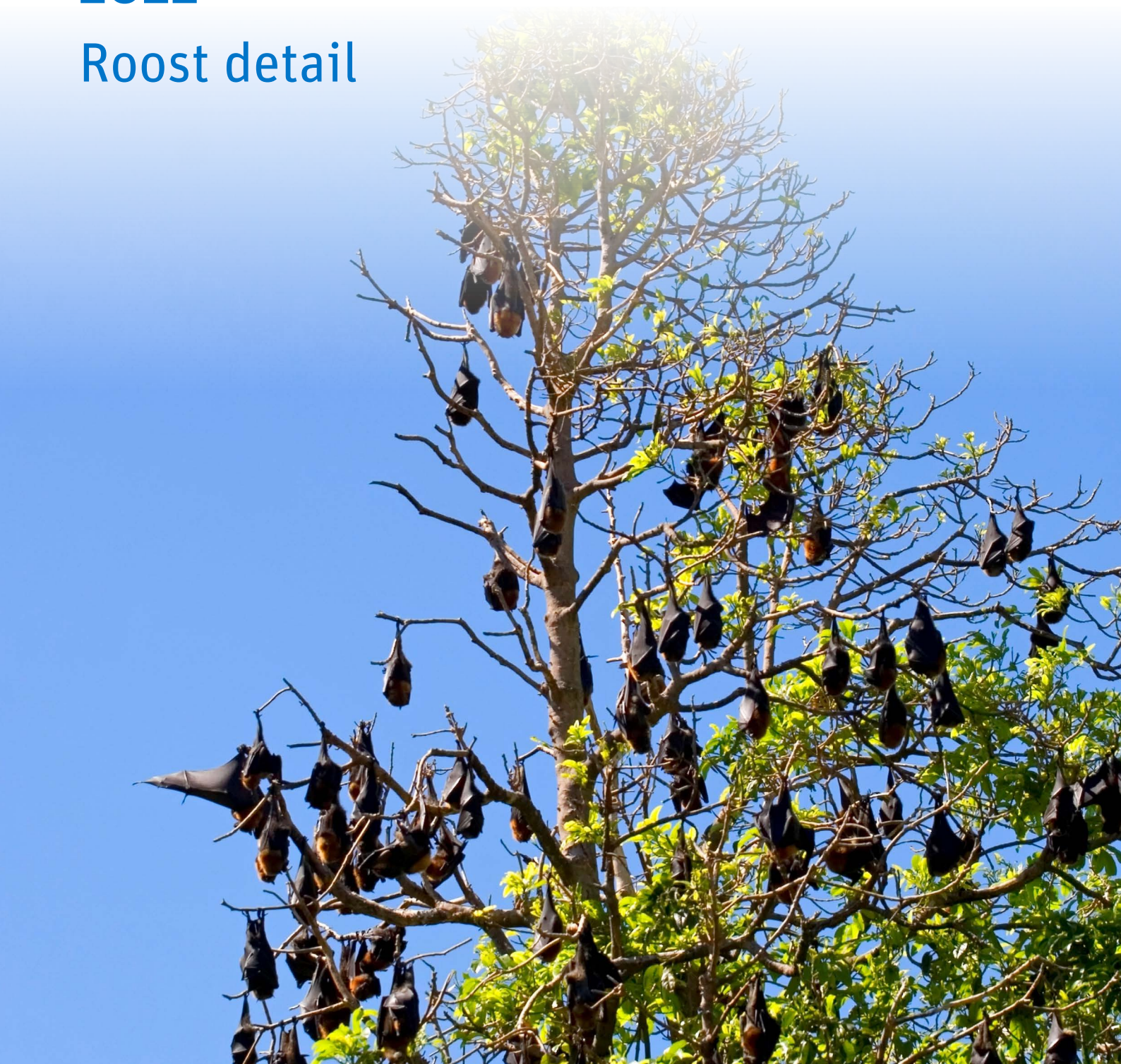
Redland CITY COUNCIL

Redlands Coast Flying-fox Plan

2022

Roost detail



This document has been produced by Ecosure Pty Ltd for Redland City Council

Acronyms and abbreviations

BFF	Black flying-fox (*Pteropus alecto*)
CE	Critically Endangered
Council	Redland City Council
DAWE	Department of Agriculture, Water and the Environment (Commonwealth)
DES	Department of Environment and Science
E	Endangered
EPBC Act	*Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth)
EVNT	Endangered, vulnerable and near threatened
GHFF	Grey-headed flying-fox (*P. poliocephalus*)
HeV	Hendra virus
LC	Least Concern
LRFF	Little red flying-foxes (*P. scapulatus*)
Ma	Marine
Mi	Migratory
MNES	Matters of Nntional environmental significance
NC Act	*Nature Conservation Act 1992* (Queensland)
NFFMP	National Flying-fox Monitoring Program
the Plan	The Redlands Coast Flying-fox Management Plan
PMAV	Property Map of Assessable Vegetation
RE	Regional Ecosystem
SEQ	South East Queensland
SMBIs	Southern Moreton Bay Islands
SMP	Species Management Program
V	Vulnerable

Contents

List of figures

1 Introduction

Three flying-fox species visit the Redlands Coast at certain times of the year:

- Grey-headed flying-fox (*Pteropus poliocephalus*) (GHFF)
- Black flying-fox (*P. alecto*) (BFF)
- Little red flying-fox (*P. scapulatus*) (LRFF).

Flying-foxes are keystone species for their critical role in long-distance pollination and seed dispersal, which is particularly important over fragmented landscapes. All species and their habitats are protected in Queensland under the *Nature Conservation Act 1992* (NC Act). The GHFF is also protected under the Commonwealth *Environment Protection and Biodiversity Act 1999* (EPBC Act) as a threatened species due to population decline and ongoing threats.

There are 32 known flying-fox roosts on the Redlands Coast, most within the urban footprint. Living near a flying-fox roost can be challenging for some, and Redland City Council (Council) developed the Redlands Coast Flying-fox Management Plan as a framework to support communities living with flying-foxes while protecting flying-foxes and the critical ecosystem services they provide. Maps in the Plan show locations of all roosts and potential habitat on the Redlands Coast.

This Roost Detail document is a supplement to the Redlands Coast Flying-fox Management Plan 2022. It provides background information on each of the known roosts, specifically:

- site description
- roost history
- sensitive sites in the area (schools, residential, aged care centres etc)
- other ecological values
- management maps (for select roosts).

Data has been collated from:

- Redland City Council Wildlife Officer local knowledge and Council datasets - flying-fox monitoring data, Wildlife Connections Corridors, land tenure information.
- Department of Environment and Science (DES) flying-fox data as part of the National Flying-fox Monitoring Program (NFFMP), collected by Council officers, DES officers and volunteers.
- online database searches and reports:
    - Queensland Wildnet
    - Matters of State Environmental Significance
    - Biodiversity and Conservation Values
    - Regional Ecosystems

- Vegetation Management
- Commonwealth Protected Matters Search Tool

- sensitive sites from desktop searches and site assessments.

This information has been used to categorise roosts and inform appropriate actions as outlined in the Plan, and this document should be read with referral to the Plan.

The adopted Redlands Coast Flying-fox Management Plan will be reviewed every five years, whereas this supplementary Roost Detail document is a live reference document that will be updated by Council officers as required.

1.1 Known roosts

Mainland roosts

1. Birkdale – Judy Holt Recreation Reserve (old Birkdale Landfill)
2. Birkdale – Collingwood Road
3. Birkdale – Mary Street
4. Capalaba – Macquarie Street
5. Capalaba – Redlands IndigiScapes Centre
6. Capalaba – Valentine Park, Lawn Terrace
7. Cleveland – Black Swamp Wetlands
8. Cleveland – Kooringa Bushland Refuge
9. Redland Bay – Pitt Street
10. Redland Bay – Weinam Creek Wetland
11. Redland Bay – Orchard Beach Wetland
12. Redland Bay – Junee Street Wetlands
13. Thornlands – Clifford Perske Nature Refuge
14. Thornlands – Lotus Close Wetland
15. Victoria Point – Egret Colony Wetlands
16. Victoria Point – Victoria Point High School
17. Wellington Point – Crossley Drive
18. Wellington Point – Jacob Street
19. Wellington Point – O'Connell Parade
20. Wellington Point – Tarradarrapin Wetlands.

Island roosts

1. Coochiemudlo Island – George Street
2. Coochiemudlo Island – Tageruba Street
3. Lamb Island – Lavender Street
4. Long Island
5. Macleay Island – Balaka Street Urban Habitat
6. Macleay Island – Bay Islands Golf Club
7. Macleay Island – Tim Sheas Wetland Reserve
8. Macleay Island – Wanda Street
9. North Stradbroke Island – Dunwich, East Coast Road
10. North Stradbroke Island – Point Lookout, Cylinder Beach
11. Russell Island – Cavendish Street
12. Russell Island – Kingfisher Court.

2 Mainland roosts

2.1.1 Birkdale – Judy Holt Recreation Reserve

Site description

The Judy Holt Reserve roost (11.3 ha) is located within the western half of the Judy Holt Recreation Reserve, Birkdale (Figure 1). The land is zoned as Recreation and Open Space, Community Facilities and Medium Density Residential. Mapped land use is park/amenities and is currently operating as a recreational area containing sports fields and associated infrastructure, roads, cleared walking paths and patches of mature woodland. Enhancement and stepping stone corridors pass through the site, as designated in the Wildlife Connections Plan 2018-2028.

The roost vegetation comprises of woodland habitat with an emergent Eucalypt canopy and dense, woody mid-storey vegetation which provides roosting habitat. The majority of roost vegetation is mapped as Regional Ecosystem (RE) 12.9-10.4 (*Eucalyptus racemosa* subsp. *racemosa* woodland on sedimentary rocks), while a small portion of RE 12.3.6 (*Melaleuca quinquenervia Eucalyptus tereticornis*, open forest on coastal alluvial plains) runs along the site's eastern boundary. Vegetation at this site is primarily mapped as category B or C regulated vegetation, though no vegetation is listed as threatened under the NC or EPBC Act. All native vegetation within the site is mapped as core koala (*Phascolarctos cinereus*) habitat and essential habitat for koalas and wallum froglets (*Crinia tinnula*) (Figure 2). Ecological values are displayed in Figure 2 and summarised in Appendix 1.

Roost history

This roost has been monitored by DES as part of the NFFMP as Birkdale Landfill / Birkdale Tip (roost no. 212). Limited data is available for this roost with only five surveys conducted between 2003 and 2018. No flying-foxes have been recorded during NFFMP monitoring at this site. BFF were anecdotally recorded at this site on 1/04/2012 and 1/11/2012 (as recorded through Council spatial data), though no estimates are available. Council noted that this site has been used by BFF for several years. There is no evidence that this site experiences large short-term population fluctuations.

No flying-fox management activities have been undertaken at this roost. Barbed wire fencing removal is planned after an incident involving a koala. This is an action for all Council sites in the Plan.

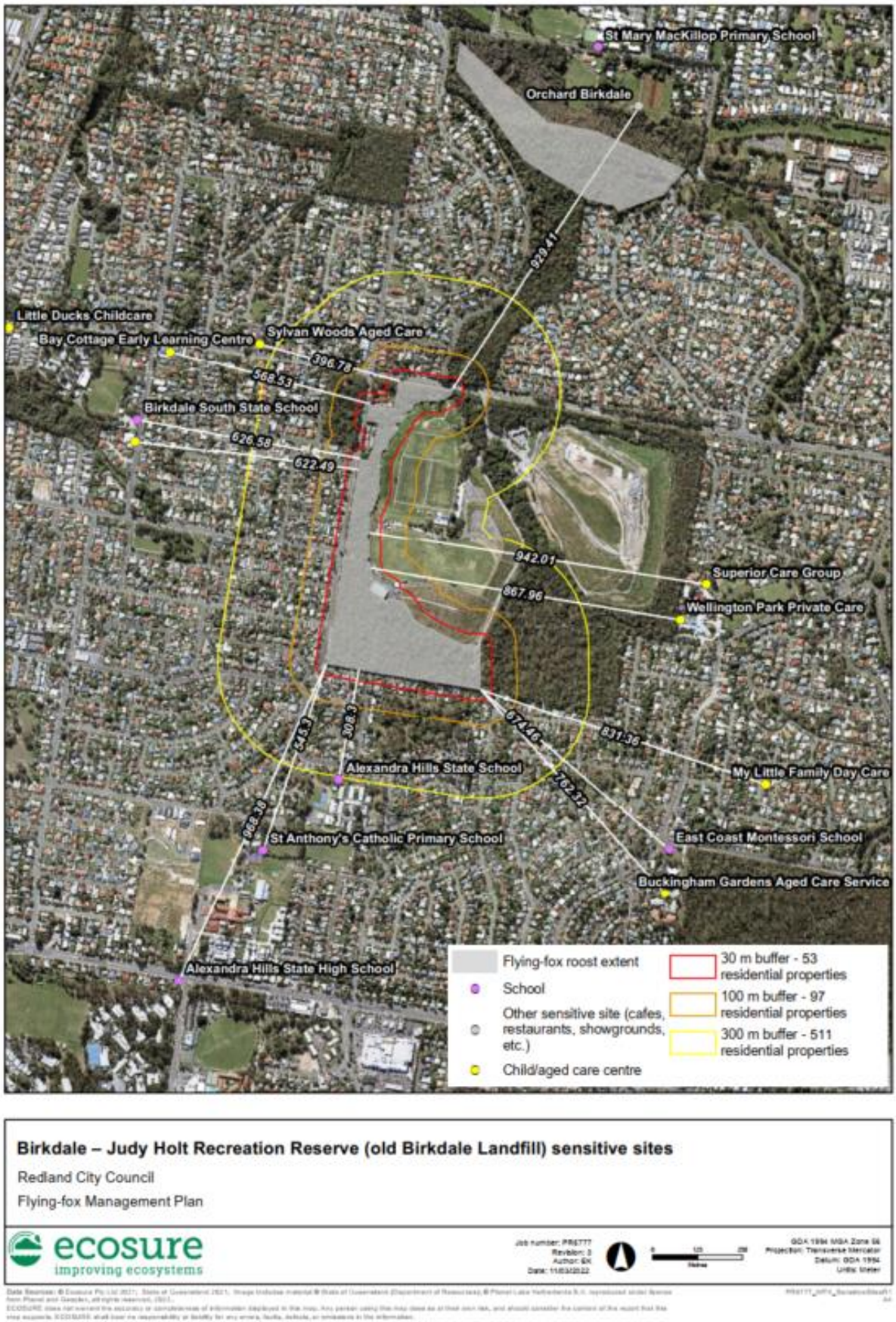
Sensitive sites

Several sensitive sites, including schools, childcare centres, and aged care centres, are located within 1 km of the roost site (Figure 3). There are a total of 661 residential properties located within 300 m of the average known roost extent.

Figure 1 Birkdale – Judy Holt Recreation Reserve roost location

Figure 2 Ecological values – Birkdale – Judy Holt Recreation Reserve roost location

Figure 3 Birkdale – Judy Holt Recreation Reserve sensitive sites



Birkdale – Judy Holt Recreation Reserve (old Birkdale Landfill) sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

2.1.2 Birkdale - Collingwood Road

Site description

The Collingwood Road roost (1.35 ha) is located northeast of the Birkdale Road - Collingwood Road intersection, Birkdale, on private property (Lot: 21, Plan: SP300083) (Figure 5). The land is zoned as Recreation and Open Space and Medium Density Residential and the mapped land uses are service and residential. A stepping stone corridor passes through the site, as designated in the *Wildlife Connections Plan 2018-2028*. Given the roost is on private property, and the current land zoning, the site has development approval.

The roost vegetation predominantly consists of RE 12.3.6 (*Melaleuca quinquenervia* +/- *Eucalyptus tereticornis*, *Lophostemon suaveolens*, *Corymbia intermedia* open forest on coastal alluvial plains). It also contains non-remnant vegetation and a small patch of RE 12.9-10.4 in the southwest portion of the roost extent. All native vegetation is mapped as category C regulated vegetation, with the majority of the site consisting of core koala habitat and essential habitat for koalas. Ecological values are displayed in Figure 6 and summarised in Appendix 1.

Roost history

The Collingwood Road roost was initially reported in 2012, first surveyed in 2014 and has been surveyed every subsequent year. The roost primarily contains BFF, though GHFF were recorded using the site in 2014 (RCC 2022) and 2016 (28°S Environmental 2019). The overall occupancy of the roost is relatively stable, housing between 20 and 300 individuals and experiencing some seasonal fluctuation (Figure 4).

Vegetation works (removal and redevelopment) have been undertaken at this site since 2013/14, associated with adjacent developments. The most significant of works has been the expansion of the Gateway Lifestyle Residential Parks, which commenced in 2016 (28°S Environmental 2019). Vegetation clearing for this expansion shifted flying-foxes westward, towards private properties along the western boundary of the site. Since this clearing, flying-foxes have resumed roosting within the original roost extent although now at higher densities in this area with less vegetation available. A pathway through the roost may need to be closed at times if disturbing the roost to minimise impacts on nearby residents and for flying-fox welfare. The Mary Street roost was first recorded at the time of initial clearing at Collingwood Road, and so avoiding disturbance at this site is also important to avoid creating potentially high conflict at Mary Street with multiple sensitive sites nearby (see Section 2.1.3).

Sensitive receptors

Several sensitive receptors are located with 1 km of the Collingwood Road roost, including childcare centres, schools, and aged care facilities (Figure 7).

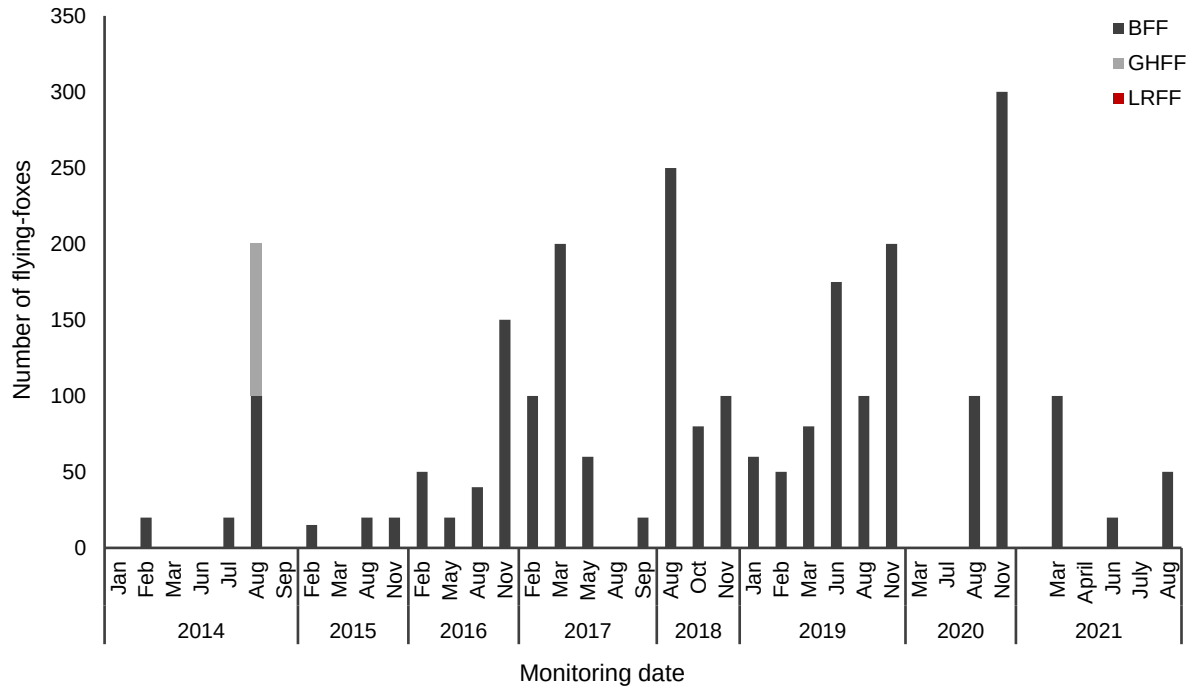


Figure 4 Birkdale - Collingwood Road flying-fox numbers between 2014 and 2021 (Source RCC). Note, flying-fox data from 28°S Environmental (2019) is not available.

Figure 5 Birkdale – Collingwood Road roost location

Figure 6 Ecological values – Birkdale – Collingwood Road

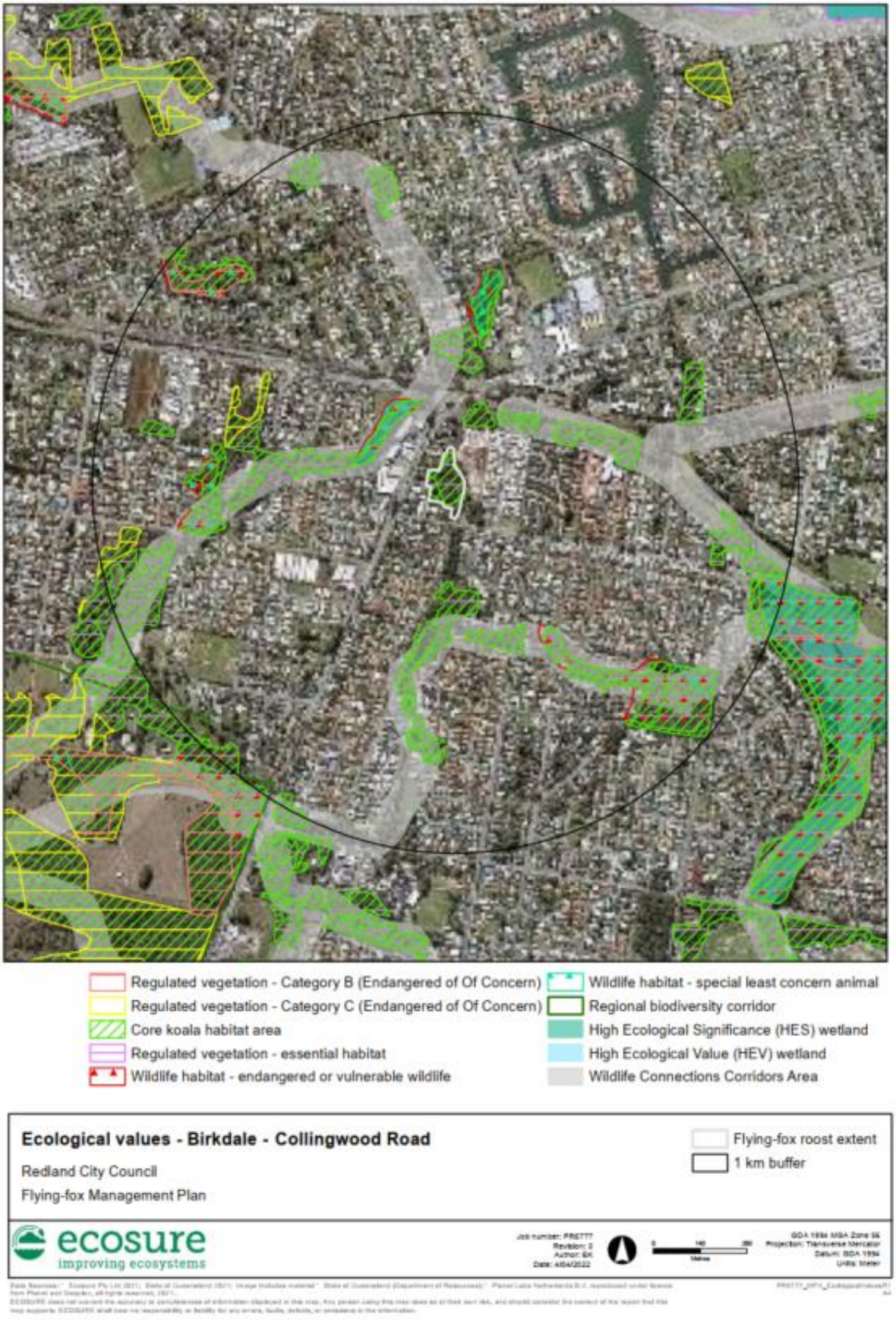


Figure 7 Birkdale - Collingwood Road sensitive sites

Birkdale – Collingwood Road sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

2.1.3 Birkdale - Mary Street

Site description

The Mary Street roost (0.06 ha) is located on Council-managed land north of the Birkdale Road - Quarry Road roundabout (Figure 9). The land use is mapped as residential and zoned as Recreation and Open Spaces. A stepping stone corridor passes through the site, as designated in the *Wildlife Connections Plan 2018-2028.*

The roost is located on non-remnant vegetation, though a patch of RE 12.3.6 lies directly northeast. The majority of roost vegetation is category C regulated vegetation. The site is recorded as both core koala habitat and essential habitat for koalas, with 560 koala sightings recorded within 1 km of the site. Ecological values are displayed in Figure 10 and summarised in Appendix 1.

Roost history

The Mary Street roost was first monitored in 2014 and has been subsequently monitored each year since. Over the eight years of monitoring, the site has only been occupied for three months, between January – March 2014, when 25 and 35 BFF (anecdotally up to 300) were recorded (Figure 8). The site appears to be an overflow roost for surrounding roosts, with occupancy often associated with disturbances in the nearby Collingwood Road roost. BFF were initially recorded at Mary Street during vegetation clearing works occurring at Collingwood Road. Weed and vine removal is occurring to assist managing ibis that nest at this location. These works will be continued to assist ibis management, and also to deter a flying-fox roost from establishing at this location which would likely result in high conflict due to multiple sensitive sites nearby.

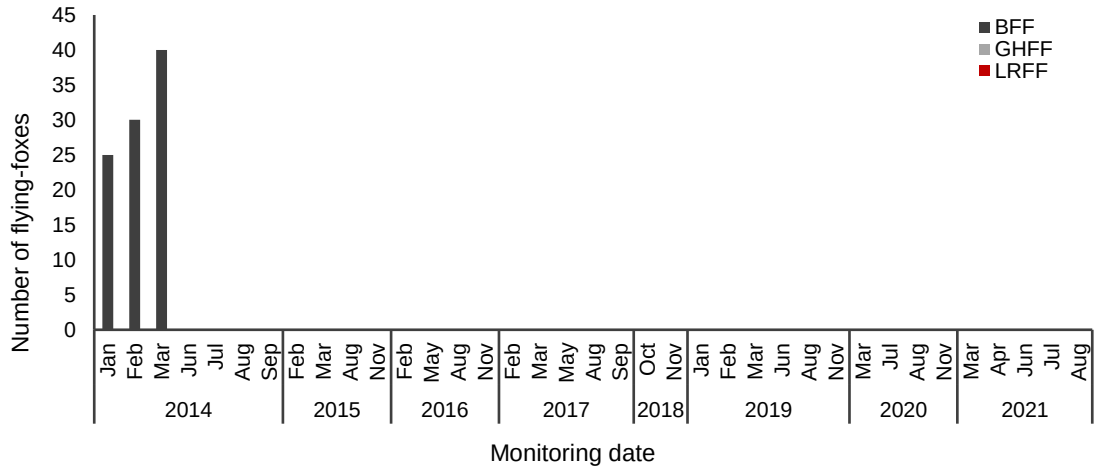


Figure 8 Mary Street, Birkdale flying-fox numbers between 2014 and 2021 (Source RCC)

Sensitive sites

Several sensitive sites, including schools, childcare centres, and aged care centres, are located within 1 km of the roost site (Figure 11). Notably, Perfect Start Mary Street Child Care Centre and Birkdale State School are located directly adjacent to the flying-fox roost.

Figure 9 Birkdale – Mary Street roost location

Figure 10 Ecological values – Birkdale – Mary Street

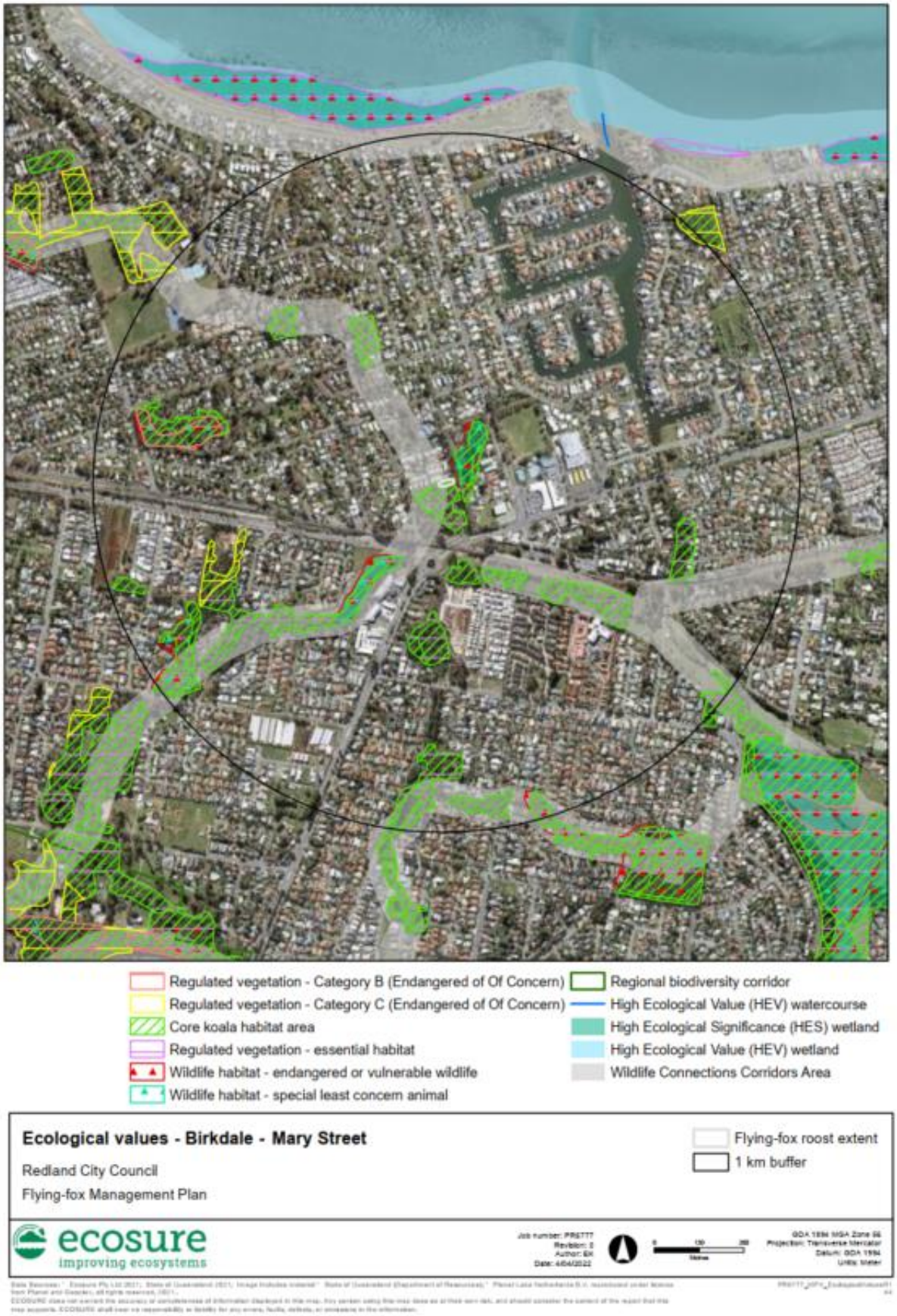
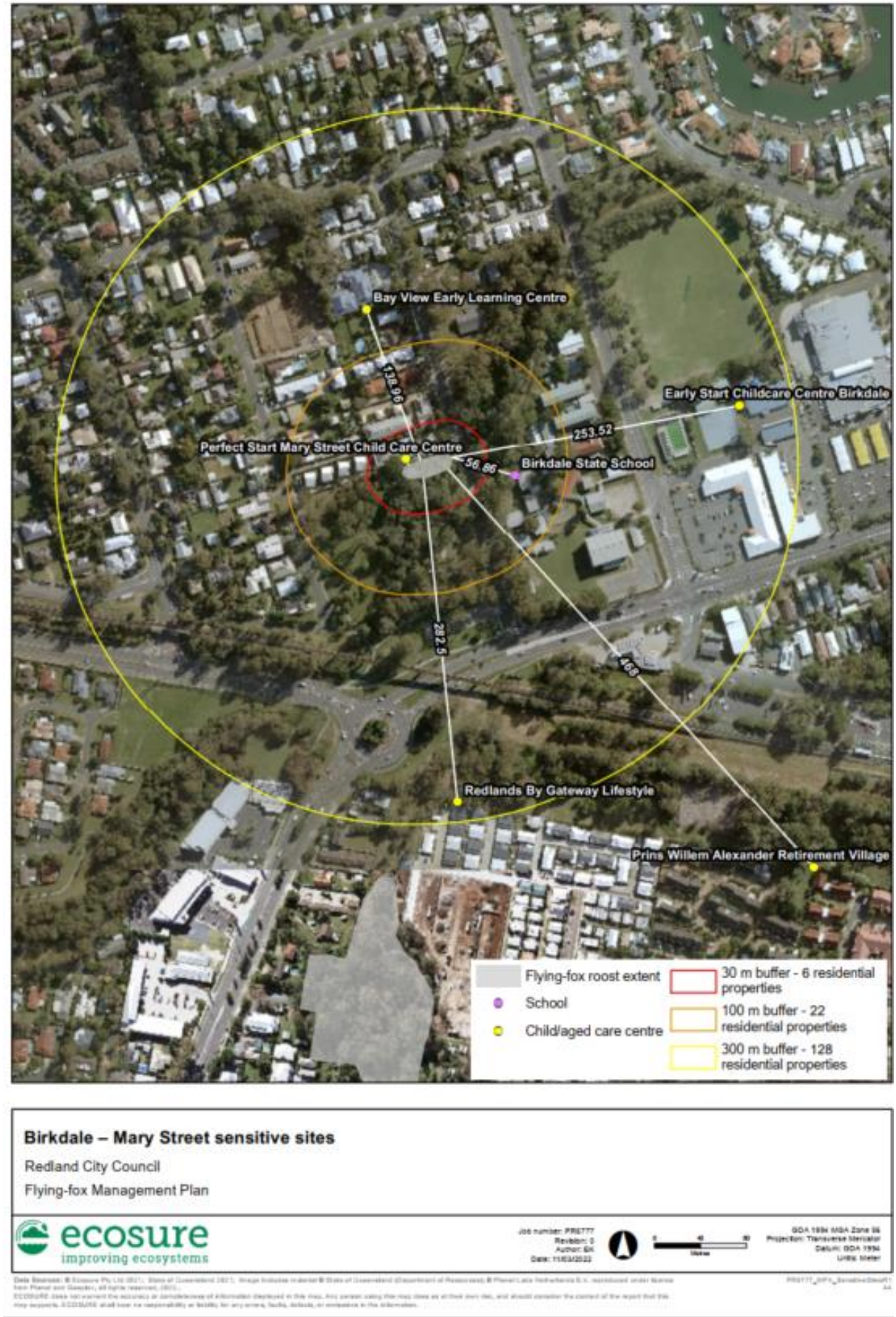


Figure 11 Birkdale – Mary Street sensitive sites



2.1.4 Capalaba - Macquarie Street

Site description

The Macquarie Street roost (1.16 ha) is located between Silkwood and Macquarie Streets, Capalaba (Figure 13), on land zoned as Environmental Conservation. The land use of the roost is mapped as Nature Conservation however, the patch containing the roost is surrounded by residential land and falls under the State Biodiversity Planning Assessment framework.

The roost is located within category B regulated vegetation mapped as RE 12.3.6. The site is mapped as both core koala habitat and essential habitat for koalas, with 560 koala sightings recorded within 1 km of the site. Ecological values are displayed in Figure 14 and summarised in Appendix 1.

History of the flying-fox roost

The roost was first surveyed in 2014 and has been surveyed every subsequent year since (Figure 12). During the eight years of survey, the roost has only been occupied for three non-consecutive months between 2019 and 2021, when 20 – 50 BFF were recorded. There is no evidence that this site experiences large short-term population fluctuations.

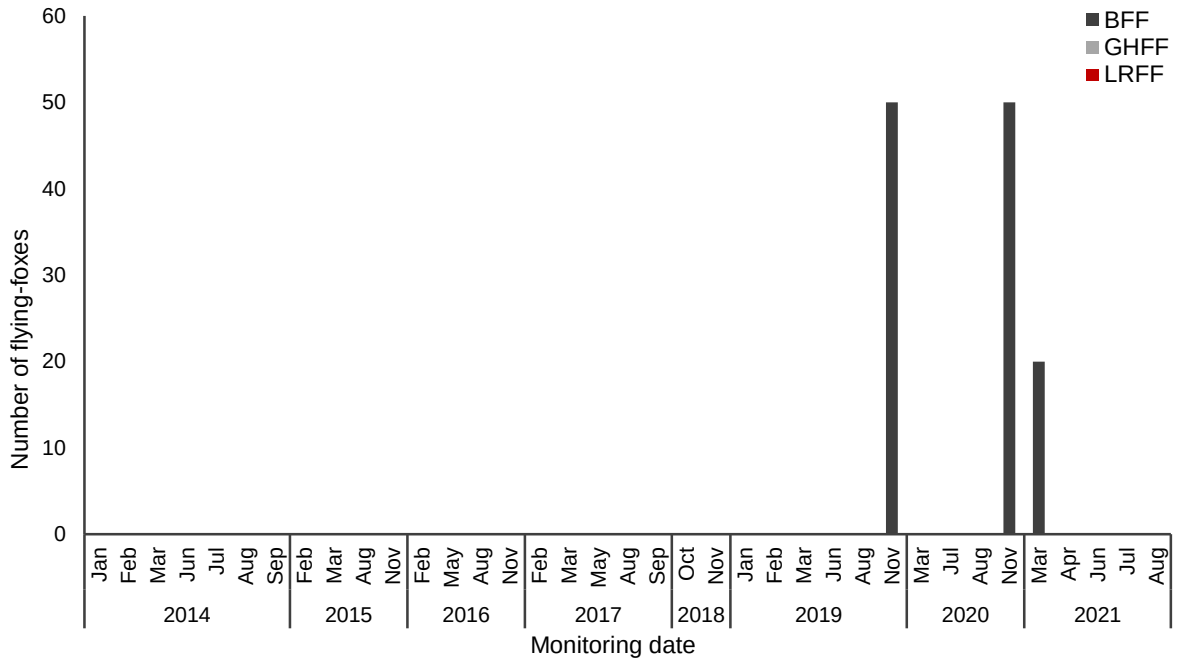


Figure 12 Capalaba Macquarie Street flying-fox numbers between 2019 and 2021 (Source RCC)

Sensitive receptors

Several sensitive sites, including schools, childcare centres, and aged care centres, are located within 1 km of the roost site (Figure 15). Notably, Perfect Start Mary Street Child Care Centre and Birkdale State School are located directly adjacent to the flying-fox roost.

