Olive Ridley Turtle, Pacific Ridley Turtle [1767]	Endangered	Breeding likely to occur within area
Megaptera novaeangliae		
Humpback Whale [38]	Vulnerable	Species or species habitat known to occur within area
Mobula alfredi as Manta alfredi		
Reef Manta Ray, Coastal Manta Ray [90033]		Species or species habitat may occur within area
Mobula birostris as Manta birostris		
Giant Manta Ray [90034]		Species or species habitat may occur within area
Natator depressus	N/ 1 1 1	
Flatback Turtle [59257]	Vuinerable	behaviour known to occur within area
Orcaella heinsohni		
Australian Snubfin Dolphin [81322]		Species or species habitat likely to occur within area
Orcinus orca		
Killer Whale, Orca [46]		Species or species habitat may occur within area
Pristis pristis		
Freshwater Sawfish, Largetooth Sawfish, River Sawfish, Leichhardt's Sawfish, Northern Sawfish [60756]	Vulnerable	Species or species habitat known to occur within area
Pristis zijsron		Dreading likely to a service
[68442]	vuinerable	within area
Rhincodon typus		

Whale Shark [66680]

Vulnerable

Species or species habitat may occur within area

Sousa sahulensis as Sousa chinensis Australian Humpback Dolphin [87942]

Foraging, feeding or related behaviour known to occur within area

Migratory Terrestrial Species

• • • • • • • • •		
Current Scientific Name	Threatened	Type of Presence
Cuculus optatus		
Oriental Cuckoo, Horsfield's Cuckoo [86651]		Species or species habitat
		known to occur within area
<u>Hirundapus caudacutus</u>		
White-throated Needletail [682]	Vulnerable	Species or species habitat
		known to occur within area
Hirundo rustica		
Barn Swallow [662]		Species or species habitat
		known to occur within area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat
		known to occur within area
Moto cillo flove		
Yellow vvagtali [644]		Species or species habitat
		likely to occur within area
Myjagra cyanolouca		
Setin Elyesteber [612]		Spanica ar apagina habitat
		species of species habitat
		KIOWI to occur within area
Rhipidura rufifrons		
Rufous Eantail [592]		Species or species habitat
		known to occur within area
Symposiachrus trivirgatus as Monarcha trivirgatus		
Spectacled Monarch [83946]		Species or species habitat
		known to occur within area

Migratory Wetlands Species Actitis hypoleucos Common Sandpiper [59309]

Species or species habitat known to occur within area

Arenaria interpres Ruddy Turnstone [872]

Calidris acuminata

Sharp-tailed Sandpiper [874]

Calidris alba Sanderling [875] Roosting known to occur within area

Roosting known to occur within area

Current Scientific Name	Threatened	Type of Presence
Calidris canutus		71
Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area
Calidris ferruginea		
Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area
Calidris melanotos		
Pectoral Sandpiper [858]		Species or species habitat known to occur within area
Calidris ruficollis		
Red-necked Stint [860]		Roosting known to occur within area
Calidris tenuirostris		
Great Knot [862]	Critically Endangered	Roosting known to occur within area
Charadrius bicinctus		
Double-banded Plover [895]		Roosting known to occur within area
Charadrius leschenaultii		
Greater Sand Plover, Large Sand Plover [877]	Vulnerable	Roosting known to occur within area
Charadrius mongolus		
Lesser Sand Plover, Mongolian Plover [879]	Endangered	Roosting known to occur within area
Charadrius veredus		
Oriental Plover, Oriental Dotterel [882]		Roosting known to occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Roosting known to occur within area
Gallinago megala		

Swinhoe's Snipe [864]

Gallinago stenura Pin-tailed Snipe [841]

Limicola falcinellus Broad-billed Sandpiper [842] Roosting likely to occur within area

Roosting likely to occur within area

Current Scientific Name	Threatened	Type of Presence
Limosa lapponica Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa		
Black-tailed Godwit [845]		Roosting known to occur within area
Numenius madagascariensis		
Eastern Curlew, Far Eastern Curlew [847]	Critically Endangered	Species or species habitat known to occur within area
Numenius minutus		
Little Curlew, Little Whimbrel [848]		Roosting known to occur within area
Numenius phaeopus		
Whimbrel [849]		Roosting known to occur within area
Pandion cristatus as Pandion haliaetus		
Eastern Osprey [82411]		Breeding known to occur within area
Pluvialis fulva		
Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola		
Grey Plover [865]		Roosting known to occur within area
Tringa brevipes		
Grey-tailed Tattler [851]		Roosting known to occur within area
Tringa incana		
Wandering Tattler [831]		Roosting known to occur within area

Tringa nebularia Common Greenshank, Greenshank [832]

known to occur within area

Tringa stagnatilis Marsh Sandpiper, Little Greenshank [833]

Xenus cinereus Terek Sandpiper [59300] Roosting known to occur within area

Other Matters Protected by the EPBC Act

Commonwealth Lands

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Name

Defence - CAIRNS VACANT SITE

Defence - HMAS CAIRNS - CAIRNS

Defence - KENNY STREET NAVAL STORES-CAIRNS

Defence - LAS PALMAS MOTEL - CAIRNS

Defence - NORTHERN HERITAGE MOTEL - CAIRNS

Defence - PORTON TRAINING DEPOT - CAIRNS

Listed Marine Species		[Resource Information]
Current Scientific Name	Threatened	Type of Presence
Bird		
Actitis hypoleucos		
Common Sandpiper [59309]		Species or species habitat known to occur within area
Anous stolidus		
Common Noddy [825]		Species or species habitat known to occur within area
Anseranas semipalmata		
Magpie Goose [978]		Species or species habitat may occur within area overfly marine area
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area overfly marine area

[Resource Information]

Ardea ibis Cattle Egret [59542]

Species or species habitat may occur within area overfly marine area

Current Scientific Name	Threatened	Type of Presence
Ardea modesta as Ardea alba Eastern Great Egret [82410]		Species or species habitat known to occur within area overfly marine area
Arenaria interpres Ruddy Turnstone [872]		Roosting known to occur within area
Calidris acuminata Sharp-tailed Sandpiper [874]		Roosting known to occur within area
<u>Calidris alba</u> Sanderling [875]		Roosting known to occur within area
Calidris canutus Red Knot, Knot [855]	Endangered	Species or species habitat known to occur within area overfly marine area
<u>Calidris ferruginea</u> Curlew Sandpiper [856]	Critically Endangered	Species or species habitat known to occur within area overfly marine area
<u>Calidris melanotos</u> Pectoral Sandpiper [858]		Species or species habitat known to occur within area overfly marine area
Calidris ruficollis Red-necked Stint [860]		Roosting known to occur within area overfly marine area
Calidris tenuirostris Great Knot [862]	Critically Endangered	Roosting known to occur within area overfly marine

<u>Chalcites osculans as Chrysococcyx osculans</u> Black-eared Cuckoo [83425]

<u>Charadrius bicinctus</u> Double-banded Plover [895] Species or species habitat likely to occur within area overfly marine area

Roosting known to occur within area overfly marine area

Current Scientific Name		Threatened	Type of Presence
Greater Sand Plover, Large Sand	Plover [877]	Vulnerable	Roosting known to occur within area
<u>Charadrius mongolus</u> Lesser Sand Plover, Mongolian P	lover [879]	Endangered	Roosting known to occur within area
<u>Charadrius ruficapillus</u> Red-capped Plover [881]			Roosting known to occur within area overfly marine area
<u>Charadrius veredus</u> Oriental Plover, Oriental Dotterel	[882]		Roosting known to occur within area overfly marine area
Fregata ariel Lesser Frigatebird, Least Frigatet	oird [1012]		Species or species habitat known to occur within area
Fregata minor Great Frigatebird, Greater Frigate	bird [1013]		Species or species habitat known to occur within area
Gallinago hardwickii Latham's Snipe, Japanese Snipe	[863]		Roosting known to occur within area overfly marine area
<u>Gallinago megala</u> Swinhoe's Snipe [864]			Roosting likely to occur within area overfly marine area
Gallinago stenura Pin-tailed Snipe [841]			Roosting likely to occur within area overfly marine area

Haliaeetus leucogaster White-bellied Sea-Eagle [943]

Species or species habitat known to occur within area

Himantopus himantopus

Pied Stilt, Black-winged Stilt [870]

Roosting known to occur within area overfly marine area

Current Scientific Name	Threatened	Type of Presence
Hirundapus caudacutus		
White-throated Needletail [682]	Vulnerable	Species or species habitat known to occur within area overfly marine area
<u>Hirundo rustica</u> Barn Swallow [662]		Species or species habitat known to occur within area overfly marine area
Limicolo folginallus		
Broad-billed Sandpiper [842]		Roosting known to occur within area overfly marine area
Limosa lapponica		
Bar-tailed Godwit [844]		Species or species habitat known to occur within area
Limosa limosa		
Black-tailed Godwit [845]		within area overfly marine area
Merops ornatus		
Rainbow Bee-eater [670]		Species or species habitat may occur within area overfly marine area
Monarcha melanopsis		
Black-faced Monarch [609]		Species or species habitat known to occur within area overfly marine area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat likely to occur within area overfly marine area

Myiagra cyanoleuca



Species or species habitat known to occur within area overfly marine area

Numenius madagascariensis Eastern Curlew, Far Eastern Curlew [847]

Critically Endangered Species or species habitat known to occur within area

Current Scientific Name	Threatened	Type of Presence
Numenius minutus Little Curlew, Little Whimbrel [848]		Roosting known to occur within area overfly marine area
<u>Numenius phaeopus</u> Whimbrel [849]		Roosting known to occur within area
Pandion cristatus as Pandion haliaetus Eastern Osprey [82411]		Breeding known to occur within area
<u>Pluvialis fulva</u> Pacific Golden Plover [25545]		Roosting known to occur within area
Pluvialis squatarola Grey Plover [865]		Roosting known to occur within area overfly marine area
Recurvirostra novaehollandiae Red-necked Avocet [871]		Foraging, feeding or related behaviour known to occur within area overfly marine area
<u>Rhipidura rufifrons</u> Rufous Fantail [592]		Species or species habitat known to occur within area overfly marine area
Rostratula australis as Rostratula benghalensis (sensu Australian Painted Snipe [77037]	<u>lato)</u> Endangered	Species or species habitat known to occur within area overfly marine area

Sternula albifrons as Sterna albifrons Little Tern [82849]

Species or species habitat may occur within area

<u>Symposiachrus trivirgatus as Monarcha trivirgatus</u> Spectacled Monarch [83946]

Species or species habitat known to occur within area overfly marine area

Tringa brevipes as Heteroscelus brevipes Grey-tailed Tattler [851]

Current Scientific Name	Threatened	Type of Presence
Tringa incana as Heteroscelus incanus		
Wandering Tattler [831]		Roosting known to occur within area
<u>Tringa nebularia</u>		
Common Greenshank, Greenshank [832]		Species or species habitat known to occur within area overfly marine area
Tringa stagnatilis		
Marsh Sandpiper, Little Greenshank [833]		Roosting known to occur within area overfly marine area
Xenus cinereus		
Terek Sandpiper [59300]		Roosting known to occur within area overfly marine area
Fish		
Acentronura tentaculata		
Shortpouch Pygmy Pipehorse [66187]		Species or species habitat may occur within area
Bulbonaricus davaoensis		
Davao Pughead Pipefish [66190]		Species or species habitat may occur within area

Choeroichthys brachysoma Pacific Short-bodied Pipefish, Short-bodied Pipefish [66194]

<u>Choeroichthys sculptus</u> Sculptured Pipefish [66197]

<u>Choeroichthys suillus</u> Pig-snouted Pipefish [66198] Species or species habitat may occur within area

