

# **AGENDA**

# **ENVIRONMENT AND SUSTAINABILITY COMMITTEE**

Tuesday, 3 December 2024
10 minutes after the conclusion of the Economic and Cultural Development
Committee or such later time as determined by the preceding committee

Council Chambers, Level 8 1 Nicholas Street, Ipswich

MEMBERS OF THE ENVIRONMENT AND SUSTAINABILITY COMMITTEE			
Councillor Jim Madden (Chairperson)	Mayor Teresa Harding		
Councillor Andrew Antoniolli (Deputy Chairperson)	Deputy Mayor Nicole Jonic		
	Councillor Jacob Madsen		
	Councillor Pve Augustine		

# **ENVIRONMENT AND SUSTAINABILITY COMMITTEE AGENDA**

Item No.	Item Title Welcome to Country or Acknowledgment of Country Declarations of Interest		
	Confirmation of Minutes		
1	Confirmation of Minutes of the Environment and Sustainability Committee No. 2024(06) of 14 November 2024	9	
	Officers' Reports		
2	New Off-site Stormwater Quality Improvement Policy and updated Voluntary Payment	14	
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<sup>\*\*</sup> Item includes confidential papers

# **ENVIRONMENT AND SUSTAINABILITY COMMITTEE NO. 2024(07)**

#### **3 DECEMBER 2024**

**AGENDA** 

#### WELCOME TO COUNTRY OR ACKNOWLEDGEMENT OF COUNTRY

# **DECLARATIONS OF INTEREST IN MATTERS ON THE AGENDA**

# **BUSINESS OUTSTANDING**

#### **CONFIRMATION OF MINUTES**

1. <u>CONFIRMATION OF MINUTES OF THE ENVIRONMENT AND SUSTAINABILITY</u> <u>COMMITTEE NO. 2024(06) OF 14 NOVEMBER 2024</u>

# **RECOMMENDATION**

That the minutes of the Environment and Sustainability Committee held on 14 November 2024 be confirmed.

# **OFFICERS' REPORTS**

# 2. <u>NEW OFF-SITE STORMWATER QUALITY IMPROVEMENT POLICY AND UPDATED VOLUNTARY PAYMENT</u>

Since 2012, Ipswich City Council (council) has operated the Off-site Stormwater Quality Improvement Program (the Program). The Program enables off-site stormwater quality improvement in the Ipswich local government area. In late 2022, a formal review of the Program was undertaken which identified several issues and recommendations to address them. This included the preparation of a new council policy to ensure consistent decision-making in the Program and an update to the council's Voluntary Off-site Stormwater Quality Improvement Payment (the Payment) to ensure environmental, financial, and other risks are controlled.

# **RECOMMENDATION**

That the policy titled 'Off-site Stormwater Quality Improvement Policy', as detailed in Attachment 1 be adopted.

# 3. <u>SUSTAINABILITY POLICY REVIEW</u>

The Sustainability Policy, adopted by the Ipswich City Council (Council) in 2020, was due for mandatory four-year review on 26 November 2024. The policy has been reviewed and updated to enhance its commitment to sustainability, align with current best practices, and incorporate principles such as climate resilience and sustainable procurement. The updated policy is presented for adoption to ensure it remains relevant and demonstrates Council's ongoing commitment to sustainability.

This is a report concerning the update of the Sustainability Policy.

# **RECOMMENDATION**

That the revised policy titled 'Sustainability Policy', as detailed in Attachment 3, be adopted.

# 4. WASTE & CIRCULAR ECONOMY TRANSFORMATION DIRECTIVE - QUARTERLY REPORT

This is a report concerning the continuing implementation of the Ipswich City Council Waste and Circular Economy Transformation Policy Directive (the Directive) following the review of the Directive at the Ordinary Council Meeting of 3 September 2024.

As outlined in the attachment to this report, a significant body of work continues to implement actions against the ten (10) principles of the Directive.

# **RECOMMENDATION**

That the report be received and the contents noted.

# 5. <u>IPSWICH RIVERS IMPROVEMENT TRUST NOTICE OF ANNUAL PRECEPT FOR 2024 - 2025</u>

This is a report concerning the annual Precept issued to Council under the *Rivers Improvement Trust Act 1940* and the associated program of works for the Ipswich Rivers Improvement Trust for 2024-2025.

# **RECOMMENDATION**

That the report be received and the contents noted.