Figure 13 Capalaba – Macquarie Street roost location

Figure 14 Ecological values – Capalaba – Macquarie Street

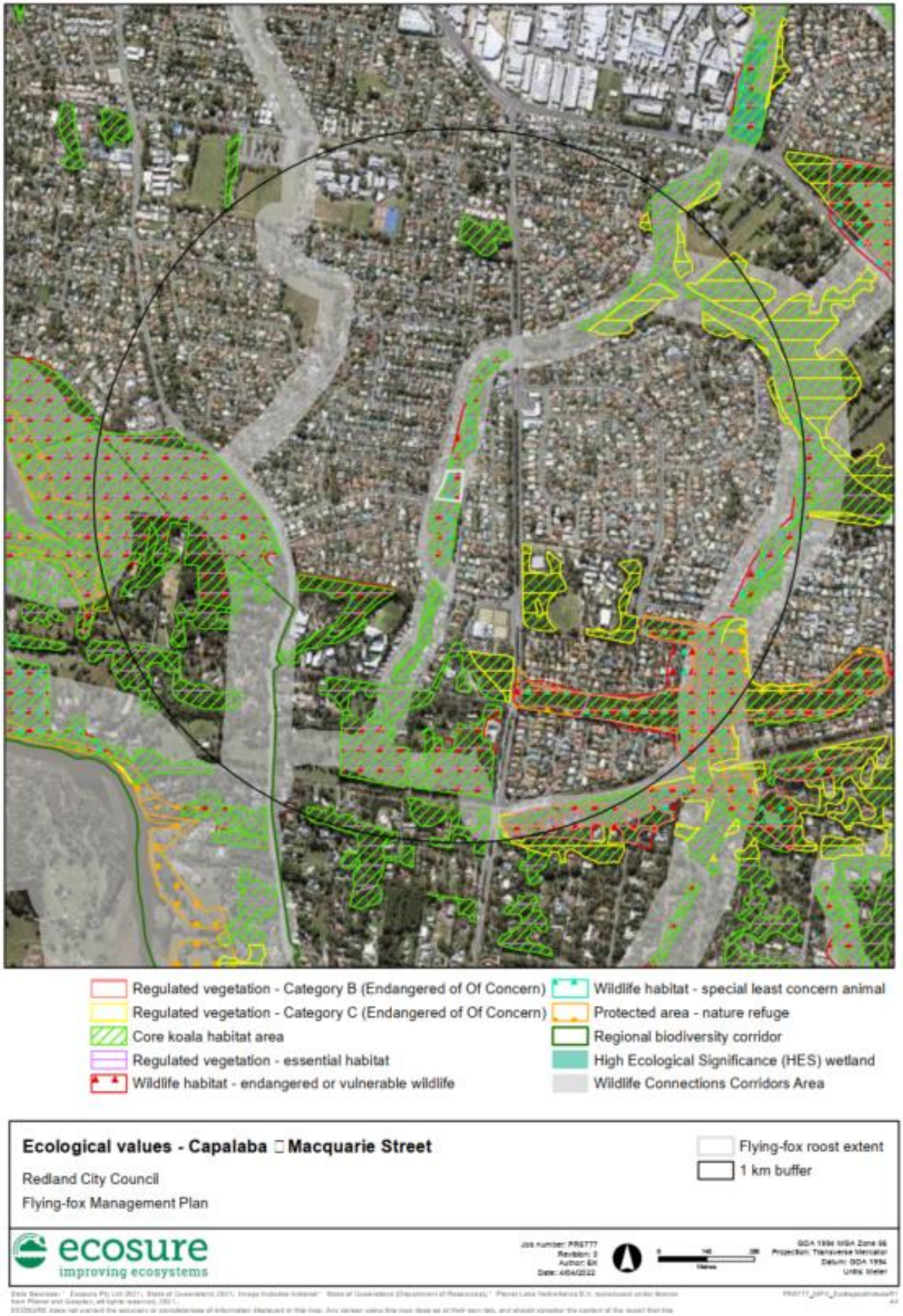
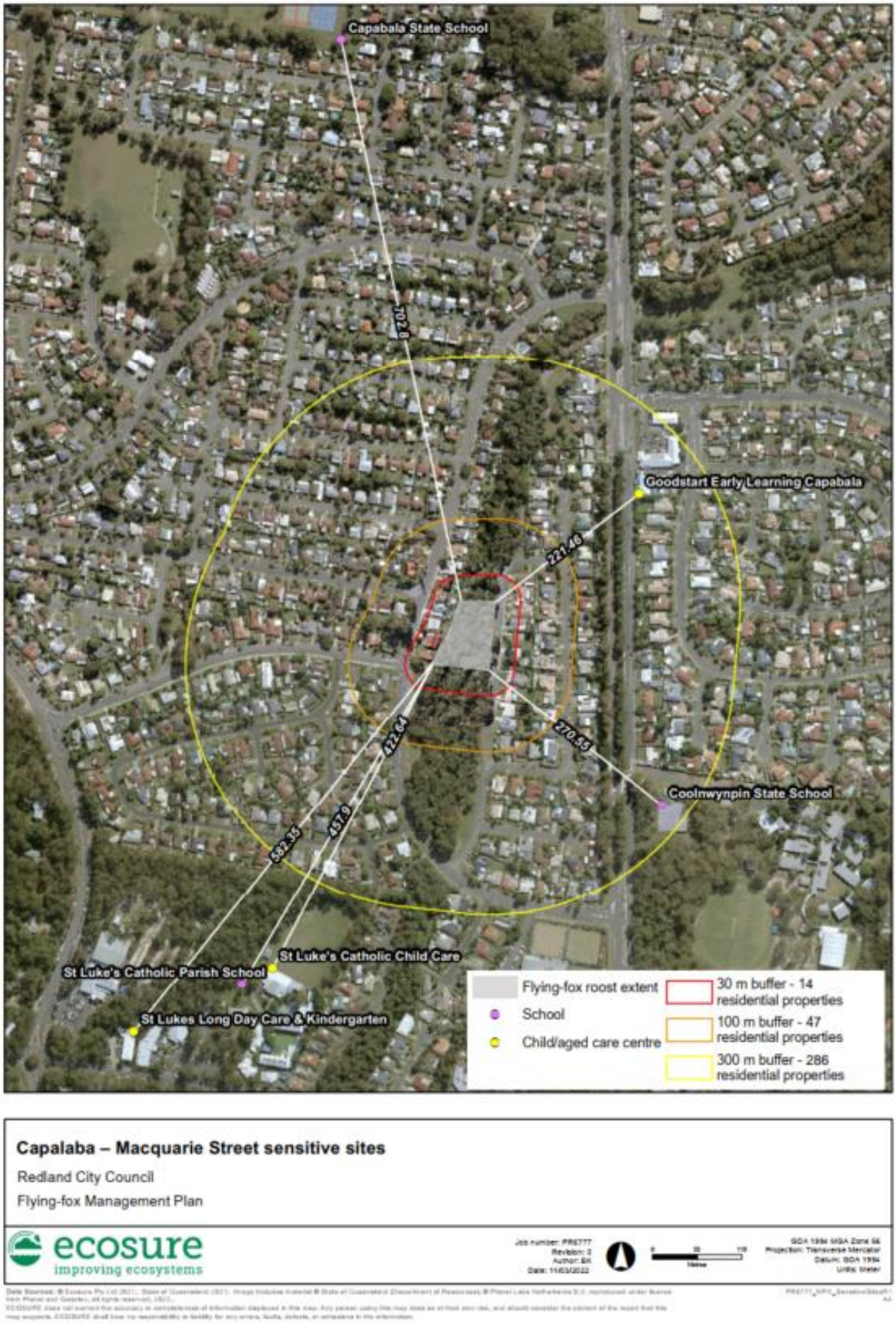


Figure 15 Capalaba – Macquarie Street sensitive sites



2.1.5 Capalaba - Redlands IndigiScapes Centre

Site description

The Redlands IndigiScapes roost (0.26 ha) is located southwest of the Redland Bay Road, Lyndon Road intersection, Capalaba, within the IndigiScapes Environmental Centre property (Figure 17). The land is zoned as Recreation, Open Space and Medium Density Residential. Parts of the land falls under the State Biodiversity Planning Assessment framework.

The roost is predominantly mapped as RE 12.3.6 which forms a large patch spanning the center of the site and a smaller patch in the northwestern corner. The remaining vegetation is mapped as RE 12.9-10.4 and non-remnant vegetation. The roost vegetation falls under either category B or C regulated vegetation. All native vegetation within roost is mapped as core koala habitat, a Koala Priority Area, and essential habitat for koalas (477 koala records within 1 km of the site), the wallum froglet, powerful owl (*Ninox strenua*) and greater glider (*Petauroides volans*). Ecological values are displayed in Figure 18 and summarised in Appendix 1.

Roost history

The roost was initially reported and surveyed in 2015 and has been surveyed every subsequent year since. During the six years of survey, the roost has only been occupied for three months in 2019 and 2020 when 15 - 20 BFF recorded (Figure 16). BFF have historically occupied the melaleuca trees near the dam, though the roost site is currently vacant. There is no evidence that this site experiences large short-term population fluctuations.

Sensitive sites

There are two sensitive sites within 1 km of the Redlands IndigiScapes Centre roost; a school and childcare centre located on the same property (Figure 16). There are 93 residential properties within 300 m of the roost.

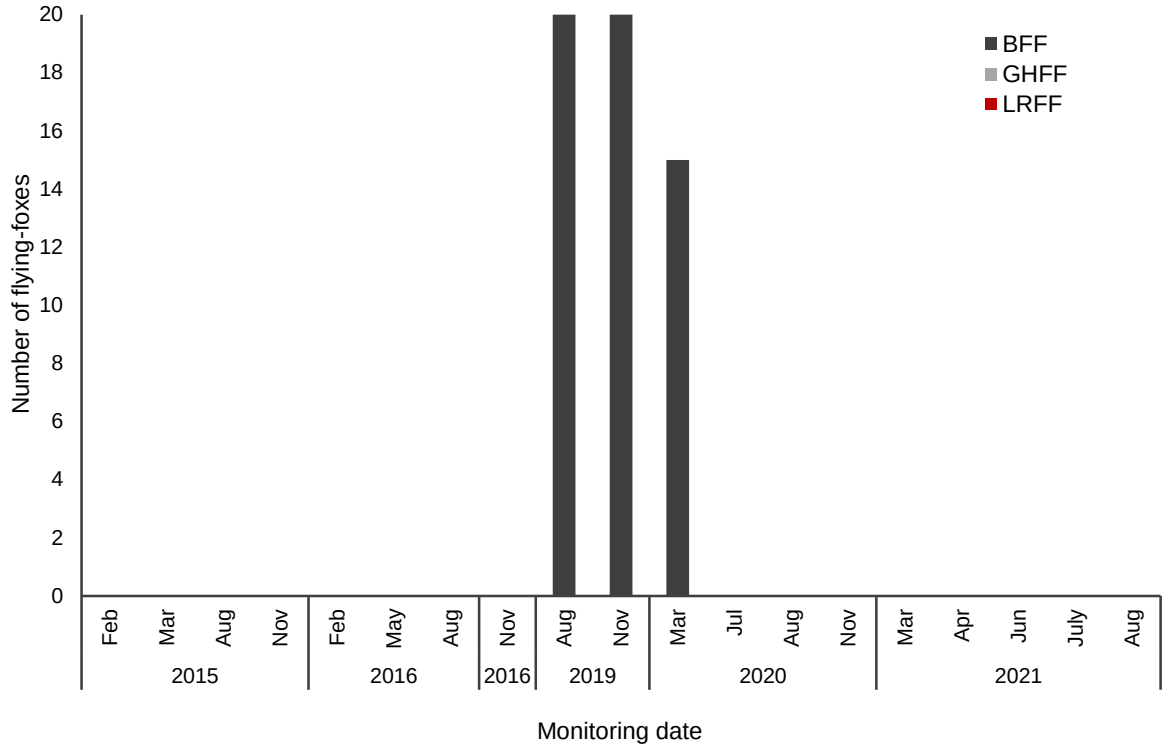


Figure 16 Capalaba Redlands IndigiScapes Centre flying-fox numbers between 2019 and 2020 (Source RCC)

Figure 17 Capalaba - Redlands IndigiScapes Centre roost location

Figure 18 Ecological values – Capalaba - Redlands IndigiScapes Centre

Figure 19 Capalaba - Redlands IndigiScapes Centre sensitive sites

2.1.6 Capalaba - Valentine Park, Lawn Terrace

Site description

The Valentine Park and Lawn Terrace roost (2.1 ha) is located in vegetation at the centre of Valentine Road Park, Alexandra Hills (Figure 21). The land is zoned as Conservation and Environmental Management, with residential and service land uses. The site primarily operates as a park and has a major storm water drain. An enhancement corridor passes through the site, as designated in the *Wildlife Connections Plan 2018-2028*.

Vegetation within the northern portion of the roost is mapped as non-remnant, though the southern portion contains RE 12.3.6 and 12.5.3/12.5.2 (*Eucalyptus racemosa* subsp. *racemosa* woodland on remnant Tertiary surfaces / Corymbia intermedia, *Eucalyptus tereticornis* open forest on remnant Tertiary surfaces, usually near coast and on deep red soils). The latter RE is mapped as category C endangered regulated vegetation. The majority of remnant vegetation within this roost is mapped as core koala habitat, a Koala Priority Area, and essential habitat for koalas, with 306 sightings of koalas recorded within 1 km of the site. Ecological values are displayed in Figure 22 and summarised in Appendix 1.

Roost history

The roost was initially reported and surveyed in 2011 and has been surveyed regularly since by Council and DES (roost number 270 in the NFFMP). The roost was initially on the southern side of Lawn Terrace, but regularly moved between the southern and northern extents (prior to Council work in the firebreak on the southern side). The roost is believed to have been established as a result of disturbances at nearby roosts (Council Wildlife Officer pers. comm. March 2022). Both BFF and GHFF have been recorded regularly roosting at this site, with only four months recording zero occupancy. A small number of LRFF were also observed at the site in 2014, though specific counts were not recorded. Occupancy generally fluctuates around an average of 6,810 flying-foxes, though a peak of 32,000 individuals was recorded in 2014 (Figure 20).

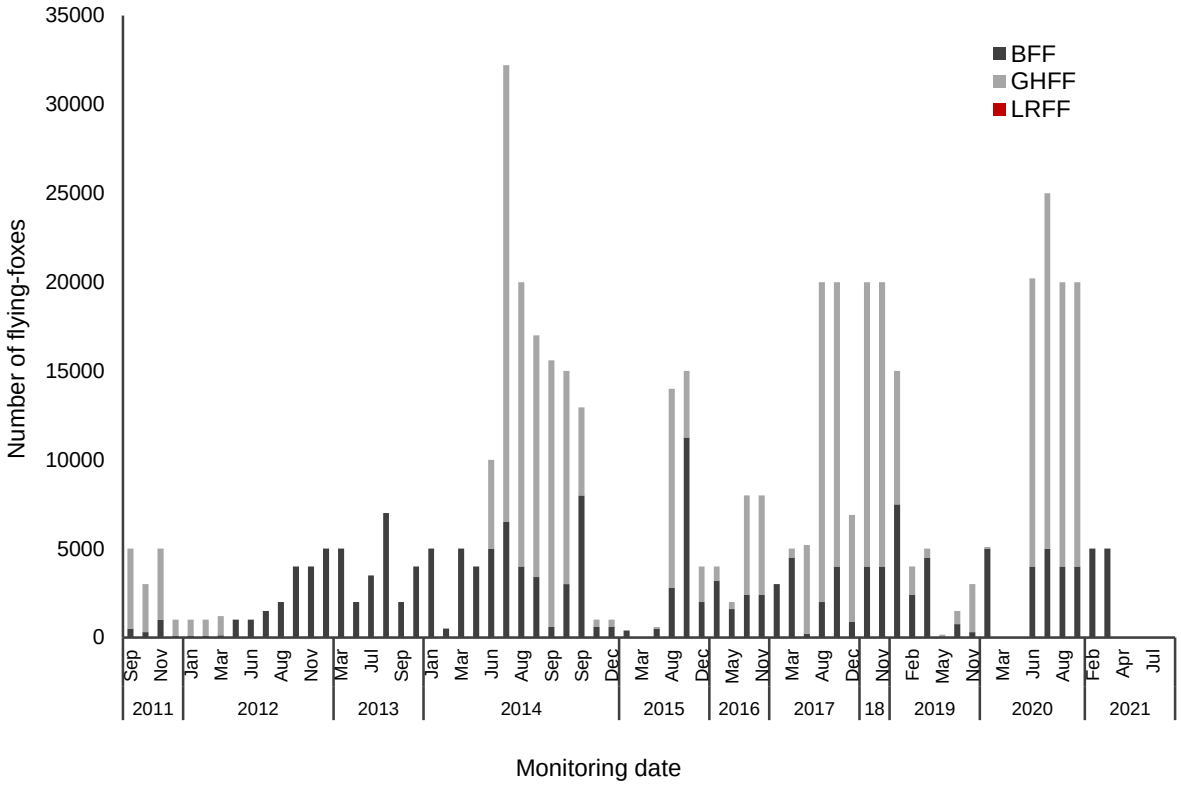
This roost site is relatively contentious, and a draft action plan for the roost was drafted for the southern section in 2014 (at the time flying-foxes rarely occupied the northern area) to address community concerns regarding the size of the roost and noise issues. Management options outlined in the Draft Lawn Terrace Flying-fox Roost Action Plan (RCC 2014) include:

- Attend to the firebreak concerns of the residents by implementing a maintenance plan for the area.
- Develop and implement a re-vegetation program, for Tarradarrapin and Black Swamp Wetlands to improve the roosting desirability of those sites.
- Education and monitoring.
- Annual review of the situation and assess outcomes of actions.
- Increase distance between bats and residents to 10 m by removing understorey and selective tree pruning for another 5 m beyond fire break.

- Undertake plantings in the eastern section of the conservation area along the creek line to provide more suitable habitat at the site, further away from the residents (note any plantings should avoid areas that would result in flying-foxes overhanging the pathway).

Since then, a number of management activities have been implemented to alleviate conflict between residents and flying-foxes. Management activities have included understorey weed removal to increase fire break buffers, and vegetation modification to nudge flying-foxes away from residential properties. As a contentious Category 3 roost (as detailed in the Plan), a canopy-mounted sprinkler trial may be considered at indicative locations mapped below. Note the use of canopy-mounted sprinklers will be considered as a trial only based on a range of considerations (see Appendix 2). To minimise roost disturbance for both resident amenity and flying-fox welfare, the path under the roost may be temporarily closed or permanently diverted.

Figure 20 Capalaba Valentine Park flying-fox numbers between 2011 and 2021 (Source: RCC, NFFMP)



Sensitive sites

Several sensitive sites, including schools, childcare centres, and aged care centres, are located within 1 km of the roost site (Figure 23). There are 477 residential properties located within 300 m of the roost.

Figure 21 Capalaba – Valentine Park, Lawn Terrace roost location

Figure 22 Ecological values – Capalaba/Alexandra Hills – Valentine Park, Lawn Terrace

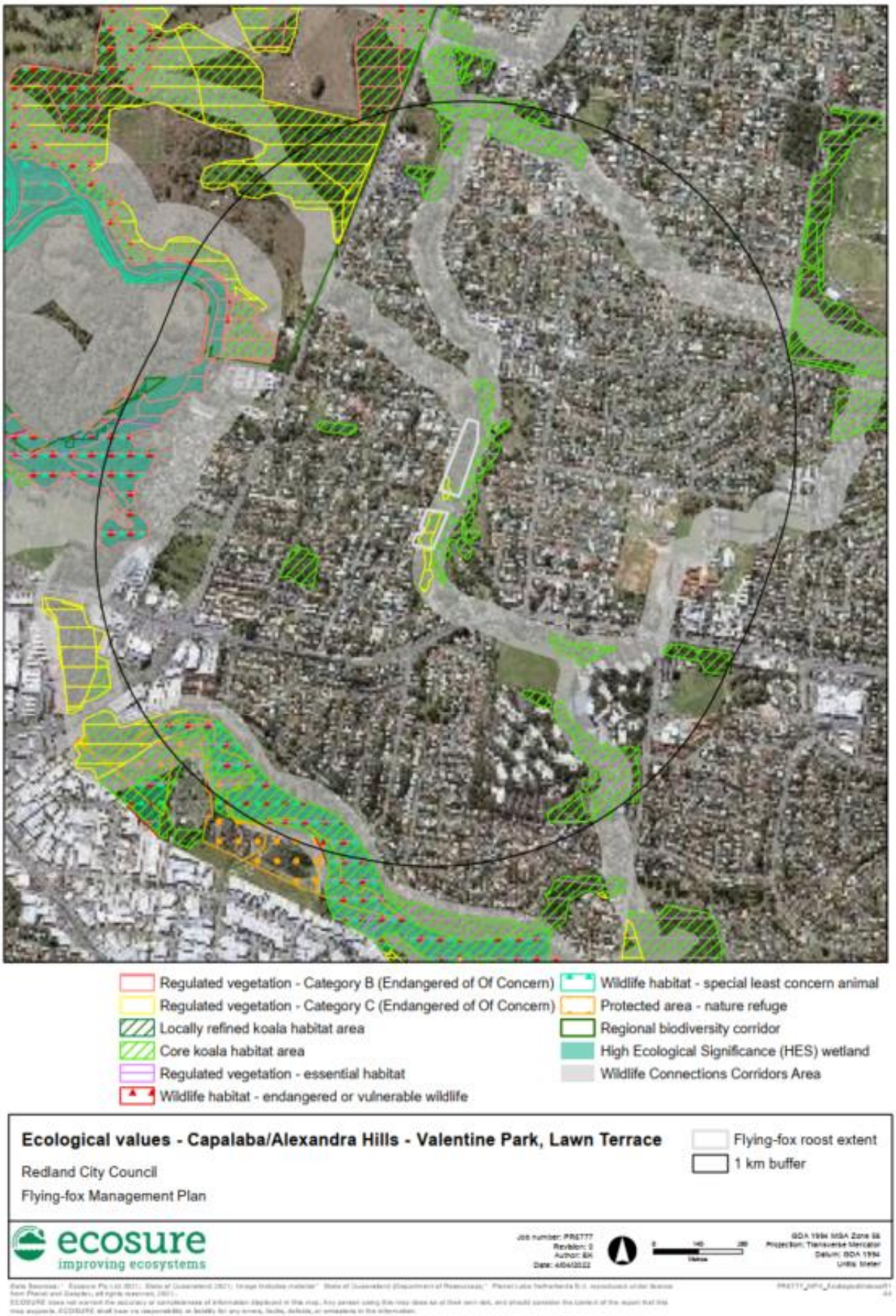
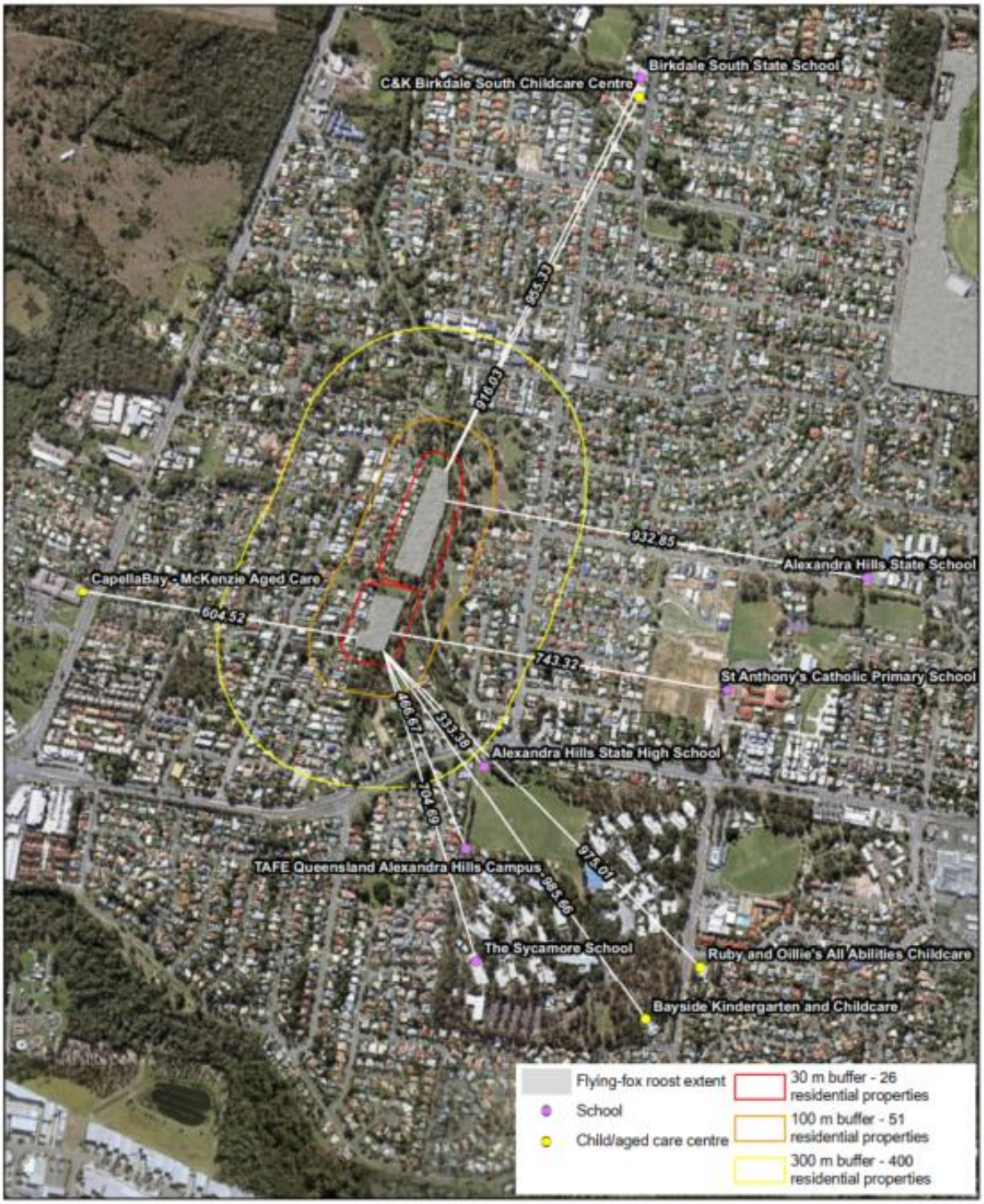


Figure 23 Capalaba/Alexandra Hills – Valentine Park, Lawn Terrace sensitive sites



Capalaba/Alexandra Hills – Valentine Park, Lawn Terrace sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

Capalaba/Alexandra Hills – Valentine Park, Lawn Terrace management actions

Redland City Council

Flying-fox Management Plan

- Canopy-mounted sprinkler (CMS)
- CMS 15 m reach
- Flying-fox roost extent
- 30m buffer

ecosure
improving ecosystems

Job number: PR5777
Revision: 0
Author: EK
Date: 21/03/2022

0 5 10 20
Metres

GDA 1994 MGA Zone 56
Projection: Transverse Mercator
Datum: GDA 1994
Units: Meter

PR5777_MP5_ManagementMaps
A4

2.1.7 Cleveland - Black Swamp Wetlands

Site description

The Black Swamp Wetlands roost (3.93 ha) is located in vegetation to the north of the Queen Street, Smith Street intersection, Cleveland (Figure 25). The land is zoned as Environmental Conservation. The mapped land use of the land is nature conservation, though the site contains several raised walkways and falls under the State Biodiversity Planning Assessment framework. An enhancement corridor passes through the site, as designated in the Wildlife Connections Plan 2018-2028.

The majority of roost vegetation is mapped as RE 12.3.5, with a patch of RE 12.3.6 running along the western boundary, and a patch of non-remnant vegetation to the south-west. All remnant roost vegetation is identified as category B regulated vegetation and is mapped as core koala habitat and essential habitat for koalas and wallum froglets. There have been 667 koala sightings recorded within 1 km of the site. Ecological values are displayed in Figure 26 and summarised in Appendix 1.

Roost history

The Black Swamp Wetlands roost is believed to have established after the original roost in nearby mangroves was cleared in 1983 (Council Wildlife Officer pers. comm. April 2022).

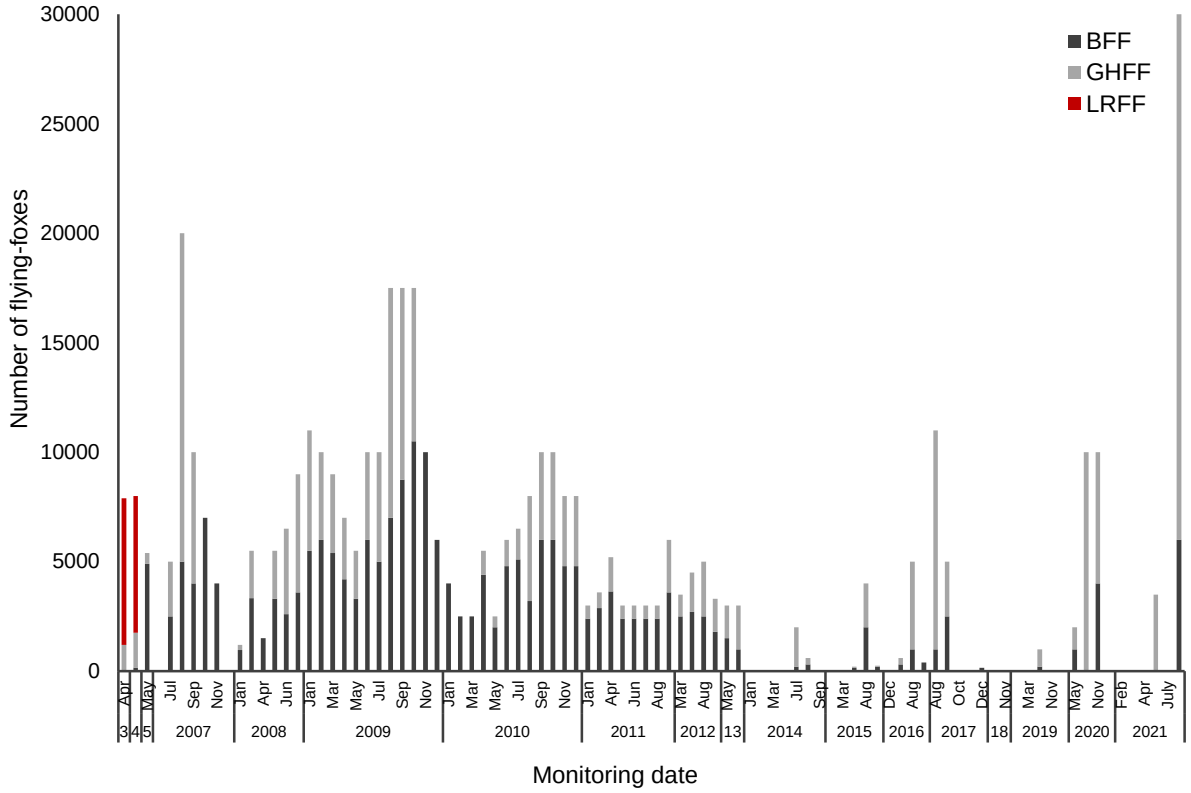
Monitoring data for the Black Swamp roost is available from 2003 (Figure 24). It has been regularly monitored by Council and DES, as part of the NFFMP (roost number 143). All three species have been recorded using the roost, though LRFF have only been recorded in 2003 and 2004. The roost occupancy fluctuates seasonally for both GHFF and BFF, recording a mean occupancy of 4,769 individuals, with peaks recorded as high as 30,000. The roost reached 60,000 individuals in 2005 (RCC 2021a).

Prior to 2014, Black Swamp Wetlands was the region's only permanent flying-fox roost site and was a central mating and maternity roost for BFF and GHFF, as well as a core wintering site for GHFF (Davis 2014). The roost was vacated during nearby construction activities with flying-foxes believed to have relocated temporarily to Tarradarrapin Wetlands and Marianne Street, Victoria Point (Davis 2014). While the roost was empty, weed removal was undertaken in the eastern portion of vegetation. Since this disturbance, flying-foxes have generally roost in the western portion of the extent shown in Figure 25, although are recently moving back towards the viewing platform.

The *Draft Lawn Terrace Flying Fox Roost Action Plan* (RCC 2014) includes a management action to develop and implement a revegetation program for Black Swamp Wetlands to improve roosting desirability. Council has undertaken mature stock planting to assist the resilience of the site. Council has also undertaken several educational activities to raise awareness of flying-fox conservation and management issues and educate residents and the general community (Davis 2019, RCC 2021b). A series of interpretive signs have been installed along the footpath adjacent to the roost, as well as at the entrance to a viewing platform that was constructed to provide a closer look at the flying-foxes. Council wildlife officers have previously held regular fly-out viewing activities during school holidays since

2000 and throughout the year, as well as an annual “Halloween with the Bats” event, which continues. Environmental education officers engage directly with residents and provide flying-fox presentations to organisations, schools, and community groups.

Figure 24 Cleveland Black Swamp Wetlands flying-fox numbers between 2003 and 2021 (RCC, NFFMP)



Sensitive sites

Several sensitive sites, including schools, childcare centres, aged care centres, and Cleveland/Redlands Showgrounds are located within 1 km of the roost site (Figure 27). There are 282 residential properties located within 300 m of the roost.

Figure 25 Cleveland – Black Swamp Wetlands roost location

Figure 26 Ecological values – Cleveland – Black Swamp Wetlands

Figure 27 Cleveland – Black Swamp Wetlands sensitive sites

Cleveland – Black Swamp Wetlands sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

2.1.8 Cleveland - Kooringa Bushland Refuge

Site description

The Kooringa Bushland Refuge roost (0.97 ha) is located south of the Kooringa Avenue, Fitzroy Street intersection, Cleveland (Figure 29). The land is zoned as Environmental Conservation. The majority of roost vegetation is mapped as RE 12.5.3, and is listed as category B endangered regulated vegetation. All remnant vegetation within the roost is mapped as core koala habitat and essential habitat for koalas, with 470 koala sightings recorded within 1 km of the site. Ecological values are displayed in Figure 30 and summarised in Appendix 1.

Roost history

The Kooringa Bushland Refuge roost is monitored by DES as part of the NFFMP (roost number 599). The roost was first occupied in 2012 by around 40 flying-foxes located near the dam. Anecdotally, approximately 50,000 LRFF occupied Kooringa Bushland Refuge following bushfires on Stradbroke Island in December 2012. The roost has been monitored since 2013, with BFF and GHFF recorded relatively regularly at the site between 2013 and 2015 (Figure 28). During this time, the population size fluctuated seasonally between 50 and 500 individuals. Since early 2015, flying-foxes have only been recorded at the roost once, in September 2017. To address community complaints regarding flying-foxes roosting in overhanging trees, firebreak and tree maintenance (removal of few small trees) was undertaken in April 2015 to remove branches overhanging private properties.

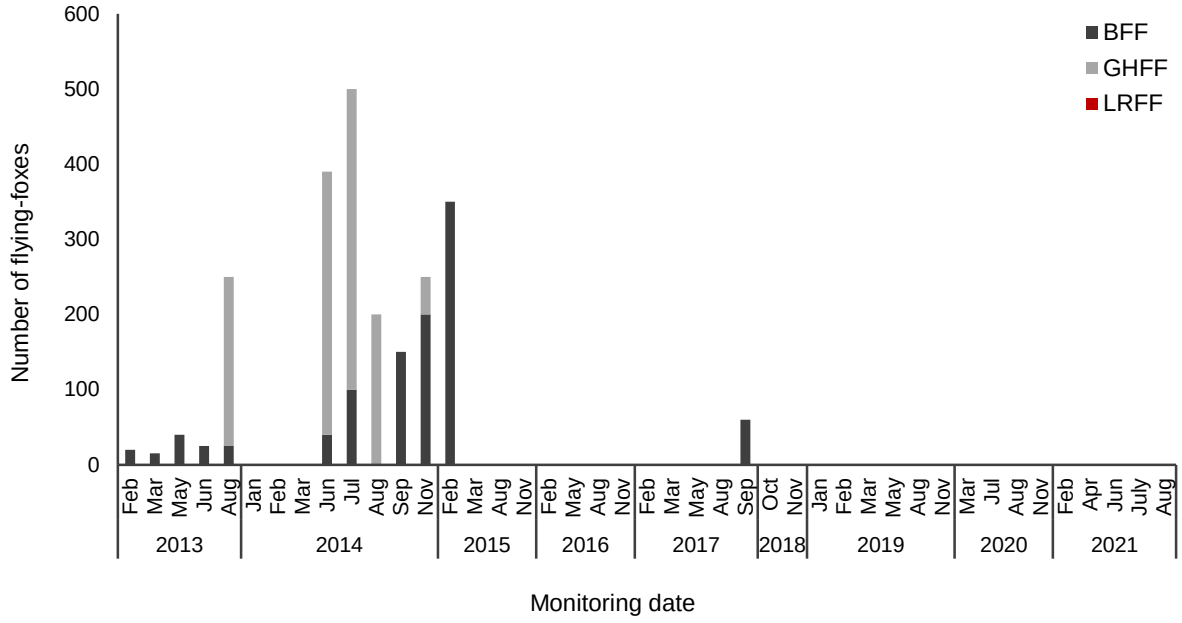


Figure 28 Cleveland Kooringa Bushland Refuge flying-fox numbers between 2013 and 2021 (Source RCC, NFFMP)

Sensitive sites

Several schools, childcare centres, and aged care centres are located within 1 km of the roost site (Figure 31). There are 321 residential properties located within 300 m of the roost.

Figure 29 Cleveland – Kooringa Bushland Refuge roost location

Figure 30 Ecological values – Cleveland – Kooringa Bushland Refuge

Figure 31 Cleveland – Kooringa Bushland Refuge sensitive sites

Cleveland – Kooringa Bushland Refuge sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

2.1.9 Redland Bay - Pitt Street

Site description

The Pitt Street roost (1.63 ha) is located in vegetation northwest of the Pitt and Weinam Streets intersection, Redland Bay (Figure 33) on land zoned as Recreation and Open Spaces. The mapped land uses of the land are service and residential; however, the site operates as a park and recreation area.