Species or species habitat may occur within area

Species or species habitat may occur within area

Corythoichthys amplexus

Fijian Banded Pipefish, Brown-banded Pipefish [66199]

Species or species habitat may occur within area

Corythoichthys flavofasciatus

Reticulate Pipefish, Yellow-banded Pipefish, Network Pipefish [66200]

Current Scientific Name	Threatened	Type of Presence
Corythoichthys intestinalis Australian Messmate Pipefish, Banded Pipefish [66202]		Species or species habitat may occur within area
Corythoichthys ocellatus Orange-spotted Pipefish, Ocellated Pipefish [66203]		Species or species habitat may occur within area
<u>Corythoichthys paxtoni</u> Paxton's Pipefish [66204]		Species or species habitat may occur within area
<u>Corythoichthys schultzi</u> Schultz's Pipefish [66205]		Species or species habitat may occur within area
<u>Cosmocampus maxweberi</u> Maxweber's Pipefish [66209]		Species or species habitat may occur within area
Doryrhamphus dactyliophorus Banded Pipefish, Ringed Pipefish [66210]		Species or species habitat may occur within area
Doryrhamphus excisus Bluestripe Pipefish, Indian Blue-stripe Pipefish, Pacific Blue-stripe Pipefish [66211]		Species or species habitat may occur within area
Doryrhamphus janssi Cleaner Pipefish, Janss' Pipefish [66212]		Species or species habitat may occur within area
<u>Festucalex cinctus</u> Girdled Pipefish [66214]		Species or species habitat

Species or species habitat may occur within area

<u>Festucalex gibbsi</u> Gibbs' Pipefish [66215]

Species or species habitat may occur within area

Halicampus dunckeri Red-hair Pipefish, Duncker's Pipefish [66220]

Current Scientific Name	Threatened	Type of Presence
Halicampus grayi Mud Pipefish, Gray's Pipefish [66221]		Species or species habitat may occur within area
Halicampus macrorhynchus Whiskered Pipefish, Ornate Pipefish [66222]		Species or species habitat may occur within area
<u>Halicampus mataafae</u> Samoan Pipefish [66223]		Species or species habitat may occur within area
Halicampus nitidus Glittering Pipefish [66224]		Species or species habitat may occur within area
Halicampus spinirostris Spiny-snout Pipefish [66225]		Species or species habitat may occur within area
Hippichthys cyanospilos Blue-speckled Pipefish, Blue-spotted Pipefish [66228]	Species or species habitat may occur within area
Hippichthys heptagonus Madura Pipefish, Reticulated Freshwater Pipefish [66229]		Species or species habitat may occur within area
Hippichthys penicillus Beady Pipefish, Steep-nosed Pipefish [66231]		Species or species habitat may occur within area

<u>Hippichthys spicifer</u> Belly-barred Pipefish, Banded Freshwater Pipefish [66232]

Species or species habitat may occur within area

Hippocampus bargibanti Pygmy Seahorse [66721]

Species or species habitat may occur within area

<u>Hippocampus histrix</u> Spiny Seahorse, Thorny Seahorse [66236]

Current Scientific Name	Threatened	Type of Presence
Hippocampus kuda Spotted Seahorse, Yellow Seahorse [66237]		Species or species habitat may occur within area
Hippocampus planifrons Flat-face Seahorse [66238]		Species or species habitat may occur within area
Hippocampus zebra Zebra Seahorse [66241]		Species or species habitat may occur within area
Micrognathus andersonii Anderson's Pipefish, Shortnose Pipefish [66253]		Species or species habitat may occur within area
Micrognathus brevirostris thorntail Pipefish, Thorn-tailed Pipefish [66254]		Species or species habitat may occur within area
Microphis brachyurus Short-tail Pipefish, Short-tailed River Pipefish [66257]		Species or species habitat may occur within area
Nannocampus pictus Painted Pipefish, Reef Pipefish [66263]		Species or species habitat may occur within area
Phoxocampus diacanthus Pale-blotched Pipefish, Spined Pipefish [66266]		Species or species habitat may occur within area
Siokunichthys breviceps		

Softcoral Pipefish, Soft-coral Pipefish [66270]

Species or species habitat may occur within area

Solegnathus hardwickii

Pallid Pipehorse, Hardwick's Pipehorse [66272]

Species or species habitat may occur within area

Solenostomus cyanopterus

Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183]

Current Scientific Name	Threatened	Type of Presence
<u>Solenostomus paradoxus</u> Ornate Ghostpipefish, Harlequin Ghost Pipefish, Ornate Ghost Pipefish [66184]		Species or species habitat may occur within area
<u>Syngnathoides biaculeatus</u> Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279]		Species or species habitat may occur within area
<u>Trachyrhamphus bicoarctatus</u> Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280]		Species or species habitat may occur within area
<u>Trachyrhamphus longirostris</u> Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area
Mammal		
<mark>Dugong dugon</mark> Dugong [28]		Species or species habitat known to occur within area
Reptile		
Acalyptophis peronii Horned Seasnake [1114]		Species or species habitat may occur within area
Aipvsurus duboisii		
Dubois' Seasnake [1116]		Species or species habitat may occur within area

<u>Aipysurus eydouxii</u> Spine-tailed Seasnake [1117]

<u>Aipysurus laevis</u> Olive Seasnake [1120]

Species or species habitat may occur within area

Species or species habitat

may occur within area

Astrotia stokesii Stokes' Seasnake [1122]

Species or species habitat may occur within area

Caretta caretta Loggerhead Turtle [1763]

Endangered

Breeding likely to occur within area

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or related to occur
s habitat area

Hydrophis macdowelli as Hydrophis mcdowelli Small-headed Seasnake [75601]

Species or species habitat may occur within area

Lapemis curtus as Lapemis hardwickii Spine-bellied Seasnake [83554]

Laticauda colubrina a sea krait [1092]

Species or species habitat may occur within area

Threatened	Type of Presence
	Species or species habitat may occur within area
Endangered	Breeding likely to occur within area
Vulnerable	Foraging, feeding or related behaviour known to occur within area
	Species or species habitat may occur within area
	[Resource Information]
Status	Type of Presence
	Species or species habitat may occur within area
	Species or species habitat may occur within area
Endangered	Species or species habitat may occur within area
	Species or species habitat may occur within area
	Threatened Endangered Vulnerable Status Endangered

Grampus griseus

Species or species habitat may occur within area

Risso's Dolphin, Grampus [64]

Megaptera novaeangliae Humpback Whale [38]

Vulnerable

Species or species habitat known to occur within area

Orcaella heinsohni as Orcaella brevirostris Australian Snubfin Dolphin [81322]

Species or species habitat likely to occur within area

Current Scientific Name	Status	Type of Presence
Orcinus orca		
Killer Whale, Orca [46]		Species or species habitat may occur within area
Sousa sahulensis as Sousa chinensis		
Australian Humpback Dolphin [87942]		Foraging, feeding or related behaviour known to occur within area
Stenella attenuata		
Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area
Tursions aduncus		
Indian Ocean Bottlenose Dolphin, Spotted Bottleno Dolphin [68418]	ose	Species or species habitat likely to occur within area
Tursiops truncatus s. str.		
Bottlenose Dolphin [68417]		Species or species habitat may occur within area

Extra Information

State and Territory Reserves	[Resource Information]
Name	State
Anderson Street Conservation Park	QLD
Great Barrier Reef Coast Marine Park	QLD
Grey Peaks National Park	QLD
Mandingalbay Yidinji Indigenous Protected Area	QLD
Mandingalbay Yidinji Indigenous Protected Area	QLD
Mount Whitfield Conservation Park	QLD
Trinity Inlet Fish Habitat Area (A)	QLD

Invasive Species

[Resource Information]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit,

Name	Status	Type of Presence
Bird		

Name	Status	Type of Presence
Acridotheres tristis Common Myna, Indian Myna [387]	Feral	Species or species habitat likely to occur within area
Anas platyrhynchos Mallard [974]	Feral	Species or species habitat likely to occur within area
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]	Feral	Species or species habitat likely to occur within area
Lonchura punctulata Nutmeg Mannikin [399]	Feral	Species or species habitat likely to occur within area
Passer domesticus House Sparrow [405]	Feral	Species or species habitat likely to occur within area
Spotted Turtle-Dove [780]	Feral	Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]	Feral	Species or species habitat likely to occur within area
Frog		
Rhinella marina Cane Toad [83218]	Feral	Species or species habitat known to occur within area
Mammal		
Bos taurus		
Domestic Cattle [16]	Feral	Species or species habitat

likely to occur within area

Canis familiaris listed as Canis Iupus familiaris Domestic Dog, Dingo [17]

Feral

Species or species habitat likely to occur within area

Felis catus

Cat, House Cat, Domestic Cat [19]

Feral

Name	Status	Type of Presence
Mus musculus House Mouse [120]	Feral	Species or species habitat likely to occur within area
Rattus norvegicus Brown Rat, Norway Rat [83]	Feral	Species or species habitat likely to occur within area
Rattus rattus Black Rat, Ship Rat [84]	Feral	Species or species habitat likely to occur within area
Sus scrofa Pig [6]	Feral	Species or species habitat likely to occur within area
Plant		
Andropogon gayanus Gamba Grass [66895]	WoNS	Species or species habitat likely to occur within area
Annona glabra Pond Apple, Pond-apple Tree, Alligator Apple, Bullock's Heart, Cherimoya, Monkey Apple, Bobwood, Corkwood [6311]	WoNS	Species or species habitat likely to occur within area
Anredera cordifolia Madeira Vine, Jalap, Lamb's-tail, Mignonette Vine, Anredera, Gulf Madeiravine, Heartleaf Madeiravine, Potato Vine [2643]	WoNS	Species or species habitat likely to occur within area
Asparagus plumosus Climbing Asparagus-fern [48993]	WoNS	Species or species habitat likely to occur within area
Cabomba caroliniana Cabomba, Fanwort, Carolina Watershield, Fish Grass, Washington Grass, Watershield, Carolina Fanwort, Common Cabomba [5171]	WoNS	Species or species habitat likely to occur within area

Cenchrus ciliaris

Buffel-grass, Black Buffel-grass [20213]

Invasive

WoNS

Species or species habitat may occur within area

Cryptostegia grandiflora

Rubber Vine, Rubbervine, India Rubber Vine, India Rubbervine, Palay Rubbervine, Purple Allamanda [18913]

Name	Status	Type of Presence
Eichhornia crassipes		
Water Hyacinth, Water Orchid, Nile Lily [13466]	WoNS	Species or species habitat likely to occur within area
Hymenachne amplexicaulis		
Hymenachne, Olive Hymenachne, Water Stargrass, West Indian Grass, West Indian Marsh Grass [31754]	WoNS	Species or species habitat likely to occur within area
Jatropha gossypiifolia listed as Jatropha gossypifolia		
Cotton-leaved Physic-Nut, Bellyache Bush, Cotton-leaf Physic Nut, Cotton-leaf Jatropha, Black Physic Nut [89505]	WoNS	Species or species habitat likely to occur within area
Lantana camara		
Lantana, Common Lantana, Kamara Lantana, Large- leaf Lantana, Pink Flowered Lantana, Red Flowered Lantana, Red-Flowered Sage, White Sage, Wild Sage [10892]	WoNS	Species or species habitat likely to occur within area
Sagittaria platyphylla		
Delta Arrowhead, Arrowhead, Slender Arrowhead [68483]	WoNS	Species or species habitat likely to occur within area
Salvinia molesta		
Salvinia, Giant Salvinia, Aquarium Watermoss, Kariba Weed [13665]	WoNS	Species or species habitat likely to occur within area
Reptile		
Hemidactylus frenatus		
Asian House Gecko [1708]	Feral	Species or species habitat likely to occur within area
Indotyphlops braminus listed as Ramphotyphlops brami	nus	
Flowerpot Blind Snake [88345]	Feral	Species or species habitat known to occur within area
Lepidodactylus lugubris		
Mourning Gecko [1712]	Feral	Species or species habitat

Nationally Important Wetlands	[Resource Information]
Name	State
Port of Cairns and Trinity Inlet	QLD

EPBC Act Referrals

[Resource Information]

Further details about the referral is available in the Environmental Impact Assessment System (EIAS); click on the title to access.