# 6. ENVIROPLAN ANNUAL REPORT 2023-2024

This is a report concerning the Ipswich Enviroplan Program and Levy Annual Progress Report for the 2023-2024 Financial Year (Attachment 1). Contained within the report is an overview of project delivery, outcomes and a financial summary including expenditure and revenue and highlights from the past year which include:

- A land acquisition in April 2024 of 93 hectares at Mt. Flinders Road, Peak Crossing
- \$164,778 was provided to the Ipswich community in Nature Conservation Grants
- \$351,324 towards 156 hectares of ongoing fuel-reduced area maintenance for the control of wildfires in Natural Area Estates and protection of life and property

# **RECOMMENDATION**

That the report concerning the Enviroplan Annual Report 2023-2024 be received and the contents noted.

# 7. <u>UPDATED FLYING-FOX ROOST MANAGEMENT PLAN</u>

Council's Flying-fox Roost Management Plan and Statement of Management Intent have undergone a review and update. This update included third party expert input as well as community engagement through Shape Your Ipswich. Attached for consideration and adoption by Council is the final draft of the updated Ipswich City Council Flying Fox Management Plan 2024 (Attachment 1). The Statement of Management Intent (Attachment 2) required a small suite of changes to align it with the newly drafted Flying-fox Roost Management Plan.

# **RECOMMENDATION**

- A. That Council adopt the new Ipswich City Council Flying-fox Roost Management Plan 2024, as detailed in Attachment 1.
- B. That Council adopt the updated Flying-fox Statement of Management Intent, as detailed in Attachment 2.

# **NOTICES OF MOTION**

#### **MATTERS ARISING**

# **QUESTIONS / GENERAL BUSINESS**

# **ENVIRONMENT AND SUSTAINABILITY COMMITTEE NO. 2024(06)**

#### **14 NOVEMBER 2024**

#### **MINUTES**

# **COUNCILLORS' ATTENDANCE:**

Councillor Jim Madden (Chairperson); Councillors Andrew Antoniolli (Deputy Chairperson), Mayor Teresa Harding, Deputy Mayor Nicole Jonic, Jacob Madsen, Pye Augustine and David Martin (Observer)

# **COUNCILLOR'S APOLOGIES:**

Nil

# **OFFICERS' ATTENDANCE:**

Chief Executive Officer (Sonia Cooper), General Manager Environment and Sustainability (Kaye Cavanagh), Acting General Manager Fleet, Works and Field Services (Darren Scott), Manager Natural Environment (Phil A Smith), Resource Recovery Manager (David McAlister), Disaster Management Coordinator (Kristie Mckenna), Team Leader – Environment and Sustainability Education and Awareness (Stephani Grove), Senior Communications and Policy Officer (Jodie Richter), Chief of Staff – Office of the Mayor (Melissa Fitzgerald), Coordinator Communications (Lucy Stone) and Theatre Technician (Trent Gray)

# WELCOME TO COUNTRY OR ACKNOWLEDGEMENT OF COUNTRY

Councillor Jim Madden (Chairperson) invited Councillor Jacob Madsen to deliver the Acknowledgement of Country

# **DECLARATIONS OF INTEREST IN MATTERS ON THE AGENDA**

Nil

# **BUSINESS OUTSTANDING**

# 1. RESPONSE TO NOTICE OF MOTION - SOUTHERN RESOURCE RECOVERY CENTRE ANCILLARY SERVICES

This is a report concerning a response to a Notice of Motion submitted by Councillor Jim Madden at the Environment and Sustainability Committee held on 13 August 2024 requesting:

That Council Officers prepare a report relating to costings and a review as to the possibility of the following facilities at the proposed Southern Resource Recovery Centre (SRRC):

- Tip Shop where items that would otherwise go to landfill could be sold.
- Tool Library where residents can loan tools for use instead of buying cheap tools and disposing of them in landfill.
- Toy Library where residents can loan children's educational toys & play equipment.
- Repair Centre or Repair Cafe where residents can take items to learn how to repair and reuse these items.
- And any other relevant issues.

Attached to this report is a detailed assessment paper prepared to answer the above question and provide guidance.

In summary the tip shop as already planned is the most consistent site usage in relation to associated waste activities. The Tool Library, Toy Library and Repair Café, whilst strongly supported in principle as sound circular economy practises are not best suited for co-location at the SRRC for a range of risk, traffic management and suitability reasons, and these should be explored and supported at other Council locations such as Community Centres.

Noting that there is still significant time before final site designs are completed for the SRRC.

# **RECOMMENDATION**

Moved by Councillor Pye Augustine:

Seconded by Councillor Andrew Antoniolli:

That the response to the Notice of Motion in relation to the Southern Resource Recovery Centre Ancillary Services be received and noted.

AFFIRMATIVE NEGATIVE
Councillors: Councillors:
Madden Nil

Antoniolli Harding Jonic Madsen Augustine

The motion was put and carried.