The roost vegetation is mapped as RE 12.5.2 and is listed as either category B (top right-hand section extending towards centre) or C endangered regulated vegetation (remaining remnant vegetation) (Figure 34). The roost is also mapped as core koala habitat, with 667 koala records within 1 km of the site, and essential habitat for koalas. Ecological values are displayed in Figure 34 and summarised in Appendix 1.

Roost history

The roost was first surveyed in 2007 and has been surveyed every subsequent year since (NFFMP roost number 603). (Figure 32). Both BFF and GHFF have been recorded using the roost. During the survey period, the roost has been occupied irregularly with no occupancy recorded between 2008 and 2013 and intermittent occupancy outside of that window. The population fluctuates between less than 100 to as many as 1000 individuals, though generally less than 400 individuals are observed using the roost at any time.

Prior to regular monitoring, this roost site was a temporary roost site for a small number of flying-foxes (~250), predominantly BFF and occasionally GHFF. A maternity roost of LRFF were also anecdotally observed here in very high numbers in January – March 2006, though specific numbers were not recorded. This was the first time LRFF were observed with young this far south. Their presence at the roost site caused significant conflict with nearby residents and was reported to DES who sent officers to do a letterbox drop.

Sensitive sites

Several sensitive sites, including childcare centres and aged care centres, are located within 1 km of the roost site (Figure 35). There are 443 residential properties located within 300 m of the roost.

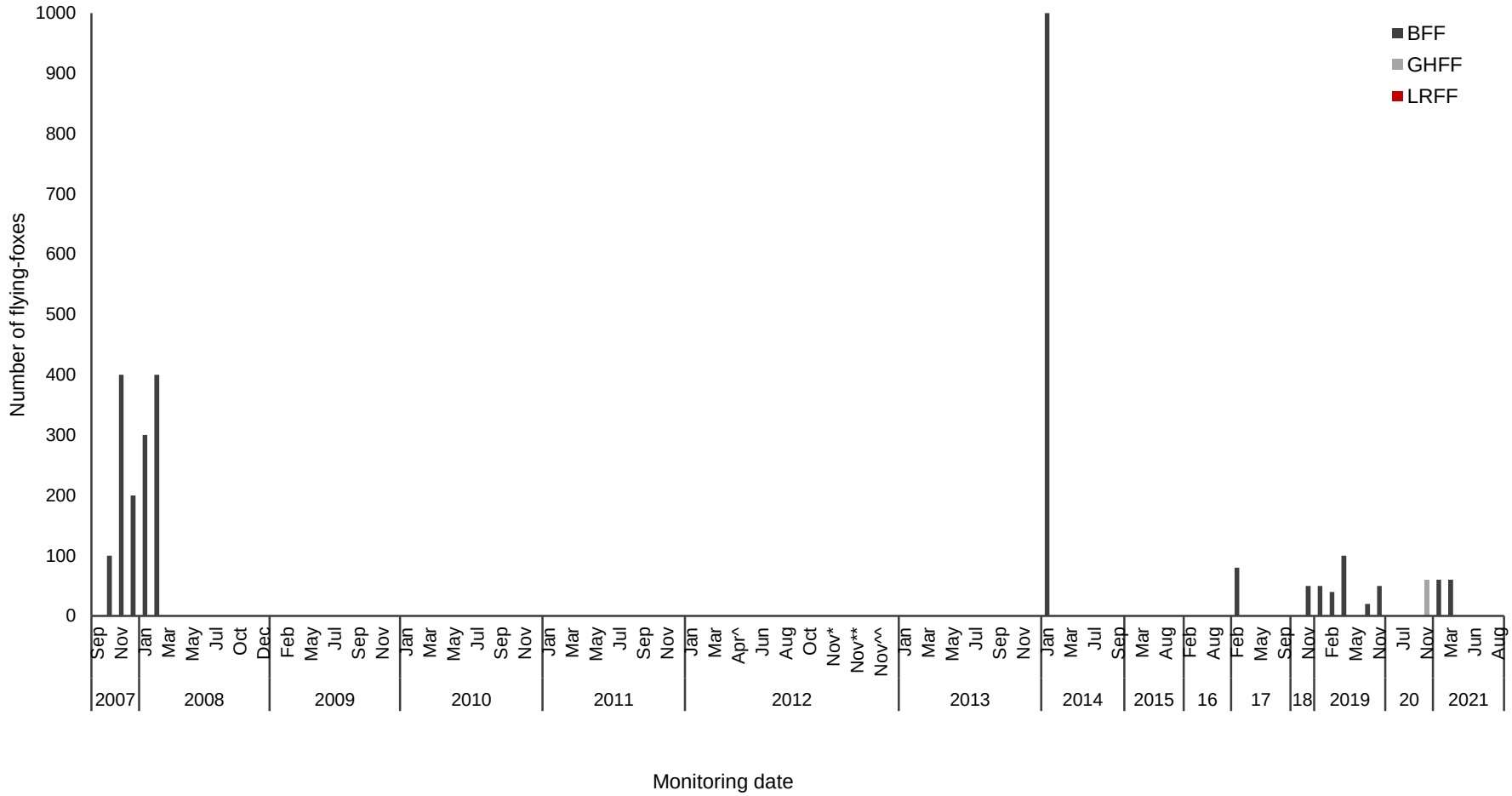


Figure 32 Redland Bay Pitt Street flying-fox numbers between 2007 and 2021 (Source RCC, NFFMP).

^ BFF present (no count recorded)
* BFF, GHFF and LRFF present (no count recorded)
** GHFF present (no count recorded)
^^ GHFF present (no count recorded)

Figure 33 Redland Bay – Pitt Street roost location

Figure 34 Ecological values – Redland Bay – Pitt Street

Figure 35 Redland Bay – Pitt Street sensitive sites

Redland Bay – Pitt Street sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

2.1.10 Redland Bay - Weinam Creek Wetland

Site description

The Weinam Creek Wetlands roost (2.85 ha) is located north of the intersection between Moores Road and Weinam Creek, on the corner of Moores Road and Meissner Street (Figure 37) (sometimes referred to as the Meissner Street or Moores Road roost). The land use is nature conservation. The site is used as a recreation area, with several cleared walkways and bike paths, and falls under the State and State Habitat for EVNT taxa Biodiversity Planning Assessment frameworks. A stepping stone corridor passes through the site, as designated in the *Wildlife Connections Plan 2018-2028.*

The roost consists of RE 12.5.2 (category B endangered regulated vegetation), RE 12.3.5 and RE 12.1.3 (Mangrove shrubland to low closed forest on marine clay plains and estuaries)/12.1.1 (category B of concern regulated vegetation; mangrove shrubland to low closed forest on marine clay plains and estuaries / *Casuarina glauca* woodland on margins of marine clay plains), as well as small patches of non-remnant vegetation. The roost is mapped as core koala habitat, a koala priority area, and essential habitat for koalas and wallum froglets. Ecological values are displayed in Figure 38 and summarised in Appendix 1.

Roost history

The roost has been regularly monitored since 2007 (NFFMP roost number 431). The roost is seasonally occupied by predominantly GHFF and BFF, with occupancy seemingly dependent on flowering events, particularly on North Stradbroke and the Bay Islands. LRFF have been recorded once in large numbers (Figure 36), making this site once of the first major LRFF roosts in the region. Flying-foxes at the site are thought to shift between the Weinam Creek, Pitt Street, and Orchard Beach roosts. During periods of occupancy, the roost population generally fluctuates between 1,000 and 5,000 individuals, reaching populations of 10,000 during expansion events (e.g. March 2013). The absence of flying-foxes generally appears to coincide with an increase in numbers on the Southern Moreton Bay Islands (SMBIs).

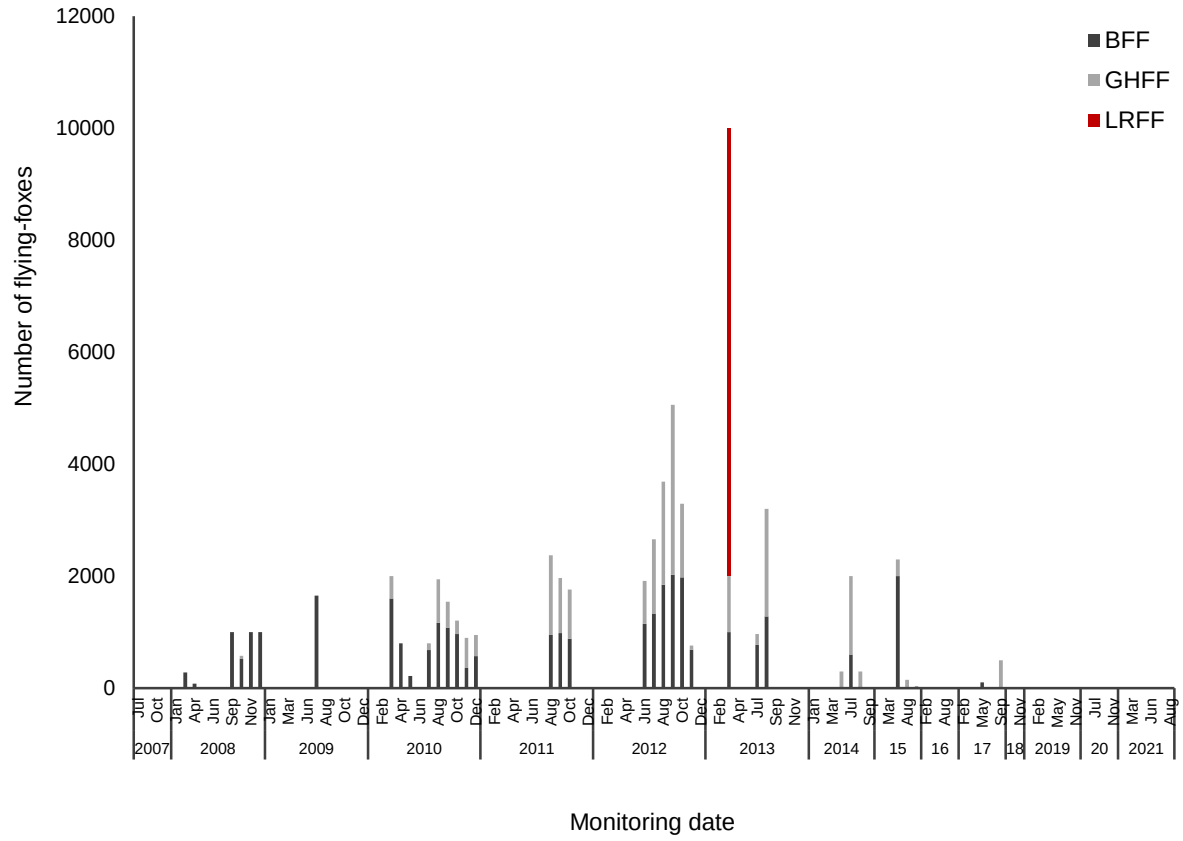


Figure 36 Redland Bay Weinam Creek Wetland flying-fox numbers between 2008 and 2021 (Source RCC, NFFMP)

Sensitive sites

Several sensitive sites, including childcare centres and aged care centres, are located within 1 km of the roost site (Figure 39). There are 356 residential properties located within 300 m of the roost.

Figure 37 Redland Bay – Weinam Creek Wetland roost location

Figure 38 Ecological values – Redland Bay – Weinam Creek Wetland

Figure 39 Redland Bay – Weinam Creek Wetland sensitive sites

Redland Bay – Weinam Creek Wetland sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

2.1.11 Redland Bay - Orchard Beach Wetlands

Site description

The Orchard Beach Wetland roost (6.99 ha) is located in south of Moores Road and Weinam Creek Wetland roost (Figure 40). The land is zoned as Recreational Open Spaces and the mapped land use is nature conservation. The site is used as a recreation area, with several cleared walkways and bike paths, and falls under the State and State Habitat for EVNT taxa Biodiversity Planning Assessment frameworks. A stepping stone corridor passes through the site, as designated in the *Wildlife Connections Plan 2018-2028.*

The roost vegetation consists of RE 12.5.2 (category C endangered regulated vegetation), RE 12.3.6/12.3.5, RE 12.3.6, and non-remnant vegetation. The roost is mapped as core koala habitat (37 koala records within 1 km of the site), a koala priority area, and essential habitat for koalas and wallum froglets. Ecological values are displayed in Figure 41 and summarised in Appendix 1.

Roost history

The Orchard Beach Wetland roost has been monitored since 2007 (NFFMP roost number 598). Flying-foxes have been recorded on three separate occasions: LRFF in 2003 (count data not available); March 2013 (approximately 2,000 GHFF and BFF) and again since February 2022 (200 BFF, mating activity was observed).

Sensitive sites

Several sensitive sites, including childcare centres and aged care centres, are located within 1 km of the roost site (Figure 42). There are 552 residential properties located within 300 m of the roost.

Figure 40 Redland Bay – Orchard Beach Wetland roost location

Figure 41 Ecological values – Redland Bay – Orchard Beach Wetland

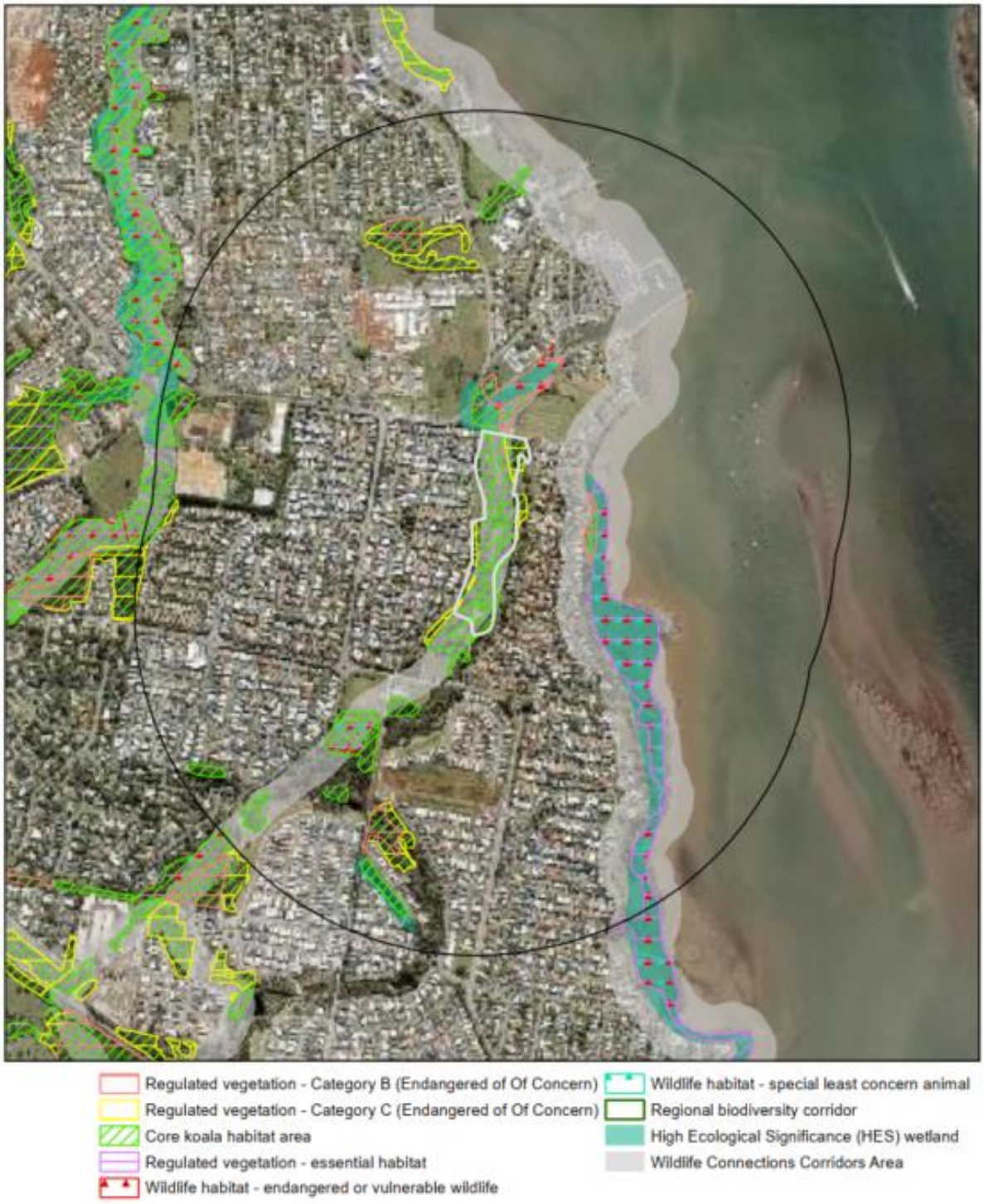


Figure 42 Redland Bay – Orchard Beach Wetland sensitive sites

Redland Bay – Orchard Beach Wetland sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

2.1.12 Redland Bay - Junee Street Wetlands

Site description

The Junee Street Wetlands roost (5.30 ha) is located in vegetation adjacent to Serpentine Creek, Redland Bay, on land zoned as Environmental Conservation (Figure 44). The mapped land use of the land is marsh/wetland and falls under the State and State Habitat for EVNT taxa Biodiversity Planning Assessment frameworks. The majority of the vegetation is mapped as RE 12.3.6, with a small portion of non-remnant vegetation. All native vegetation associated with the roost is mapped as both core koala habitat (128 koala records within 1 km of the site) and essential habitat for koalas and wallum froglets. Ecological values are displayed in Figure 45 and summarised in Appendix 1.

Roost history

The roost was initially surveyed in 2008 and has been surveyed every subsequent year since (NFFMP roost number 430) (Figure 43). All three species have been recorded using the roost, though GHFF and BFF occupy the roost more consistently. LRFF only use the roost intermittently, though have been recorded in large numbers, peaking at 38,000 individuals in February 2009 (Figure 43). LRFF were also present in February 2022. Flying-foxes initially roosted in the vegetation at the end of Christopher Street, but now roost across the entire wetland area (as per extent shown in Figure 44).

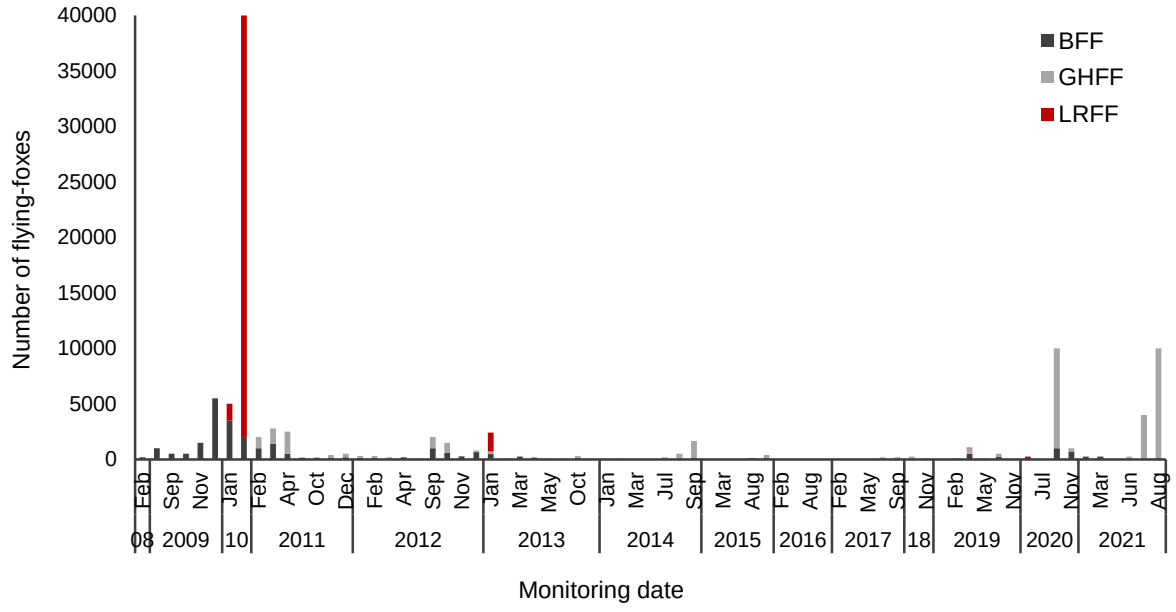


Figure 43 Redland Bay Junee Street Wetlands flying-fox numbers between 2008 and 2021 (Source RCC, NFFMP).

Sensitive sites

One sensitive site (childcare centre) is located within 1 km of the roost site (Figure 46). There are 583 residential properties located within 300 m of the roost.

Figure 44 Redland Bay – Junee Street Wetland roost location

Figure 45 Ecological values – Redland Bay – Junee Street Wetland

Figure 46 Redland Bay – Junee Street Wetland sensitive sites

Redland Bay – Junee Street Wetlands sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

2.1.13 Thornlands - Clifford Perske Nature Refuge

Site description

The Clifford Perske Nature Refuge roost (1.32 ha) is located in bushland between Clifford Perske Drive and Redland Bay Road, Thornlands on land zoned as Recreational Open Spaces (Figure 48) and falls under the State Biodiversity Planning Assessment framework. The roost vegetation consists of RE 12.3.6 and RE 12.5.2/12.5.3 (category C endangered regulated vegetation), with a small section of non-remnant vegetation. Vegetation associated with the roost is mapped as both core koala habitat (332 koala records within 1 km of the site) and essential habitat for koalas. Ecological values are displayed in Figure 49 and summarised in Appendix 1.

Roost history

(Figure 47). Flying-foxes first appeared at the site in December 2019 when the Lotus Close roost emptied, and first surveyed in 2020 (Figure 47). A large influx of approximately 12,000 LRFF was recorded in March of 2021, suggesting that the roost may experience significant intermittent expansion likely in relation to seasonal resource availability. At the time of the LRFF influx, there were reports of illegal disturbance. In response, Council engaged with local residents and provided information about the seasonal movements of flying-foxes, LRFF in particular, emphasising that this roost occupation would likely be temporary. This engagement settled the conflict.

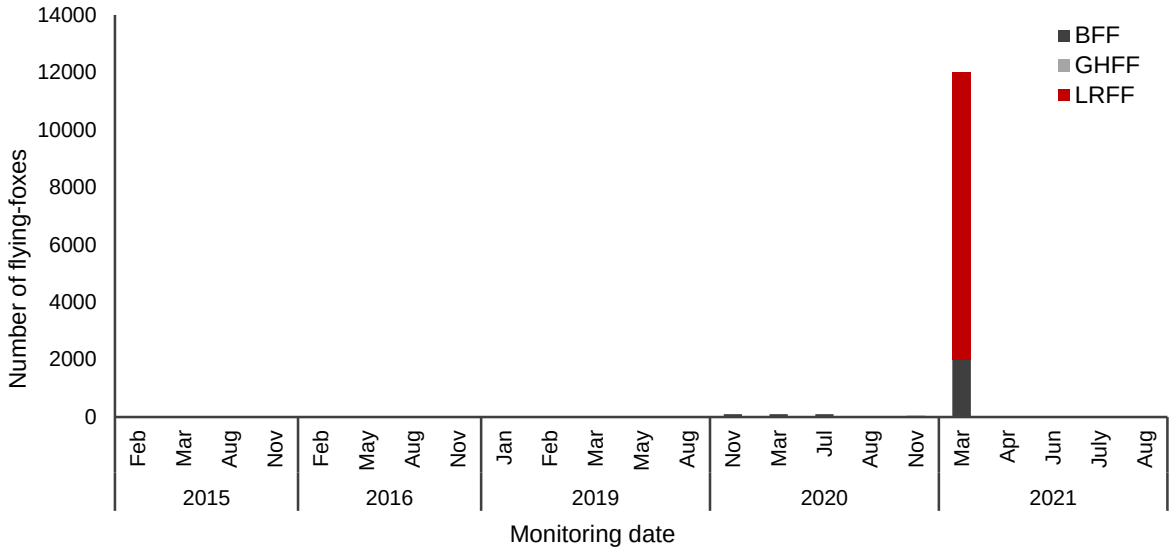


Figure 47 Thornlands Clifford Perske Nature Refuge flying-fox numbers between 2015 and 2021 (Source RCC).

Sensitive receptors

Several sensitive sites, including childcare centres, schools and aged care centres, are located within 1 km of the roost site (Figure 50). There are 369 residential properties located within 300 m of the roost.

Figure 48 Thornlands – Clifford Perske Nature Refuge roost location

Figure 49 Ecological values – Thornlands – Clifford Perske Nature Refuge

Figure 50 Thornlands – Clifford Perske Nature Refuge sensitive sites

2.1.14 Thornlands - Lotus Close Wetland

Site description

The Lotus Close Wetland roost (0.97 ha), also known as Primrose Drive Wetlands, is located in bushland on the eastern side of Redland Bay Road, opposite William Stewart Park, Thornlands (Figure 52). This area is a melaleuca wetland which forms part of a vegetated corridor, extending from Crystal Waters Wetland to the west of Cleveland/Redland Bay Road, through to the Clifford Perske Nature Belt to the north, south to join up with the Pinklands corridor and east out to the foreshore. The land is zoned as Recreational Open Spaces. The roost vegetation consists of RE 12.3.6 and RE 12.5.2/12.5.3 (category C endangered regulated vegetation), with a small section of non-remnant vegetation. All remnant vegetation in the roost is mapped as both core koala habitat (399 koala records within 1 km of the site) and essential habitat for koalas and wallum froglets. Ecological values are displayed in Figure 53 and summarised in Appendix 1.

Roost history

The Lotus Close Wetland roost is utilised by flying-foxes as a seasonal roost. It was initially surveyed in 2014 and has been surveyed every subsequent year since (NFFMP roost number 819). All three species have been recorded using the roost, with GHFF and BFF consistently present at the site, while LRFF have only been recorded irregularly and in small numbers (Figure 51). The roost's population is relatively stable with a mean population of 1,395 individuals. The highest number recorded at the roost was 6,000 in November 2019 and the roost was recorded as vacant in August 2020. It remained vacant for six months, and a new roost was reported a short distance (750 m) to the north of Lotus Close, at the Clifford Perske Nature Refuge (pers. comm. Council Officer). Individuals now appear to alternate between the two roosts.

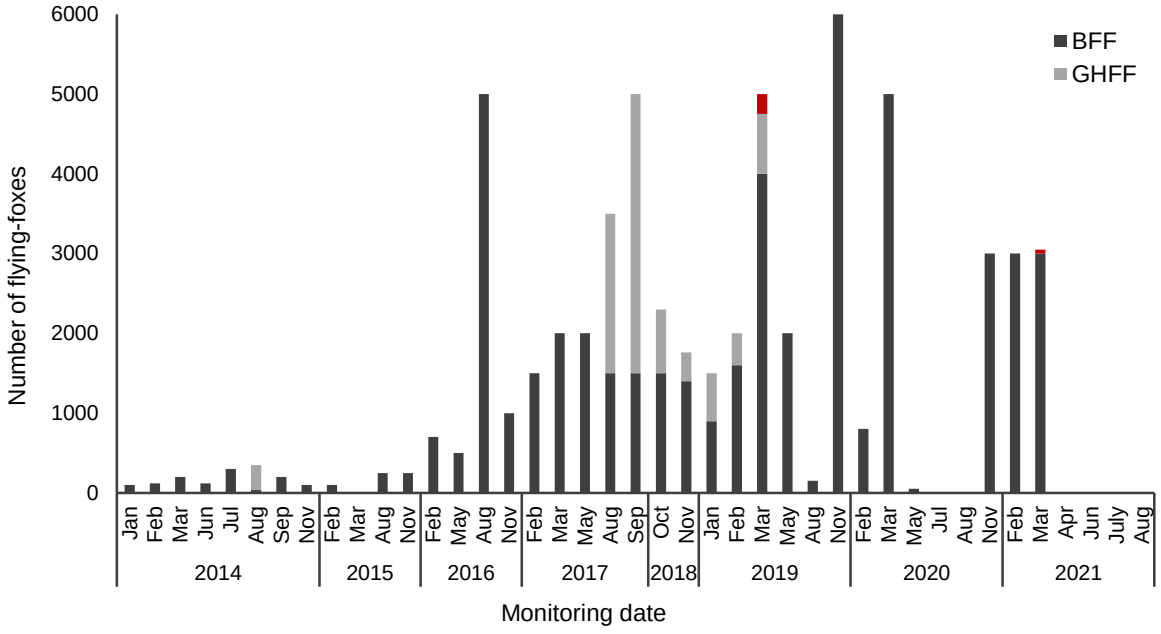


Figure 51 Thornlands Lotus Close Wetland flying-fox numbers 2014 - 2021 (Source RCC, NNFMP).

In recent years, increases in flying-fox numbers has seen the roost area expanded to include all the vegetation surrounding the water body, but does not extend past the junction of Ribonwood and Primrose Drives. Nor do they use the vegetation north of the pathway between Lotus Close and Redland Bay Road. The colony shifts roosting locations within the wetland in correlation with weather conditions and fluctuations in numbers, at times expand into the melaleucas adjacent to the walkway along Cimarron Circuit (RCC 2021c).

Australian white ibis (*Threskiornis moluccus*) began roosting at the site in early 2018, creating significant noise and disturbance to flying-foxes, which resulted in increased complaints from surrounding residents. The number of waterbirds roosting and nesting at the site has gradually increased causing a southward shift in flying-fox roosting location. Species that nest at the site include royal spoonbills (*Platalea regia*), little black cormorants (*Phalacrocorax sulcirostris*) and egrets. As such this is a colonial breeding site and a Species Management Program (SMP) is required under the *Nature Conservation (Animals) Regulation 2020* for any activity that may interfere with these breeding places.

Vegetation management works were undertaken in 2019 to remove vines and palm fronds from the site. In May 2020, residents reported activities by children were the cause of the roost emptying (pers. comms. Council Officer, April 2022).

As a contentious, Category 3 roost (as detailed in the Plan), a canopy-mounted sprinkler trial may be considered at indicative locations mapped below. It is important to note that if progressed, this will be a trial only with considerations as per Appendix 2. A Flying-fox Conflict Mitigation and Resident Assistance Project is planned for trial at the Lotus Close roost.

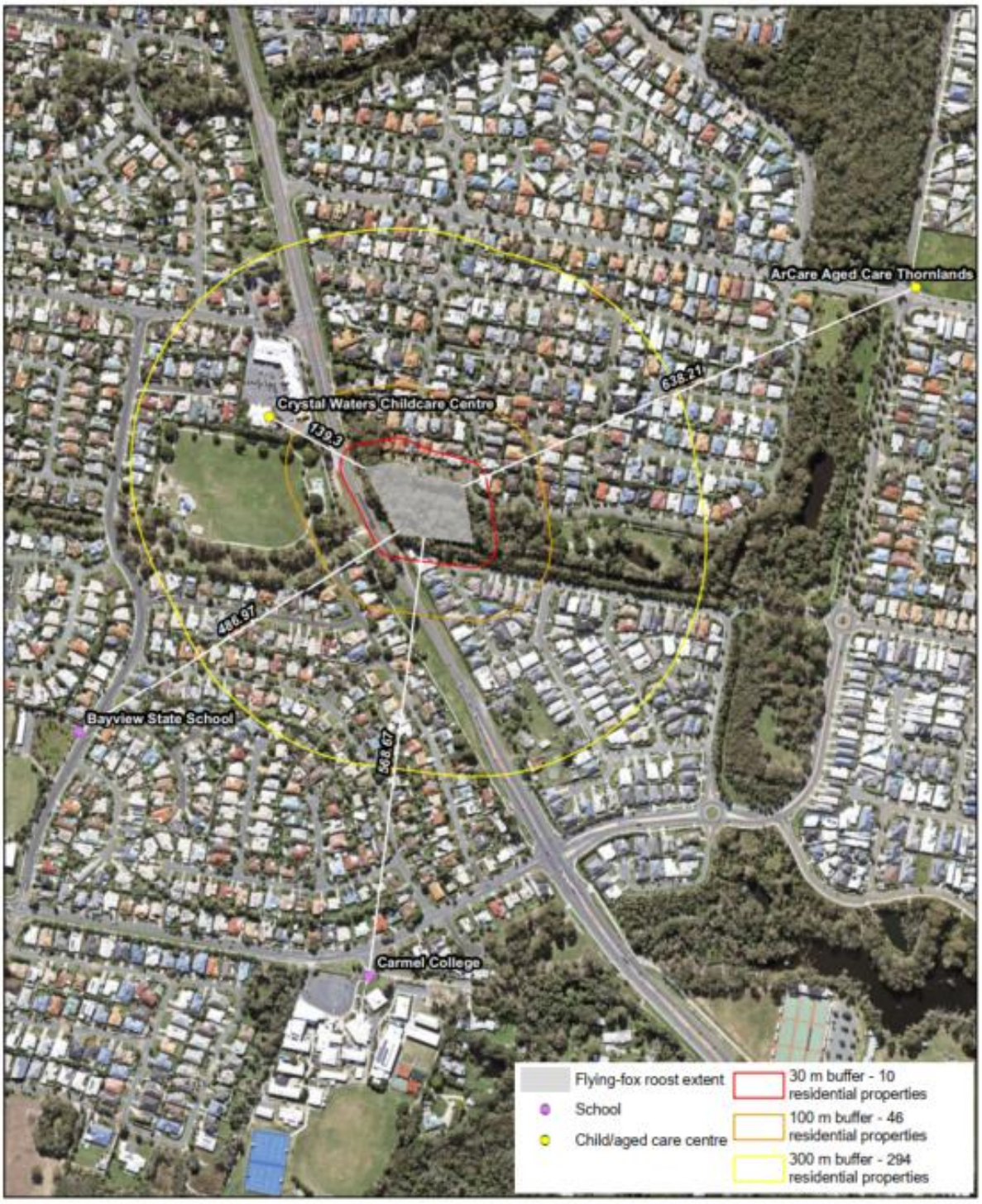
Sensitive sites

Several sensitive sites, including childcare centres, schools and aged care centres, are located within 1 km of the roost site (Figure 54). There are 350 residential properties located within 300 m of the roost.

Figure 52 Thornlands – Lotus Close Wetland roost location

Figure 53 Ecological values – Thornlands – Lotus Close Wetland

Figure 54 Thornlands – Lotus Close Wetland sensitive sites



Thornlands – Lotus Close Wetland sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

Thornlands – Lotus Close Wetland management actions

Redland City Council

Flying-fox Management Plan

- Canopy-mounted sprinkler (CMS)
- CMS 15 m reach
- Flying-fox roost extent
- 30m buffer

ecosure
improving ecosystems

Job number: PR8777
Revision: 0
Author: EK
Date: 21/03/2022

0 5 10 20
Metres

GDA 1994 MGA Zone 56
Projection: Transverse Mercator
Datum: GDA 1994
Units: Meter

PR8777_MP1_ManagementMaps
A4

2.1.15 Victoria Point - Egret Colony Wetlands

Site description

The Egret Colony Wetlands roost (15.85 ha) is located east of Egret Drive in the Egret Colony Wetlands, Victoria Point (Figure 56). The land is zoned as Recreational Open Spaces and Environmental Conservation and the mapped land use is nature conservation, though the site is used as a recreation area with several cleared walkways and bike paths. The roost falls under the State Habitat for EVNT taxa Biodiversity Planning Assessment framework.

The roost vegetation predominantly consists of RE 12.3.8 (swamps with *Cyperus spp.*, *Schoenoplectus spp*. and *Eleocharis spp*.; category B of concern regulated vegetation) and 12.3.5/12.3.6, with small portions or RE 12.1.3/12.1.2 (saltpan vegetation including grassland, herbland and sedgeland on marine clay plains) and non-remnant vegetation. The site provides important roosting and nesting habitat for a variety of waterbirds. Ecological values are mapped in Figure 57 and summarised in Appendix 1.

Roost history

The roost was initially surveyed in 2007 and has been surveyed every subsequent year with the exception of 2009 (NFFMP roost number 155). The roost is divided into three separate areas: Egret Drive, Marianne Street and Alarna Street (Figure 56). The Egret Drive area was vacated in the mid-late 2000s when the roost area shifted to the Marianne Street side for approximately 10 years. Flying-foxes have recently shifted back to the Egret Drive area (Council Wildlife Officer pers. comm. April 2022). All three species have been recorded using the roost, with GHFF and BFF present at the site consistently, recording an average population of 975 individuals (Figure 55). LRFF use the roost intermittently and occasionally for large seasonal fluctuations of up to 100,000, as recorded in 2015 and 2019. Smaller fluctuations of between 10,000 and 20,000 individuals have been recorded. The roost has an overall mean occupancy of 3,407 but fluctuate between less than approximately 1,000 during normal occupation and up to 100,000 individuals during LRFF visitation.

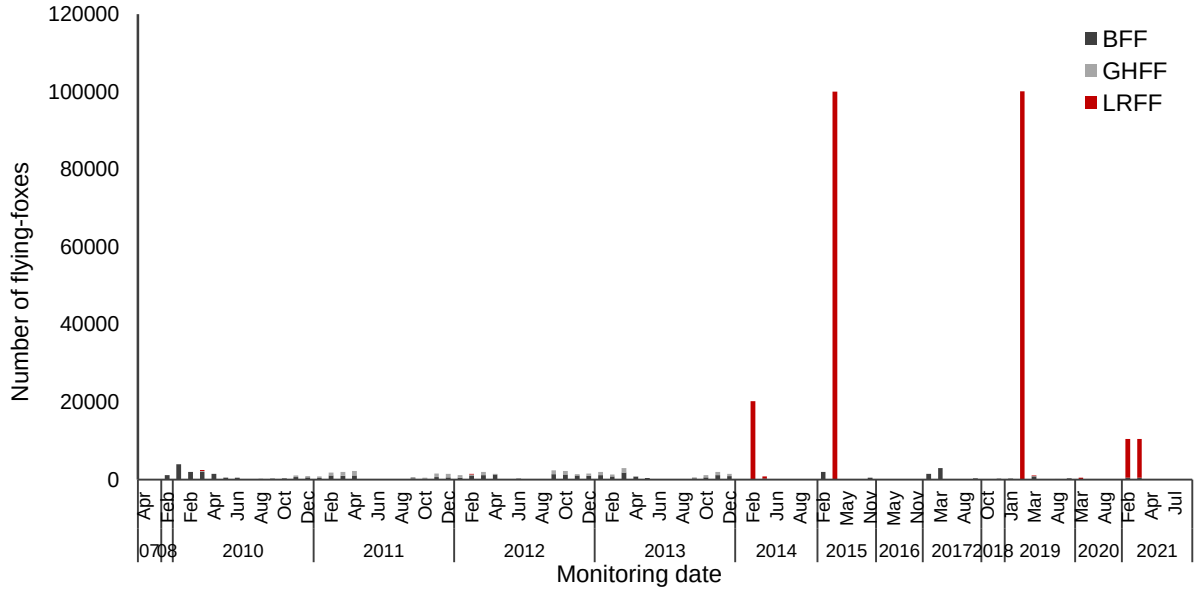


Figure 55 Victoria Point Egret Colony Wetland flying-fox numbers 2007 - 2021 (Source RCC, NFFMP).