Referral			
Title	Reference	Referral Outcome	Assessment Status
Referral			
Title	Reference	Referral Outcome	Assessment Status
Acid Sulfate Soil Remediation	2004/1722	Not Controlled Action	Completed
broodstock discharge	2003/1112	Not Controlled Action	Completed
Cairns Cityport	2000/31	Not Controlled Action (Particular Manner)	Post-Approval
Cairns Shipping Development (Trinity Inlet) Project, QLD	2012/6538	Controlled Action	Post-Approval
Development of 7ha Business Park at Cairns International Airport	2004/1755	Not Controlled Action	Completed
Development of a common use barge facility	2013/6981	Not Controlled Action	Completed
development of The Esplanade North Parkland	2005/2385	Not Controlled Action	Completed
Novotel Cairns Oasis Resort tree removals, Cairns, Qld	2017/8115	Not Controlled Action	Completed
Proposed telecommunications tower at Lumley Hill	2008/4293	Not Controlled Action	Completed
Relocation of flying fox colony, Cairns, QLD	2013/6937	Not Controlled Action (Particular Manner)	Post-Approval
Removal of 8 trees from private property, Lake Street, Cairns, Qld	2015/7427	Not Controlled Action (Particular Manner)	Post-Approval
Subdivision at East Woree Industrial Area	2008/4338	Controlled Action	Post-Approval

<u>Tourist and residential development, 163 Abbott</u> 2016/7840 Controlled Action Post-Approval <u>Street, Cairns</u>

Tree removal including roost trees for Spectacled Flying Fox, Cairns, Qld

2014/7296 Not Controlled Post-Approval Action (Particular Manner)

<u>Tree trimming on Cairns City Library property</u>, 2016/7745 Not Controlled Completed <u>Qld</u> Action

Upgrade and revitalisation works, Shields Street, Cairns QLD 2016/7798 Not Controlled Completed Action

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

For species where the distributions are well known, maps are digitised from sources such as recovery plans and detailed habitat studies. Where appropriate, core breeding, foraging and roosting areas are indicated under 'type of presence'. For species whose distributions are less well known, point locations are collated from government wildlife authorities, museums, and non-government organisations; bioclimatic distribution models are generated and these validated by experts. In some cases, the distribution maps are based solely on expert knowledge.

Threatened, migratory and marine species distributions have been derived through a variety of methods. Where distributions are well known and if time permits, maps are derived using either thematic spatial data (i.e. vegetation, soils, geology, elevation, aspect, terrain, etc) together with point locations and described habitat; or environmental modelling (MAXENT or BIOCLIM habitat modelling) using point locations and environmental data layers.

Where very little information is available for species or large number of maps are required in a short time-frame, maps are derived either from 0.04 or 0.02 decimal degree cells; by an automated process using polygon capture techniques (static two kilometre grid cells, alpha-hull and convex hull); or captured manually or by using topographic features (national park boundaries, islands, etc). In the early stages of the distribution mapping process (1999-early 2000s) distributions were defined by degree blocks, 100K or 250K map sheets to rapidly create distribution maps. More reliable distribution mapping methods are used to update these distributions as time permits.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and

- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

-Office of Environment, Energy and Science, New South Wales

-Department of Environment, Land, Water and Planning, Victoria

-Department of Primary Industries, Parks, Water and Environment, Tasmania

-Government of South Australia, Department for Environment and Water, South Australia

-Department of Environment and Natural Resources, Northern Territory

-Department of Environment and Science, Queensland

-Department of Biodiversity, Conservation and Attractions, Western Australia

-Environment, Planning and Sustainable Development Directorate, ACT

-Birdlife Australia

-Department of Environment and Energy, Australian Bird and Bat Banding Scheme

-CSIRO, Australian National Wildlife Collection

-Natural history museums of Australia

-Australian Museum

-Museums Victoria

-South Australian Museum

-Queensland Museum

-Online Zoological Collections of Australian Museums

-Queensland Herbarium

-National Herbarium of NSW

-National Herbarium of Victoria

-Tasmanian Herbarium

-State Herbarium of South Australia

-Northern Territory Herbarium

-Western Australian Herbarium

-Australian National Herbarium, Canberra

-University of New England

-Ocean Biogeographic Information System

-Australian Government, Department of Defence

-Forestry Corporation of NSW

-Geoscience Australia

-CSIRO

-Australian Tropical Herbarium, Cairns

-eBird Australia

-Australian Government – Australian Antarctic Data Centre

-Museum and Art Gallery of the Northern Territory

-Australian Government National Environmental Science Program

-Australian Institute of Marine Science

-Reef Life Survey Australia

-American Museum of Natural History

-Queen Victoria Museum and Art Gallery, Inveresk, Tasmania

-Tasmanian Museum and Art Gallery, Hobart, Tasmania

-Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Australian Government Department of Agriculture, Water and the Environment

PROPOSED APPROVAL

Flying-fox relocation measures, 151 Abbott Street, Cairns, Queensland, (EPBC 2019/8424)

This decision is made under sections 130(1) and 133(1) of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth)*. Note that section 134(1A) of the **EPBC Act** applies to this approval, which provides in general terms that if the approval holder authorises another person to undertake any part of the action, the approval holder must take all reasonable steps to ensure that the other person is informed of any conditions attached to this approval, and that the other person complies with any such condition. FOI 200512 Document 10

Details

Person to whom the approval is granted (approval holder)	Cairns Regional Council
ACN or ABN of approval holder	ABN 24 310 025 910
Action	To implement deterrent measures to disperse and permanently relocate a nationally important population of Spectacled Flying-fox (<i>Pteropus conspicillatus</i>) located at 151 Abbott Street, Cairns, Queensland (see EPBC Act referral 2019/8424).

Proposed Approval decision

My decision on whether or not to approve the taking of the action for the purposes of the controlling provision for the action is as follows.

Controlling Provisions

ommunities	
Approve	
Approve	
	ommunities Approve Approve

Period for which the approval has effect

This approval has effect until 1 October 2023

Decision-maker

Andrew McNee	
Assistant Secretary	
Environment Approvals Division	
Department of Agriculture, Water and the Environment	
PROPOSED DECISION - DO NOT SIGN	
PROPOSED DECISION - DO NOT DATE	
	Andrew McNee Assistant Secretary Environment Approvals Division Department of Agriculture, Water and the Environment PROPOSED DECISION - DO NOT SIGN PROPOSED DECISION - DO NOT DATE

Conditions of approval

This approval is subject to the conditions under the EPBC Act as set out in ANNEXURE A.
ANNEXURE A - CONDITIONS OF APPROVAL

Part A - Conditions specific to the action

- 1. The proposed **relocation activities** must only be undertaken within the flying-fox management areas shown in Figure 1 unless otherwise agreed in writing by the **Minister**.
- To ensure there are no adverse impacts on the Spectacled Flying-Fox (Pteropus conspicillatus) (SFF) from the action, relocation activities must:
 - a. be carried out using non-lethal measures;
 - b. be limited to a maximum of 2 periods, of up to 2.5 hours, in each 24 hour period, and be conducted before sunrise and after sunset;
 - c. be maximum of 30 days for each period of relocation activities;
 - must not commence during or immediately after a period of significant population stress.
- 3. To ensure there are no adverse impacts on the SFF from the action, relocation activities must:
 - a. be carried out using non-lethal measures;
 - a. only be undertaken in the key locations identified in Figure 1
 - be discontinued when the monitoring detects the presence of heavily pregnant females (in last trimester), dependent young SFF, sick, injured or dead SFF.

Action Management Plan

- 4. The approval holder must implement the Cairns Flying-fox Relocation Implementation Plan.
- 5. Within 60 days of the completion of each period of relocation activities, the approval holder must undertake a review of the Cairns Flying-fox Relocation Implementation Plan for the purposed of amending the Cairns Flying-fox Relocation Implementation Plan.
- The review and any amendments to the Cairns Flying-fox Relocation Implementation Plan must be undertaken by a independant suitably qualified expert.
- 7. The amended Cairns Flying-fox Relocation Implementation Plan must include:
 - a. an assessment of the performance against the relocation success indicators;
 - b. the outcomes of the monitoring program described in the Cairns Flying-fox Relocation Implementation Plan;
 - c. any changes to Cairns Flying-fox Relocation Implementation Plan required to avoid adverse effects on SFF.
- The amended Cairns Flying-fox Relocation Implementation Plan must be submitted to the Department for the written approval of the Minister, prior to the commencement of relocation activities edimination.
- If the <u>amended</u> Cairns Flying-fox Relocation Implementation Plan is approved by the Minister, the amended Cairns Flying-fox Relocation Implementation Plan must be implemented.

Cease relocation activities provisions

- 10. The SFF camp and the alternative relocation sites must be monitored in accordance with the monitoring program described in the Cairns Flying-fox Relocation Implementation Plan to detect changes to SFF numbers, extent of roosting, ill health, death or injury to SFF, changes in SFF flying or roosting behaviour and any signs of stress in the SFF colony attributable to the action.
- 11. The results of the monitoring must be reviewed each day by a suitably qualified expert to:
 - a. determine the impacts of the relocation activities on SFF; and
 - b. decide if relocation activities can continue

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- Commented s47F : This seems fine Just wanting to clarify that: • if, for example, SFFs land at Cairns High School or the TAFE, dispersal and deterrence can still proceed at such locations as outlined in the Cairns FF Relocation Implementation Plan?
- outlined in the Cairns FF Relocation Implementation Plan? • deterrence can continue in the CBD beyond the relocation activities as described in the Cairns FF Relocation Implementa
- Plan?
- if so, for clarity the definition of relocation activities should be limited to dispersal and reference to deterrence should be omitted This would also make the 30 day restriction on relocation activities compatable with the Implementation Plan (which includes ongoing deterrence beyond relocation)

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Commented s47F These two conditions focus on the same outcome and can be streamlined as follows 2. "To ensure there are no adverse impacts on the Spectacled

Flying-Fox (Pteropus conspicillatus) (SFF) from the action, relocation activities must:

- a. be carried out using non-lethal measures;
- b. be limited to a maximum of 2 periods, of up to 2.5 hours, in each 24 hour period, and be conducted before sunrise and after sunset;

c. be maximum of 30 days for each period of relocation activities,
 d. must not commence when significant population stress applies;

 be discontinued when the monitoring detects the presence of heavily pregnant females (in last trimester), dependent young SFF, sick, injured or dead SFF.

Commented \$47F Just clarifying that the intent here is to review the information that becomes available within the daily timeframe

- 12. If the approval holder detects through monitoring required at condition 7 that a **relocation success indicator** has been reached, the approval holder must report this to the **Minister** within **one business day** of the detection.
- 13. The approval holder must cease **relocation activities** within one business day following determination that a **relocation success indicator** has been reached.
- 14. The approval must not recommence relocation activities until agreed to by the Department.

Part B - Standard administrative conditions

Notification of date of commencement of the action

- 15. The approval holder must notify the **Department** in writing of the date of **commencement of the action** within 10 **business days** after the date of **commencement of the action**.
- 16. If the commencement of the action does not occur within 5 years from the date of this approval, then the approval holder must not commence the action without the prior written agreement of the Minister.

Compliance records

- 17. The approval holder must maintain accurate and complete compliance records.
- 18. If the Department makes a request in writing, the approval holder must provide electronic copies of compliance records to the Department within the timeframe specified in the request.

Note: Compliance records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, and or used to verify compliance with the conditions. Summaries of the result of an audit may be published on the Department's website or through the general media.

Publication of plans

19. The approval holder must:

- a. submit plans electronically to the Department for approval by the Minister;
- b. publish each plan on the website within 20 business days of the date the plan is approved by the Minister or of the date a revised action management plan is submitted to the Minister or the Department, unless otherwise agreed to in writing by the Minister;
- c. exclude or redact **sensitive ecological data** from **plans** published on the **website** or provided to a member of the public; and
- d. keep **plans** published on the **website** until the end date of this approval.
- 20. The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval, is prepared in accordance with the Department's Guidelines for biological survey and mapped data (2018) and submitted electronically to the Department within 30 business day.

Annual compliance reporting

- 21. The approval holder must prepare a compliance report for each 12 month period following the date of commencement of the action, or otherwise in accordance with an annual date that has been agreed to in writing by the Minister. The approval holder must:
 - publish each compliance report on the website within 60 business days following the relevant 12 month period;
 - notify the **Department** by email that a **compliance report** has been published on the **website** and provide the weblink for the **compliance report** within five **business days** of the date of publication;

Commented s47F : Note timings are inconsistent internally (see notification in two business days in Condition 22)

Commented 547F Just to clarify, is the requirement to publish on CRC's (*ie* the approval holder's) website or elsewhere?

Commented s47F As per previous query

- c. keep all compliance reports publicly available on the website until this approval expires;
- exclude or redact sensitive ecological data from compliance reports published on the website; and
- e. where any **sensitive ecological data** has been excluded from the version published, submit the full **compliance report** to the **Department** within 5 **business days** of publication.

Note: Compliance reports may be published on the Department's website.

Reporting non-compliance

- 22. The approval holder must notify the Department in writing of any: incident; non-compliance with the conditions; or non-compliance with the commitments made in plans. The notification must be given as soon as practicable, and no later than two business days after becoming aware of the incident or non-compliance. The notification must specify:
 - a. any condition which is or may be in breach;
 - b. a short description of the incident and/or non-compliance; and
 - c the location (including co-ordinates), date, and time of the incident and/or non-compliance. In the event the exact information cannot be provided, provide the best information available.
- 23. The approval holder must provide to the **Department** the details of any **incident** or noncompliance with the conditions or commitments made in **plans** as soon as practicable and no later than 10 **business days** after becoming aware of the **incident** or non-compliance, specifying:
 - any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future;
 - b. the potential impacts of the incident or non-compliance; and
 - c. the method and timing of any remedial action that will be undertaken by the approval holder

Independent audit

- 24. The approval holder must ensure that **independent audits** of compliance with the conditions are conducted as requested in writing by the **Minister**.
- 25. For each independent audit, the approval holder must:
 - provide the name and qualifications of the independent auditor and the draft audit criteria to the Department;
 - b. only commence the **independent audit** once the audit criteria have been approved in writing by the **Department**; and
 - c. submit an audit report to the **Department** within the timeframe specified in the approved audit criteria.
- 26. The approval holder must publish the audit report on the website within 10 business days of receiving the Department's approval of the audit report and keep the audit report published on the website until the end date of this approval.

Completion of the action

 Within 30 days after the completion of the action, the approval holder must notify the Department in writing and provide completion data.

Part C - Definitions

In these conditions, except where contrary intention is expressed, the following definitions are used:

Adverse impacts -means an exceedance of a limit as a result of the project

Commented s47F : As per comment above, cf Condition 12

Commented s47F : Just to clarify, Condition 22 is to provide a notification within two business days, Condition 23 is to provide details within 10 business days? **Business day** means a day that is not a Saturday, a Sunday or a public holiday in the state or territory of the action.

Cairns Flying-fox Relocation Implementation Plan means the Cairns Flying-fox Relocation Implementation Plan dated 27 March 2020 or any subsequent amended Cairns Flying-fox Relocation Implementation Plan approved by the Minister.

Commencement/recommencement of the action means the first instance of any specified activity associated with the action.

Completion data means an environmental report and spatial data clearly detailing how the conditions of this approval have been met. The **Department**'s preferred spatial data format is **shapefile**.

Completion of the action means all specified activities associated with the action have permanently ceased.

Compliance records means all documentation or other material in whatever form required to demonstrate compliance with the conditions of approval in the approval holder's possession or that are within the approval holder's power to obtain lawfully.

Compliance reports means written reports:

- i. providing accurate and complete details of compliance, **incidents**, and non-compliance with the conditions and the **plans**;
- ii. consistent with the Department's Annual Compliance Report Guidelines (2014)
- iii. include a **shapefile** of any clearance of any **protected matters**, or their habitat, undertaken within the relevant 12 month period; and
- annexing a schedule of all plans prepared and in existence in relation to the conditions during the relevant 12 month period.

Department means the Australian Government agency responsible for administering the **EPBC Act**.

EPBC Act means the Environment Protection and Biodiversity Conservation Act 1999 (Cth).

Event means heat stress events, cyclone or bush fire events (which result in either significant mortality or server food shortages).

Incident means any event which has the potential to, or does, impact on one or more **protected matter(s)**.

Independent audit: means an audit conducted by an independent and **suitably qualified person** as detailed in the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines* (2019)

Monitoring data means the data required to be recorded under the conditions of this approval.

Minister means the Australian Government Minister administering the EPBC Act including any delegate thereof.

Nationally important means camps that have contained \geq 16,000 spectacled flying-foxes in more than one year in the last 10 years, or have been occupied by spectacled flying-foxes in at least 50 per cent of the surveys over the last 10 years.

Non-lethal measures means metal clangers, pool noodles, long-range acoustice devices, lights, low pressure water sprayers, inflatable devices and foggers. Non-lethal measures do not include the use of non-lethal firearms, drones and helicopters.

Plan(s) means any of the documents required to be prepared, approved by the **Minister**, and/or implemented by the approval holder and published on the **website** in accordance with these conditions (includes action management plans and/or strategies).

Commented g47F : Need to discuss as this has implications that could reduce the efficacy of dispersal Why not drones or non-lethal firearms? Would fireworks deployed other than by using a firearm constitute Non-lethal measures Relocation activities means the use of non-lethal measures to disperse SFF from the SFF camp and deter SFF from roosting at the SFF camp and other unsuitable areas in the Cairns CBD area.

Relocation success indicators means the relocation success indicators described in the Cairns Flyingfox Relocation Implementation Plan.

Sensitive ecological data means data as defined in the Australian Government Department of the Environment (2016) *Sensitive Ecological Data – Access and Management Policy V1.0.*

Significant population stress means, in the year prior to the proposed date of the action taking place, an **event** has occurred which results in the mortality of 1.5 percent or more of the national population of spectacled flying-fox.

SFF camp means the nationally important Spectacled Flying-fox camp located at 151 Abbot Street, Cairns.

Suitably qualified person means a person who has professional qualifications, training, skills and/or experience related to the nominated subject matter and can give authoritative independent assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and/or literature.

Website means a set of related web pages located under a single domain name attributed to the approval holder and available to the public.

Commented [s47F : Refer to above comment on Condition 1 Can we omit these words?

Figure 1:



s22

From:	s47F		
Sent:	Tuesday, 12 May	y 2020 3:53 PM	
То:	s22		
Cc:	s47F	s22	s47F
Subject:	RE: EPBC 2019-8	3424 Cairns Flying Foxes [SEC=	=UNOFFICIAL]
Attachments:	CRC_FF_Relocation_Impl_Plan_R04.pdf; 2019-8424 Final Approval-Decision Notice		
Track changes-NRA.docm			

Dear^{s22}

Thank you for the information.

Regarding the Dept's concern - *footnote 4 on pg 18 of the plan* – we acknowledged the potential for confusion. We agree that the footnote can be deleted and not detract from the information that has already been documented. Therefore, we have advised CRC of our opinion, they have accepted our advice. The footnote 4 has been removed. Please find attached the final version of the Implementation Plan for your records.

Regarding the conditions, we have discussed the Dept's track changes comments with CRC and have given our advice that we believe the changes do not alter the intent that has been agreed, rather provide additional clarity. CRC has agreed. Please note that we have found a typo ('a' should read 'at' – in the definition of Relocation Activities) and flagged it in the attached draft conditions document.

I trust the above and attached is acceptable; please contact me as required.

Regards



Senior Ecologist - NRA Environmental Consultants

P: s47F E: www.natres.com.au

From: S22 Sent: Tuesday, 12 May 2020 2:25 PM To: s47F Cc: s22 Subject: FW: EPBC 2019-8424 Cairns Flying Foxes [SEC=UNOFFICIAL]

His47F and s47F

Please find attached a draft version of the final approval conditions. You will note that there have been some further changes (in red) following comments from the Department's Compliance area. I do apologise for these late changes however, we do consider that the changes provide further simplification and clarity. Please let me know if you have any comments so we can finish drafting the final approval decision package for Andrew's consideration.

s47F as discussed, we still have a question around footnote 4 on pg 18 of the plan. Our preference would be to have the footnote deleted to remove any potential questions around compliance with the conditions of approval.

Happy to discuss

Regards,	s22
s22	

xes [SEC=UNOFFICIAL]

His22

Please find attached the finalised Implementation Plan for your records.

As discussed, with respect to the draft conditions:

- 1. It is requested consideration be given to the definition of **Relocation activities** as follows:
 - **Relocation activities** means the use of **non-lethal measures** to disperse SFF from the **SFF camp**; deter SFF from roosting at the **SFF camp**; and deter and disperse from other unsuitable areas in Figure 1.

We believe that this definition provides the clarity that we all seek.

2. We are able to modify Figure 1 to include the 'airport barrier', though do not consider that this is necessary and could prove counterproductive.

This is because it is discussed as well as shown in the Implementation Plan, and it is an indicative area not a definitive area.

Please contact me as required to discuss; otherwise we look forward to the decision notice.

Regards



Senior Ecologist - NRA Environmental Consultants



His47F

The team and I have had a chance to go through the updated Implementation Plan and revise the conditions in light of recent conversations.

I've attached the updated set of conditions for any final comments.

- We would be grateful if you could double check that Figure 1 includes the area where the 'airport barrier' would be implemented and perhaps mark it up for clarity.

With regards to the implementation plan there are a small number of issues outstanding that we would appreciate some clarification on:

- Figure 2 appears to be missing.
- Table 3 it would be useful to clarify 'in perpetuity' we have removed it as it would be inconsistent with the proposed approval (for 4 years) unless they are activities that are already being undertaken and not the subject of the current referred proposal.

^{s22} isn't at work today but please feel free to give either s22 or I a call to discuss if you need.

Looking forward to receiving the final version of the implementation plan and your confirmation that Cairns Regional Council is comfortable with the conditions. Other than those minor outstanding issues everything is still on track for a final decision next week.



Director Queensland North Assessments | Assessments and Governance Branch Environment Approvals Division | Department of Agriculture, Water and the Environment PO Box 787, Canberra, ACT, 2601 Tel: **\$22** Part time – Tuesday to Thursday

From: s47F		
Sent: Wednesday, 6 May 2020 7:42 A	N	
To: s22	s47F	s22
s22		_
Cc: s22		
s22		
Subject: RE: [SEC=UNOFFICIAL]		
That's fine thankyou S22 ©Cheers	s47F	
s47F		
Manager Community Development		
Community,Sport&Cultural Departme	nt	
Cairns Regional Council		
P: s47F		
<u>E:</u> s47F	<u>cairns.qld.gov.au</u>	
PO Box 359, 119-145 Spence St, Cairn	s Q 4870	
From: S22		
Sent: Tuesday, 5 May 2020 4:45 PM		
To:S47F		s22
s22		
Cc: s22		
		_

s22 Subject: FW: [SEC=UNOFFICIAL]

His47F

I understand ^{\$22} mentioned today that we are seeking to extend the timeframe to make a final decision on the Cairns Flying-fox relocation proposal (EPBC 2019/8424). Please find attached the notice and letter informing you that the timeframe has been extend to the 15 May 2020. The extension will allow the Department time to review the revised implementation plan and finalise the conditions of approval.