Flying-foxes originally roosted in the south-western portion of the site, though shifted towards the Marianne Street area following weed removal works. Flying-fox numbers increased here following disturbance at the nearby Black Swamp Wetlands, and this site used as a mating and maternity roost.

Sensitive sites

Several sensitive sites, including childcare centres, schools and aged care centres, are located within 1 km of the roost site (Figure 58). There are 350 residential properties located within 300 m of the roost.

Figure 56 Victoria Point - Egret Colony Wetlands roost location

Flying-fox roost extent

Tenure

Freehold

Access Restriction Strip (Council owned)

Freehold (Council owned/managed)

Reserve (Council Trustee)

Victoria Point – Egret Colony Wetlands roost location

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

Figure 57 Ecological values – Victoria Point - Egret Colony Wetlands

Figure 58 Victoria Point - Egret Colony Wetlands sensitive sites

Victoria Point – Egret Colony Wetlands sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

2.1.16 Victoria Point - Victoria Point High School

The Victoria Point High School roost (0.67 ha) is located on the Victoria Point High School property south of Peppercorn Crescent, Victoria Point (Figure 60). The land is zoned as a Community Facilities. The site currently operates as a school. Parts of the land falls under the State Biodiversity Planning Assessment framework. The entire flying-fox roost vegetation is mapped as RE 12.9-10.4 and is core koala habitat (268 koala records within 1 km of the site) and essential habitat for koalas and Illidge's ant-blue butterflies (*Acrodipsas illidgei*). Ecological values are displayed in Figure 61 and summarised in Appendix 1.

Roost history

The Victoria Point High School roost was initially reported and surveyed in 2014 and has been surveyed every subsequent year since (Figure 59). The roost is intermittently occupied by BFF and GHFF, though vacated the site in 2019 and 2020. The roost generally supports between 100 and 1,000 individuals. There is no evidence that this site experiences large short-term population fluctuations. Flying-foxes tend to roost in the melaleuca wetland at the back of Victoria Point High School, though this often lies on private property, making it difficult to accurately monitor population numbers.

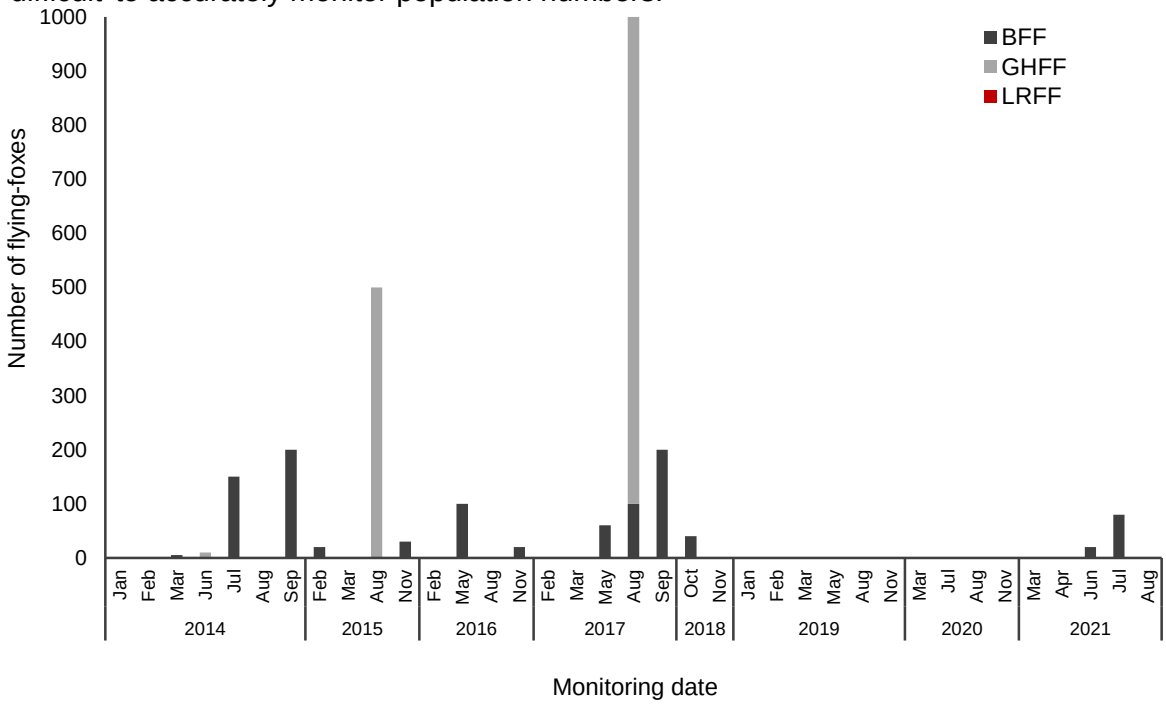


Figure 59 Victoria Point High School flying-fox numbers between 2014 and 2021 (Source RCC)

Sensitive sites

Several sensitive sites, including childcare centres, schools and aged care centres, are located within 1 km of the roost site (Figure 58). There are 350 residential properties located within 300 m of the roost.

Figure 60 Victoria Point – Victoria Point High School roost location

Figure 61 Ecological values – Victoria Point – Victoria Point High School

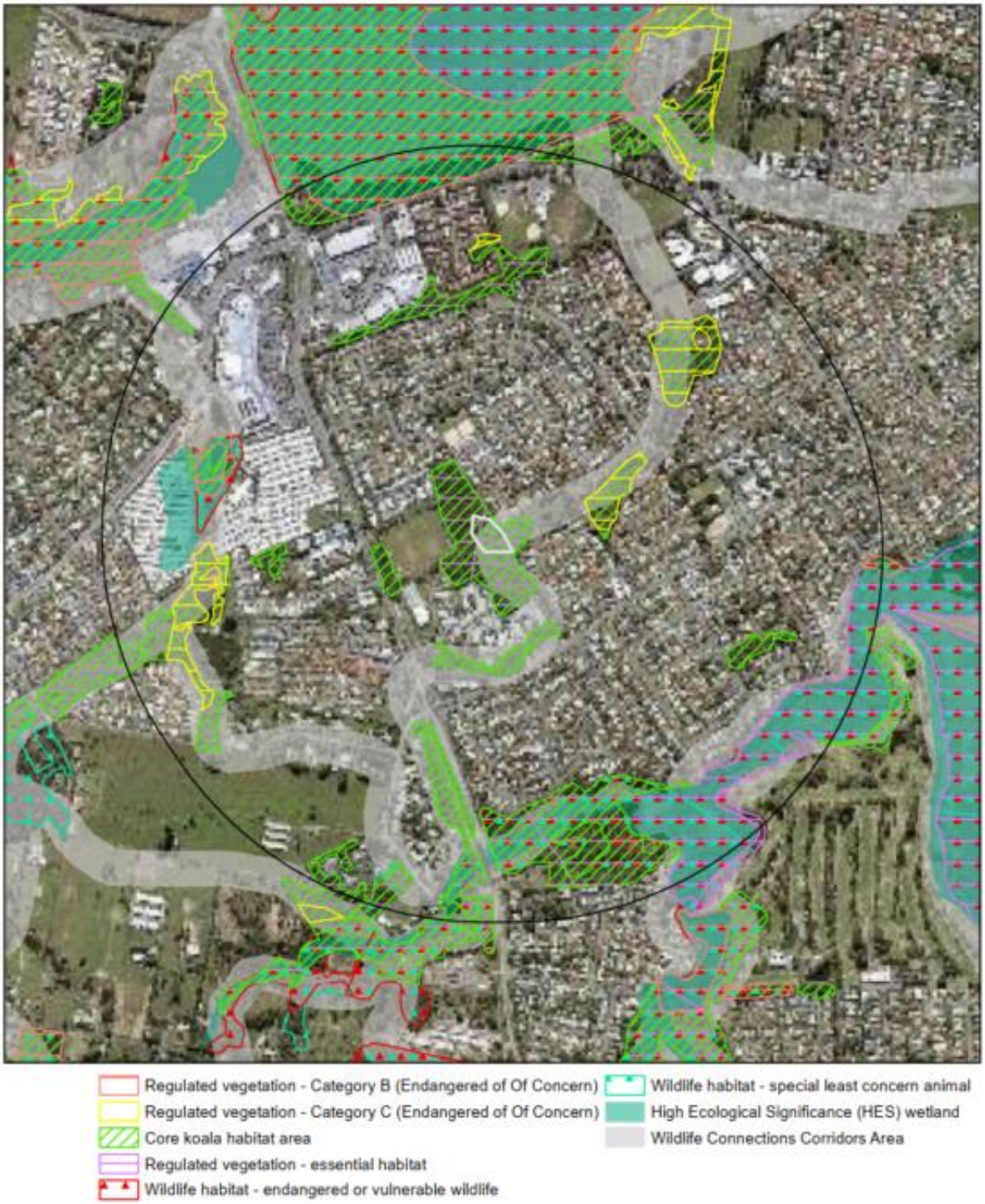


Figure 62 Victoria Point – Victoria Point High School sensitive sites

Victoria Point – Victoria Point High School sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

2.1.17 Wellington Point – Crossley Drive

Site description

The Crossley Drive roost (2.31 ha) is located in bushland south of Redlands College, Wellington Point on land zoned as Environmental Conservation (Figure 64). The site is identified as State Habitat for EVNT taxa under the Biodiversity Planning Assessment frameworks. A stepping stone corridor passes through the site, as designated in the *Wildlife Connections Plan 2018-2028.* The roost vegetation consists predominantly of RE 12.3.6, with small patches of RE 12.5.2 (category C endangered regulated vegetation)/12.5.3 and non-remnant vegetation. Patches of both category B and C restricted vegetation occur throughout the site. The entire roost is mapped as core koala habitat (447 koala records within 1 km of the site) and essential habitat for koalas and wallum froglets. Ecological values are displayed in Figure 65 and summarised in Appendix 1.

Roost history

The roost was initially surveyed in 2010 and has been surveyed every subsequent year since (NFFMP roost number 472) (Figure 63). The roost is predominantly occupied by BFF, though GHFF have also been recorded. The roost population is generally stable, though short term population peeks (as in 2017 and 2019) of up to 5,000 individuals suggest a potential for seasonal fluctuations. The main roosting area within this site is along the Whepstead Avenue edge.

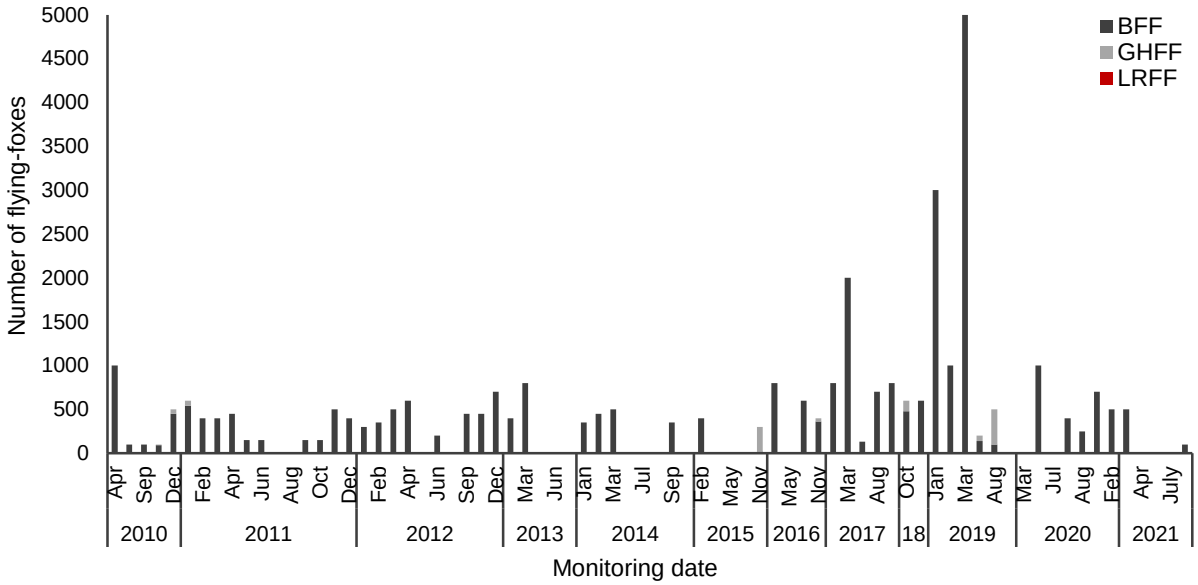


Figure 63 Wellington Point Crossley Drive flying-fox numbers between 2010 and 2021 (Source RCC, NFFMP)

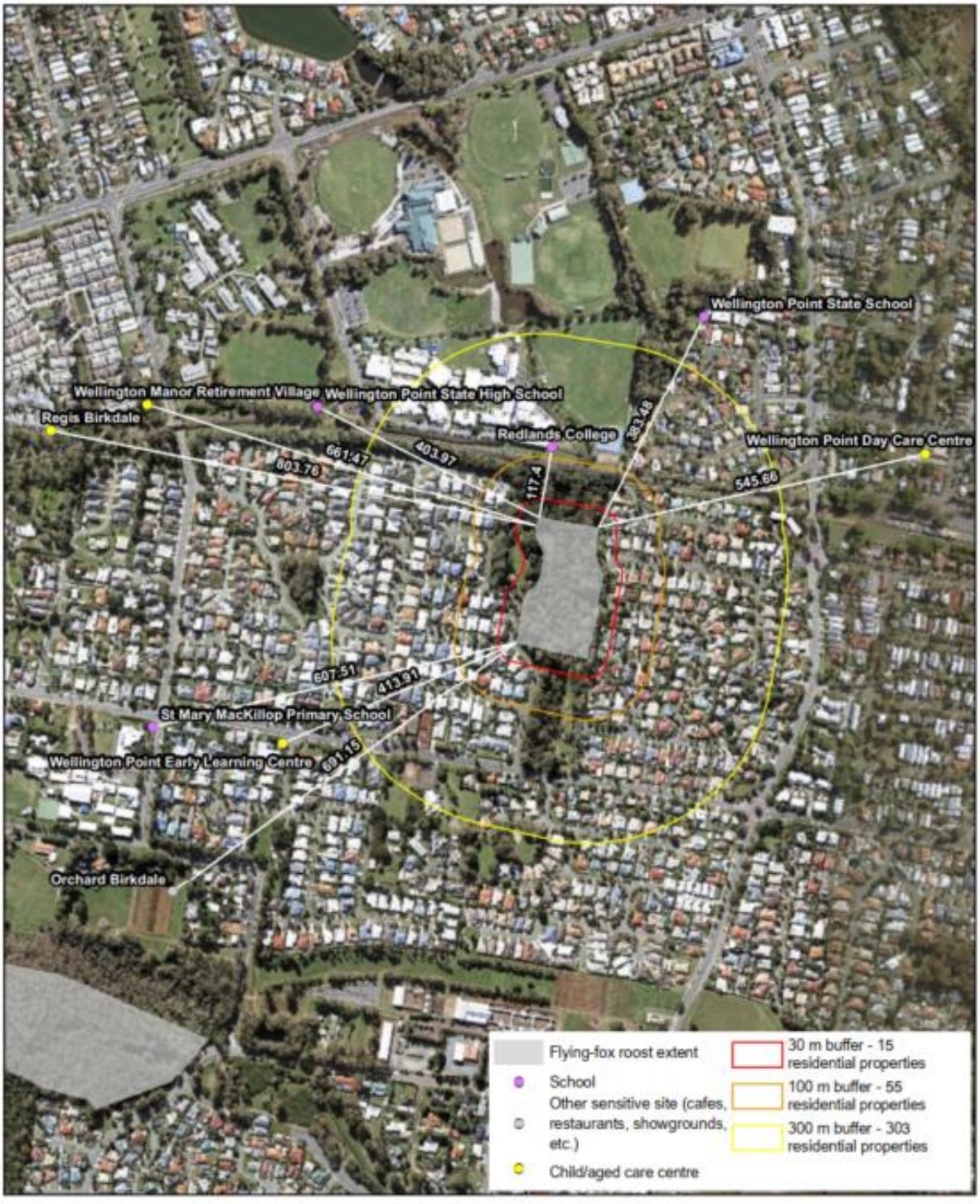
Sensitive sites

Several sensitive sites, including childcare centres, schools, aged care centres, and an orchard, are located within 1 km of the roost site (Figure 66). There are 373 residential properties located within 300 m of the roost.

Figure 64 Wellington Point – Crossley Drive roost location

Figure 65 Ecological values – Wellington Point – Crossley Drive

Figure 66 Wellington Point – Crossley Drive sensitive sites



Wellington Point – Crossley Drive sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

2.1.18 Wellington Point – Jacob Street

Site description

The Jacob Street roost (0.23 ha) is located in vegetation northwest of the Fernbourne Road, Valley Road intersection, Wellington Point (Figure 67). The land is zoned as Recreational Open Spaces and Low Density residential, and mapped land use is residential. A small portion on the western side of the roost lies on private residential land (Figure 67). The land falls under the State the State Habitat for EVNT taxa Biodiversity Planning Assessment frameworks. A stepping stone corridor passes through the site, as designated in the *Wildlife Connections Plan 2018-2028.*

The roost vegetation consists of RE 12.3.6/12.1.1 (category B of concern regulated vegetation), RE 12.1.2, and two small portions of non-remnant vegetation. All native vegetation is identified as regulated vegetation with patches of category B covering the north and south of the site and category C land occurring between patches of category B land. All remnant vegetation in the roost is mapped as core koala habitat (452 koala records within 1 km of the site). Vegetation at the site has also been mapped as essential habitat for the koala and wallum froglet. Ecological values are displayed in Figure 68 and summarised in Appendix 1.

Roost history

This roost is not monitored as part of the NFFMP. BFF were reported by contractors working in the area and were sighted, but not recorded, by Wildlife Officers at the time. Council conducted monitoring during four months in 2015, 2016 and 2020, though no flying-foxes have been were recorded at the time. 10 BFF were reported by a Bushcare Officer in May 2020. Anecdotally, the site has experienced small numbers of flying-foxes intermittently, though this occupancy is not consistent. This site is likely to be a high conflict location if a roost establishes due to sensitive sites, nearby residences and a new development planned to the east. As detailed in the Plan, it has been categorised as a location to deter roosting through weed removal and maintaining open structure as much as possible.

Sensitive sites

Three sensitive sites, including one childcare centre and two schools, are located within 1 km of the roost site (Figure 69). There are 196 residential properties located within 300 m of the roost.

Figure 67 Wellington Point – Jacob Street roost location

Figure 68 Ecological values – Wellington Point – Jacob Street

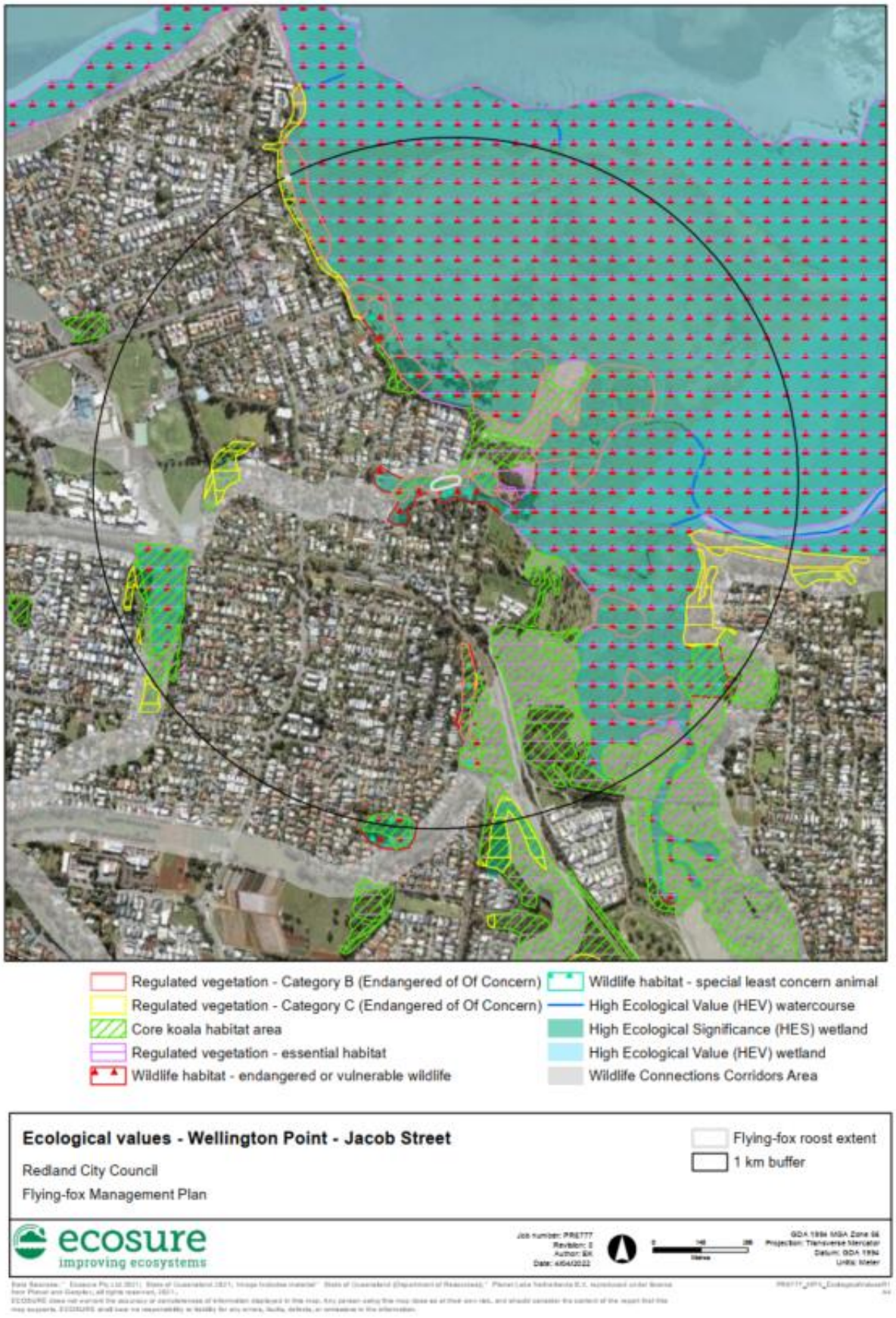
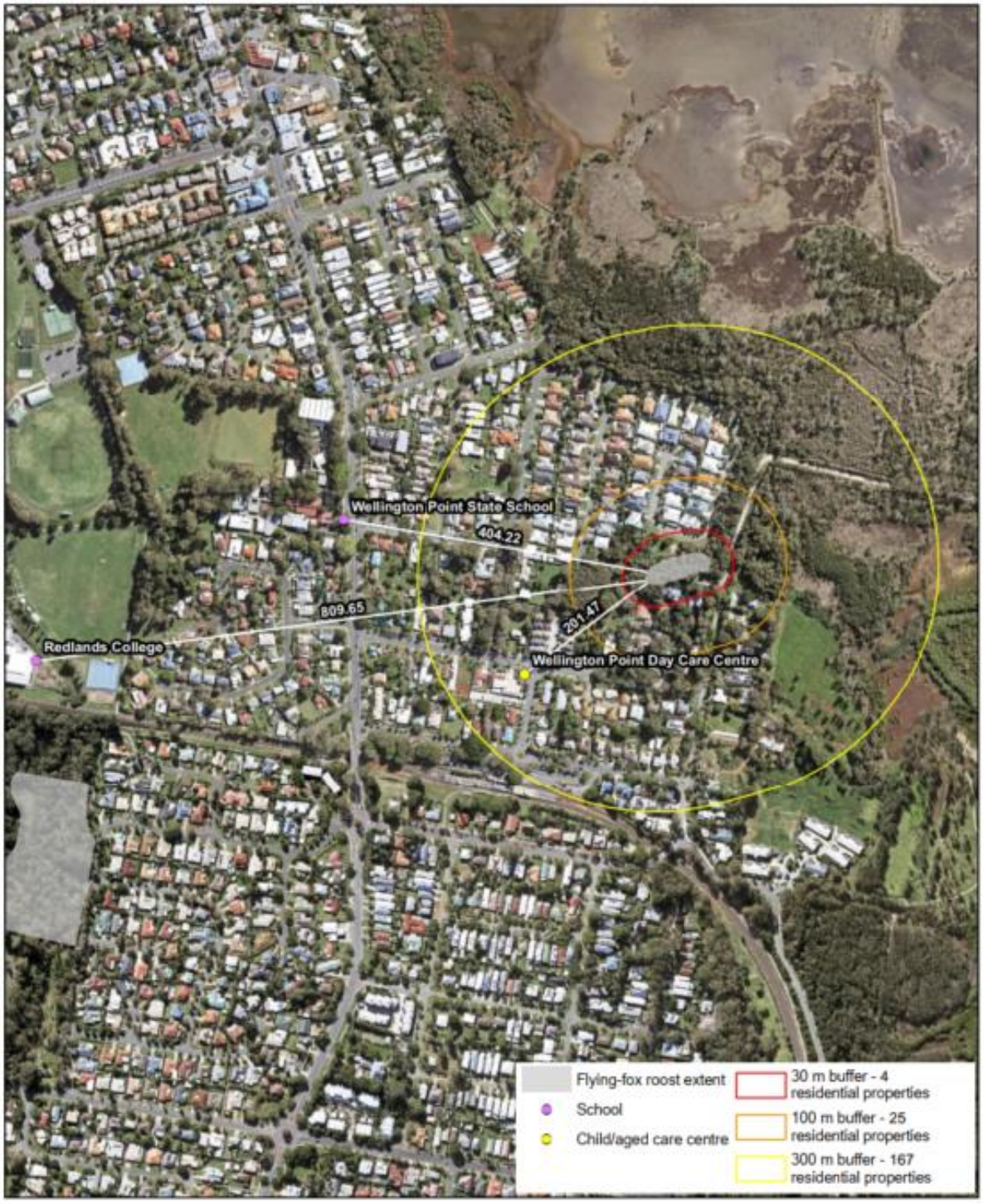


Figure 69 Wellington Point – Jacob Street sensitive sites



Wellington Point – Jacob Street sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

2.1.19 Wellington Point - O'Connell Parade

Site description

The O'Connell Parade roost (0.01 ha) is located in vegetation east of O'Connell Parade in in coastal vegetation (Figure 70). The land is zoned as Environmental Conservation, and the mapped land use is nature conservation. The roost vegetation consists of RE 12.5.2/12.5.3 and is mapped as category C endangered regulated vegetation. The roost is mapped as core koala habitat (231 koala records within 1 km of the site), and vegetation within the roost's cadastral boundary (lot 243, plan S312308) has been mapped as essential habitat for the koala and wallum froglet. Ecological values are displayed in Figure 71 and summarised in Appendix 1.

Roost history

This roost is monitored as part of the NFFMP (roost number 820). DES conducted monitoring in November 2014, May 2015, May and August 2020, though no flying-foxes have been recorded roosting at the site. It is likely that this roost has experienced seasonal fluctuations in the past with no period of occupancy occurring during a monitoring window.

Sensitive sites

Three sensitive sites (all schools) are located within 1 km of the roost site (Figure 72). There are 207 residential properties located within 300 m of the roost.

Figure 70 Wellington Point – O'Connell Parade roost location

Figure 71 Ecological values – Wellington Point – O'Connell Parade

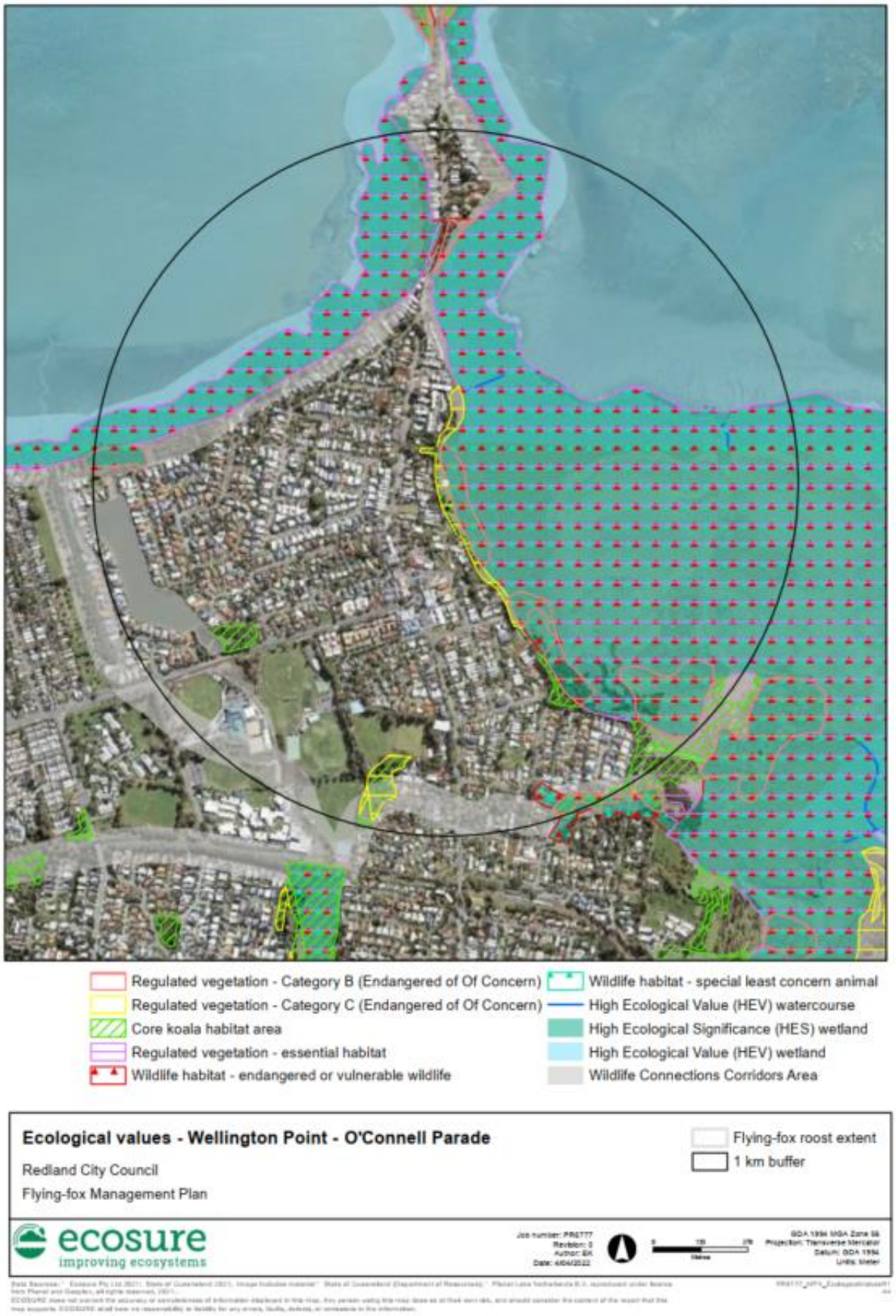


Figure 72 Wellington Point – O'Connell Parade sensitive sites

2.1.20 Wellington Point - Tarradarrapin Wetlands

Site description

The Tarradarrapin Wetlands roost (9.06 ha) is located in Tulloch Drive Park, east of Sunnybay Drive, Wellington Point (Figure 74). The land is zoned as Recreational Open Spaces and Environmental Management. The mapped land use of the site is nature conservation, and it falls under the State Biodiversity Planning Assessment framework. The roost vegetation consists of RE 12.3.5/12.3.6 and 12.3.8 (category B of concern regulated vegetation). The roost is also classified as core koala habitat (221 koala records within 1 km of the site) and as essential habitat for koalas and wallum froglets. Ecological values are displayed in Figure 75 and summarised in Appendix 1.

Roost history

The roost was initially surveyed in 2007 and has been surveyed every subsequent year since (NFFMP roost number 283). The roost is primarily occupied by BFF, though GHFF have occasionally been recorded in small numbers (Figure 73). Occupancy was seasonal but consistent between 2007 and 2010, though appears to have decreased significantly since 2011. The roost initially established as a male BFF roost, though females carrying young joined the roost following disturbance at Black Swamp Wetlands roost during the construction of the Redlands Performing Arts Centre (Davis 2014). Prior to 2012, flying-foxes appeared to shift between this roost and the Crossley Drive roost (Council Wildlife Officer pers. comm. March 2022).

Activities in the wetland and seasonal events caused the roost to empty. Due to the lack of natural regeneration, Council undertook planting to restore the habitat with the intent of encouraging flying-foxes back to the site. As of March 2022, flying-foxes have not returned.

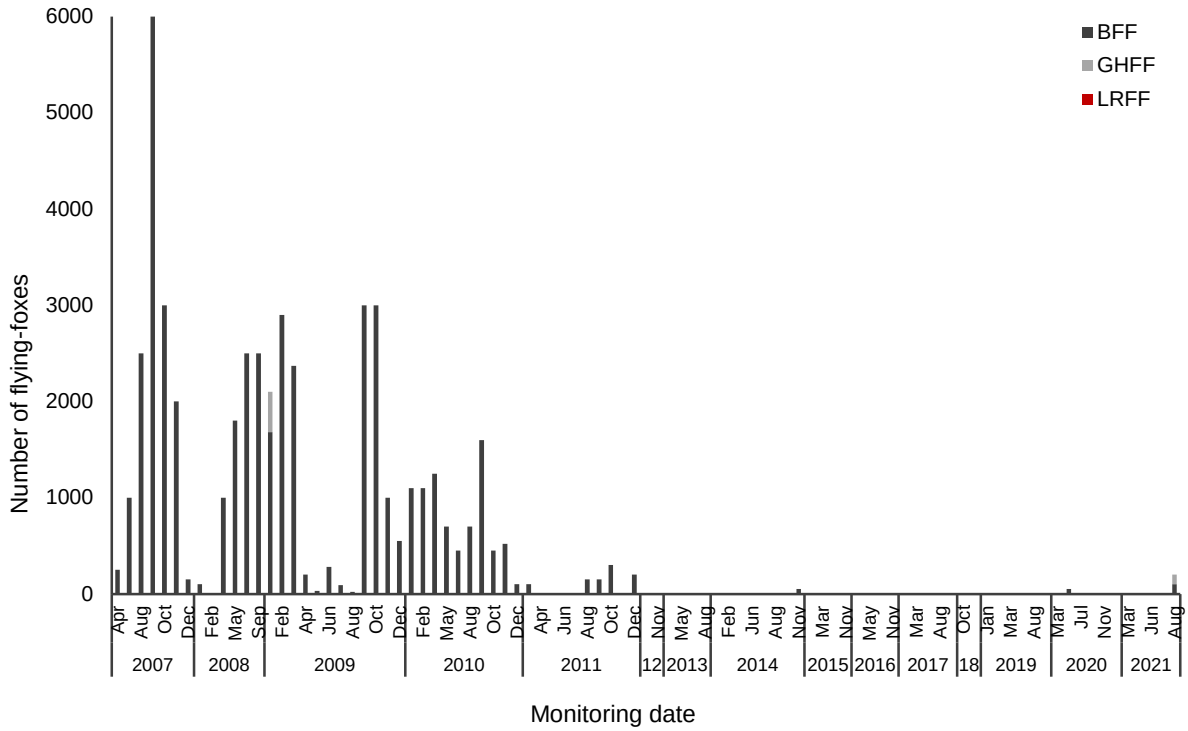


Figure 73 Wellington Point Tarradarrapin Wetlands flying-fox numbers between 2007 and 2021 (Source: NFFMP)

Sensitive sites

Several sensitive sites, including childcare centres, schools, aged care centres, and an orchard, are located within 1 km of the roost site (Figure 74). There are 474 residential properties located within 300 m of the roost.

Figure 74 Wellington Point – Tarradarrapin Wetlands roost location

Figure 75 Ecological values – Wellington Point – Tarradarrapin Wetlands

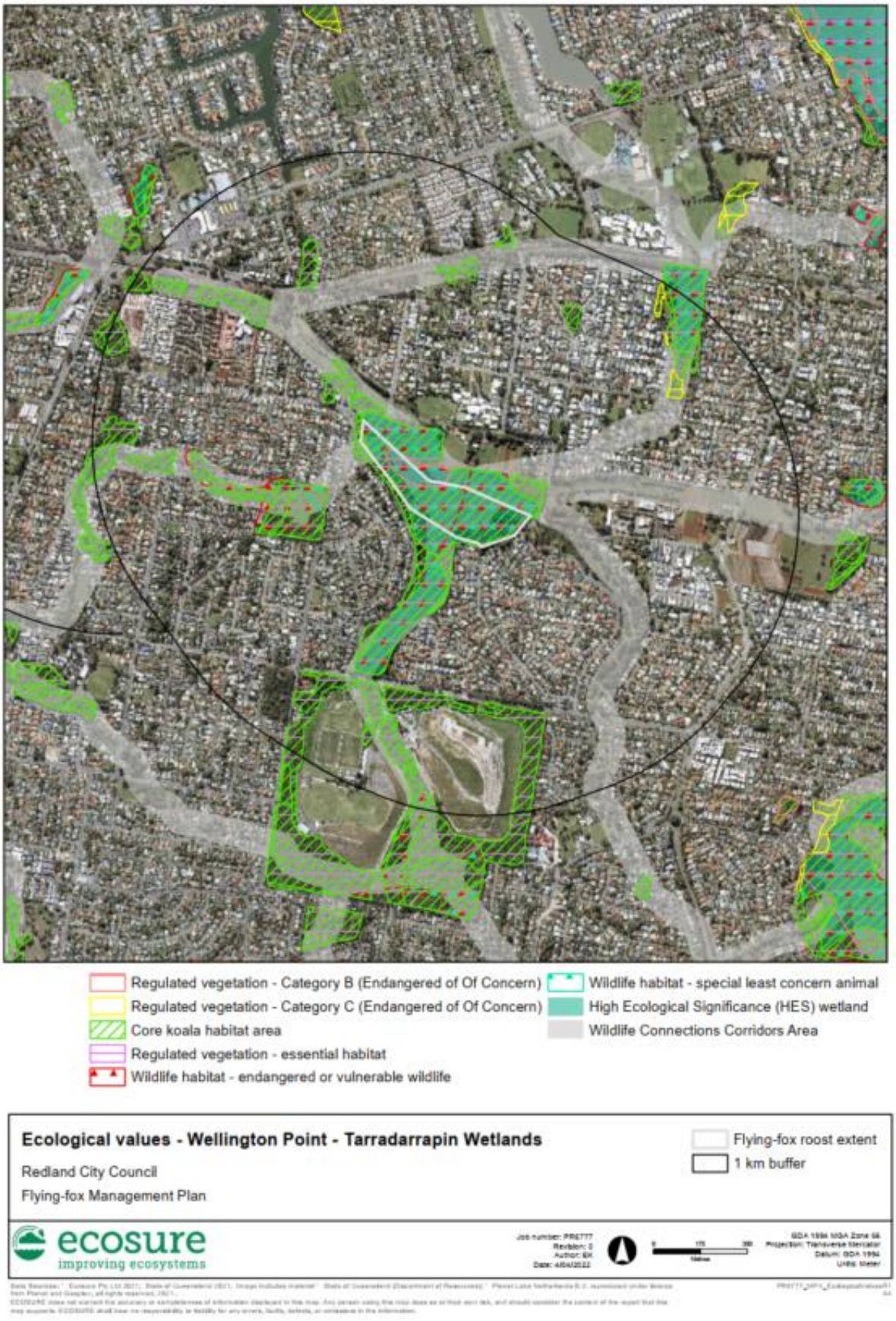


Figure 76 Wellington Point – Tarradarrapin Wetlands sensitive sites

Wellington Point – Tarradarrapin Wetlands sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

3 Island roosts

3.1.1 Coochiemudlo Island – George Street

Site description

The George Street roost (0.26 ha) is located in vegetation on a private land parcel (lot 313, plan SP129355) between Erobin and George Streets, Coochiemudlo Island (Figure 77). The land is zoned as Environmental Management, and the mapped land use of the site is residential and falls under the State Habitat for EVNT taxa Biodiversity Planning Assessment frameworks.