Please note the extension does not prevent a decision being made earlier than the 15 May 2020 should the Delegate have all the relevant information required to make a decision.

If you have any question please email me and I will get back to you as soon as possible.

Regards



Assistant Director Assessments and Governance Branch Department of Agriculture, Water and the Environment



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Department of Environment and Science

Ref 101/0003868

6 May 2020

s22 Queensland North Assessments Department of Agriculture, Water and the Environment GPO Box 787 CANBERRA ACT 2601

Dear s22

Invitation to comment on proposed approval decision – Flying-fox relocation, 151 Abbott Street, Cairns, Queensland (EPBC 2019/8424)

Thank you for your department's letter dated 22 April 2020, advising the Department of Environment and Science (DES) on the above proposed approval decision under the *Environment Protection and Biodiversity Conservation Act* 1999 (EPBC Act).

I advise at the request of the DES Director General (DG), following a meeting he had with the Director of the Cairns and Far North Environment Centre in January 2020, DES convened a panel to seek expert advice for the DG on best practise in establishing alternative flying fox roost sites and the potential impacts of the proposed dispersal in Cairns on the spectacled flying-fox, as a species. At that meeting the overall advice of relevant experts was that the proposed dispersal and relocation from the Cairns Library site would not pose a threat to the conservation of the spectacled flying-fox as a species. The notes from that meeting are attached.

It is also worth noting that DES recently completed a review of the Queensland flying-fox roost management framework (comprising relevant sections of the *Nature Conservation Act 1992* and regulations, two Codes of Practice and a new guideline). The new framework, released on 14 February 2020, aims to strike a balance between local governments' need to undertake roost management (in response to respond to community concerns) and the long-term conservation of flying-foxes in the wild. The revised framework continues to provide local governments with an 'as-of-right authority' to undertake roost management in 'urban flying-fox management areas', provided the measures used are consistent with the revised 'Code of Practice – Ecologically sustainable management of flying-fox roosts'. The revised flying-fox roost management framework includes new requirements based on the spectacled flying-fox's status as endangered, and also includes minimum standards that apply to all flying-fox species. Thereby ensuring roost management measures will be non-

Level 9 400 George Street Brisbane GPO Box 2454 Brisbane Queensland 4001 Australia Telephone + 61 7 3330 5598 Facsimile + 61 7 3330 5875 Website www.des.gld.gov.au ABN 46 640 294 485 lethal to flying-foxes and that appropriate welfare standards are met. The new codes of practice and new guideline can be viewed at https://environment.des.qld.gov.au/wildlife/animals/living-with/bats/flying-foxes/roost-management

Should you have any further enquiries, please contact me on telephone (07) 3330 5598.

Yours sincerely



Director, Technical and Assessment Services

Summary of meeting about roost dispersal and relocation of spectacled flying-foxes, in particular the proposed relocation of the Cairns City Library Flying-fox Roost.

11 March 2020 Atherton CSIRO offices

<u>Attendees</u>

s47F Head of the Tolga Bat Hospital (noted expert in spectacled flying-fox health and rehabilitation)

s47F University of Melbourne (responsible for leading the 'successful' dispersal of the Melbourne Botanic Gardens roost)

s47F CSIRO Land and Water (noted expert on the spectacled flying-fox; leads CSIRO's \$1.8m little red flying-fox research program for DES)

s47F DES, Director Northern Wildlife Operations

s47F DES, Program Coordinator, Northern Wildlife Operations

s47F DES, Manager, Operational Policy and Governance.

Context for the meeting

- Representations have been made to the Director-General of the Department of Environment and Science (DES) to use his powers under the *Nature Conservation Act 1992* (NC Act) to prevent the dispersal of flying-foxes at the Cairns City Library site.
- The Director-General made a commitment to seek expert advice on best practise in establishing alternative flying fox roost sites and the potential impacts of the proposed dispersal in Cairns on the spectacled flying-fox, as a species.
- The meeting was convened to discuss the potential species conservation impacts and issues associated with the re-location/dispersal of spectacled flying-fox roosts generally, and with particular reference to the proposal to re-locate/disperse the existing roost at the Cairns library site.

Key questions discussed at the meeting

- 1. What is the current state of the spectacled flying-fox population, and the key threatening processes effecting that population?
- 2. What role does the roosting habitat/site at the Cairns City Library play in the conservation of spectacled flying-foxes, and what is the potential conservation risks if the site is no longer available as a roosting site?
- 3. What are the risks of mortality for individual flying foxes from dispersal actions occurring at the Cairns City Library?
- 4. What are the risks of mortality for individual flying foxes from ongoing dispersal of flyingfoxes from new "splinter roosts" if they form after the initial dispersal from the library site?
- 5. What are the safeguards in place under the 'as-of-right' framework under the NC Act to reduce or manage the risk of detrimental impacts on flying-foxes during the dispersal process?
- 6. What are the prospects of a successful roost dispersal from the Cairns City Library site, and relocation of the roost to the intended new roost site in the Cairns Central Swamp?

Question 1. -What is the current state of the spectacled flying-fox population, and the key threatening processes effecting that population?

- Spectacled flying-foxes form a single integrated population across their Australian home range, and the Cairns library site is one of many roosting sites, with animals moving through a range of sites in a daily, weekly and annual basis. The animals at the Cairns library do not function as a distinct ecological population, (or colony) of flying-foxes.
- The size of the breeding population of spectacled flying-foxes has been in decline for at least ten years. Population modelling suggest that over the period 2004 to 2016 the population had declined by some 75% to c. 75,000. Monitoring in the intervening period suggest this decline has continued.
- The modelling suggests that periods of population decline between 2004 and 2016 are mainly associated with cyclone events. These declines appear to be due to decreases in available food availability in the winter following a summer cyclone event.
- In addition, recent extreme heat events during 2018/19 have caused significant increased mortality to spectacled flying-foxes.
- While the underlying breeding rate would point to the potential for population growth, mortality from external factors, primarily extreme climate events, is the core factor driving the decline in numbers.
- The loss of roosting habitat does not appear be a meaningful factor driving the decline in spectacled flying-foxes numbers, nor is the current availability of roosting habitat a limit to the breeding success of flying-foxes.

Question 2. What role does the roosting habitat/site at the Cairns City Library play in the conservation of spectacled flying-foxes, and what is the potential conservation risks if the site is no longer available as a roosting site.

- The roosting site at the Cairns library does not play a significant role in the conservation of spectacled flying-foxes in terms of supporting population recovery, or halting population decline.
- There are approximately 42 known roosting sites for spectacled flying-foxes through the broader Wet Tropics region.
- The roosting site at the Cairns Library does not offer particularly important, or high-quality roosting habitat for flying-foxes, even though it is listed as a Roost of National Significance.
- There are a range of existing roost sites (and potential new sites) nearby that would provide spectacled flying-foxes with access to the same forage habitat, with little or no change in flying distance or energy expenditure.
- As discussed above, the loss of roosting habitat in general is not a significant factor driving the decline in flying-foxes, nor is the current level of availability of roosting habitat a limit to the breeding success of flying-foxes.
- The current site in the Cairns CBD is sub-optimal as roosting habitat for spectacled flying foxes, with high levels of stress and disturbance, and higher effective temperatures and solar radiation due the surrounding built environment and lack of plant understorey.
- The site has exhibited high levels of deaths and abandonment of young year-round for at least a decade. While there is some level of observation bias for deaths relative to other camps (i.e. the site is inspected almost daily by bat carers), there is still a strong indication that the levels of deaths at the Cairns CBD are higher than other spectacled flying-fox roosts. There is a well-supported argument it may be among the most 'dysfunctional' (unhealthy) roosting sites in the country, across all species of flying-fox, because of this mortality.
- Based on the existing mortality at the site, and the availability of other nearby roosts and roosting sites, which are likely to have lower rates of disturbance and mortality than the library site, the loss of the Cairns Library as a roosting site is not expected to have any meaningful impact on the conservation of the spectacled flying-fox.

Question 3. What are the risks of mortality for individual flying foxes from dispersal actions occurring at the Cairns City Library?

- Previous dispersal events (e.g. Melbourne Botanic Gardens) have indicated that a wellplanned, well-organised and well- resourced dispersal can successfully induce flying-foxes to cease using a roost without causing long-term physiological stress or mortality.
- Noise, smoke and lights in various combinations can be used as flying-foxes return to a roost in the morning, without harming the animals.
- These animals will immediately divert and settle at alternative sites, either in existing roosts or in new sites.
- This process continues daily as some animals return to the existing roost, and additional animals arrive as part of normal migration into the roost sites.
- Previous dispersals show that animals can be dispersed from a site with limited physiological stress to individual animals. While disturbance from the original roost may need to continue for some weeks or months, numbers tend to drop rapidly, and on many occasions, these would not be the same animals being dispersed daily for several weeks.
- However, some animals will likely be exposed to the disturbance daily for long periods of time. The specifics of which individuals are likely exposed to the disturbance are largely unknown but data from other species suggest that they will include dominant males.
- Prior experience shows that this process is not a source of elevated mortality when conducted during lower risk periods and using responsible, humane methods.
- Research has shown that animals being dispersed in this way do not exhibit elevated stress hormone levels or depleted health.
- Individual Flying- foxes regularly shift roosts, sometimes on a daily basis, and the process of being dispersed (using sensible methods and practices) from one site to find another roosting site is not a process that should seriously affect flying-foxes health if performed appropriately.

Question 4. What are the risks of mortality for individual flying foxes from ongoing dispersal of flying-foxes from new "splinter roosts" if they form after the initial dispersal from the library site?

- As discussed above in many cases where an existing long-term roost is dispersed, flying foxes will disperse in the first instance to a range of sites to settle for that day. Those may be other existing roost sites, or new splinter roosts, which can be individual animals, or small numbers (e.g. perhaps less than 50).
- Those animals will carry out normal feeding behaviours the following evening and may attempt to return to the original roosting site or occupy other sites over subsequent days. Other animals that were not present during the dispersal but which have moved into the area and which know of the camp location may also try to settle.
- Previous dispersals would suggest that, over the space of several days, flying foxes that dispersed from the original site will begin to form more recognisable roosts which may be new sites, or expansions of existing sites.
- Typically, authorities will need to also attempt to disperse splinter roosts or expanded sites if they occur in areas that have an unacceptable impact on human populations?
- This secondary dispersal can create further splinter roosts, or roost expansions.
- This can result in a situation where the initial dispersal from one site may require dispersal actions over a range of sites every day for weeks or even months, until flying-foxes have largely settled into sites that don't have a significant public nuisance impact.
- However, because individual flying-foxes move from roost to roost very frequently, even under normal conditions, there is very little risk that an individual animal would be dispersed on a daily basis over this period. However, it is possible that an unknown proportion, albeit probably small, may experience repeated disturbance over time.

- Tracking studies of spectacled flying-foxes and other flying-fox species would suggest that the average animal changes camp approximately every 10 days.
- Provided the animals continue to have access to normal foraging habitat at night, and can be relatively settled for a period of the day for rest, repeated dispersal events from multiple sites do not appear to pose an elevated risk of injury, physiological stress or harm, provided that this process isn't occurring during other times of elevated stress (e.g. extreme heat events, during food shortages or, high risk periods during pregnancy).
- Special consideration may be required when animals have 'crèche' young i.e. the mothers leave their pups in the roost trees while going off to forage at night.

Question 5. What Safeguards are in place in the 'as-of-right' authority process to minimise and manage risks?

- The current (14/02/2020) Code of practice (under Queensland's nature conservation laws) requires local governments to provide DES notification of proposed management actions, so that the risk of harm or injury is considered in the roost management planning process and is documented for subsequent evaluation or in the event of a compliance issue or complaint investigation.
- The current Code also identifies pre-emptive measures to avoid harming flying-foxes by seeking to prevent the removal of a tree within 20 metres of a (roosting) flying-fox and trimming a tree within 10 metres of a flying-fox;
- The current Code requires a 'knowledgeable person' to be present when undertaking a full dispersal of flying-foxes for the first 2 days of dispersal.
- Corrective measures are also in place, requiring work to cease in the event of flying-fox injury or death, or when a flying-fox is found on the ground because of the dispersal, until it is assessed that work can recommence without further disturbance or harm.
- Timing of management actions is also considered in the Code to ensure that the driving away of flying-foxes only occurs at times when they are already in the air at fly-in and fly-out times, and avoids such activity when there are pregnant females, dependent young, times of food shortage or heat stress; or where the target species is a listed threatened species under the *Nature Conservation Act 1992* spectacled flying-foxes are a threatened species, being listed as 'endangered' under that Act.
- The Code is also supported by a new Flying-fox roost management guideline, which provides greater direction on how to ensure any management actions address health and welfare impacts by modifying or re-scheduling them to avoid the impact recurring.

Question 6. What are the prospects of a successful roost dispersal from the Cairns City Library site, to relocate to a new flying-foxes roost at the Cairns Central Swamp?

- The Cairns CBD dispersal proposes to disperse animals from the existing site, with the goal of establishing new roosts in nearby melaleuca swamp vegetation to the north-west of CBD or (possibly) to large tracts of native vegetation to the east of the CBD, across Trinity Inlet.
- While these areas could certainly accommodate flying-fox roosts as animals move out of the CBD, it is difficult to predict if that desired outcome is likely.
- Prior dispersals would suggest that animals may move in any direction to a range of sites, some that are suitable and some that are unsuitable as long-term roost.
- Further dispersal will be required if animals move into unsuitable urban sites. This process may continue until flying-foxes settle a site, or sites, that are relatively suitable.
- Those suitable sites may not be the target sites set out in the current proposal, but may be other existing roosts, or other newly established roosts. If that occurs the dispersal is generally considered to have successful, even though it was not the target alternative site.

That is what occurred with the dispersal of flying-foxes from the Melbourne Botanic Gardens.

- It is perhaps therefore more useful to assess the success of the proposal on the basis of its ability to transition flying-fox roost use to an outcome that has less impact on humans and flying-foxes than the current Cairns library site, rather whether it is to the specific target site.
- Based on that criterion, the proposal has a strong chance of success, given it is highly likely to be well planned and well resourced.
- Although there is a risk of a flying-fox roost forming in an area with significant temporary impacts on human amenity, the Council appears to be well prepared to carry out secondary dispersals as needed.
- However, the risk remains that a new roost(s) may establish and create impacts on the human populations and cannot be easily dispersed in the short, medium or (even) long-term, because of a combination of reasons, including:
 - that the costs to continue to disperse the roost/s may prove to be prohibitive, or
 - the negative side effects of the dispersal on humans (e.g. ongoing daily very loud sounds in the early morning) may become more impactful than the roost itself; or
 - weather conditions may make it very difficult to disperse without harming flying-foxes.



PROPOSED APPROVAL

Flying-fox relocation measures, 151 Abbott Street, Cairns, Queensland, (EPBC 2019/8424)

This decision is made under sections 130(1) and 133(1) of the Environment Protection and Biodiversity Conservation Act 1999 (Cth). Note that section 134(1A) of the EPBC Act applies to this approval, which provides in general terms that if the approval holder authorises another person to undertake any part of the action, the approval holder must take all reasonable steps to ensure that the other person is informed of any conditions attached to this approval, and that the other person complies with any such condition.

Details

Person to whom the approval is granted (approval holder)	Cairns Regional Council
ACN or ABN of approval holder	ABN 24 310 025 910
Action	To implement deterrent measures to disperse and permanently relocate a nationally important population of Spectacled Flying-fox (<i>Pteropus conspicillatus</i>) located at 151 Abbott Street, Cairns, Queensland (see EPBC Act referral 2019/8424).

Proposed Approval decision

My decision on whether or not to approve the taking of the action for the purposes of the controlling provision for the action is as follows.

Controlling Provisions

Listed Threatened Species and Communities		
Section 18	Approve	
Section 18A	Approve	

Period for which the approval has effect

This approval has effect until 1 October 20234 Decision-maker		Commented s47F]: Is this long enough to ensu submitted completion data before the approval laps
Name and position	Andrew McNee First Assistant Secretary	
	Environment Approvals Division	
States of Streems	Department of Agriculture, Water and the Environment	
Signature	PROPOSED DECISION - DO NOT SIGN	
Date of decision	PROPOSED DECISION - DO NOT DATE	

Conditions of approval

This approval is subject to the conditions under the EPBC Act as set out in ANNEXURE A.

ire they have es

ANNEXURE A - CONDITIONS OF APPROVAL

Part A - Conditions specific to the action

- The proposed relocation activities must only be undertaken within the flying-fox management areas shown in Figure 1 unless otherwise agreed in writing by the Minister.
- To ensure there are no adverse impacts on the Spectacled Flying-<u>f</u>Fox (Pteropus conspicillatus) (SFF) from the action, relocation activities must:
 - a. be carried out using non-lethal measures;
 - b. be limited to a maximum of 2 periods, <u>each of up to 2.5 hours duration</u>, in <u>each any</u> 24 hour period; and
 - b.c. only be conducted either directly before sunrise end-or directly after sunset;
 - ed. _____be <u>undertaken on a</u> maximum of 30 days <u>within any 3 month</u>fer each-period-of
 - dec. must not commence during er immediately efter a period of significant population stress; and

e.f. be immediately discontinued when their monitoring detects the presence of heavily pregnant females (in last trimester), dependent young SFF, sick, injured or dead SFF are detected.

- To ensure there are no adverse impacts on the SFF from the action, relocation activities must: a. be carried out using non lothal measures;
 - a. only be undertaken in the key locations identified in Figure 1

Action Management Plan

- 4. The approval holder must implement the Cairns Flying-fox Relocation Implementation Plan.
- 5. Within 60-40 business days of the completion of each period of up to 30 days of relocation activities, the approval holder must-<u>undertake have an independent suitably qualified ecologist a review of the effectiveness and appropriateness of the Cairns Flying-fox Relocation Implementation Plan for the purpose of propose any revision amending of the Cairns Flying-fox Relocation Implementation Plan that he/she recommends to avoid adverse effects on SFF and provide a written report of a section for the purpose of the cairne for the cairne for the cairne for the purpose of the cairne for the cair</u>
- The review and any amendments to the Cairns Flying fox Releastion Implementation Plan must be undertaken by a independent suitably-qualified supert.

2. The amended Cairns Flying fox Relocation Implementation Plan must include:

- e.a. an assessment of the performance of the <u>30 day period of relocation activities</u> against the relocation success indicators; <u>and</u>
- de-the outcomes of the monitoring program described specified in the Cairns Flying-fox Relocation Implementation Plany
- erb. any changes to Cairne Flying fox Relocation Implementation Plan required to avoid adverse offects on SFF.
- 6. The approval holder must not commence any period of up to 30 days of relocation activities other than the initial such period until at least 20 business days after it has submitted to the Department the written report of the independent suitably qualified ecologist in respect of the immediately previous period of up to 30 days of relocation activities.omended_If in that report the independant suitably qualified ecologist recommended any revision of the Cairns Flying-fox Relocation Implementation Plan must be submitted to the approval holder must not commence any period of up to 30 days of relocation activities.omended for the written approval of

Commented 947F or some other measure to govern how often a 30 day program can be run

Commented a47F The definition includes the year following high mortality. If you wish to prevent measures being taken for longer, adjust the definition Formatted: Font: Bold

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Commented [s47F every 2 5 hour period	Otherwise it would require a review after		
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the Minister has approved a revised version of prior to the Cairns Flying-fox Relocation Implementation Plancommencement of relocation activities.

-Cease relocation activities provisions

Cease relocation activities provisions Cease relocation activities provisions

- 8.7. The SFF camp and the relocation sites must be monitored in accordance with the monitoring program <u>specified</u> in the Cairns Flying-fox Relocation Implementation Plan to detect changes to SFF numbers, extent of roosting, ill health, death or injury to SFF, changes in SFF flying or roosting behaviour and any signs of stress in the SFF colony attributable to the action.
- 9.8. The results of the monitoring <u>undertaken each day</u> must be reviewed <u>on the same</u> day by a suitably qualified <u>ecologist</u> to:

a.__determine the impacts of the relocation activities on SFF;

a.b. determine if a relocation success indicator has been achieved; and

<u>c.</u>decide if it is safe for SFF for relocation activities to continue as planned.

If the suitably qualified ecologist decides that it is not safe for SFF for relocation activities to continue as planned, the approval holder must notify the Department within one (1) business day and not resume relocation activities until the Department has agreed in writing that relocation activities may be resumed.

- 10.9. The approval holder <u>must report in writing to the Department within one-two business days</u> if a relocation success indicator has been <u>achieved</u> providing details of what was achieved and when
- 11.<u>10.</u> The approval holder must cease **relocation activities** within one **business day** following determining that a **relocation success indicator** has been <u>achieved</u>.
- 12.11. After the suitably qualified ecologist determines that a relocation success indicator has been achieved the approval holder must not recommence undertake relocation activities until agreed to by unless the Department agrees in writing.

Part B – Standard administrative conditions

Notification of date of commencement of the action

- 13.12. The approval holder must notify the **Department** in writing of the date of **commencement of the** action within 10 business days after the date of **commencement of the action**.
- 14.13. If the commencement of the action does not occur within years from the date of this approval, then the approval holder must not commence the action without the prior written agreement of the Minister.

Compliance records

15.14. The approval holder must maintain accurate and complete compliance records.

16.<u>15.</u> If the **Department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **Department** within the timeframe specified in the request.

Note: Compliance records may be subject to audit by the Department or an independent auditor in accordance with section 458 of the EPBC Act, and or used to verify compliance with the conditions. Summaries of the result of an audit may be published on the Department's website or through the general media.

Publication of plans

17.<u>16.</u> The approval holder must:

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Commented [s47F : Needs to be shorter than the period of the approval

- a. submit plans electronically to the Department;
- publish each plan on the website within 20 business days of the date of this approval or the plan is approved by the Minister

 unless otherwise agreed to in writing by the Minister:
- c. exclude or redact **sensitive ecological data** from **plans** published on the **website** or provided to a member of the public; and
- d. keep plans published on the website until the end date of this approval.
- 18.<u>17.</u> The approval holder must ensure that any monitoring data (including sensitive ecological data), surveys, maps, and other spatial and metadata required under the conditions of this approval, is prepared in accordance with the **Department's** *Guidelines for biological survey and mapped data* (2018) and submitted electronically to the **Department** within 30 business day.