Approximately half of the roost vegetation consists of category B endangered regulated vegetation; RE 12.5.2/12.5.3 (Figure 78). While the other half of the roost is mapped as non-remnant vegetation, it is likely that RE 12.5.2/12.5.3 covers the entire roost area. Ecological values are displayed in Figure 78 and summarised in Appendix 1.

Roost history

This roost has not been monitored by DES or Council as part of any ongoing monitoring program. An island-resident has been monitoring on behalf of DES until 2020 but no records of occupancy are available for this roost.

Sensitive sites

There are no sensitive sites located within 1 km of the roost site. There are 263 residential properties located within 300 m of the roost (Figure 79).

Figure 77 Coochiemudlo Island – George Street roost location

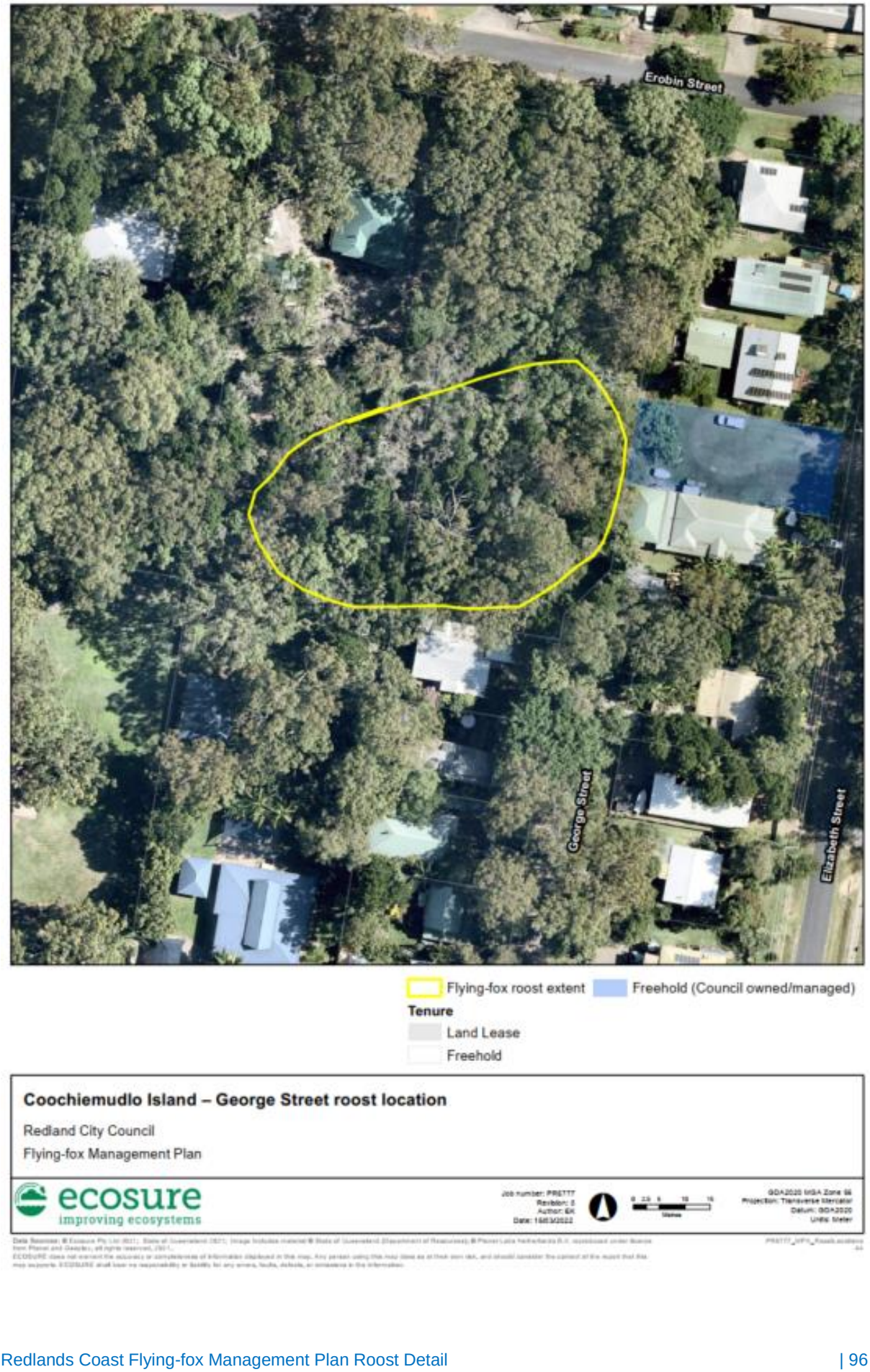


Figure 78 Ecological values – Coochiemudlo Island – George Street

Figure 79 Coochiemudlo Island – George Street sensitive sites

3.1.2 Coochiemudlo Island - Tageruba Street

Site description

The Tageruba Street roost (0.13 ha) is located in vegetation on private (freehold) land between Tageruba, Elizabeth and Perulpa Streets, Coochiemudlo Island (Figure 81). The land is zoned as Environmental Management, and the mapped land use of the site is residential and falls under the State Biodiversity Planning Assessment framework. The roost vegetation consists of RE 12.3.6 and is classed as a High Ecological Significance (HES) wetland (Figure 82). Roost vegetation is also mapped as essential habitat for the wallum froglet and wallum rocket frog (*Litoria freycineti*). Ecological values are displayed in Figure 82 and summarised in Appendix 1.

Roost history

The roost was initially surveyed in 2009 and was surveyed every subsequent year until 2016 (NFFMP roost number 319). The roost was predominantly occupied by GHFF followed by BFF, and female GHFF have been observed roosting there with young. GHFF and BFF maintained a consistent population at the site throughout the survey period (Figure 80). The site experiences fluctuations in occupancy generally between less than 100 and 1,000 individuals, likely influenced by seasonal factors.

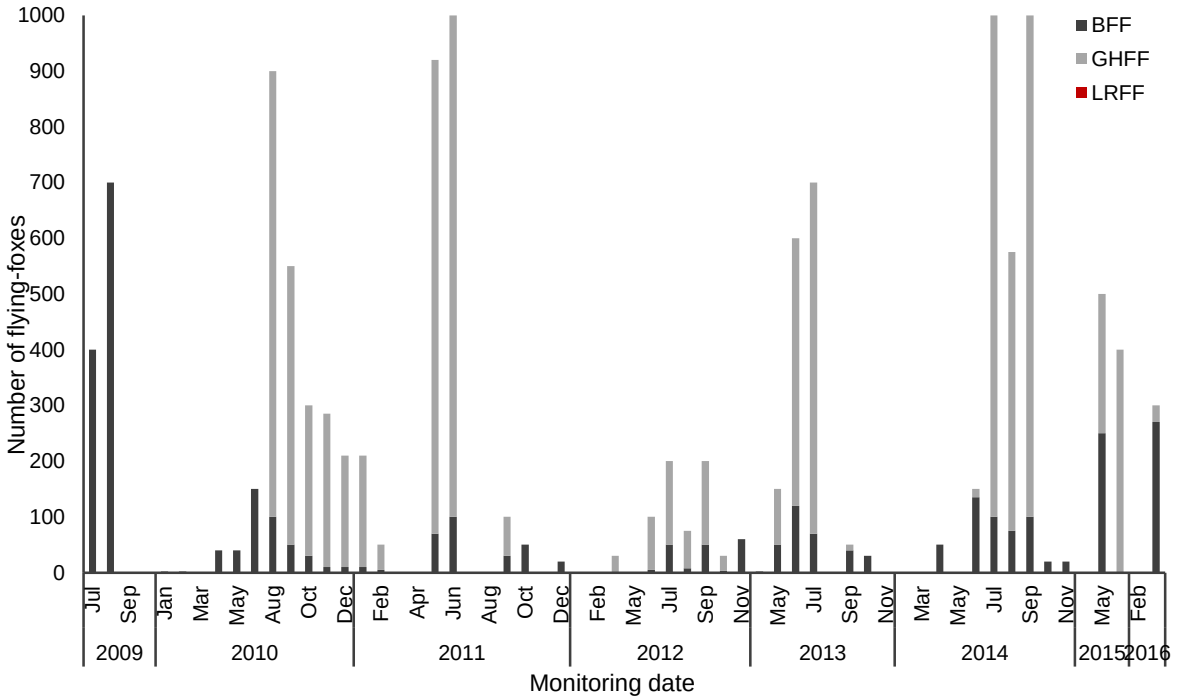


Figure 80 Coochiemudlo Island Tageruba Street flying-fox numbers between 2009 and 2016 (Source NFFMP)

Sensitive sites

There are no sensitive sites located within 1 km of the roost site. There are 222 residential properties located within 300 m of the roost (Figure 83).

Figure 81 Coochiemudlo Island – Tageruba Street roost location

Figure 82 Ecological values – Coochiemudlo Island – Tageruba Street

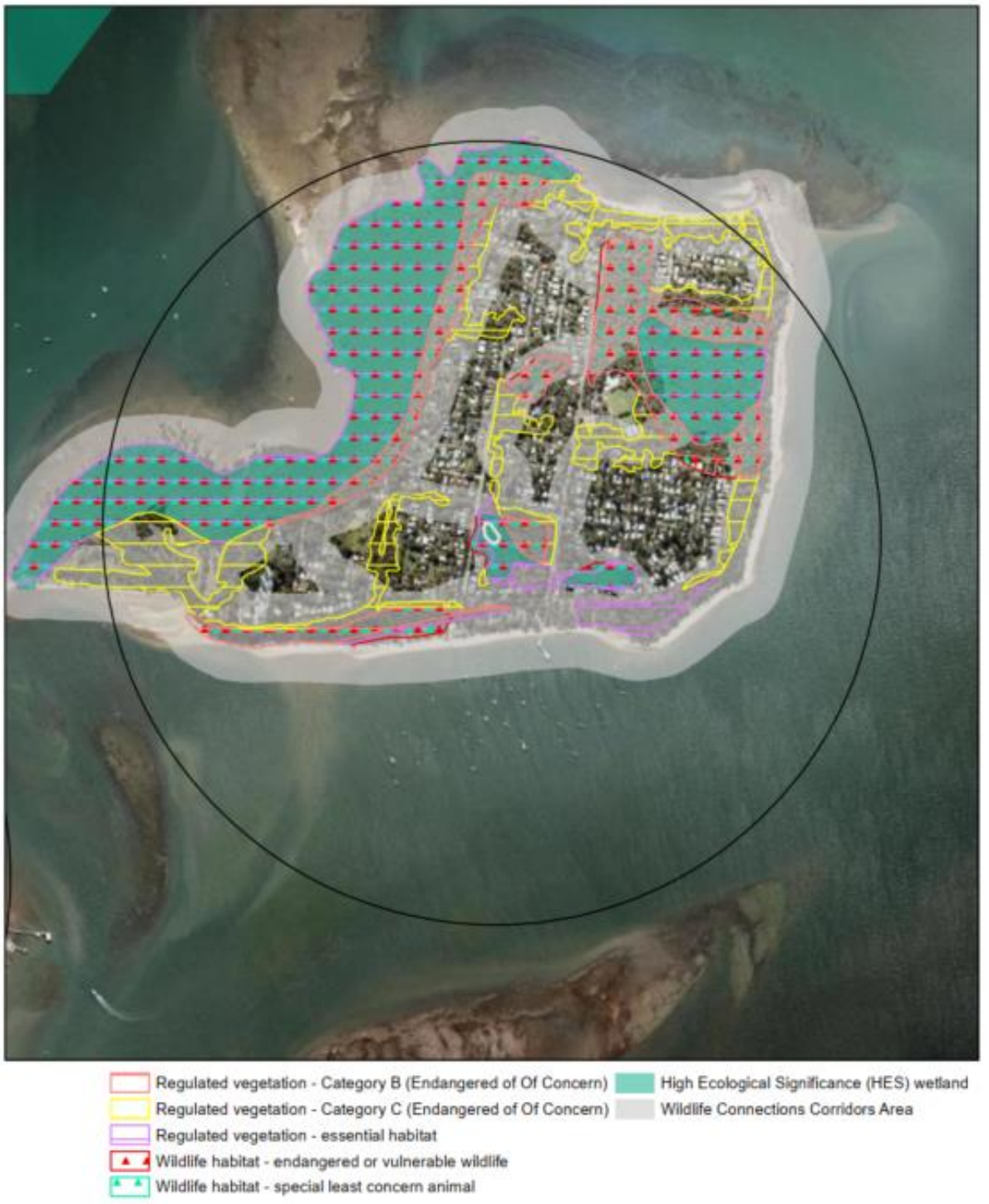
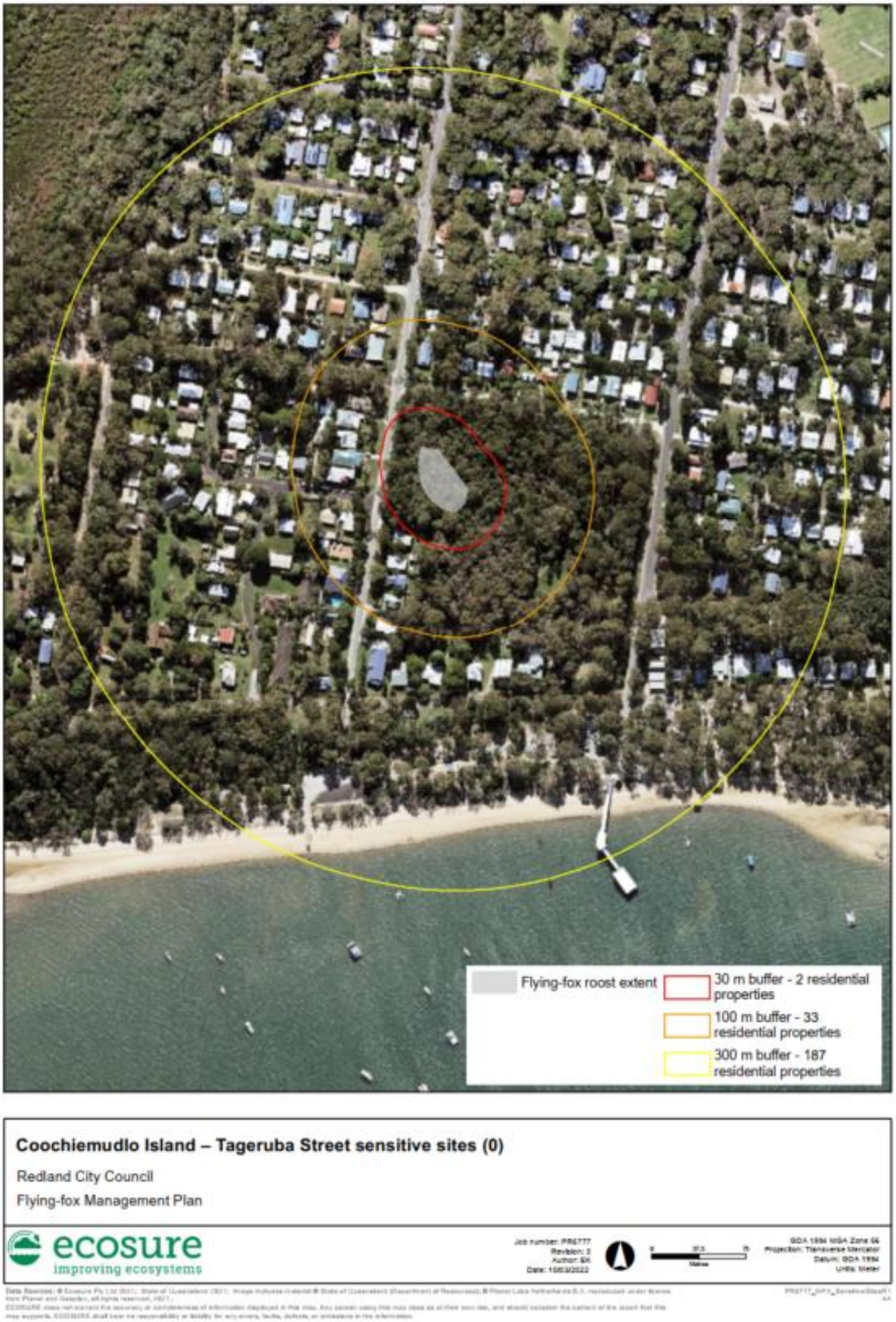


Figure 83 Coochiemudlo Island – Tageruba Street sensitive sites



3.1.3 Lamb Island - Lavender Street

Site description

The Lavender Street roost (0.63 ha) is located in bushland north of Pier Street, Lamb Island (Figure 85) on land zoned as Environmental Conservation. The mapped land use of the site is marsh/wetland and falls under the State and State Habitat for EVNT taxa Biodiversity Planning Assessment frameworks. The roost vegetation consists of predominantly RE 12.3.5, with small patches of RE 12.5.2 (category B endangered regulated vegetation) and non-remnant vegetation. It is mapped as a HES wetland and as essential habitat for the wallum froglet and wallum rocket frog (Figure 86). Ecological values are displayed in Figure 86 and summarised in Appendix 1.

Roost history

The roost was initially monitored in 2007 and was monitored every subsequent year until 2018 (NFFMP roost number 373). The roost was primarily occupied by BFF, though GHFF have occasionally been recorded. (Figure 84). Overall, the occupancy of this roost has declined recently, potentially indicating that occupancy is tied to seasonal conditions or that the habitat at the roost has changed and is now less suitable for flying-foxes.

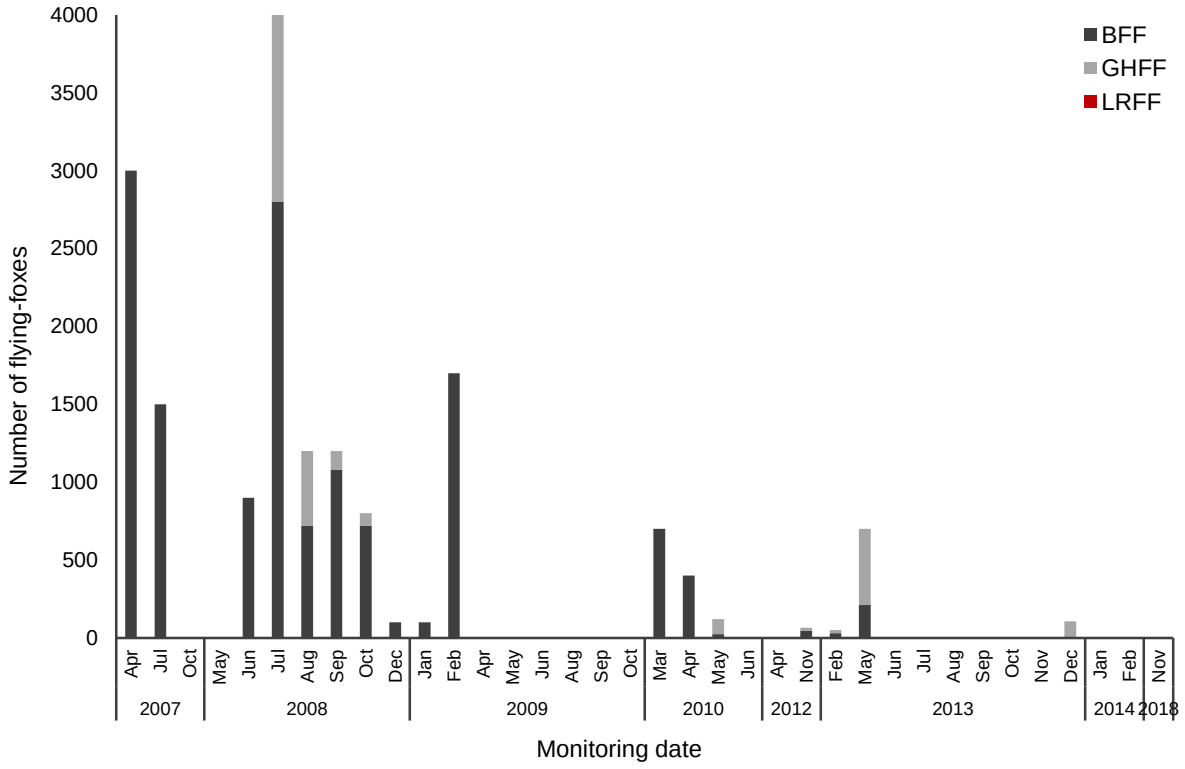


Figure 84 Lamb Island Lavender Street flying-fox numbers between 2007 and 2018 (Source NFFMP).

Sensitive sites

There is one sensitive site (medical centre) located within 1 km of the roost site. There are 126 residential properties located within 300 m of the roost (Figure 87).

Figure 85 Lamb Island - Lavender Street roost location

Figure 86 Ecological values – Lamb Island - Lavender Street

Figure 87 Lamb Island - Lavender Street sensitive sites

3.1.4 Long Island

Site description

The Long Island roost (99.24 ha) is located in vegetation on uninhabited Long Island, east of Russell Island (Figure 88**)**, on land zoned as Environmental Conservation. The mapped land use of the site is marsh/wetland and falls under the State Biodiversity Planning Assessment frameworks. The roost vegetation consists predominantly of RE 12.1.3/12.1.2, with small patches of RE 12.1.3 and RE 12.1.2/12.1.3. The entire site is identified as a HES wetland, and the southern portion of the roost extent contains wildlife habitat for endangered, vulnerable, and/or special least concern (SLC) species (Figure 89). Ecological values are displayed in Figure 89 and summarised in Appendix 1.

Roost history

This roost is not monitored by DES or Council, and as such, no records of occupancy are available. Anecdotal evidence suggests the roost was occupied by a large number of BFF in the early 2000's, though counts were never recorded. The location and accessibility of the roost also make it difficult to monitor and/or see from the mainland.

Sensitive sites

There are no sensitive sites located within 1 km of the roost site, and there are no residential properties within 300 m of the roost boundary (Figure 90).

Figure 88 Long Island roost location

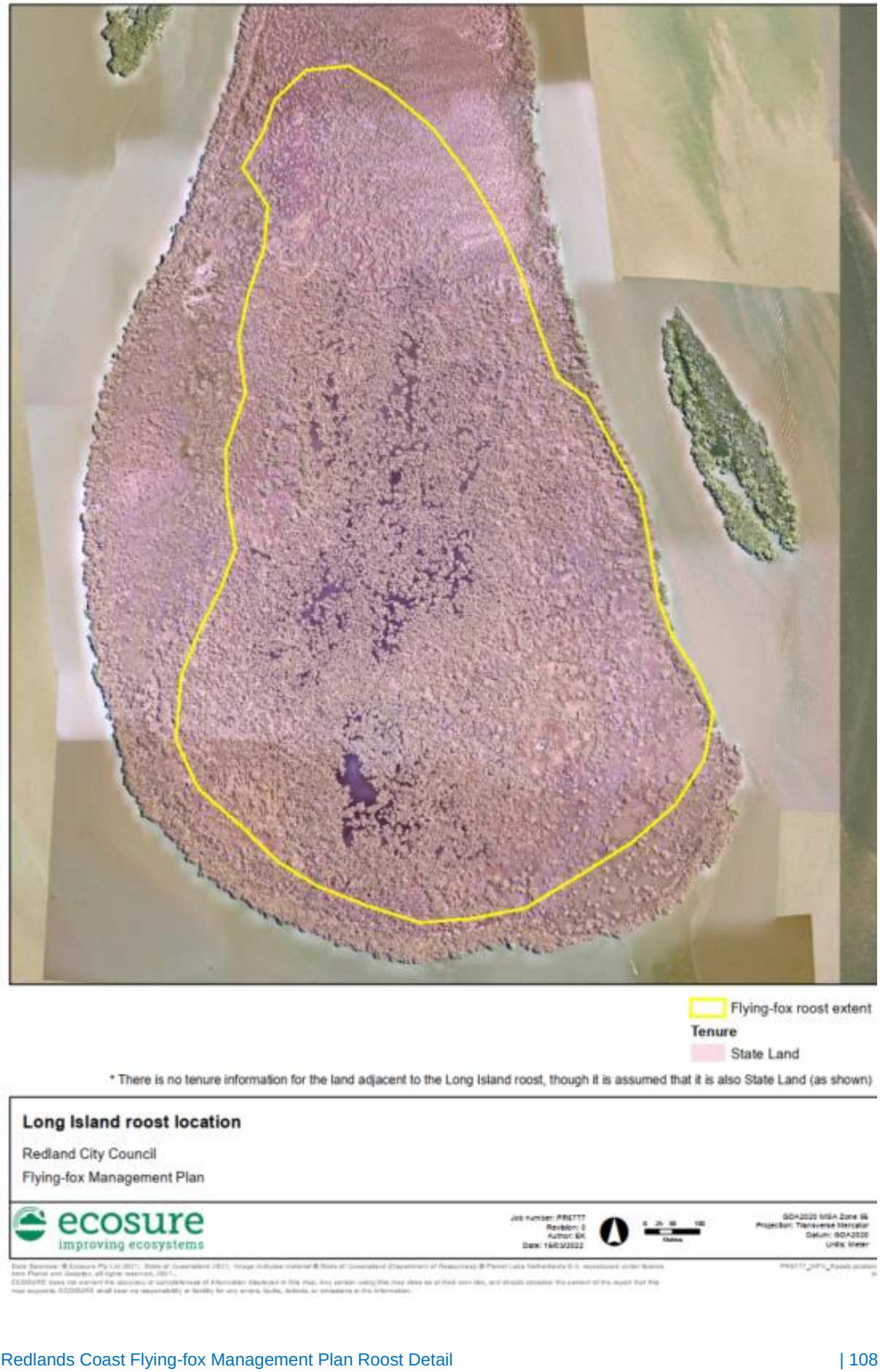


Figure 89 Ecological values – Long Island

Figure 90 Long Island sensitive sites

Long Island sensitive sites (0)

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

3.1.5 Macleay Island - Balaka Street Urban Habitat

Site description

The Balaka Street Urban Habitat roost (0.18 ha) is located on a privately owned bushland block south of Balaka Street, Macleay Island (Figure 92) on land zoned as Environmental Conservation. The mapped land use of the site is residential and falls under the State and State Habitat for EVNT taxa Biodiversity Planning Assessment frameworks. The roost is located near an established wildlife corridor, as designated in the *Wildlife Connections Plan 2018-2028.* The roost vegetation consists of RE 12.3.5 and is identified as a HES wetland and essential habitat for the wallum froglet and wallum rocket frog (Figure 93). Ecological values are displayed in Figure 93 and summarised in Appendix 1.

Roost history

Limited data is available for this roost, with only five surveys conducted between 2013 and 2018 as part of the NFFMP (roost number 717) (Figure 91). The data suggests that BFF and GHFF utilise the roost infrequently, having only been recorded at the site during May and June of 2013. It is likely that flying foxes have not been using the roost in large numbers given the limited data. There is no evidence that this site experiences large short-term population fluctuations.

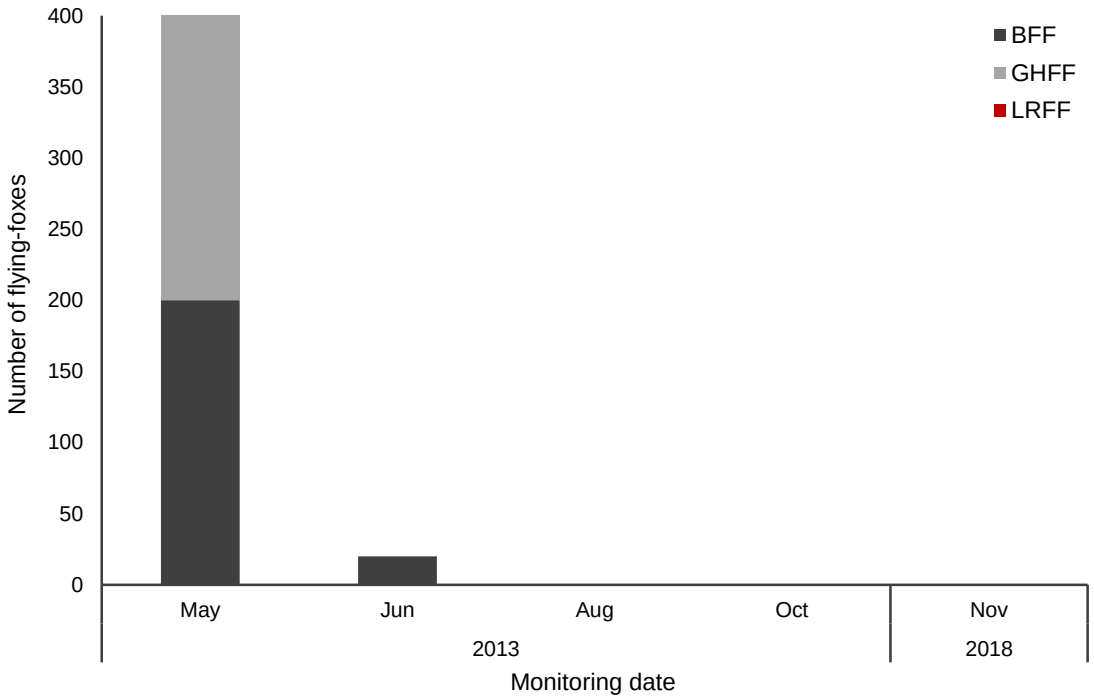


Figure 91 Macleay Island - Balaka Street Urban Habitat flying-fox numbers 2013-2018 (Source NFFMP).

Sensitive sites

There are no sensitive sites located within 1 km of the roost site. There are 139 residential properties located within 300 m of the roost (Figure 94).

Figure 92 Macleay Island - Balaka Street Urban Habitat roost location

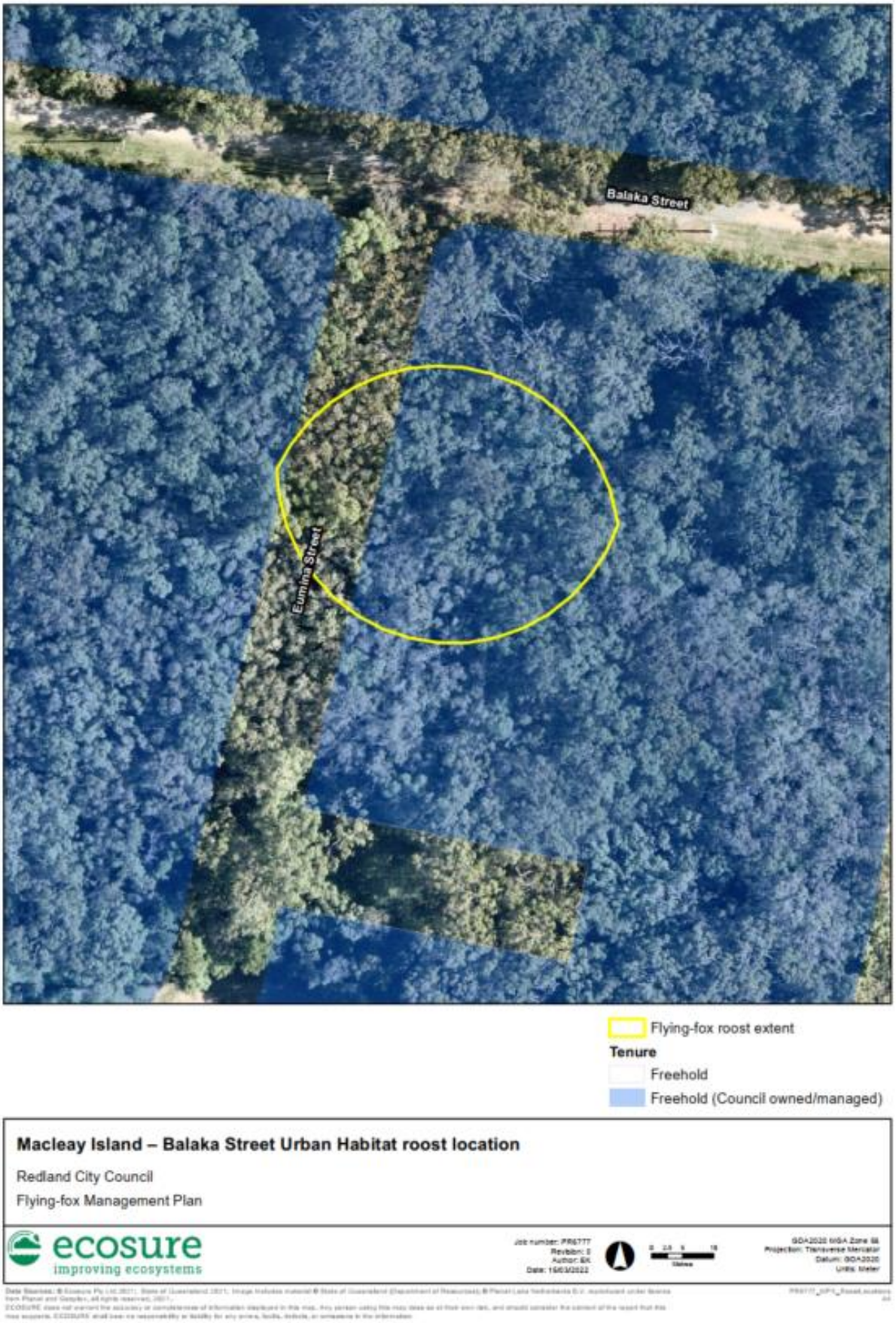


Figure 93 Ecological values – Macleay Island - Balaka Street Urban Habitat

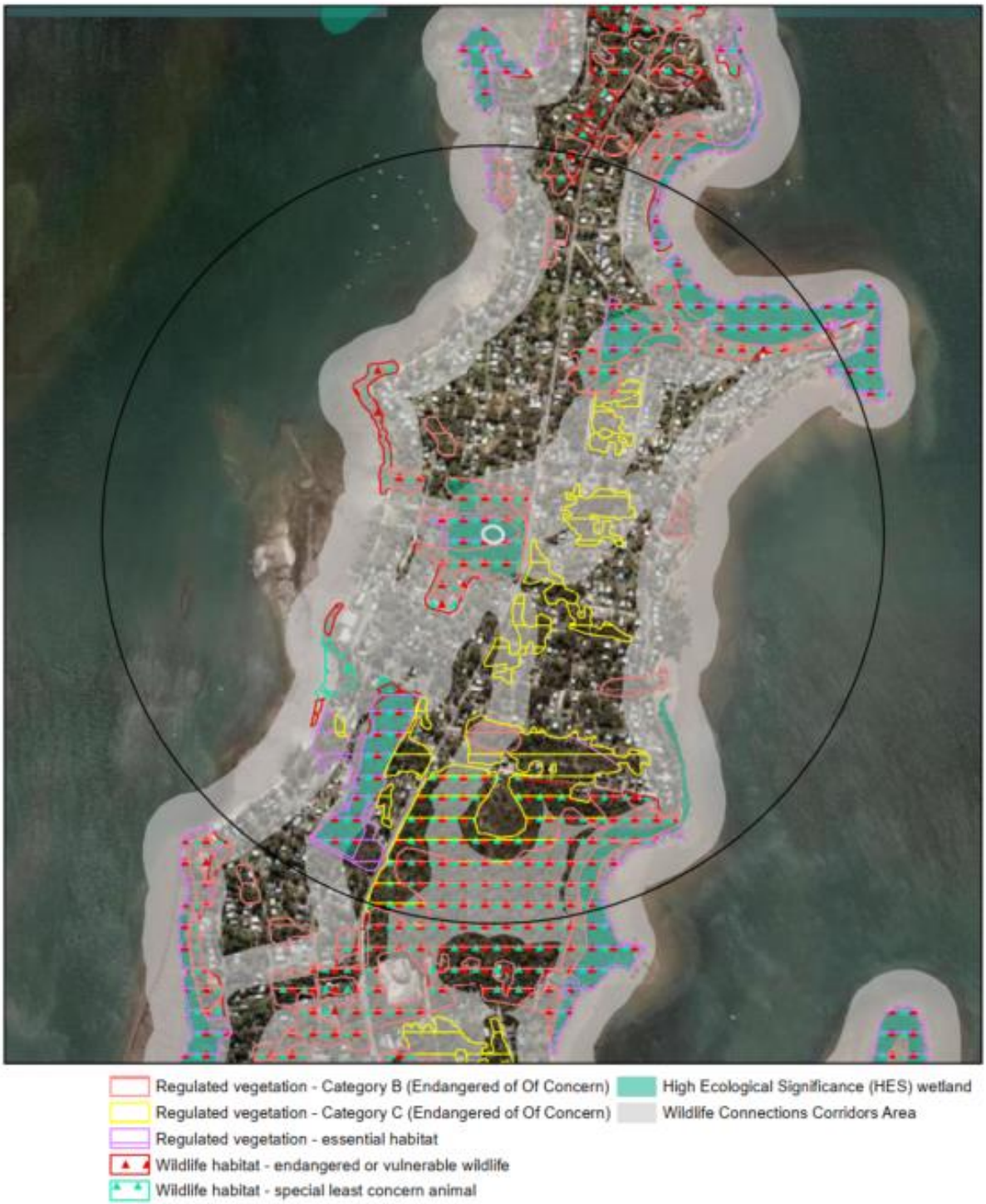


Figure 94 Macleay Island - Balaka Street Urban Habitat sensitive sites

3.1.6 Macleay Island - Bay Islands Golf Club

Site description

The Bay Islands Golf Club roost (1.03 ha) is located mainly on Council-managed freehold land, with some on private land parcels in melaleuca wetland vegetation southwest and southeast of the Gordon Road and Gregory Street intersection, Macleay Island (Figure 95). The land is zoned as Character Residential and Environmental Conservation, and the mapped land use of the site is residential. Areas of the land fall under the State Biodiversity Planning Assessment frameworks.