Annual compliance reporting

- 19.18. The approval holder must prepare a **compliance report** for each 12 month period following the date of **commencement of the action**, or otherwise in accordance with an annual date that has been agreed to in writing by the **Minister**. The approval holder must:
 - publish each compliance report on the website within 60 business days following the relevant 12 month period;
 - notify the **Department** by email that a **compliance report** has been published on the **website** and provide the weblink for the **compliance report** within five **business days** of the date of publication;
 - c. keep all compliance reports publicly available on the website until this approval expires;
 - exclude or redact sensitive ecological data from compliance reports published on the website; and
 - e. where any **sensitive ecological data** has been excluded from the version published, submit the full **compliance report** to the **Department** within 5 **business days** of publication.

Note: Compliance reports may be published on the Department's website.

Reporting non-compliance

- 20.19. The approval holder must notify the **Department** in writing of any: **incident**; non-compliance with the conditions; or non-compliance with the commitments made in **plans**. The notification must be given as soon as practicable, and no later than two **business days** after becoming aware of the **incident** or non-compliance. The notification must specify:
 - a. any condition which is or may be in breach;
 - b. a short description of the incident and/or non-compliance; and
 - c the location (including co-ordinates), date, and time of the **incident** and/or non-compliance.
 In the event the exact information cannot be provided, provide the best information available.
- 21.20. The approval holder must provide to the **Department** the details of any **incident** or noncompliance with the conditions or commitments made in **plans** as soon as practicable and no later than 10 **business days** after becoming aware of the **incident** or non-compliance, specifying:
 - a. any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future;
 - b. the potential impacts of the incident or non-compliance; and
 - c. the method and timing of any remedial action that will be undertaken by the approval holder.

Independent audit

22.21. The approval holder must ensure that **independent audits** of compliance with the conditions are conducted as requested in writing by the **Minister**.

23.22. For each independent audit, the approval holder must:

- a. provide the name and qualifications of the independent auditor and the draft audit criteria to the Department;
- only commence the independent audit once the audit criteria have been approved in writing by the Department; and
- c. submit an audit report to the **Department** within the timeframe specified in the approved audit criteria.
- 24.23. The approval holder must publish the audit report on the **website** within 10 **business days** of receiving the **Department's** approval of the audit report and keep the audit report published on the **website** until the end date of this approval.

Completion of the action

25.<u>24.</u> Within 30 days after the **completion of the action**, the approval holder must notify the **Department** in writing and provide **completion data**.

Part C - Definitions

In these conditions, except where contrary intention is expressed, the following definitions are used:

Adverse impacts -means an exceedance of a limit as a result of the project

Business day means a day that is not a Saturday, a Sunday or a public holiday in the state or territory of the action.

Cairns Flying-fox Relocation Implementation Plan means the Cairns Flying-fox Relocation Implementation Plan dated 27 March 2020 or any subsequent amended version of this Cairns Flyingfox Relocation Implementation Pplan approved in writing by the Minister.

<u>Commence/ment in relation to relocation activities means to begin any period of undertaking</u> relocation activities.

Commence_ment/recommencement of the action means the first instance of any activity associated with the action.

Completion data means an environmental report and spatial data clearly detailing how the conditions of this approval have been met. The **Department**'s preferred spatial data format is **shapefile**.

Completion of the action means all specified activities associated with the action have permanently ceased.

Compliance records means all documentation or other material in whatever form required to demonstrate compliance with the conditions of approval in the approval holder's possession or that are within the approval holder's power to obtain lawfully.

Compliance reports means written reports:

- i. providing accurate and complete details of compliance, **incidents**, and non-compliance with the conditions and the **plans**;
- ii. consistent with the Department's Annual Compliance Report Guidelines (2014)
- iii. include a **shapefile** of any clearance of any **protected matters**, or their habitat, undertaken within the relevant 12 month period; and

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iv. annexing a schedule of all plans prepared and in existence in relation to the conditions during the relevant 12 month period.	
Department means the Australian Government agency responsible for administering the EPBC Act.	
EPBC Act means the Environment Protection and Biodiversity Conservation Act 1999 (Cth).	
Event means <u>occasions</u> <u>lasting from days to months</u> <u>which cause significant mortality of SFF or severe</u> food shortages for the species <u>including extreme</u> heat, cyclones <u>and</u> bush fires	
Incident means any event which has the potential to, or does, impact on one or more protected matter(s).	
Independent means a person(s) that does not have an individual or by employment or family affiliation any conflicting or competing interest(s) with the approval holder; the approval holder's staff representatives or associated persons; or the action including any personal financial business or employment relationship other than receiving payment for undertaking the role for which the condition requires an independent person.	
Independent audit: means an audit conducted by an independent and suitably qualified person as detailed in the Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines (2019)	
Monitoring data means the data required to be recorded under the conditions of this approval.	
Minister means the Australian Government Minister administering the EPBC Act including any delegate thereof.	
Nationally important in respect of a SFF camp means a camp that has contained \geq 16,000 SFF in more than one year in the last 10 years, or has been occupied by SFF in at least 50 per cent of the surveys of that camp conducted in the last 10 years.	
Non-lethal measures means <u>the use of</u> metal clangers, pool noodles, long-range acoustice devices, lights, low pressure water sprayers, inflatable devices and foggers <u>to discourage occupation of the SFF</u> <u>camp</u> . Non-lethal measures do not include the use of non-lethal firearms, drones and helicopters.	
Period of Ssignificant population stress means in the year prior to the proposed date of the action taking place any event has occurred which has resulted in the mortality of 1.5 percent or more of the national population of SFFspectacled flying for and the 12 months following the event.	Formatted: Font: Bold
Plan means any of the documents required to be prepared, approved by the Minister, implemented by the approval holder and <u>/or</u> published on the website in accordance with these conditions (includes action management plans and/or strategies).	
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Relocation activities means the use of non-lethal measures to deter disperse SFF from the SFF camp and deter and disperse SFF from roosting at the SFF camp and other unsuitable areas in Figure 1 the Cairns CBD area .	
<u>Relocation sites</u> means the two locations enclosed by green lines designated as 'Proposed relocation site' in Figure 1	
Relocation success indicators means the relocation success indicators as specified in the Cairns Flying-fox Relocation Implementation Plan.	

Sensitive ecological data means data as defined in the Australian Government Department of the Environment (2016) *Sensitive Ecological Data – Access and Management Policy V1.0.*

SFF camp means the nationally important Spectacled Flying-fox camp located at 151 Abbot Street, SFF camp means the nationally important Spectacled Flying-fox camp located at 151 Abbot Street, SFF camp means the nationally important Spectacled Flying-fox camp located at 151 Abbot Street,

SFF camp means the nationally important Spectacled Flying-fox camp located at 151 Abbot Street, Cairns.

Suitably qualified ecologist means a person who has professional qualifications relevant to the SFF is a recognised expert supported by relevant peer reviewed publications regarding the SFF and has at least 5 years of experience undertaking surveys relevant to the condition of SFF.

Suitably qualified person means a person who has professional qualifications, training, skills and/or experience related to the nominated subject matter and can give authoritative independent assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and/or literature.

Website means a set of related web pages located under a single domain name attributed to the approval holder Cairns Regional Council and available to the public.

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Figure 1:



APPROVAL

Flying-fox relocation measures, 151 Abbott Street, Cairns, Queensland, (EPBC 2019/8424)

This decision is made under sections 130(1) and 133(1) of the *Environment Protection and Biodiversity Conservation Act 1999 (Cth).* Note that section 134(1A) of the EPBC Act applies to this approval, which provides in general terms that if the approval holder authorises another person to undertake any part of the action, the approval holder must take all reasonable steps to ensure that the other person is informed of any conditions attached to this approval, and that the other person complies with any such condition.

Details

Person to whom the approval is granted (approval holder)	Cairns Regional Council
ACN or ABN of approval holder	ABN 24 310 025 910
Action	To implement deterrent measures to disperse and permanently relocate a nationally important population of Spectacled Flying-fox (<i>Pteropus conspicillatus</i>) located at 151 Abbott Street, Cairns, Queensland (see EPBC Act referral 2019/8424).

Approval decision

My decision on whether or not to approve the taking of the action for the purposes of the controlling provision for the action is as follows.

Controlling Provisions

Listed Threatened Species and Communities		
Section 18	Approve	
Section 18A	Approve	

Period for which the approval has effect

This approval has effect until 1 October 20234

Decision-maker

Name and position	Andrew McNee
	First Assistant Secretary
	Environment Approvals Division
	Department of Agriculture, Water and the Environment
Signature	Choose an item.

Conditions of approval

This approval is subject to the conditions under the EPBC Act as set out in ANNEXURE A.

ANNEXURE A – CONDITIONS OF APPROVAL

Part A – Conditions specific to the action

- 1. The proposed **relocation activities** must only be undertaken within the flying-fox management areas shown in Figure 1 unless otherwise agreed in writing by the **Minister**.
- 2. To ensure there are no **adverse impacts** on the Spectacled Flying-Fox (*Pteropus conspicillatus*) (SFF) from the action, **relocation activities** must:
 - a. be carried out using non-lethal measures;
 - b. be limited to a maximum of 2 periods, each of up to 2.5 hours duration, in each any 24 hour period, and be conducted before sunrise and after sunset;
 - c. be undertaken for a maximum of 30 days for each periodof relocation activities;
 - d. must not commence during or immediately after a period of significant population stress; and
 - e. be immediately discontinued if when the monitoring detects the presence of heavily pregnant females (in last trimester), dependent young SFF, sick, injured or dead SFF are detected.
- 3. To ensure there are no adverse impacts on the SFF from the action, relocation activities-must:
 - a. be carried out using non lethal measures;
 - a. only be undertaken in the key locations identified in Figure 1

Action Management Plan

- 4. The approval holder must implement the Cairns Flying-fox Relocation Implementation Plan.
- 5. Within 60-40 days of the completion of each maximum period of relocation activities, the approval holder must have an independent suitably qualified ecologist undertake a review of the effectiveness and appropriateness of the Cairns Flying-fox Relocation Implementation Plan. for the purpose of amending the Cairns Flying fox Relocation Implementation Plan.
- 6. The review and any amendments to the **Cairns Flying fox Relocation Implementation Plan** must be undertaken by a independent **suitably qualified expert**.
- 7. The review of the amended Cairns Flying-fox Relocation Implementation Plan must include:
 - a. an assessment of the performance of each maximum period of relocation activities against the relocation success indicators;
 - b. the outcomes of the monitoring program described specified in the Cairns Flying-fox Relocation Implementation Plan.
 - c. any changes to Cairns Flying fox Relocation Implementation Plan required to avoid adverse effects on SFF.
- 8. The approval holder must amend the Cairns Flying-fox Relocation Implementation Plan to include any revisions the independent suitably qualified ecologist recommends to avoid adverse effects on SFF.
- The approval holder must not commence any maximum period of relocation activities, other than the initial such period, until the Minister has approved the amended version of the Cairns Flyingfox Relocation Implementation Plan must be submitted to the Department for the written approval of the Minister, prior to the commencement of relocation activities.
- 10. If the amended **Cairns Flying fox Relocation Implementation Plan** is approved by the Minister, the amended **Cairns Flying fox Relocation Implementation Plan** must be implemented.

Cease relocation activities provisions

- 11. The **SFF camp** and the **alternative relocation sites** must be monitored in accordance with the monitoring program described specified in the **Cairns Flying-fox Relocation Implementation Plan** to detect changes to SFF numbers, extent of roosting, ill health, death or injury to SFF, changes in SFF flying or roosting behaviour and any signs of stress in the SFF colony attributable to the action.
- 12. The results of the monitoring undertaken each day must be reviewed each on the same day by a independent suitably qualified expert ecologist to:
 - a. determine the impacts of the relocation activities on SFF;
 - b. determine if a relocation success indicator has been achieved; and
 - c. decide if it is safe for relocation activities can to continue as planned.
- 13. If the approval holder independent-suitably qualified ecologist decides that it is not safe for relocation activities to continue as planned and/or detects through monitoring required specified in the Cairns Flying-fox Relocation Implementation Plan at condition 7 that a relocation success indicator has been reached, the approval holder must report this to the Minister in writing within one-two business days of the detection and must not resume relocation activities until the Department has agreed in writing that relocation activities can be resumed as planned.
- 14. The approval holder must cease **relocation activities** within one business day following determination that a **relocation success indicator** has been reached.
- 15. The approval must not recommence relocation activities until agreed to by the Department.

Part B – Standard administrative conditions

Notification of date of commencement of the action

- 16. The approval holder must notify the **Department** in writing of the date of **commencement of the action** within 10 **business days** after the date of **commencement of the action**.
- 17. If the **commencement of the action** does not occur within 3 5-years from the date of this approval, then the approval holder must not **commence the action** without the prior written agreement of the **Minister**.

Compliance records

- 18. The approval holder must maintain accurate and complete **compliance records**.
- 19. If the **Department** makes a request in writing, the approval holder must provide electronic copies of **compliance records** to the **Department** within the timeframe specified in the request.

Note: Compliance records may be subject to audit by the **Department** or an independent auditor in accordance with section 458 of the **EPBC Act**, and or used to verify compliance with the conditions. Summaries of the result of an audit may be published on the **Department**'s website or through the general media.

Publication of plans

20. The approval holder must:

- a. submit plans electronically to the Department for approval by the Minister;
- b. publish each plan on the website within 20 business days of the date of this approval or the plan is approved by the Minister or of the date a revised action management plan is submitted to the Minister or the Department, unless otherwise agreed to in writing by the Minister;
- c. exclude or redact **sensitive ecological data** from **plans** published on the **website** or provided to a member of the public; and
- d. keep **plans** published on the **website** until the end date of this approval.

21. The approval holder must ensure that any **monitoring data** (including **sensitive ecological data**), surveys, maps, and other spatial and metadata required under the conditions of this approval, is prepared in accordance with the **Department's** *Guidelines for biological survey and mapped data* (2018) and submitted electronically to the **Department** within 30 business day.

Annual compliance reporting

- 22. The approval holder must prepare a **compliance report** for each 12 month period following the date of **commencement of the action**, or otherwise in accordance with an annual date that has been agreed to in writing by the **Minister**. The approval holder must:
 - a. publish each **compliance report** on the **website** within 60 **business days** following the relevant 12 month period;
 - b. notify the **Department** by email that a **compliance report** has been published on the **website** and provide the weblink for the **compliance report** within five **business days** of the date of publication;
 - c. keep all **compliance reports** publicly available on the **website** until this approval expires;
 - d. exclude or redact **sensitive ecological data** from **compliance reports** published on the **website**; and
 - e. where any **sensitive ecological data** has been excluded from the version published, submit the full **compliance report** to the **Department** within 5 **business days** of publication.

Note: Compliance reports may be published on the Department's website.

Reporting non-compliance

- 23. The approval holder must notify the **Department** in writing of any: **incident**; non-compliance with the conditions; or non-compliance with the commitments made in **plans**. The notification must be given as soon as practicable, and no later than two **business days** after becoming aware of the **incident** or non-compliance. The notification must specify:
 - a. any condition which is or may be in breach;
 - b. a short description of the incident and/or non-compliance; and
 - c. the location (including co-ordinates), date, and time of the **incident** and/or non-compliance. In the event the exact information cannot be provided, provide the best information available.
- 24. The approval holder must provide to the **Department** the details of any **incident** or noncompliance with the conditions or commitments made in **plans** as soon as practicable and no later than 10 **business days** after becoming aware of the **incident** or non-compliance, specifying:
 - a. any corrective action or investigation which the approval holder has already taken or intends to take in the immediate future;
 - b. the potential impacts of the **incident** or non-compliance; and
 - c. the method and timing of any remedial action that will be undertaken by the approval holder.

Independent audit

- 25. The approval holder must ensure that **independent audits** of compliance with the conditions are conducted as requested in writing by the **Minister**.
- 26. For each independent audit, the approval holder must:
 - a. provide the name and qualifications of the independent auditor and the draft audit criteria to the **Department**;

- b. only commence the **independent audit** once the audit criteria have been approved in writing by the **Department**; and
- c. submit an audit report to the **Department** within the timeframe specified in the approved audit criteria.
- 27. The approval holder must publish the audit report on the **website** within 10 **business days** of receiving the **Department's** approval of the audit report and keep the audit report published on the **website** until the end date of this approval.

Completion of the action

28. Within 30 days after the **completion of the action**, the approval holder must notify the **Department** in writing and provide **completion data**.

Part C - Definitions

In these conditions, except where contrary intention is expressed, the following definitions are used:

Adverse impacts -means an exceedance of a relocation success indicator limit as a result of the project

Business day means a day that is not a Saturday, a Sunday or a public holiday in the state or territory of the action.

Cairns Flying-fox Relocation Implementation Plan means the Cairns Flying-fox Relocation Implementation Plan dated 27 March 2020 or any subsequent amended **Cairns Flying-fox Relocation Implementation Plan** approved in writing by the Minister.

Commencement/recommencement of the action means the first instance of undertaking relocation activities any specified activity associated with the action.

Completion data means an environmental report and spatial data clearly detailing how the conditions of this approval have been met. The **Department**'s preferred spatial data format is **shapefile**.

Completion of the action means all specified activities associated with the action have permanently ceased.

Compliance records means all documentation or other material in whatever form required to demonstrate compliance with the conditions of approval in the approval holder's possession or that are within the approval holder's power to obtain lawfully.

Compliance reports means written reports:

- i. providing accurate and complete details of compliance, **incidents**, and non-compliance with the conditions and the **plans**;
- ii. consistent with the **Department's** Annual Compliance Report Guidelines (2014)
- iii. include a **shapefile** of any clearance of any **protected matters**, or their habitat, undertaken within the relevant 12 month period; and
- iv. annexing a schedule of all **plans** prepared and in existence in relation to the conditions during the relevant 12 month period.

Department means the Australian Government agency responsible for administering the **EPBC Act**.

EPBC Act means the Environment Protection and Biodiversity Conservation Act 1999 (Cth).

Event means heat stress events, cyclone or bush fire events (which result in either significant mortality or server food shortages).

Incident means any event which has the potential to, or does, impact on one or more **protected matter(s)**.

Independent audit: means an audit conducted by an independent and **suitably qualified person** as detailed in the *Environment Protection and Biodiversity Conservation Act 1999 Independent Audit and Audit Report Guidelines* (2019)

Independent suitably qualified ecologist person means a person who has professional qualifications, training, skills and/or experience related to the nominated subject matter and can give authoritative independent assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and/or literature.

Maximum period means a period of up to 30 consecutive days.

Monitoring data means the data required to be recorded under the conditions of this approval.

Minister means the Australian Government Minister administering the **EPBC Act** including any delegate thereof.

Nationally important means in respect of SFF camps, means a camps that has contained \geq 16,000 spectacled flying foxes SFF in more than one year in the last 10 years, or have been occupied by spectacled flying foxes SFF in at least 50 per cent of the surveys of that camp conducted in over the last 10 years.

Non-lethal measures means the use of metal clangers, pool noodles, long-range acoustice devices, lights, low pressure water sprayers, inflatable devices and foggers to discourage occupation of the SFF camp. Non-lethal measures does not include the use of non-lethal firearms, drones and helicopters.

Plan(s) means any of the documents required to be prepared, approved by the **Minister**, and/or implemented by the approval holder and published on the **website** in accordance with these conditions (includes action management plans and/or strategies).

Relocation activities means the use of **non-lethal measures** to disperse SFF from the **SFF camp**, deter SFF from roosting a the **SFF camp** and deter and disperse SFF from roosting at the **SFF camp** and other unsuitable areas in Figure 1 the Cairns CBD area.

Relocation success indicators means the relocation success indicators described in the **Cairns Flyingfox Relocation Implementation Plan.**

Sensitive ecological data means data as defined in the Australian Government Department of the Environment (2016) *Sensitive Ecological Data – Access and Management Policy V1.0.*

Suitably qualified person means a person who has professional qualifications, training, skills and/or experience related to the nominated subject matter and can give authoritative independent assessment, advice and analysis on performance relative to the subject matter using the relevant protocols, standards, methods and/or literature.

Significant population stress means, in the year prior to the proposed date of the action taking place, an event has occurred which results in the mortality of 1.5 percent or more of the national population of spectacled flying-fox.

SFF camp means the **nationally important** Spectacled Flying-fox camp located at 151 Abbot Street, Cairns.

Website means a set of related web pages located under a single domain name attributed to the approval holder Cairns Regional Council and available to the public.

Figure 1:



Recommended print size: A4

Australian Government

Department of Agriculture, Water and the Environment FOI 200512 Document 16

EPBC Ref: 2019/8424

s47F

Manager Community Development Cairns Regional Council 119-145 Spence Street CAIRNS QLD 4870

s47F

Decision on approval - Flying-fox relocation measures, 151 Abbott Street, Cairns, Queensland (EPBC 2019/8424)

I am writing to you in relation to a proposal by Cairns Regional Council to implement measures to permanently relocate a nationally important population of Spectacled Flying-fox (*Pteropus conspicillatus*) at 151 Abbott Street, Cairns, Queensland.

I have considered the proposal in accordance with Part 9 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and have decided to grant an approval to Cairns Regional Council. The details of my decision are attached. The proposal must be undertaken in accordance with the conditions specified in the approval.

I would appreciate your assistance by informing me when you start the action and who will be the contact person responsible for the administration of the approval decision.

Please note, any plans required as conditions of approval will be regarded as public documents unless you provide sufficient justification to warrant commercial-in-confidence status.

You should also note that this EPBC Act approval does not affect obligations to comply with any other laws of the Commonwealth, state or territory that are applicable to the action. Neither does this approval confer any right, title or interest that may be required to access land or waters to take the action.

The Department has an active audit program for proposals that have been referred or approved under the EPBC Act. The audit program aims to ensure that proposals are implemented as planned and that there is a high degree of compliance with any associated conditions. Please note that your project may be selected for audit by the Department at any time and all related records and documents may be subject to scrutiny. Information about the Department's compliance monitoring and auditing program is enclosed.

I have also written to the Queensland Department of Environment and Science advising them of my decision.

If you have any questions about this decision, please contact the project manager, s22 s22 by email to s22 and quote the EPBC reference number shown at the beginning of this letter.

Yours sincerely Ml.

Andrew McNee Assistant Secretary Assessments and Governance Branch /5 May 2020

Australian Government

Department of Agriculture, Water and the Environment FOI 200512 Document 17

EPBC Ref: 2019/8424

s47F Director Impact Assessments and Operational Support Department of Environment and Science GPO Box 2454 BRISBANE QLD 4001

Dear s47F

Decision on approval Flying-fox relocation measures, 151 Abbott Street, Cairns, Queensland (EPBC 2019/8424)

I am writing to you in relation to the proposal by Cairns Regional Council to implement measures to disperse and permanently relocate a nationally important population of Spectacled Flying-fox (*Pteropus conspicillatus*) located at 151 Abbott Street, Cairns, Queensland.

Thank you for providing comment on my proposed decision of approval. The matters raised in these comments have been taken into account in making my final decision of approval.

I have considered the proposal in accordance with Part 9 of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) and have decided to grant an approval to Cairns Regional Council. A notice of my decision is attached for your information.

If you have any questions about this decision, please contact the project manager, s22 s22 by email to s22 and quote the EPBC reference number shown at the beginning of this letter.

Yours sincerely

Mle

Andrew McNee Assistant Secretary Assessments and Governance Branch

15 May 2020