The roost is split across two vegetation patches. The left portion of the roost vegetation consists of RE 12.3.5, 12.5.3 (category C endangered regulated vegetation), and non-remnant vegetation, while the right is only mapped as non-remnant vegetation. Ecological values are displayed in Figure 96 and summarised in Appendix 1.

Roost history

Limited data is available for this roost until it came to Council's attention in 2018. The original roost was in vegetation between Gregory Street and Francis Road. Some of the roost was on private property and some of that vegetation has been cleared. The roosts has been previously monitored as part of the NFFMP (roost number 996), though only one approximate record exists of <499 BFF and <499 GHFF in November 2018. A survey was conducted along Gordon Road in August 2020, though no flying-foxes were recorded (NFFMP data). It is likely that this roost experiences seasonal fluctuations.

A seasonal influx of GHFF led to a petition by a Macleay Island resident in late 2018 to remove the flying-fox roost located near the island's golf clubhouse and restaurant (Goodenough 2018). The petition stated that the roost size had increased from 2,000 to 10,000 individuals, covering a vast area, and causing concerns regarding smell, human health, and mess from bat droppings. In the weeks following the petition, residents notified Council that the majority of flying-foxes had vacated the site and potentially moved to Tim Shea's Wetland Reserve (and are thought to move between the two roosts). Council has previously helped managed weeds on the golf course, though this has sometimes been difficult when flying-foxes and ibis are breeding, and there are safety issues around the site being too wet.

Sensitive sites

There are three sensitive sites (school, medical centre, and childcare centre) located within 1 km of the roost boundary (Figure 97). There are 164 residential properties within 300 m of the roost.

Figure 95 Macleay Island - Bay Islands Golf Club roost location

Figure 96 Ecological values – Macleay Island - Bay Islands Golf Club

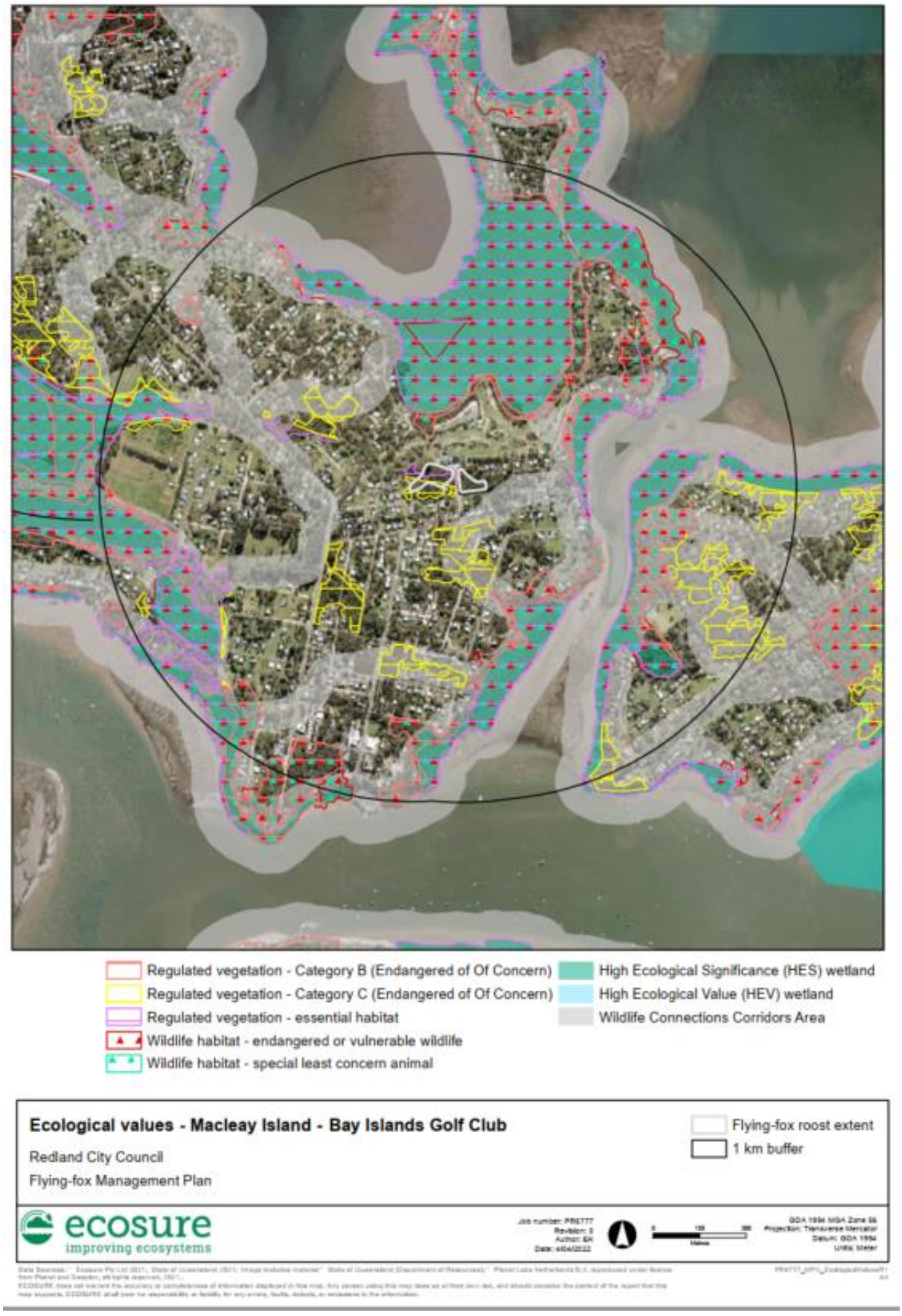


Figure 97 Macleay Island - Bay Islands Golf Club sensitive sites

3.1.7 Macleay Island - Tim Shea's Wetland Reserve

Site description

The Tim Shea's Wetland Reserve roost (8.27 ha) is located on in patch of bushland surrounding a wetland north of Lemontree Drive, Macleay Island (Figure 99). The land is zoned as Environmental Conservation and the mapped land use of the site is marsh/wetland. Areas of the land fall under the State Biodiversity Planning Assessment frameworks. Flying-foxes have been known to roost across the entire wetland, though commonly roost in the south-eastern portion of the roost extent (Figure 99).

The roost vegetation primarily consists of RE 12.2.7 (*Melaleuca quinquenervia* or rarely *M. dealbata* open forest on sand plains) and 12.2.15 (*Gahnia sieberiana*, *Empodisma minus*, *Gleichenia spp*. closed sedgeland in coastal swamps), with small patches of RE 12.5.2 (category B endangered regulated vegetation). The majority of the site is classed as a HES wetland and is essential habitat for the wallum froglet, wallum rocket frog and wallum sedgefrog (*Litoria olongburensis*). Ecological values are displayed in Figure 100 and summarised in Appendix 1.

Roost history

The roost was initially surveyed in 2007 and was surveyed every subsequent year until 2018 (NFFMP roost number 385). The roost is primarily occupied by BFF and GHFF however, LRFF have occasionally been recorded (Figure 98). It is thought that flying-foxes historically moved between Tim Shea's Wetland and the Bay Islands Golf Club roost. Flying-fox occupation at this Tim Shea's has not resulted in any recorded complaints from surrounding residents.

In 2018, a fire occurred at Tim Shea's Wetland Reserve, removing most of the understorey vegetation and impacting the canopy vegetation. Vegetation impacts from this fire rendered the area as temporarily unsuitable as flying-fox roosting habitat (Council Wildlife Officer pers. comm. March 2022).

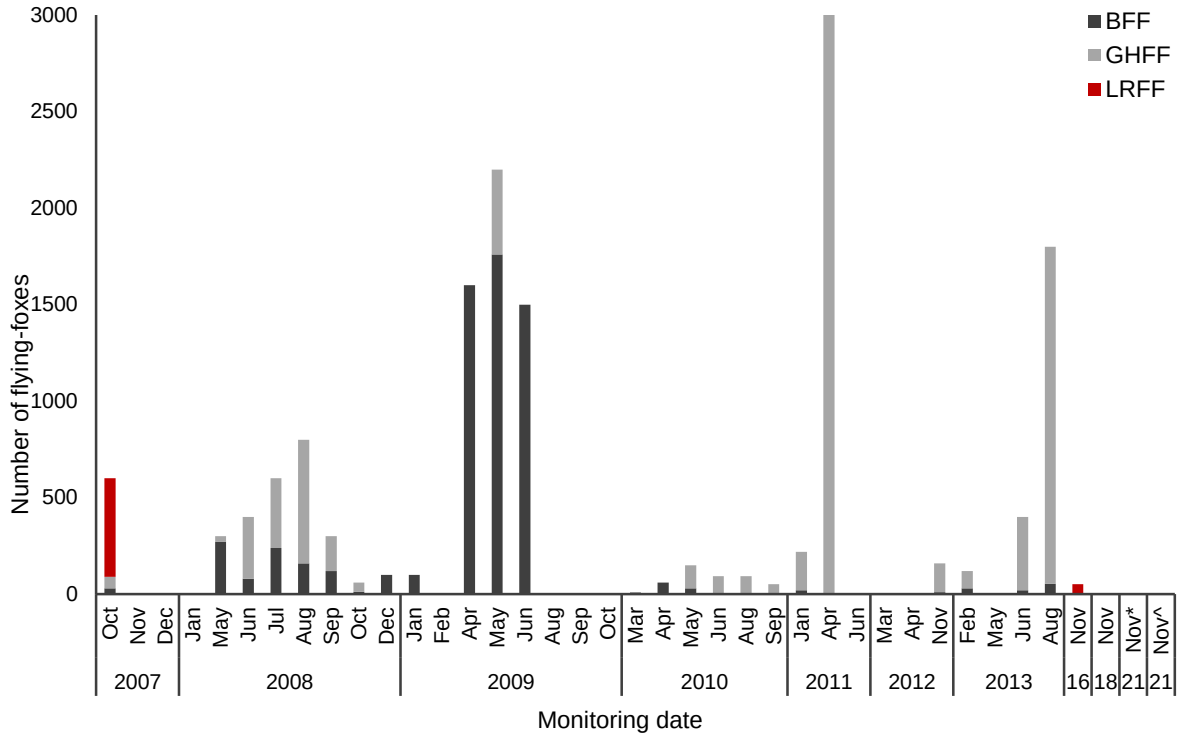


Figure 98 Macleay Island - Tim Shea's Wetland Reserve flying-fox numbers 2007-2021 (Source NFFMP, RCC 2022)

* BFF present, no count recorded
^GHFF present, no count recorded

Sensitive sites

There are two sensitive sites (school and childcare centre) located within 1 km of the roost boundary (Figure 101). There are 274 residential properties within 300 m of the roost.

Figure 99 Macleay Island - Tim Shea's Wetland Reserve roost location

Macleay Island – Tim Shea's Wetland Reserve roost location

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

Figure 100 Ecological values – Macleay Island - Tim Shea's Wetland Reserve

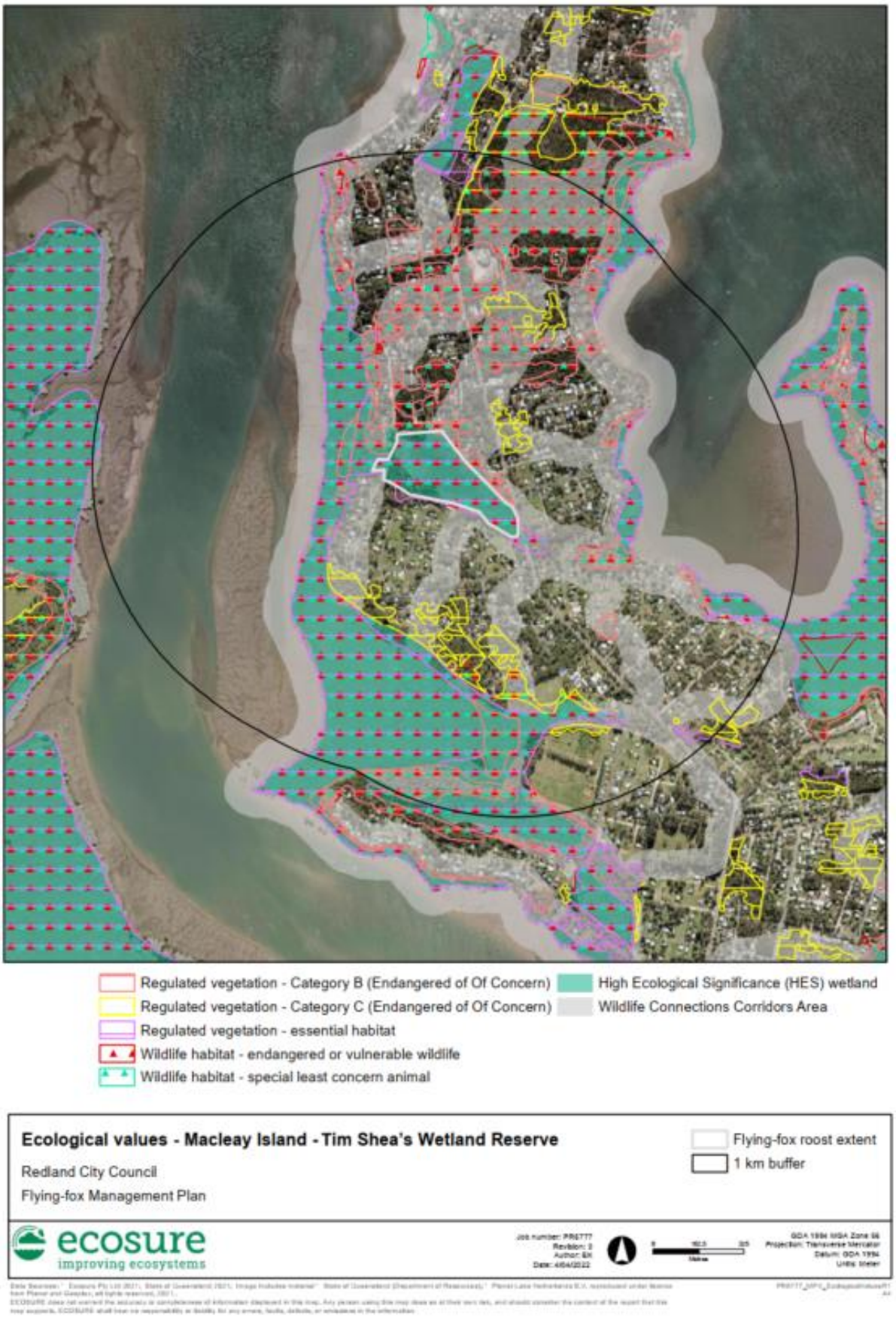


Figure 101 Macleay Island - Tim Shea's Wetland Reserve sensitive sites

3.1.8 Macleay Island - Wanda Street

Site description

The Wanda Street roost (1.86 ha) is located on a privately owned bushland block between Wanda and Undine Streets, Macleay Island (Figure 102). The land is zoned as Environmental Conservation and Character Residential. The mapped land use of the site is residential and falls under the State Habitat for EVNT taxa Biodiversity Planning Assessment frameworks.

The roost consists of RE 12.2.7 and non-remnant vegetation. The western half of the roost is classified as a HES wetland, and the majority of the roost is mapped as essential habitat for the wallum froglet, wallum rocket frog and wallum sedgefrog (Figure 103). Ecological values are displayed in Figure 103 and summarised in Appendix 1.

Roost history

This roost is not regularly monitored by DES or Council, and as such, there are no records of occupancy available. It is likely that this roost has experienced seasonal fluctuations in the past with no official record of occupancy.

Sensitive sites

There are no sensitive sites located within 1 km of the flying fox roost, though there are 92 residential properties within 300 m of the roost (Figure 104).

Figure 102 Macleay Island - Wanda Street roost location

Figure 103 Ecological values – Macleay Island - Wanda Street

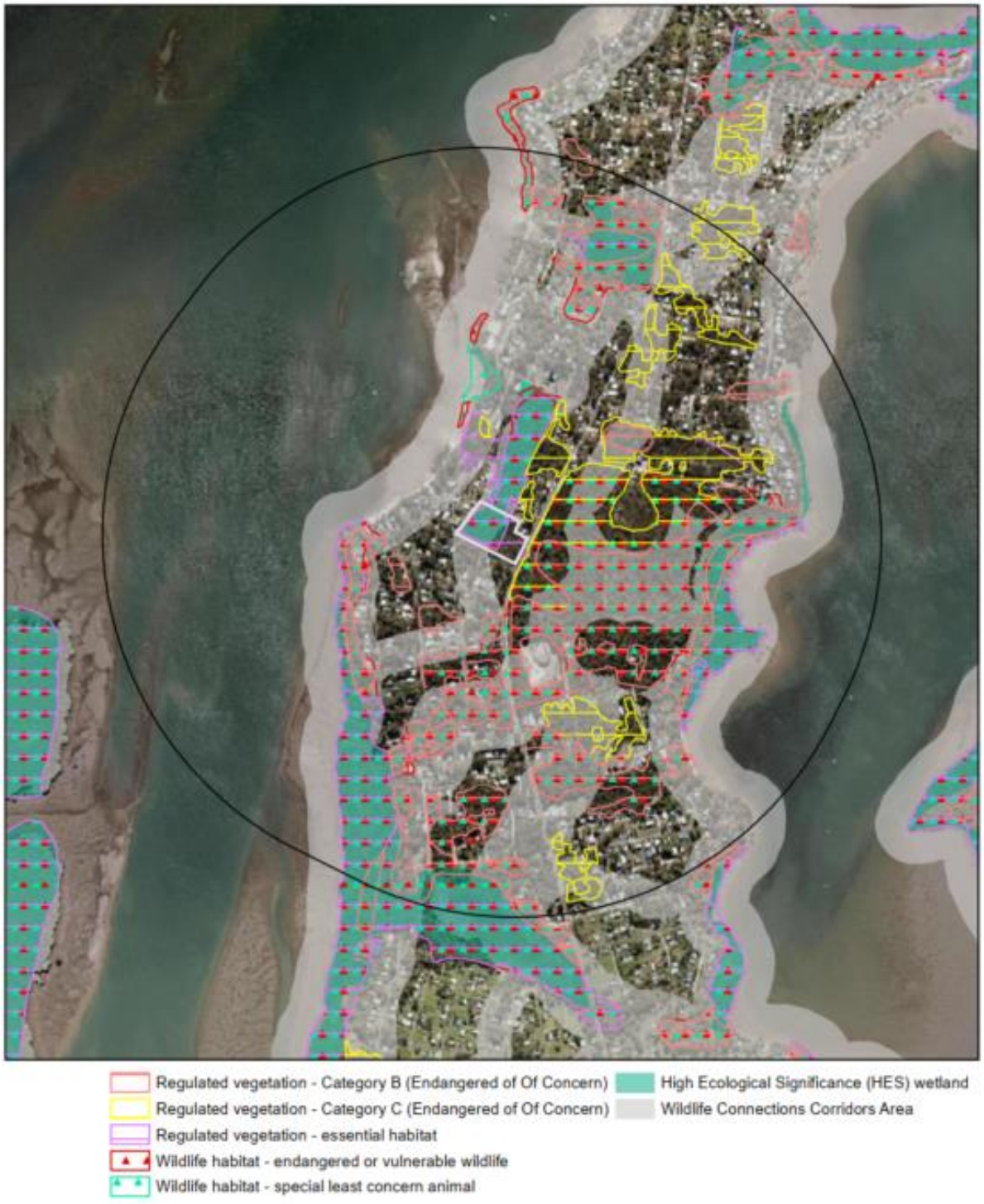


Figure 104 Macleay Island - Wanda Street sensitive sites

Macleay Island - Wanda Street sensitive sites (0)

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

3.1.9 North Stradbroke Island - Dunwich, East Coast Road

Site description

The Dunwich, East Coast Road roost (5.81 ha) is located in vegetation to the east and west (smaller patch) of the Bingle Road, Mitchell Crescent and Yabby Street intersection, Dunwich (Figure 106), on land zoned as Community Facilities. The mapped land uses of the land are service and other minimal use. The land falls under the State and State Habitat for EVNT taxa Biodiversity Planning Assessment frameworks. A stepping stone corridor passes through the roost site and a second stepping stone corridor is located nearby, as designated in the *Wildlife Connections Plan 2018-2028.*

The eastern portion of the roost (east of Bingle Avenue) predominantly consists of RE 12.2.15, which very small patches of RE 12.2.6 and non-remnant vegetation on the northern-most boundary of the roost extent. This portion of the roost also contains patches of locally refined koala habitat (59 koala records within 1 km of the site), a HES wetland, and essential habitat for the wallum froglet, wallum rocket frog and wallum sedgefrog. Ecological values are displayed in Figure 107 and summarised in Appendix 1.

Roost history

The roost was reported and surveyed in 2003, though regular monitoring did not commence until 2007, and the roost has been monitored every subsequent year since (NFFMP roost number 153) (Figure 105). The roost is primarily used by BFF and GHFF, though LRFF have been recorded using the roost intermittently, and are known to habitually visit this roost after leaving the mainland and prior to migrating north. The roost is occupied seasonally by BFF and GHFF, generally housing less than 5,000 individuals. The roost experiences irregular large seasonal expansion events with populations of up to 35,000, as recorded in 2021 (Figure 105).

During large influxes, flying-foxes have been observed roosting further along Mitchell Crescent, towards the Council depot. Roosting in this area became more frequent following vegetation removal and subsequent disturbance along the walkway through the roost, which resulted in high occupancy at the Point Lookout roost (Davis 2014).

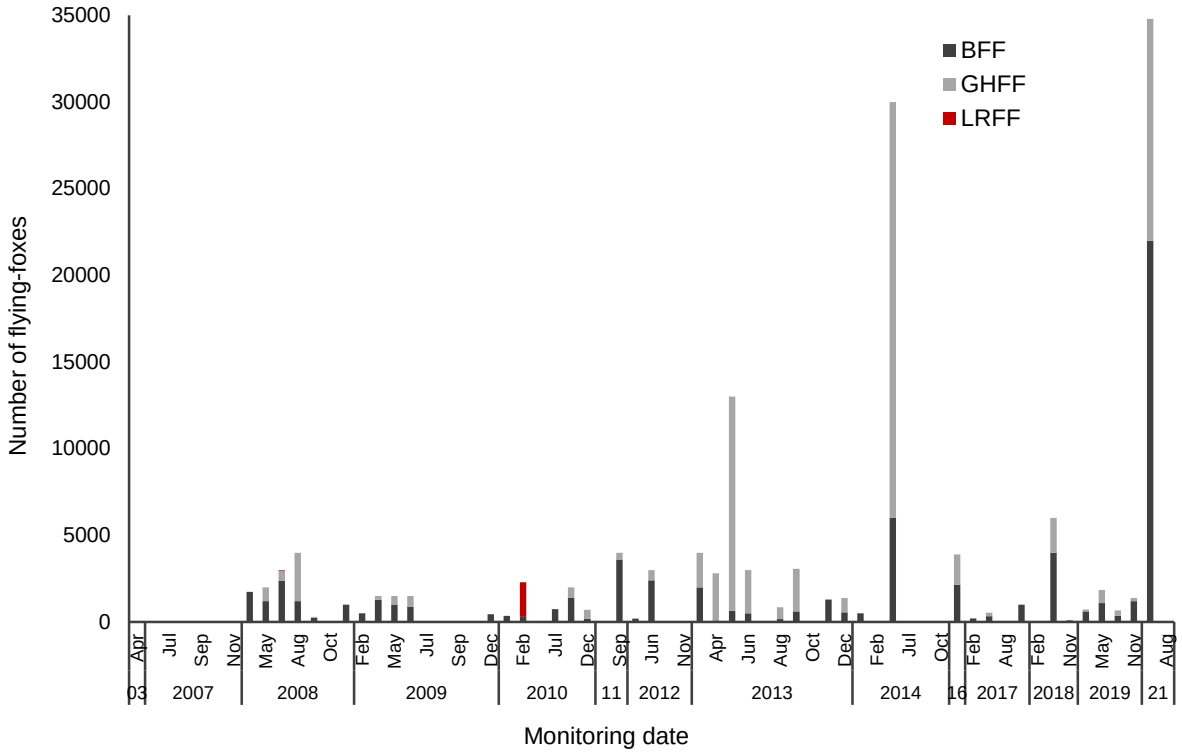


Figure 105 North Stradbroke Island - Dunwich, East Coast Road flying-fox numbers 2003-2021 (Source: NFFMP)

Sensitive sites

There are several sensitive sites located within 1 km of the flying-fox roost, including schools, medical centres, aged care facilities, and campgrounds (Figure 108). There is also an airfield located within 3 km of the site. There are 118 residential properties located within 300 m of the roost.

Figure 106 North Stradbroke Island - Dunwich, East Coast Road roost location

Figure 107 Ecological values – North Stradbroke Island - Dunwich, East Coast Road

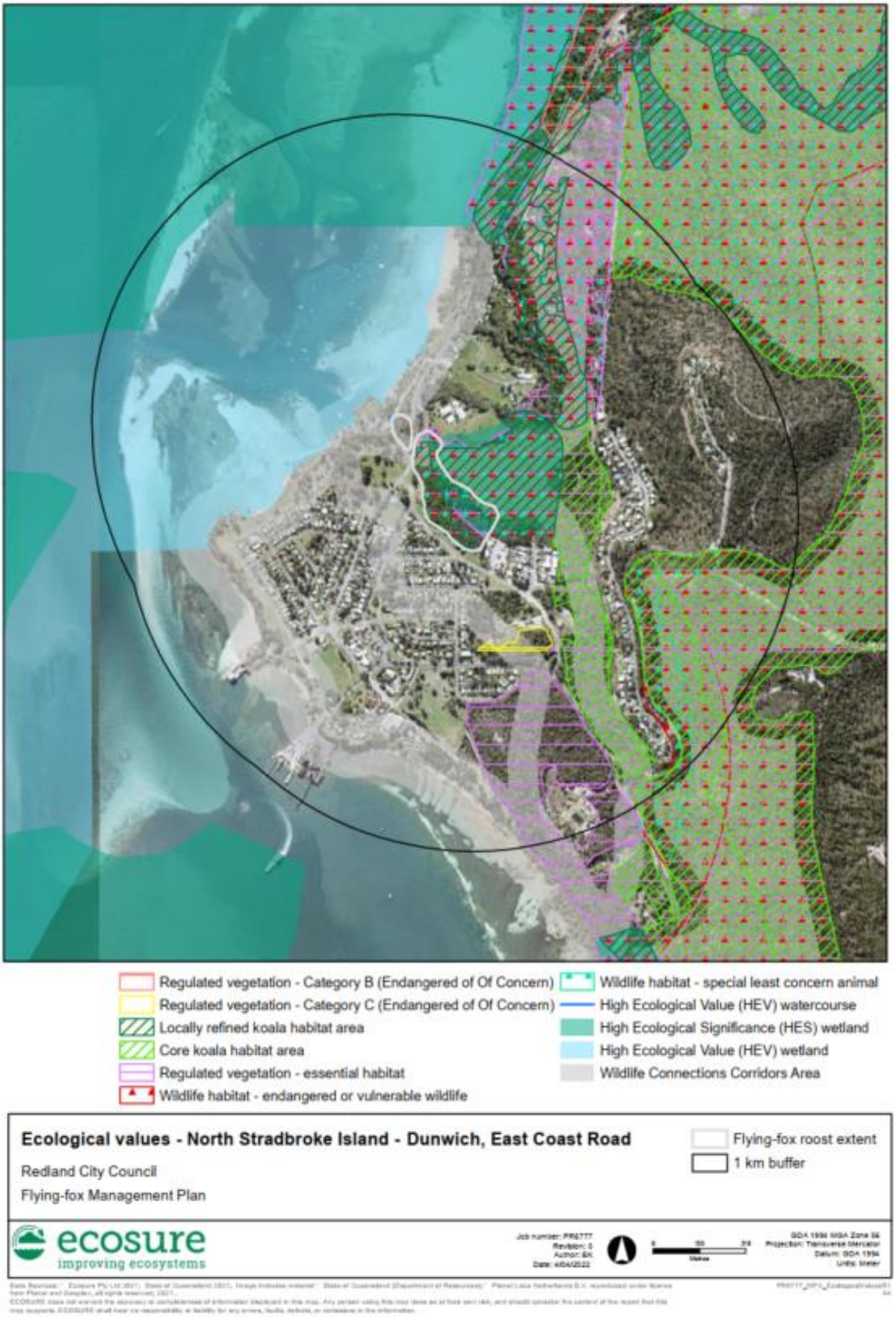


Figure 108 North Stradbroke Island - Dunwich, East Coast Road sensitive sites

North Stradbroke Island – Dunwich, East Coast Road sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

3.1.10 North Stradbroke Island - Point Lookout, Cylinder Beach

Site description

The Point Lookout, Cylinder Beach roost (2.89 ha) (previously Point Lookout George Nothling roost) is recently located in bushland southeast and northwest of the Dickson Way and George Nothling Drive, Point Lookout (Figure 110), on land zoned as Environmental Conservation. The mapped land use of the site is nature conservation. Areas of the land fall under the State Biodiversity Planning Assessment frameworks.

The roost predominantly consists of RE 12.2.14 (Foredune complex)/12.2.7 and RE 12.2.5, with smaller patches of non-remnant vegetation. Portions of the roost are mapped as locally refined koala habitat (48 records within 1 km of the roost), and all remnant vegetation within the roost extent is mapped as essential habitat for the wallum froglet, wallum rocket frog and wallum sedgefrog. Ecological values are displayed in Figure 111 and summarised in Appendix 1.

Roost history

The roost was first surveyed in 2003 between George Nothling Drive and Dickson Way. Regular commence in 2007, and the roost has been monitored every subsequent year since (NFFMP roost number 412) (Figure 109). Since 2019 flying-foxes have shifted north of Dickson Way (Figure 110). The roost is intermittently occupied by BFF and GHFF, though LRFF were recorded using the roost in 2013. The presence of flying-foxes at this site appears to correlate with flowering events on North Stradbroke Island, Moreton Island, and Southern Bay Islands.

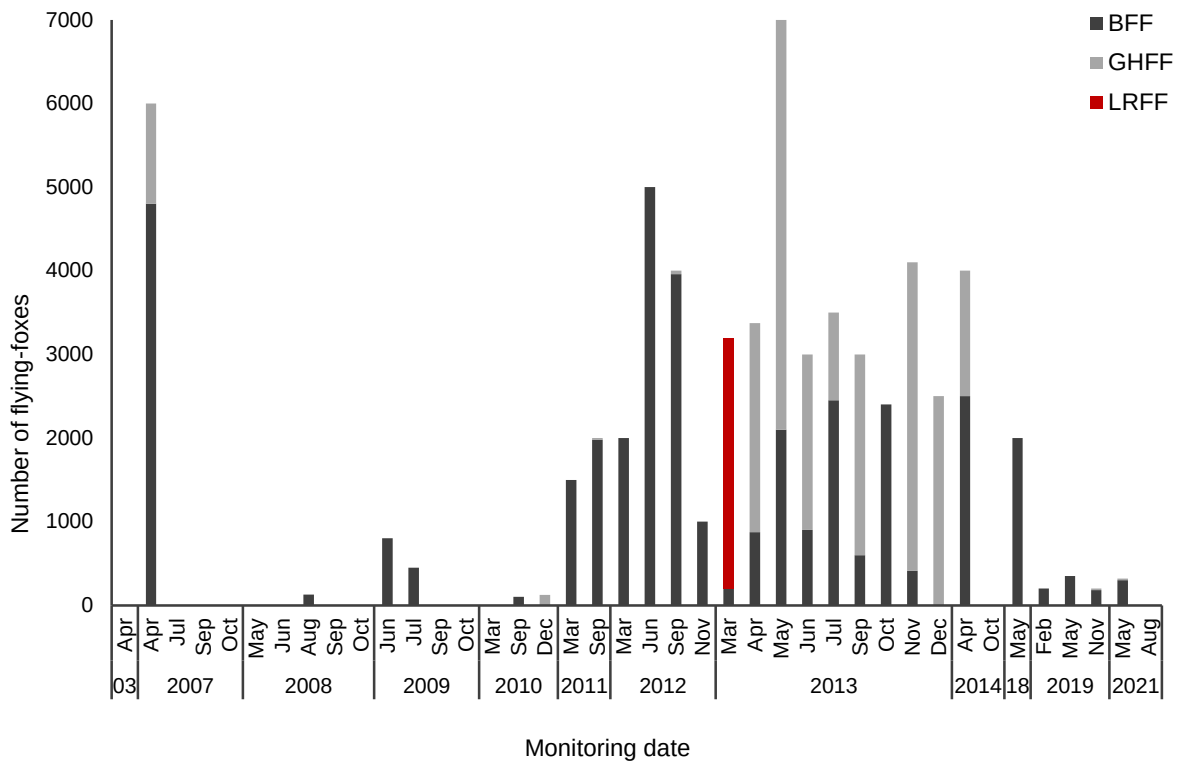


Figure 109 North Stradbroke Island – Point Lookout, Cylinder Beach flying-fox numbers between 2003 and 2012 (Source NFFMP)

Sensitive sites

There is one sensitive site (campground) located within 1 km of the roost, and the Kooringal airstrip is located approximately 13 km to the northwest (Figure 112). There are 257 residential properties located within 300 m of the roost.

Figure 110 North Stradbroke Island - Point Lookout, Cylinder Beach roost location

Figure 111 Ecological values – North Stradbroke Island - Point Lookout, Cylinder Beach.

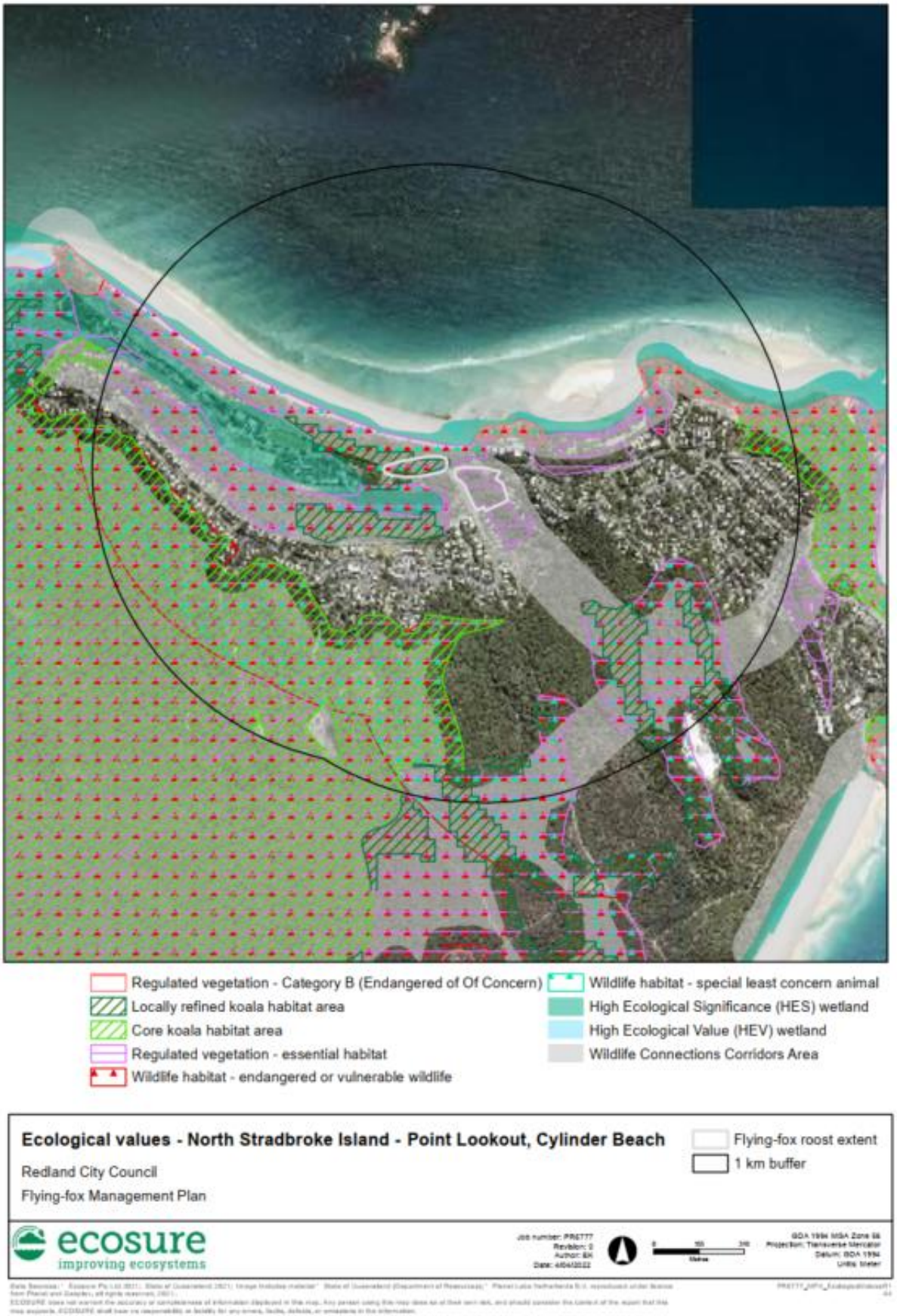
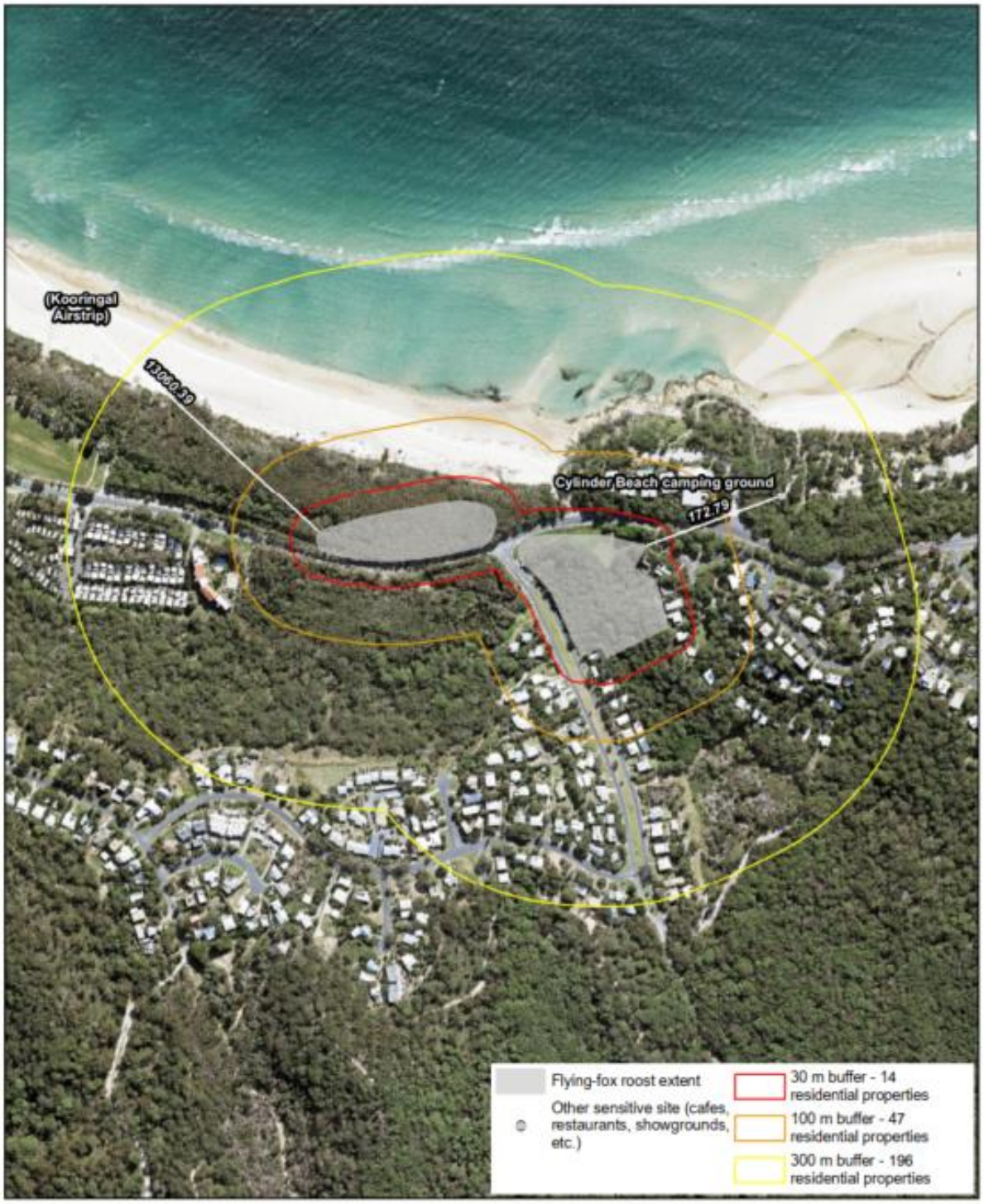


Figure 112 North Stradbroke Island - Point Lookout, Cylinder Beach sensitive sites



North Stradbroke Island – Point Lookout, Cylinder Beach sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

3.1.11 Russell Island – Cavendish Street

Site description

The Cavendish Street roost (4.66 ha) is located on freehold bushland parcels (mix of private and council-owned/managed) south and north of the Cavendish and Oxford Streets intersection. Figure 114 shows the full extent of the roost (i.e. divided into two portions), though flying-foxes predominantly roost south of Cavendish Street in the 'core roost area'. The land is zoned as Environmental Conservation, Character Residential and Local Centre. The mapped land use of the site is other minimal use and falls under the State and State Habitat for EVNT taxa Biodiversity Planning Assessment frameworks. The roost is located at the northern end of an established wildlife corridor and nearby a stepping stone corridor, as designated in the *Wildlife Connections Plan 2018-2028.*

The roost vegetation consists of RE 12.3.5 and RE 12.5.6 (*Eucalyptus siderophloia*, *E. propinqua*, *E. microcorys* and/or *E. pilularis* open forest on remnant Tertiary surfaces. Usually deep red soils), the latter being classed as category B endangered regulated vegetation. The majority of roost vegetation is also mapped as essential habitat for the wallum froglet and wallum rocket frog. Ecological values are displayed in Figure 111 and summarised in Appendix 1.

Roost history

Limited data is available for this roost, with only ten surveys conducted between 2013 and 2015 (NFFMP roost number 643). The survey data suggests that flying-foxes utilise the roost infrequently, with only one record of occupancy of LRFF in February 2013. Council has not received any formal complaints regarding this roost.

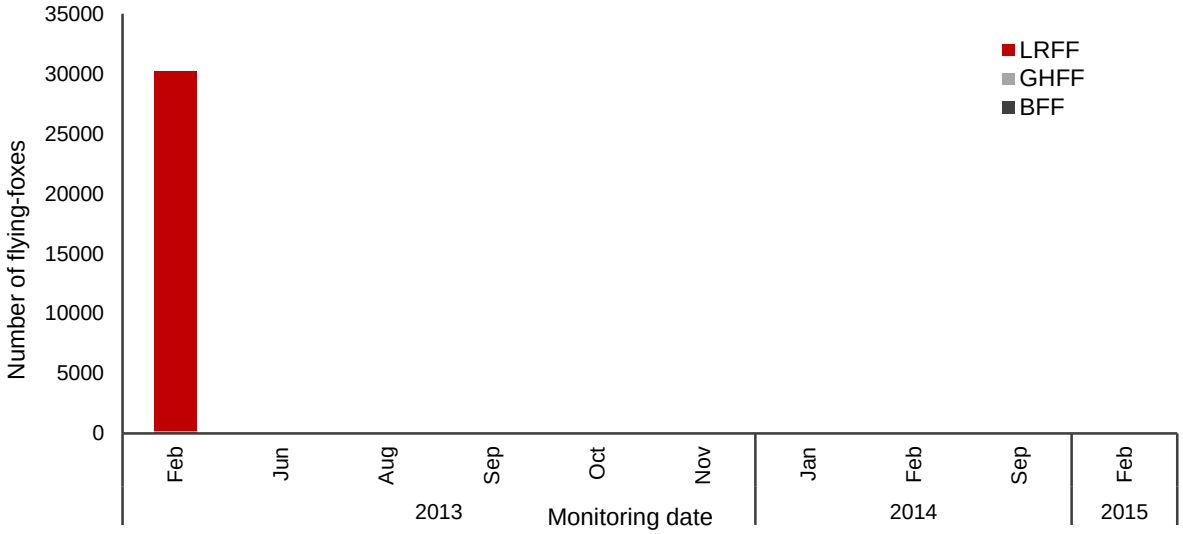


Figure 113 Russell Island – Cavendish Street flying-fox numbers 2013-2015 (Source: NFFMP).

Sensitive sites

There are two sensitive sites (school and medical centre) within 1 km of the roost, and 106 residential properties within 300 m of the roost (Figure 116).

Figure 114 Russell Island – Cavendish Street roost location

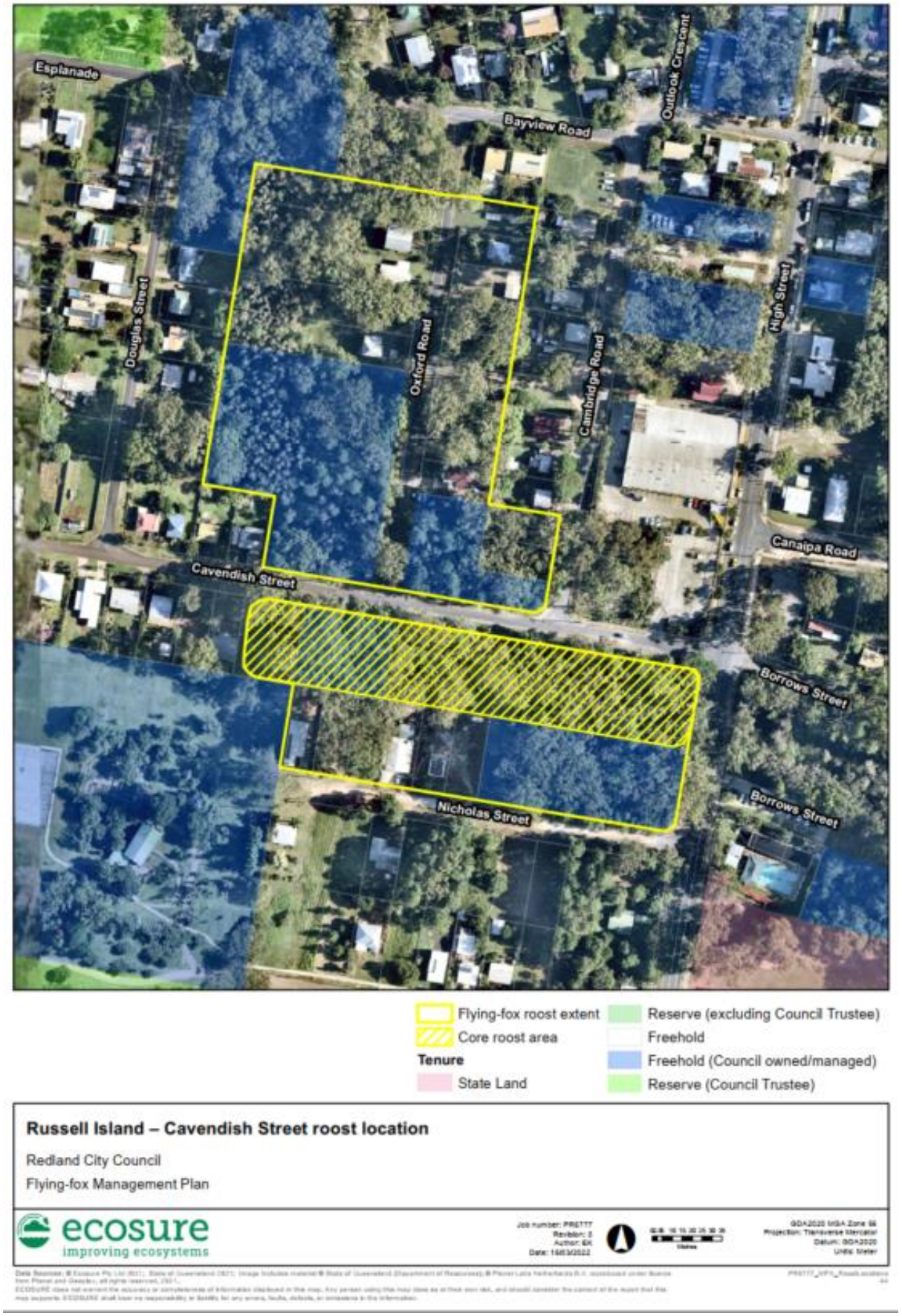


Figure 115 Ecological values – Russell Island – Cavendish Street

Figure 116 Russell Island – Cavendish Street sensitive sites

Russell Island – Cavendish Street sensitive sites

Redland City Council

Flying-fox Management Plan

ecosure
improving ecosystems

3.1.12 Russell Island – Kingfisher Court

Site description

The Kingfisher Court roost (0.05 ha) is located on freehold land parcels between Headland Circuit and The Boulevard, Russell Island (Figure 118.) on land zoned as Environmental Conservation. The mapped land use of the roost is other minimal use. The roost vegetation consists of RE 12.1.1 and is classified as category B of concern regulated vegetation. The site is also mapped as a HES wetland. Ecological values are displayed in Figure 119 and summarised in Appendix 1.

Roost history

This roost was monitored as part of the NFFMP (roost number 550) for a period of six years, between 2009 and 2015 (Figure 117). During this time, only one instance of occupation was recorded in January 2009. It is likely that flying foxes have not been using the roost in large numbers given the limited data. There is no evidence that this site experiences large short-term population fluctuations.

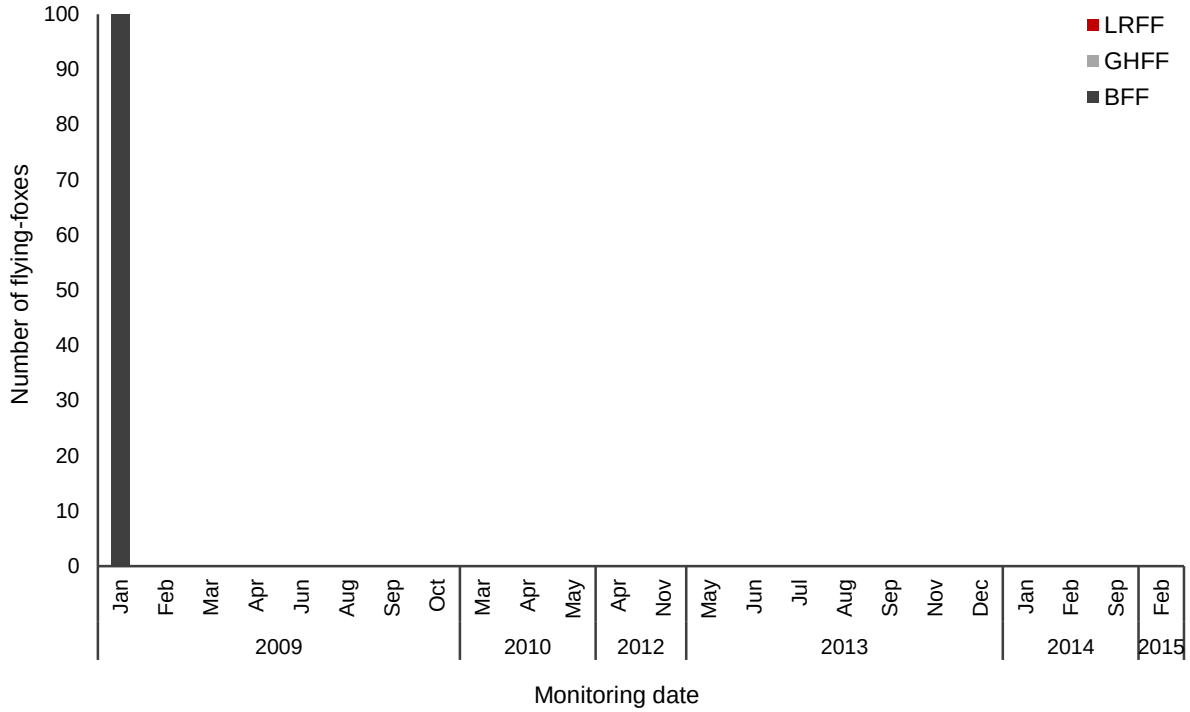


Figure 117 Russell Island – Kingfisher Court flying-fox numbers 2009-2015 (Source: NFFMP)

Sensitive sites

There are no sensitive sites within 1 km of the Kingfisher Court roost (Figure 120). There are 40 residential properties within 300 m of the roost.

Figure 118 Russell Island – Kingfisher Court roost location

Figure 119 Ecological values – Russell Island – Kingfisher Court

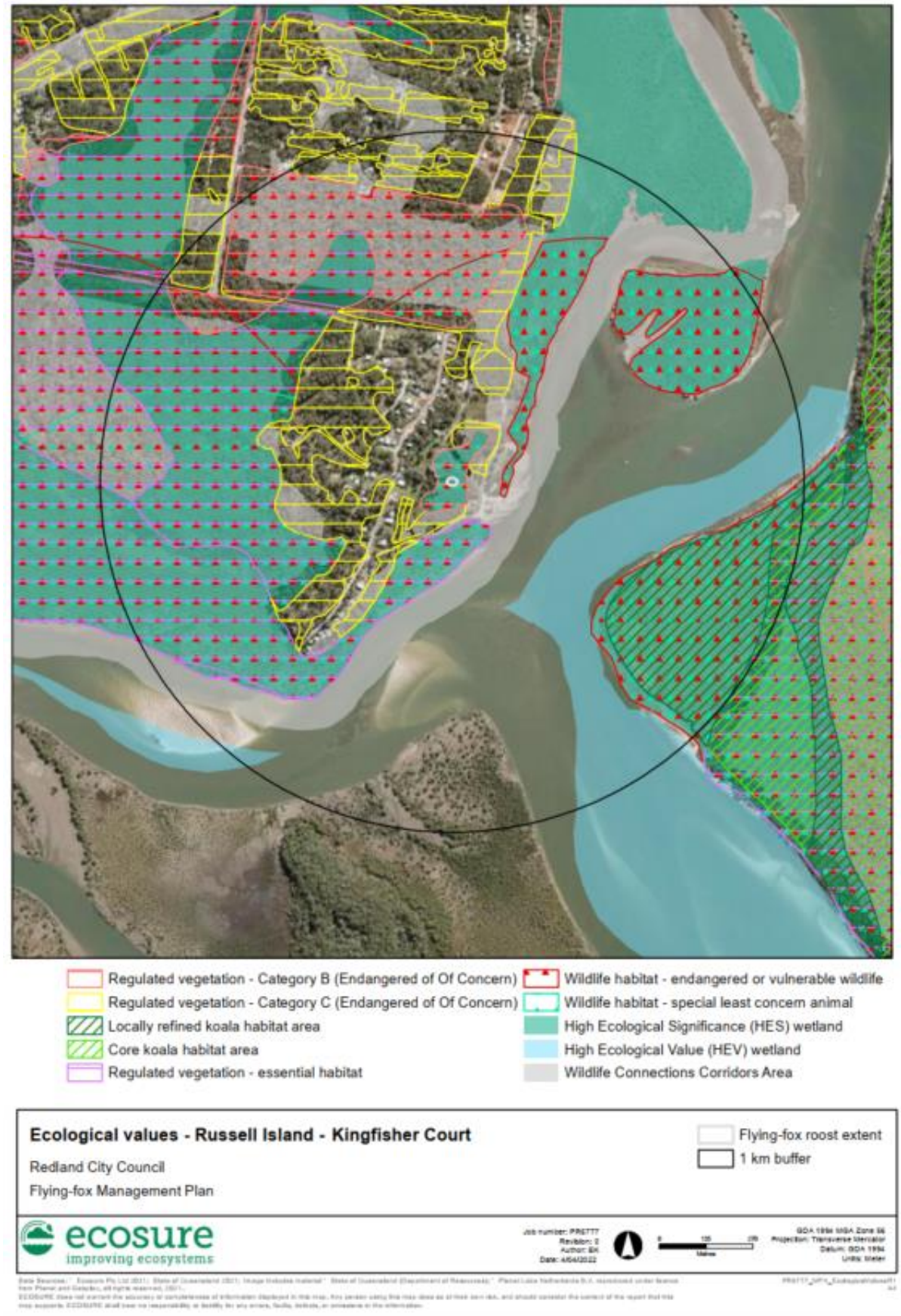


Figure 120 Russell Island – Kingfisher Court sensitive sites

References

28°S Environmental 2019, *Flying-fox Management Strategy Hometown Mobile Home Park – 18 & 22-28 Collingwood Road*, Birkdale, Report prepared on behalf of Gateway Lifestyle Residential Parks.

Goodenough C, 2018, “Stink over Macleay Island bat colony petition”, Redland City Bulletin, published 18th September.

Davis, J 2014, *Flying-foxes in the Redlands*, Redlands City Council.

Davis, J 2019, *Comments on amended flying-fox legislation*, Letter to the Department of Environment and Science, Redlands City Council.

Redland City Council (RCC) 2014, *Flying-fox Roost Management in Redlands - A discussion paper for Councillor's consideration in accordance with resolution*.

Redland City Council (RCC) 2021, *2020-21 Flying-fox Roost Management in Queensland Program (Round 1) Stream 3 - Project Management Plan*, Prepared for DES.

Redland City Council (RCC) 2021a, *RCC Wildlife Program monitoring review 2021*.

Redland City Council (RCC) 2021b, *Flying-fox Education Communications Plan*.

Appendix 1 Ecological Values Table

Below includes species or species habitat known to occur within 1 km of each roost. Those that may occur, or were unconfirmed (e.g. ALA records) were excluded for the purpose of this overview. Marine species known to occur within 1 km that would not occur within the roost area are excluded (e.g. marine mammals, sharks, marine turtles). Shorebirds recorded at sites within 1 km of the coast where flying-fox roost habitat is known not to be suitable shorebird roost or foraging habitat have also been excluded. Ecological surveys are required prior to management that may impact values of the site. ALA records are not confirmed and as such have not been included. Communities known to occur are included in ecological value mapping in the body of the Plan so are excluded from this table.

Acronyms: CE – Critically Endangered; E – Endangered; V – Vulnerable; LC – Least Concern; Mi – Migratory; Ma – Marine; PMAV – Property Map of Assessable Vegetation

	MNES (EPBC Act protected matters confirmed within 1 km)			MSES (confirmed Wildnet records within 1 km)		
Roost	**Nationally important GHFF roost**	**Fauna (species or species habitat known to occur within 1 km)**	**Flora**	**EVNT Fauna**	**EVNT Flora**	**Communities**
Birkdale – Judy Holt Recreation Reserve	No	Regent Honeyeater (*Anthochaera phrygia*) (CE) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Black-faced Monarch (*Monarcha melanopsis*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Ma, Mi) Osprey (*Pandion haliaetus*) (Mi) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) Osprey (*Pandion haliaetus*) (Ma) Koala (*Phascolarctos cinereus*) (E) Grey-headed Flying-fox (*Pteropus poliocephalus*) (V)	None recorded	Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present.	Koala habitat area – core Regulated Vegetation – Essential habitat (*Crinia tinnula, Phascolarctos cinereus*) Category B (remnant vegetation Least concern REs 12.3.6, 12.9-10.4) Category C (High-value regrowth Least Concern REs 12.3.6, 12.9-10.4)
Birkdale – Collingwood Road	No	Bar-tailed Godwit (*Limosa lapponica*) (Mi, Ma) Grey-headed Flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Nunivak Bar-tailed Godwit (*Limosa lapponica baueri*) (V) Osprey (*Pandion haliaetus*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Whimbrel (*Numenius phaeopus*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma)	None recorded	White-throated needletail (*Hirundapus caudacutus*) (V) Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present	Koala habitat area – core Regulated Vegetation - Essential habitat (*Phascolarctos cinereus)* Category C (High value regrowth Least Concern REs 12.3.6, 12.9-10.4) Intersecting a watercourse
Birkdale – Mary Street	No	Grey-headed Flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Osprey (*Pandion haliaetus*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma)	None recorded	White-throated needletail (*Hirundapus caudacutus*) (V) Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present	Koala habitat area – core Regulated Vegetation - Essential habitat (*Phascolarctos cinereus)* Category C (High value regrowth Least Concern REs 12.3.6) Intersecting a watercourse
Capalaba – Macquarie Street	No	Black-faced Monarch (*Monarcha melanopsis*) (Mi, Ma) Greater Glider (*Petauroides volans*) (V) Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Regent Honeyeater (*Anthochaera phrygia*) (CE) Satin Flycatcher (Myiagra cyanoleuca) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma)	None recorded	White-throated Needletail (*Hirundapus caudacutus*) (V) Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present	Koala habitat area – core Regulated Vegetation - Essential habitat (*Phascolarctos cinereus)* Category C (High value regrowth Least Concern REs 12.3.6) Intersecting a watercourse Within 100m of a Vegetation Management Wetland
Capalaba – Redlands Indigiscapes Centre	No	Regent Honeyeater (*Anthochaera phrygia*) (CE) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Greater Glider (*Petauroides volans*) (V) Koala (*Phascolarctos cinereus*) (E) Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Black-faced Monarch (*Monarcha melanopsis*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma)	Smooth-shelled Macadamia (*Macadamia integrifolia*) (V)	Tusked frog (*Adelotus brevis*) (V) Wallum froglet (*Crinia tinnula*) (V) Powerful owl (*Ninox strenua*) (V) Koala (*Phascolarctos cinereus*) (E) Greater glider (*Petauroides armillatus*) (E) Short-beaked echidna (*Tachyglossus aculeatus*) (SL)	None recorded	Koala habitat area – core; Regulated vegetation - Essential habitat (*Phascolarctos cinereus, Crinia tinnula, Petauroides volans, Ninox strenua)*; Category B (remnant vegetation; Least Concern RE 12.3.6, Endangered RE 12.5.3); Category C (High value regrowth; Least Concern RE 12.3.6, Endangered RE 12.5.3); Intersecting a watercourse; Within 100m of a Vegetation Management Wetland
Capalaba/Alexandra Hills – Valentine Park, Lawn Terrace	Yes	Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Osprey (*Pandion haliaetus*) (Mi, Ma) Regent Honeyeater (*Anthochaera phrygia*) (CE) Satin Flycatcher (Myiagra cyanoleuca, (Mi, Ma) Sharp-tailed Sandpiper (*Calidris acuminata*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma)	None recorded	Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present	Protected Areas- nature refuges: Coolnwynpin Creek Corridor Koala Nature Refuge (A) and Coolnwynpin Creek Corridor Koala Nature Refuge (B) High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Koala habitat area - core (SEQ) Regulated Vegetation - Essential habitat (*Phascolarctos cinereus*); Category C (High value regrowth; Least Concern RE 12.3.6, Endangered REs 12.5.2 and 12.5.3); Intersecting a watercourse; Within 100m of a Vegetation Management wetland

Cleveland – Black Swamp Wetlands	Yes	Black-faced Monarch (*Monarcha melanopsis*) (Mi, Ma) Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Grey-tailed Tattler (*Tringa brevipes*) (Mi, Ma) Koala (*Phascolarctos cinereus*) (E) Oriental Cuckoo (*Cuculus optatus*) (Mi) Oriental Plover (*Charadrius veredus*) (Mi, Ma) Osprey (*Pandion haliaetus*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma)	None recorded	Little Tern (*Sternula albifrons*) (SL) Powerful Owl (*Ninox strenua*) (V) Koala (*Phascolarctos cinereus*) (E) Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Wallum Froglet (*Crinia tinnula*) (V)	None recorded and no PMAV present	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Koala habitat area – core Regulated Vegetation - Essential habitat (*Phascolarctos cinereus*, *Crinia tinnula*); Category B (Remnant vegetation; Least Concern RE 12.3.5 and 12.3.6); Within 100m of a Vegetation Management wetland
Cleveland – Kooringa Bushland Refuge	No	Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Oriental Cuckoo (*Cuculus optatus*) (Mi) Osprey (*Pandion haliaetus*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma)	None recorded	Eastern osprey (*Pandion cristatus*) (SL) Fork-tailed swift (*Apus pacificus*) (SL) White-throated Needletail (*Hirundapus caudacutus*) (V) Satin flycatcher (*Myiagra cyanoleuca*) (SL) Spectacled monarch (*Symposiachrus trivirgatus*) (SL) Glossy ibis (*Plegadis falcinellus*) (SL) Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present	Moreton Bay Marine National Park Zone High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Koala habitat area – core Regulated Vegetation - Essential habitat (*Phascolarctos cinereus*); Category B (Remnant vegetation; Least Concern RE 12.5.3); Intersecting a watercourse; Within 100m of a Vegetation Management Wetland
Redland Bay – Pitt Street	No	Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Oriental Cuckoo (*Cuculus optatus*) (Mi) Oriental Plover (*Charadrius veredus*) (Mi, Ma) Osprey (*Pandion haliaetus*) (Mi, Ma) Pied Stilt (*Himantopus Himantopus*) (Ma) Red-capped plover (*Charadrius ruficapillus*) (Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma)	None recorded	White-throated Needletail (*Hirundapus caudacutus*) (V) Gull-billed tern (*Gelochelidon nilotica*) (SL) Black-faced monarch (*Monarcha melanopsis*) (SL) Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present	Koala habitat area - core Regulated vegetation - Essential habitat (*Phascolarctos cinereus, Numenius madagascariensis)*; Category B (remnant vegetation; Endangered RE 12.5.2); Category C (High value regrowth; Endangered RE 12.5.2)
Redland Bay – Weinam Creek Wetland	No, but could potentially become one in future	Bar-tailed Godwit (*Limosa lapponica*) (Mi, Ma) Black-tailed Godwit (*Limosa limosa*) (Mi, Ma) Broad-billed Sandpiper (*Limicola falcinellus*) (Mi, Ma) Common Greenshank (*Tringa nebularia*) (Mi, Ma) Double-banded Plover (*Charadrius bicinctus*) (Mi, Ma) Eastern Curlew (*Numenius madagascariensis*) (CE, Mi, Ma) Great Knot (*Calidris tenuirostris*) (CE, Mi, Ma) Grey Plover (*Pluvialis squatarola*) (Mi, Ma) Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Grey-tailed Tattler (*Tringa brevipes*) (Mi, Ma) Koala (*Phascolarctos cinereus*) (E) Lesser Sand Plover (*Charadrius mongolus*) (E, Mi, Ma) Little Curlew (*Numenius minutus*) (Mi, Ma) Marsh Sandpiper (*Tringa stagnatilis*) (Mi, Ma) Oriental Cuckoo (*Cuculus optatus*) (Mi) Oriental Plover (*Charadrius veredus*) (Mi, Ma) Osprey (*Pandion haliaetus*) (Mi, Ma) Pacific Golden Plover (*Pluvialis fulva*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Red Knot (*Calidris canutus*) (E, Mi, Ma) Red-capped plover (*Charadrius ruficapillus*) (Ma) Red-necked Avocet (*Puffinus carneipes*) (Ma) Red-necked Stint (*Calidris ruficollis*) (Mi, Ma) Ruddy Turnstone (*Arenaria interpres*) (Mi, Ma) Ruff (*Philomachus pugnax*) (Mi, Ma) Sanderling (*Calidris alba*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Sharp-tailed Sandpiper (*Calidris acuminata*) (Mi, Ma) Streaked Shearwater (*Calonectris leucomelas*) (Mi, Ma) Terek Sandpiper (*Xenus cinereus*) (Mi, Ma) Wandering Tattler (*Tringa incana*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V) Whimbrel *(Numenius phaeopus*) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma)	None recorded	Eastern Curlew (*Numenius madagascariensis*) Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Koala habitat area – core Regulated Vegetation – Essential habitat (*Phascolarctos cinereus, Crinia tinnula, Numenius madagascariensis)*; Category B (remnant vegetation; Least Concern RE 12.3.6); Category C (High value regrowth; Least Concern RE 12.3.5, 12.3.6, Endangered RE 12.5.2); Intersecting a watercourse; Within 100m of a Vegetation Management wetland
Redland Bay – Orchard Beach Wetland	No	Bar-tailed Godwit (*Limosa lapponica*) (Mi, Ma) Black-tailed Godwit (*Limosa limosa*) (Mi, Ma) Broad-billed Sandpiper (*Limicola falcinellus*) (Mi, Ma) Common Greenshank (*Tringa nebularia*) (Mi, Ma) Double-banded Plover (*Charadrius bicinctus*) (Mi, Ma)	None recorded	Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Koala habitat area – core Regulated Vegetation – Essential habitat (*Numenius madagascariensis)*; Category B (remnant vegetation; Least Concern

		Eastern Curlew (*Numenius madagascariensis*) (CE, Mi, Ma) Great Knot (*Calidris tenuirostris*) (CE, Mi, Ma) Grey Plover (*Pluvialis squatarola*) (Mi, Ma) Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Grey-tailed Tattler (*Tringa brevipes*) (Mi, Ma) Koala (*Phascolarctos cinereus*) (E) Lesser Sand Plover (*Charadrius mongolus*) (E, Mi, Ma) Little Curlew (*Numenius minutus*) (Mi, Ma) Marsh Sandpiper (*Tringa stagnatilis*) (Mi, Ma) Nunivak bar-tailed Godwit (*Limosa lapponica baueri*) (V) Oriental Cuckoo (*Cuculus optatus*) (Mi) Oriental Plover (*Charadrius veredus*) (Mi, Ma) Osprey (*Pandion haliaetus*) (Mi, Ma) Pacific Golden Plover (*Pluvialis fulva*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Red Knot (*Calidris canutus*) (E, Mi, Ma) Red-capped plover (*Charadrius ruficapillus*) (Ma) Red-necked Avocet (*Puffinus carneipes*) (Ma) Red-necked Stint (*Calidris ruficollis*) (Mi, Ma) Ruddy Turnstone (*Arenaria interpres*) (Mi, Ma) Ruff (*Philomachus pugnax*) (Mi, Ma) Sanderling (*Calidris alba*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Sharp-tailed Sandpiper (*Calidris acuminata*) (Mi, Ma) Streaked Shearwater (*Calonectris leucomelas*) (Mi, Ma) Terek Sandpiper (*Xenus cinereus*) (Mi, Ma) Wandering Tattler (*Tringa incana*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V) Whimbrel *(Numenius phaeopus*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma)				RE 12.1.2, 12.1.3, Endangered RE 12.5.2; Intersecting a watercourse; Within 100m of a Vegetation Management wetland
Redland Bay – Junee Street Wetlands	No but high numbers of GHFF so likely to be in future	Black-tailed Godwit (*Limosa limosa*) (Mi, Ma) Broad-billed Sandpiper *(Limicola falcinellus*) (Mi, Ma) Common Greenshank (*Tringa nebularia*) (Mi, Ma) Double-banded Plover (*Charadrius bicinctus*) (Mi, Ma) Eastern Curlew (*Numenius madagascariensis*) (CE, Mi, Ma) Great Knot (*Calidris tenuirostris*) (CE, Mi, Ma) Grey Plover (*Pluvialis squatarola*) (Mi, Ma) Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Grey-tailed Tattler (*Tringa brevipes*) (Mi, Ma) Koala (*Phascolarctos cinereus*) (E) Lesser Sand Plover (*Charadrius mongolus*) (E, Mi, Ma) Little Curlew (*Numenius minutus*) (Mi, Ma) Marsh Sandpiper (*Tringa stagnatilis*) (Mi, Ma) Oriental Plover (*Charadrius veredus*) (Mi, Ma) Osprey (*Pandion haliaetus*) (Mi, Ma) Pacific Golden Plover (*Pluvialis fulva*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Red Knot (*Calidris canutus*) (E, Mi, Ma) Red-capped plover (*Charadrius ruficapillus*) (Ma) Red-necked Avocet (*Puffinus carneipes*) (Ma) Red-necked Stint (*Calidris ruficollis*) (Mi, Ma) Ruddy Turnstone (*Arenaria interpres*) (Mi, Ma) Ruff (*Philomachus pugnax*) Sanderling (*Calidris alba*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Sharp-tailed Sandpiper (*Calidris acuminata*) (Mi, Ma) Streaked Shearwater (*Calonectris leucomelas*) (Mi, Ma) Terek Sandpiper (*Xenus cinereus*) (Mi, Ma) Wandering Tattler (*Tringa incana*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V) Bar-tailed Godwit (*Limosa lapponica*) (Mi, Ma) Whimbrel *(Numenius phaeopus*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma)	None recorded	Gull-billed tern (*Gelochelidon nilotica*) (SL) Black-tailed godwit (*Limosa limosa*) (SL) Eastern curlew (*Numenius madagascariensis*) (E) Whimbrel (*Numenius phaeopus*) (SL) common greenshank (*Tringa nebulari*) (SL) Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present	State Marine Parks - highly protected zones High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Koala habitat area – core Regulated Vegetation – Essential habitat (*Phascolarctos cinereus, Crinia tinnula, Numenius madagascariensis)*; Category B (remnant vegetation; Least Concern RE 12.3.6); Intersecting a watercourse; Within 100m of a Vegetation Management wetland
Thornlands – Clifford Perske Nature Refuge	No	Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Oriental Cuckoo (*Cuculus optatus*) (Mi) Osprey (*Pandion haliaetus*) (Mi, Ma) Painted Snipe (*Rostratula benghalensis*) (E, Ma) Pied Stilt (*Himantopus himantopus*) (Ma)	None recorded	Little tern (*Sternula albifrons*) (SL) Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present	State Marine Parks - highly protected zones High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Koala habitat area – core Regulated Vegetation – Essential habitat (*Phascolarctos cinereus*); Category C (High value regrowth; Least Concern RE 12.3.6,

		Red-capped Plover (*Charadrius ruficapillus*) (Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Terek Sandpiper (*Xenus cinereus*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma)				Endangered REs 12.5.2, 12.5.3); Intersecting a watercourse; Within 100m of a Vegetation Management wetland
Thornlands – Lotus Close Wetland	No, but could potentially be in future	Australian Painted Snipe (*Rostratula australis*) (E) Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Oriental Cuckoo (*Cuculus optatus*) (Mi) Osprey (*Pandion haliaetus*) (Mi, Ma) Painted Snipe (*Rostratula benghalensis*) (E, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma)	None recorded	Little tern (*Sternula albifrons*) (SL) Eastern curlew (*Numenius madagascariensis*) (E) Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Koala habitat area – core Regulated Vegetation – Essential habitat (*Phascolarctos cinereus*, *Crinia tinnula*); Category B (remnant vegetation; Least concern RE 12.3.6; Category C (High value regrowth; Least concern RE 12.3.6, Endangered REs 12.5.2, 12.5.3; Intersecting a watercourse; Within 100m of a Vegetation Management wetland
Victoria Point – Egret Colony Wetlands	No	Australian Painted Snipe (*Rostratula australis*) (E) Black-faced Monarch (*Monarcha melanopsis*) (Mi, Ma) Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Latham's Snipe (*Gallinago hardwickii*) (Mi, Ma) Oriental Cuckoo (*Cuculus optatus*) (Mi) Osprey (*Pandion haliaetus*) Pied Stilt (*Himantopus himantopus*) (Ma) Red-capped plover (*Charadrius ruficapillus*) (Ma) Red-necked Avocet (*Puffinus carneipes*) (Ma) Red-necked Stint (*Calidris ruficollis*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma)	None recorded	Eastern osprey (*Pandion cristatus*) (SL) Gull-billed tern (*Gelochelidon nilotica*) (SL) Caspian tern (*Hydroprogne caspia*) (SL) Little tern (*Sternula albifrons*) (SL) Crested tern (*Thalasseus bergii*) (SL) Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present	State Marine Parks - highly protected zones High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Koala habitat area - core Regulated Vegetation –Essential habitat (*Phascolarctos cinereus, Crinia tinnula, Numenius madagascariensis)*; Category B (remnant vegetation; Least Concern REs 12.3.5, 12.3.6, Of concern RE 12.3.8; Intersecting a watercourse; Within 100m of a Vegetation Management wetland Legally secured offset areas - vegetation offsets through a Property Map of Assessable Vegetation
Victoria Point – Victoria Point High School	No	Black-faced Monarch (*Monarcha melanopsis*) (Mi, Ma) Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Latham's Snipe (*Gallinago hardwickii*) (Mi, Ma) Oriental Cuckoo (*Cuculus optatus*) (Mi) Osprey (*Pandion haliaetus*) (Mi, Ma) Red Knot (*Calidris canutus*) (E, Mi, Ma) Red-necked Stint (*Calidris ruficollis*) (Ma) Rufous Fantail (*Rhipidura rufifrons*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma)	None recorded	Koala (*Phascolarctos cinereus*) (E)	None recorded	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Koala habitat area – core Regulated Vegetation – Essential habitat (*Phascolarctos cinereus, Acrodipsas illidgei)*; Category C (High value regrowth; Least Concern RE 12.9-10.4); Intersecting a watercourse; Within 100m of a Vegetation Management wetland Legally secured offset areas - vegetation offsets through a Property Map of Assessable Vegetation
Wellington Point – Crossley Drive	No	Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Osprey (*Pandion haliaetus*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Red-capped plover (*Charadrius ruficapillus*) (Ma) Red-necked Avocet (*Puffinus carneipes*) (Ma) Red-necked Stint (*Calidris ruficollis*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma)	None recorded	Eastern osprey (*Pandion cristatus*) (SL) Australian painted snipe (*Rostratula australis*) (E) Latham's snipe (*Gallinago hardwickii*) (SL) Koala (*Phascolarctos cinereus*) (E)	None recorded	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Waterways and Wetlands in High Ecological Value (HEV) waters Koala habitat area – core Regulated vegetation - Essential habitat (*Phascolarctos cinereus, Crinia tinnula, Petauroides volans, Ninox strenua)*; Category B (remnant vegetation; Least Concern RE 12.3.6); Category C (High value regrowth; Least Concern RE 12.3.6, Endangered REs 12.5.2, 12.5.3); Intersecting a watercourse; Within 100m of a Vegetation Management wetland
Wellington Point – Jacob Street	No	Grey-headed Flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Osprey (*Pandion haliaetus*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Red-capped Plover (*Charadrius ruficapillus*) (Ma) Red-necked Avocet (*Puffinus carneipes*) (Ma) Red-necked Stint (*Calidris ruficollis*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma)	None recorded	Eastern osprey (*Pandion cristatus*) (SL) Australian painted snipe (*Rostratula australis*) (E) Latham's snipe (*Gallinago hardwickii*) (SL) Marsh sandpiper (*Tringa stagnatilis*) SL Koala (*Phascolarctos cinereus*) (E)	None recorded	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Waterways and Wetlands in High Ecological Value (HEV) waters Koala habitat area – core Regulated vegetation - Essential habitat (*Phascolarctos cinereus, Crinia tinnula, Numenius madagascariensis, Calidris tenuirostris, Limosa lapponica baueri, Calidris canutus, Calidris ferruginea, Rostratula australis, Charadrius mongolus, Charadrius leschenaultia)*; Category B (remnant vegetation; Least Concern RE 12.1.1, 12.1.2, 12.3.6); Category C (High value regrowth; Least Concern RE 12.3.6); Intersecting a watercourse; Within 100m of a Vegetation Management Wetland

Wellington Point – O'Connell Parade	No	Nunivak bar-tailed Godwit (*Limosa lapponica baueri*) Bar-tailed Godwit (*Limosa lapponica*) (Mi, Ma) Black-tailed Godwit (*Limosa limosa*) (Mi, Ma) Broad-billed Sandpiper (*Limicola falcinellus*) (Mi, Ma) Common Greenshank (*Tringa nebularia*) (Mi, Ma) Common sandpiper (*Actitis hypoleucos*) (Mi, Ma) Curlew sandpiper (*Calidris ferruginea*) (CE, Mi, Ma) Double-banded Plover (*Charadrius bicinctus*) (Mi, Ma) Eastern Curlew (*Numenius madagascariensis*) (CE, Mi, Ma) Fairy Prion (*Pachyptila turtur subantarctica*) (V, Ma) Great Knot (*Calidris tenuirostris*) (CE, Mi, Ma) Grey Plover (*Pluvialis squatarola*) (Mi, Ma) Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Grey-tailed Tattler (*Tringa brevipes*) (Mi, Ma) Koala (*Phascolarctos cinereus*) (E) Lesser Sand Plover (*Charadrius mongolus*) (E, Mi, Ma) Little Curlew (*Numenius minutus*) (Mi, Ma) Marsh Sandpiper (*Tringa stagnatilis*) (Mi, Ma) Oriental Plover (*Charadrius veredus*) (Mi, Ma) Osprey (*Pandion haliaetus*) (Mi, Ma) Pacific Golden Plover (*Pluvialis fulva*) (Mi, Ma) Pectoral Sandpiper (*Calidris melanotos*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Red Knot (*Calidris canutus*) (E, Mi, Ma) Red-capped plover (*Charadrius ruficapillus*) (Ma) Red-necked Avocet (*Puffinus carneipes*) (Ma) Red-necked Stint (*Calidris ruficollis*) (Mi, Ma) Ruddy Turnstone (*Arenaria interpres*) (Mi, Ma) Ruff (*Philomachus pugnax*) (Mi, Ma) Sanderling (*Calidris alba*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Sharp-tailed Sandpiper (*Calidris acuminata*) (Mi, Ma) Streaked Shearwater (*Calonectris leucomelas*) (Mi, Ma) Terek Sandpiper (*Xenus cinereus*) (Mi, Ma) Wandering Tattler (*Tringa incana*) (Mi, Ma) Whimbrel *(Numenius phaeopus*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma)	None recorded	Eastern osprey (*Pandion cristatus*) (SL) Double-banded plover (*Charadrius bicinctu*) (SL) Greater sand plover (*Charadrius leschenaultia*) (V) Lesser sand plover (*Charadrius mongolus*) (E) Pacific golden plover (*Pluvialis fulva*) (SL) Grey plover (*Pluvialis squatarola*) (SL) Gull-billed tern (*Gelochelidon nilotica*) (SL) Caspian tern (*Hydroprogne caspia*) (SL) Little tern (*Sternula albifrons*) (SL) Crested tern (*Thalasseus bergii*) (SL) Australian painted snipe (*Rostratula australis*) (E) Common sandpiper (*Actitis hypoleucos*) (SL) Ruddy turnstone (*Arenaria interpres*) (SL) Sharp-tailed sandpiper (*Calidris acuminata*) (SL) Red knot (*Calidris canutus*) (E) Broad-billed sandpiper (*Calidris falcinellus*) (SL) Curlew sandpiper (*Calidris ferruginea*) (CR) Pectoral sandpiper (*Calidris melanotos*) (SL) Red-necked stint (*Calidris ruficollis*) (SL) Great knot (*Calidris tenuirostris*) (CR) Latham's snipe (*Gallinago hardwickii*) (SL) Western Alaskan bar-tailed godwit (*Limosa lapponica baueri*) (V) Black-tailed godwit (*Limosa limosa*) (SL) Eastern curlew (*Numenius madagascariensis*) (E) Whimbrel (*Numenius phaeopus*) (SL) Grey-tailed tattler (*Tringa brevipes*) (SL) Wandering tattler (*Tringa incana*) (SL) Common greenshank (*Tringa nebularia*) (SL) Marsh sandpiper (*Tringa stagnatilis*) (SL) Terek sandpiper (*Xenus cinereus*) (SL) Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Wetlands and waterways in High Ecological Value (HEV) waters Koala habitat area – core Regulated vegetation - Essential habitat (*Phascolarctos cinereus, Numenius madagascariensis, Calidris tenuirostris, Limosa lapponica baueri, Calidris canutus, Calidris ferruginea, Rostratula australis, Charadrius mongolus, Charadrius leschenaultii)*; Category B (remnant vegetation; Of Concern RE 12.1.1, Least Concern REs 12.1.2, 12.1.3); Category C (High value regrowth; Endangered REs 12.5.2 and 12.5.3); Intersecting a watercourse; Within 100m of a Vegetation Management Wetland
Wellington Point – Tarradarrapin Wetlands	No	Black-faced Monarch (*Monarcha melanopsis*) (Mi, Ma) Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Osprey (*Pandion haliaetus*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma)	None recorded	Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Koala habitat area – core Regulated vegetation - Essential habitat (*Phascolarctos cinereus, Crinia tinnula)*; Category B (remnant vegetation; Of Concern REs 12.3.5, 12.3.6); Intersecting a watercourse; Within 100m of a Vegetation Management Wetland
Coochiemudlo Island – George Street	No data	Australasian Bittern (*Botaurus poiciloptilus*) (E) Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Oriental Cuckoo (*Cuculus optatus*) (Mi) Osprey (*Pandion haliaetus*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma)	None recorded		Lesser Swamp-orchid (*Phaius australis*) (E) and no PMAV present	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Regulated Vegetation – Essential habitat (*Numenius madagascariensis*, *Limosa lapponica baueri, Phaius australis*); Category B (remnant vegetation; Endangered RE 12.5.3); within 100m of a Vegetation Management Wetland
Coochiemudlo Island – Tageruba Street	No	Australasian Bittern (*Botaurus poiciloptilus*) (E) Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Oriental Cuckoo (*Cuculus optatus*) (Mi) Osprey (*Pandion haliaetus*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Sharp-tailed Sandpiper (*Calidris acuminata*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma)	None recorded	Eastern Curlew (*Numenius madagascariensis*) (CE) Wallum Froglet (*Crinia tinnula*) (V) Wallum Rocketfrog (*Litoria freycineti*) (V)	Lesser Swamp-orchid (*Phaius australis*) (E) and no PMAV present	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Regulated Vegetation – Essential habitat (*Crinia tinnula*, *Litoria freycineti*, *Numenius madagascariensis, Limosa lapponica baueri, Phaius australis);* Category B (remnant vegetation; least concern RE 12.3.6) Category C (high value regrowth; least concern RE 12.3.6); within 100m of a Vegetation Management Wetland High risk area for threatened plants
Lamb Island – Lavender Street	No	Bar-tailed Godwit (*Limosa lapponica*) (Mi, Ma) Black-tailed Godwit (*Limosa limosa*) (Mi, Ma) Broad-billed Sandpiper (*Limicola falcinellus*) (Mi, Ma) Common Greenshank (*Tringa nebularia*) (Mi, Ma) Common sandpiper (*Actitis hypoleucos*) (Mi, Ma) Curlew Sandpiper (*Calidris ferruginea*) (CE, Mi, Ma) Double-banded Plover (*Charadrius bicinctus*) (Mi, Ma) Eastern Curlew (*Numenius madagascariensis*) (CE, Mi, Ma) Fairy Prion (*Pachyptila turtur*) (Ma)	None recorded	Eastern Osprey (*Pandion cristatus*) (SL) Gull-billed Tern (*Gelochelidon nilotica*) (SL) Caspian Tern (*Hydroprogne caspia*) SL Crested Tern (*Thalasseus bergii)* (SL) Black-faced Monarch (*Monarcha melanopsis*) (SL) Eastern Curlew (*Numenius madagascariensis*) (CE) Wallum Froglet (*Crinia tinnula*) (V)	None recorded and no PMAV present	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values High Ecological Value (HEV) wetlands Regulated Vegetation – Essential habitat (*Crinia tinnula*, *Litoria freycineti*, *Numenius madagascariensis*); Category B (remnant vegeatiation) Least concern RE 12.3.5; within 100m of a Vegetation Management Wetland

		Great Knot (*Calidris tenuirostris*) (CE, Mi, Ma) Grey Plover (*Pluvialis squatarola*) (Mi, Ma) Grey-headed flying-fox (*Pteropus poliocephalus*) (V) Grey-tailed Tattler (*Tringa brevipes*) (Mi, Ma) Lesser Sand Plover (*Charadrius mongolus*) (E, Mi, Ma) Little Curlew (*Numenius minutus*) (Mi, Ma) Marsh Sandpiper (*Tringa stagnatilis*) (Mi, Ma) Nunivak Bar-tailed Godwit (*Limosa lapponica baueri*) (V) Oriental Plover (Charadrius veredus) (Mi, Ma) Osprey (*Pandion haliaetus*) (Mi, Ma) Pacific Golden Plover (*Pluvialis fulva*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Red Knot (*Calidris canutus*) (E, Mi, Ma) Red-capped Plover (*Charadrius ruficapillus*) (Ma) Red-necked Avocet (*Recurvirostra novaehollandiae*) (Ma) Red-necked Stint (*Calidris ruficollis*) (Ma) Ruddy Turnstone (*Arenaria interpres*) (Mi, Ma) Ruff (*Philomachus pugnax*) (Mi, Ma) Rufous Fantail (*Rhipidura rufifrons*) (Mi, Ma) Sanderling (*Calidris alba*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Sharp-tailed Sandpiper (*Calidris acuminata*) (Mi, Ma) Streaked Shearwater (*Calonectris leucomelas*) (Mi, Ma) Terek Sandpiper (*Xenus cinereus*) (Mi, Ma) Wandering Tattler (*Tringa incana*) (Mi, Ma) Whimbrel (*Numenius phaeopus*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V)(Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V)		Wallum Rocketfrog (*Litoria freycineti)* (V)		
Long Island	No data	Bar-tailed Godwit (*Limosa lapponica*) (Mi, Ma) Black-tailed Godwit (*Limosa limosa*) (Mi, Ma) Broad-billed Sandpiper (*Limicola falcinellus*) (Mi, Ma) Common Greenshank (*Tringa nebularia*) (Mi, Ma) Common Sandpiper (*Actitis hypoleucos*) (Mi, Ma) Curlew Sandpiper (*Calidris ferruginea*) (CE, Mi, Ma) Double-banded Plover (*Charadrius bicinctus*) (Mi, Ma) Eastern Curlew (*Numenius madagascariensis*) (CE, Mi, Ma) Great Knot (*Calidris tenuirostris*) (CE, Mi, Ma) Grey Plover (*Pluvialis squatarola*) (Mi, Ma) Grey-headed Flying-fox (*Pteropus poliocephalus*) (V) Grey-tailed Tattler (*Tringa brevipes*) (Mi, Ma) Lesser Sand Plover (*Charadrius mongolus*) (E, Mi, Ma) Little Curlew (*Numenius minutus*) (Mi, Ma) Marsh Sandpiper (*Tringa stagnatilis*) (Mi, Ma) Nunivak Bar-tailed Godwit (*Limosa lapponica baueri*) (V) Oriental Plover (Charadrius veredus) (Mi, Ma) Pacific Golden Plover (*Pluvialis fulva*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Red Knot (*Calidris canutus*) (E, Mi, Ma) Red-capped Plover (*Charadrius ruficapillus*) (Mi, Ma) Red-necked Avocet (*Recurvirostra novaehollandiae*) (Ma) Red-necked Stint (*Calidris ruficollis*) (Mi, Ma) Ruddy Turnstone (*Arenaria interpres*) (Mi, Ma) Ruff (*Philomachus pugnax*) (Mi, Ma) Sanderling (*Calidris alba*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Sharp-tailed Sandpiper (*Calidris acuminata*) (Mi, Ma) Streaked Shearwater (*Calonectris leucomelas*) (Mi, Ma) Streaked Shearwater (*Calonectris leucomelas*) (Mi, Ma) Terek Sandpiper (*Xenus cinereus*) (Mi, Ma) Wandering Tattler (*Tringa incana*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V) Whimbrel (*Numenius phaeopus*) (Mi, Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma)	None recorded	None recorded	None recorded and no PMAV present	Moreton Bay Marine National Park Zone High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Regulated Vegetation –Essential habitat; Endangered/Of concern in Category B (remnant vegetation) Least concern REs 12.1.2, 12.1.3; within 100m of a Vegetation Management Wetland
Macleay Island – Balaka Street Urban Habitat	No	Grey-headed Flying-fox (*Pteropus poliocephalus*) (V) Osprey (*Pandion haliaetus*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Red-capped Plover (*Charadrius ruficapillus*) (Ma) Rufous Fantail (*Rhipidura rufifrons*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V)	Lesser Swamp-orchid (*Phaius australis*) (E)	Eastern Osprey (*Pandion cristatus*) (SL) Glossy Black Cockatoo (Eastern) (*Calyptorhynchus lathami lathami*) (V) Gull-billed Tern (*Gelochelidon nilotica*) (SL) Caspian Tern (*Hydroprogne caspia*) (SL) Common Tern (*Sterna hirundo)* (SL) Little Tern (*Sternula albifrons*) (SL)	Lesser Swamp-orchid (*Phaius australis*) (E) and no PMAV present	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Regulated Vegetation – Essential habitat (*Crinia tinnula*; *Litoria freycineti*); Category B (remnant vegetation) least concern RE 12.3.5; within 100m of a Vegetation Management Wetland High Risk Area for Protected Plants (Flora Survey Trigger Map)

		White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma)		Black-faced Monarch (*Monarcha melanopsis*) (SL) Spectacled Monarch (*Symposiachrus trivirgatus*) (SL) Rufous Fantail (*Rhipidura rufifrons*) (SL) Wallum Froglet (*Crinia tinnula*) (V) Wallum Rocketfrog (*Litoria freycineti*) (V)		
Macleay Island – Bay Islands Golf Club	No	Grey-headed Flying-fox (*Pteropus poliocephalus*) (V) Osprey (*Pandion haliaetus*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Red-capped Plover (*Charadrius ruficapillus*) (Ma) Red-necked Avocet (*Recurvirostra novaehollandiae*) (Ma) Rufous Fantail (*Rhipidura rufifrons*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma)	None recorded	Eastern Osprey (*Pandion cristatus*) (SL) Gull-billed Tern (*Gelochelidon nilotica*) (SL) Caspian Tern (*Hydroprogne caspia*) (SL) Black-faced Monarch (*Monarcha melanopsis*) (SL) Red-necked Stint (*Calidris ruficollis*) (SL)	None recorded and no PMAV present	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values High Ecological Value (HEV) wetlands Regulated vegetation - Essential habitat (*Numenius madagascariensis)*; Category C (remnant vegetation; Least Concern RE 12.3.5, Endangered RE 12.5.3); within 100m of a Vegetation Management Wetland
Macleay Island – Tim O'Shea Wetland Reserve	No	Bar-tailed Godwit (*Limosa lapponica*) (Mi, Ma) Black-tailed Godwit (*Limosa limosa*) (Mi, Ma) Broad-billed Sandpiper (*Limicola falcinellus*) (Mi, Ma) Common Greenshank (*Tringa nebularia*) (Mi, Ma) Common Sandpiper (*Actitis hypoleucos*) (Mi, Ma) Curlew Sandpiper (*Calidris ferruginea*) (CE, Mi, Ma) Double-banded Plover (*Charadrius bicinctus*) (Mi, Ma) Eastern Curlew (*Numenius madagascariensis*) (CE, Mi, Ma) Great Knot (*Calidris tenuirostris*) (CE, Mi, Ma) Grey Plover (*Pluvialis squatarola*) (Mi, Ma) Grey-headed Flying-fox (*Pteropus poliocephalus*) (V) Grey-tailed Tattler (*Tringa brevipes*) (Mi, Ma) Lesser Sand Plover (*Charadrius mongolus*) (E, Mi, Ma) Little Curlew (*Numenius minutus*) (Mi, Ma) Marsh Sandpiper (*Tringa stagnatilis*) (Mi, Ma) Nunivak Bar-tailed Godwit (*Limosa lapponica baueri*) (V) Oriental Plover (Charadrius veredus) (Mi, Ma) Osprey (*Pandion haliaetus*) (Mi, Ma) Pacific Golden Plover (*Pluvialis fulva*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Red Knot (*Calidris canutus*) (E, Mi, Ma) Red-capped Plover (*Charadrius ruficapillus*) (Ma) Red-necked Avocet (*Recurvirostra novaehollandiae*) (Ma) Red-necked Stint (*Calidris ruficollis*) (Mi, Ma) Ruddy Turnstone (*Arenaria interpres*) (Mi, Ma) Ruff (*Philomachus pugnax*) (Mi, Ma) Sanderling (*Calidris alba*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Sharp-tailed Sandpiper (*Calidris acuminata*) (Mi, Ma) Streaked Shearwater (*Calonectris leucomelas*) (Mi, Ma) Terek Sandpiper (*Xenus cinereus*) (Mi, Ma) Wandering Tattler (*Tringa incana*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V) Whimbrel (*Numenius phaeopus*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma)	Lesser Swamp-orchid (Phaius australis) (E)	Glossy Black Cockatoo (Eastern) (*Calyptorhynchus lathami lathami*) (V) Crested Tern (*Thalasseus bergii*) (SL) Western Alaskan Bar-tailed Godwit (*Limosa lapponica baueri*) (V) Eastern Curlew (*Numenius madagascariensis*) (E) Whimbrel (*Numenius phaeopus*) (SL)	Lesser Swamp-orchid (*Phaius australis*) (E) and no PMAV present	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Regulated vegetation - Essential habitat (*Crinia tinnula, Litoria freycineti, Litoria olongburensis, Numenius madagascariensis, Limosa lapponica baueri)*; Category B (remnant vegetation; Least Concern REs 12.2.15, 12.2.7, Endangered RE 12.5.2); within 100m of a Vegetation Management Wetland
Macleay Island – Wanda Street	No data	Double-banded Plover (*Charadrius bicinctus*) (Mi, Ma) Grey-headed Flying-fox (*Pteropus poliocephalus*) (V) Grey-tailed Tattler (*Tringa brevipes*) (Mi, Ma) Osprey (*Pandion haliaetus*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Red-capped Plover (*Charadrius ruficapillus*) (Ma) Red-necked Avocet (*Recurvirostra novaehollandiae*) (Ma) Rufous Fantail (*Rhipidura rufifrons*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma)	Lesser Swamp-orchid (*Phaius australis*) (E)	Glossy Black Cockatoo (Eastern) (*Calyptorhynchus lathami lathami*) (V) Crested Tern (*Thalasseus bergii*) (SL)	Lesser Swamp-orchid (*Phaius australis*) (E)	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Regulated vegetation - Essential habitat (*Crinia tinnula, Litoria freycineti, Litoria olongburensis, Numenius madagascariensis)*; Category B (remnant vegetation; Least Concern RE 12.2.7, Endangered RE 12.2.7);; within 100m of a Vegetation Management Wetland
North Stradbroke Island – Dunwich, East Coast Road	Yes	Bar-tailed Godwit (Limosa lapponica) (Mi, Ma) Black-tailed Godwit (Limosa limosa) (Mi, Ma) Broad-billed Sandpiper (Limicola falcinellus) (Mi, Ma) Common Greenshank (Tringa nebularia) (Mi, Ma)	Macadamia Nut (*Macadamia integrifolia*) (V)	Eastern Curlew (*Numenius madagascariensis*) (E) Curlew Sandpiper (*Calidris ferruginea*) (CE)	None recorded and no PMAV present	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Koala Habitat area – locally refined (SEQ)

		Common Sandpiper (Actitis hypoleucos) (Mi, Ma) Curlew Sandpiper (*Calidris ferruginea*) (CE, Mi, Ma) Double-banded Plover (Charadrius bicinctus) (Mi, Ma) Eastern Curlew (*Numenius madagascariensis*) (CE, Mi, Ma) Flesh-footed Shearwater (Ardenna carneipes) (Mi, Ma) Great Knot (*Calidris tenuirostris*) (CE, Mi, Ma) Grey Plover (Pluvialis squatarola) (Mi, Ma) Grey-headed Flying-fox (*Pteropus poliocephalus*) (V) Grey-tailed Tattler (Tringa brevipes) (Mi, Ma) Koala (*Phascolarctos cinereus*) (E) Lesser Sand Plover (Charadrius mongolus) (E, Mi, Ma) Little Curlew (Numenius minutus) (Mi, Ma) Marsh Sandpiper (Tringa stagnatilis) (Mi, Ma) Nunivak Bar-tailed Godwit (*Limosa lapponica baueri*) (V) Oriental Plover (Charadrius veredus) (Mi, Ma) Osprey (Pandion haliaetus) (Mi, Ma) Pacific Golden Plover (Pluvialis fulva) (Mi, Ma) Pied Stilt (Himantopus himantopus) (Ma) Red Knot (Calidris canutus) (E, Mi, Ma) Red-capped Plover (Charadrius ruficapillus) (Ma) Red-necked Avocet (Recurvirostra novaehollandiae) (Ma) Red-necked Stint (Calidris ruficollis) (Mi, Ma) Ruddy Turnstone (Arenaria interpres) (Mi, Ma) Ruff (Philomachus pugnax) (Mi, Ma) Sanderling (Calidris alba) (Mi, Ma) Satin Flycatcher (Myiagra cyanoleuca) (Mi, Ma) Sharp-tailed Sandpiper (Calidris acuminata) (Mi, Ma) Streaked Shearwater (Calonectris leucomelas) (Mi, Ma) Terek Sandpiper (Xenus cinereus) (Mi, Ma) Wallum Sedge Frog (*Litoria olongburensis*) (V) Wandering Tattler (Tringa incana) (Mi, Ma) Whimbrel (Numenius phaeopus) (Mi, Ma) White-bellied Sea-Eagle (Haliaeetus leucogaster) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (Tringa glareola) (Mi, Ma)		Western Alaskan Bar-tailed Godwit (*Limosa lapponica baueri*) (V) Pacific Golden Plover (*Pluvialis fulva*) (SL) Double-banded Plover (*Caradrius bicinctus*) (SL) Grey-tailed Tattler (*Tringa brevipes*) (SL) Common Greenshank (*Tringa nebularia*) (SL) Whimbrel (*Numenius phaeopus*) (SL) Ruddy Turnstone (*Arenaria interpres*) (SL) Eastern Osprey (*Pandion cristatus*) (SL) Gull-billed Tern (*Gelochelidon nilotica*)(SL) Caspian Tern (*Hydroprogne caspia*) (SL) Common Tern (*Sterna hirundo*) (SL) Little Tern (*Sternula albifrons*) (SL) Crested Tern (*Thalasseus bergii*) (SL) Koala (*Phascolarctos cinereus*) (E)		Regulated vegetation - Essential habitat (*Phascolarctos cinereus, Crinia tinnula, Petauroides volans, Ninox strenua)*; Category B (remnant vegetation; Least Concern RE 12.2.15); Category C (High value regrowth; Least Concern REs 12.2.15, 12.2.6); Intersecting a watercourse; within 100m of a Vegetation Management Wetland
North Stradbroke Island – Point Lookout, Cylinder Beach	No	Bar-tailed Godwit (Limosa lapponica) (Mi, Ma) Fairy Prion (*Pachyptila turtur*) (Ma) Fairy Prion (Pachyptila turtur) (Ma) Flesh-footed Shearwater (Ardenna carneipes) (Mi, Ma) Grey-headed Flying-fox (*Pteropus poliocephalus*) (V) Koala (*Phascolarctos cinereus*) (E) Lesser Frigatebird (Fregata ariel) (Mi, Ma) Nunivak Bar-tailed Godwit (*Limosa lapponica baueri*) (V) Osprey (Pandion haliaetus) (Mi, Ma) Red Knot (*Calidris canutus*) (E, Mi, Ma) Satin Flycatcher (Myiagra cyanoleuca) (Mi, Ma) Streaked Shearwater (Calonectris leucomelas) (Mi, Ma) Wallum Sedge Frog (*Litoria olongburensis*) (V) White-bellied Sea-Eagle (Haliaeetus leucogaster) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma)	None recorded	Lesser Sand Plover (Charadrius mongolus) (E) Wedge-tailed Shearwater (*Ardenna pacifica*) (V) Wandering Tattler (*Tringa incana*) (SL) Eastern Osprey (*Pandion cristatus*) (SL) Red-necked Stint (*Calidris ruficollis*) (SL) Ruddy Turnstone (*Arenaria interpres*) (SL) Short-beaked Echidna (*Tachyglossus aculeatus*) (SL) Walllum Froglet (*Crinia tinnula*) (V) Fork-tailed Swift (*Apus pacificus*) (SL) White-throated Needletail (*Hirundapus caudacutus*) (V) Beach Stone Curlew (*Esacus magnirostris*) (V) Common Noddy (*Anous stolidus*) (SL) Gull-billed Tern (*Gelochelidon nilotica*)(SL) Bridled Tern (*Onychoprion anaethetus*) (SL) Common Tern (*Sterna hirundo*) (SL) Little Tern (*Sternula albifrons*) (SL) Crested Tern (*Thalasseus bergii*) (SL) Black-faced Monarch (*Monarcha melanopsis*) (SL) White-tailed Tropicbird *(Phaethon lepturus*) (SL) Sooty Shearwater (*Ardenna grisea*) (SL) Arctic Jaeger *(Stercorarius parasiticus*) (SL) Pomarine Jaeger (*Stercorarius pomarinus*) (SL) Koala (*Phascolarctos cinereus*) (E)	None recorded and no PMAV present	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values High Ecological Value (HEV) Wetlands Koala Habitat area – core (SEQ) Koala Habitat area – locally refined (SEQ) Regulated vegetation - Essential habitat (*Crinia tinnula, Litoria freycineti, Litoria olongburensis, Caretta caretta, Ardenna pacifica, Charadrius mongolus)*; Category B (remnant vegetation; Least Concern RE 12.2.5); Category C (High value regrowth; Least Concern RE 12.2.5); Intersecting a watercourse; within 100m of a Vegetation Management Wetland
Russell Island – Cavendish Street	No	Bar-tailed Godwit (*Limosa lapponica*) (Mi, Ma) Black-tailed Godwit (*Limosa limosa*) (Mi, Ma) Broad-billed Sandpiper (*Limicola falcinellus*) (Mi, Ma) Common Greenshank (*Tringa nebularia*) (Mi, Ma) Common Sandpiper (*Actitis hypoleucos*) (Mi, Ma) Curlew Sandpiper (*Calidris ferruginea*) (CE) (Mi, Ma) Curlew Sandpiper (*Calidris ferruginea*) (CE, Mi, Ma) Double-banded Plover (*Charadrius bicinctus*) (Mi, Ma) Eastern Curlew (*Numenius madagascariensis*) (CE, Mi, Ma) Great Knot (*Calidris tenuirostris*) (CE, Mi, Ma)	Lesser Swamp-orchid (*Phaius australis*) (E)	Whimbrel (*Numenius phaeopus*) (SL)	Lesser Swamp-orchid (*Phaius australis*) (E)	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values High Ecological Value (HEV) Wetlands Regulated vegetation - Essential habitat (*Crinia tinnula, Litoria freycineti)*; Category B (remnant vegetation; Least Concern RE 12.3.5, Endangered RE 12.5.6); within 100m of a Vegetation Management Wetland

		Grey Plover (*Pluvialis squatarola*) (Mi, Ma) Grey-headed Flying-fox (*Pteropus poliocephalus*) (V) Grey-tailed Tattler (*Tringa brevipes*) (Mi, Ma) Lesser Sand Plover (*Charadrius mongolus*) (E, Mi, Ma) Little Curlew (*Numenius minutus*) (Mi, Ma) Marsh Sandpiper (*Tringa stagnatilis*) (Mi, Ma) Nunivak Bar-tailed Godwit (*Limosa lapponica baueri*) (V) Oriental Plover (Charadrius veredus) (Mi, Ma) Osprey (*Pandion haliaetus*) (Mi, Ma) Pacific Golden Plover (*Pluvialis fulva*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Red Knot (*Calidris canutus*) (E, Mi, Ma) Red-capped Plover (*Charadrius ruficapillus*) (Ma) Red-necked Avocet (*Recurvirostra novaehollandiae*) (Ma) Red-necked Stint (*Calidris ruficollis*) (Mi, Ma) Ruddy Turnstone (*Arenaria interpres*) (Mi, Ma) Ruff (*Philomachus pugnax*) (Mi, Ma) Rufous Fantail (*Rhipidura rufifrons*) (Mi, Ma) Sanderling (*Calidris alba*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Sharp-tailed Sandpiper (*Calidris acuminata*) (Mi, Ma) Streaked Shearwater (*Calonectris leucomelas*) (Mi, Ma) Terek Sandpiper (*Xenus cinereus*) (Mi, Ma) Wandering Tattler (*Tringa incana*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V) Whimbrel (*Numenius phaeopus*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma)			
Russell Island – Kingfisher Court	No	Bar-tailed Godwit (*Limosa lapponica*) (Mi, Ma) Black-tailed Godwit (*Limosa limosa*) (Mi, Ma) Broad-billed Sandpiper (*Limicola falcinellus*) (Mi, Ma) Common Greenshank (*Tringa nebularia*) (Mi, Ma) Common Sandpiper (*Actitis hypoleucos*) (Mi, Ma) Curlew Sandpiper (*Calidris ferruginea*) (CE, Mi, Ma) Double-banded Plover (*Charadrius bicinctus*) (Mi, Ma) Eastern Curlew (*Numenius madagascariensis*) (CE, Mi, Ma) Flesh-footed Shearwater (*Ardenna carneipes*) (Mi, Ma) Great Knot (*Calidris tenuirostris*) (CE, Mi, Ma) Grey Plover (*Pluvialis squatarola*) (Mi, Ma) Grey-headed Flying-fox (*Pteropus poliocephalus*) (V) Grey-tailed Tattler (*Tringa brevipes*) (Mi, Ma) Lesser Sand Plover (*Charadrius mongolus*) (E, Mi, Ma) Little Curlew (*Numenius minutus*) (Mi, Ma) Marsh Sandpiper (*Tringa stagnatilis*) (Mi, Ma) Nunivak Bar-tailed Godwit (*Limosa lapponica baueri*) (V) Oriental Plover (Charadrius veredus) (Mi, Ma) Osprey (*Pandion haliaetus*) (Mi, Ma) Pacific Golden Plover (*Pluvialis fulva*) (Mi, Ma) Pied Stilt (*Himantopus himantopus*) (Ma) Red Knot (*Calidris canutus*) (E, Mi, Ma) Red-capped Plover (*Charadrius ruficapillus*) (Ma) Red-necked Avocet (*Recurvirostra novaehollandiae*) (Ma) Red-necked Stint (*Calidris ruficollis*) (Mi, Ma) Ruddy Turnstone (*Arenaria interpres*) (Mi, Ma) Ruff (*Philomachus pugnax*) (Mi, Ma) Sanderling (*Calidris alba*) (Mi, Ma) Satin Flycatcher (*Myiagra cyanoleuca*) (Mi, Ma) Sharp-tailed Sandpiper (*Calidris acuminata*) (Mi, Ma) Streaked Shearwater (*Calonectris leucomelas*) (Mi, Ma) Terek Sandpiper (*Xenus cinereus*) (Mi, Ma) Wandering Tattler (*Tringa incana*) (Mi, Ma) Water Mouse (*Xeromys myoides*) (V) Whimbrel (*Numenius phaeopus*) (Mi, Ma) White-bellied Sea-Eagle (*Haliaeetus leucogaster*) (Ma) White-throated Needletail (*Hirundapus caudacutus*) (V, Mi, Ma) Wood Sandpiper (*Tringa glareola*) (Mi, Ma)	None recorded	Eastern Curlew (*Numenius madagascariensis*) (E) Whimbrel (*Numenius phaeopus*) (SL) Little Tern (*Sternula albifrons*) (SL) Crested Tern (*Thalasseus bergii*) (SL) Eastern Osprey (*Pandion cristatus*) (SL) Caspian Tern (*Hydroprogne caspia*) (SL)	None recorded	High Ecological Significance wetlands on the Map of Queensland Wetland Environmental Values Regulated vegetation - Category B (remnant vegetation; Of concer RE 12.1.1, Least Concern RE 12.1.3); Category C (High value regrowth; Of concern RE 12.1.1, Least Concern RE 12.1.2, 12.3.5, Endangered RE 12.5.3)

Appendix 2 Considerations for canopy-mounted sprinklers

Canopy-mounted sprinklers are not suitable for all sites, vegetation type, ecological values, site size and potential risks of nudging flying-foxes into less desirable locations (e.g. private property) need to be considered.

Two Category 3 roosts (Lawn Terrace and Lotus Close) have been identified as potentially suitable for a sprinkler trial. It is important to note that these trial will only be progressed with the following considerations:

- Council resources are available and approved for installation
- agreement between landholders, including potential cost-sharing for ongoing operation (water, power)
- site assessment to confirm suitable locations by Council Wildlife Officers (mapped locations are indicative only) avoiding flying-fox crèche trees and other key areas (e.g. waterbird habitat at Lotus Close)
- site assessment by contractor to confirm suitable locations for install based on access etc.

Timing of installation must also be in a period that will not risk flying-fox welfare (e.g. the non-rearing season / when the roost is naturally empty), as advised by Wildlife Officers.

A protocol will be developed for sprinkler operation and duration of use will be limited to select periods during the day. The trial or ongoing sprinkler use may be stopped at any time if issues are created elsewhere (e.g. flying-foxes move onto private property, identified risk at Lawn Terrace), and sprinklers may need to be turned off during temporary influxes and weather events.

Revision History

Revision No.	Revision date	Details	Prepared by	Reviewed by approved by
00	21/03/2022	PR6777 Redlands Coast Flying-fox Plan Roost Detail R0	Adam Stone, Wildlife Biologist Ellie Kirke, Wildlife Biologist	Jess Bracks, Principal Wildlife Biologist
01	06/04/2022	PR6777 Redlands Coast Flying-fox Plan Roost Detail R1		Jess Bracks, Principal Wildlife Biologist (incorporating Council comments)
02	16/05/2022	PR6777 Redlands Coast Flying-fox Management Plan Roost Detail		Jess Bracks, Principal Wildlife Biologist (incorporating Council comments)

Distribution List

Copy #	Date	Type	Issued to	Name
2	16/05/2022	Electronic	Redland City Council	Administration

Citation: Ecosure 2022, *Redlands Coast Flying-fox Management Plan Roost Detail*, Report to Redland City Council, Ecosure, Brisbane

Report compiled by Ecosure Pty Ltd

ABN: 63 106 067 976

admin@ecosure.com.au www.ecosure.com.au

Redlands Coast Flying-fox Plan Management Roost Detail (A6594409)

Brisbane
PO Box 675
Fortitude Valley QLD 4006
P 07 3606 1030

Gold Coast
PO Box 404
West Burleigh QLD 4219
P 07 5508 2046
F 07 5508 2544

Rockhampton
PO Box 235
Rockhampton QLD 4700
P 07 4994 1000

Sydney
PO Box 880
Surry Hills NSW 2010
P 1300 112 021

Adelaide
PO Box 145
Pooraka SA 5095
P 1300 112 021
M 0407 295 766

Coffs Harbour
PO Box 4370
Coffs Harbour Jetty NSW 2450
P 02 5621 8103

Gladstone
PO Box 5420
Gladstone QLD 4720
P 07 4994 1000

Sunshine Coast
PO Box 1457
Noosaville QLD 4566
P 07 5357 6019

Townsville
PO Box 2335
Townsville QLD 4810
P 1300 112 021