# **CONFIRMATION OF MINUTES**

# 2. <u>CONFIRMATION OF MINUTES OF THE ENVIRONMENT AND SUSTAINABILITY</u> <u>COMMITTEE NO. 2024(05) OF 15 OCTOBER 2024</u>

# **RECOMMENDATION**

Moved by Councillor Andrew Antoniolli: Seconded by Deputy Mayor Nicole Jonic:

That the minutes of the Environment and Sustainability Committee held on 15 October 2024 be confirmed.

AFFIRMATIVE NEGATIVE
Councillors: Councillors:
Madden Nil

Antoniolli Harding Jonic Madsen Augustine

The motion was put and carried.

# **OFFICERS' REPORTS**

# 3. <u>LITTLE LIVERPOOL RANGE INITIATIVE PROGRESS REPORT</u>

This is a report concerning the continued growth and achievements of the Little Liverpool Range Initiative since its inception in July 2016.

# **RECOMMENDATION**

Moved by Deputy Mayor Nicole Jonic: Seconded by Councillor Pye Augustine:

That the report in relation to the Little Liverpool Range Initiative Progress Report be received and the contents noted.

AFFIRMATIVE NEGATIVE
Councillors: Councillors:
Madden Nil

Antoniolli Harding Jonic Madsen Augustine The motion was put and carried.

# 4. COMMUNITY DISASTER RISK AWARENESS EDUCATION

This is a report concerning the outcomes of a recently concluded grant-funded project focused on understanding and improving disaster risk awareness and preparedness in Ipswich. This two-year Commonwealth-funded project enabled council to temporarily employ a project officer to undertake a large volume of community education focused on improving community resilience to disasters.

# **RECOMMENDATION**

Moved by Mayor Teresa Harding:

Seconded by Councillor Pye Augustine:

That the report on Community Disaster Risk Awareness Education be received and the contents noted.

AFFIRMATIVE NEGATIVE
Councillors: Councillors:
Madden Nil

Antoniolli Harding Jonic Madsen Augustine

The motion was put and carried.

# **NOTICES OF MOTION**

Nil

# **MATTERS ARISING**

Nil

# **QUESTIONS / GENERAL BUSINESS**

Nil

# **PROCEDURAL MOTIONS AND FORMAL MATTERS**

The meeting commenced at 1.34 pm.

The meeting closed at 1.45 pm.

Doc ID No: A10869149

ITEM: 2

SUBJECT: NEW OFF-SITE STORMWATER QUALITY IMPROVEMENT POLICY AND UPDATED

**VOLUNTARY PAYMENT** 

AUTHOR: WATERWAY IMPROVEMENT OFFICER

DATE: 28 OCTOBER 2024

#### **EXECUTIVE SUMMARY**

Since 2012, Ipswich City Council (council) has operated the Off-site Stormwater Quality Improvement Program (the Program). The Program enables off-site stormwater quality improvement in the Ipswich local government area. In late 2022, a formal review of the Program was undertaken which identified several issues and recommendations to address them. This included the preparation of a new council policy to ensure consistent decision-making in the Program and an update to the council's Voluntary Off-site Stormwater Quality Improvement Payment (the Payment) to ensure environmental, financial, and other risks are controlled.

# **RECOMMENDATION/S**

That the policy titled 'Off-site Stormwater Quality Improvement Policy', as detailed in Attachment 1 be adopted.

#### **RELATED PARTIES**

There were no conflicts of interest identified in the process of writing this report.

#### **IFUTURE THEME**

Natural and Sustainable

# **PURPOSE OF REPORT/BACKGROUND**

The State Planning Policy 2017 requires applicable development to improve the quality of stormwater running off development sites by meeting targets for the reduction of key stormwater pollutants. In-lieu of partially or fully meeting these targets on development sites (i.e., 'on-site'), developers may volunteer to pay a fee to local governments to inherit their stormwater quality improvement responsibilities. Local governments must use these fees to deliver projects away from development sites (i.e., off-site) at other locations in their jurisdictions. These projects must achieve an equal or greater stormwater quality outcome relative to what would be achieved by developers meeting responsibilities on-site. This process is referred to as off-site stormwater quality improvement.

As an outcome of a recent review, a new council policy has been drafted and is included as Attachment 1 of this report.

# **Off-site Stormwater Quality Improvement Policy**

The review of the Program identified a review of council's position and direction for off-site stormwater quality improvement decision making, including clarity on roles and responsibilities for the program's operation across multiple council departments, branches, and teams. To address this, it was recommended that a new council policy be prepared incorporating the following:

- Purpose and principles
- Eligibility requirements
- Governance requirements

The Off-site Stormwater Quality Improvement Policy (the Policy) was prepared in accordance with best practice and meeting statutory requirements for off-site stormwater quality improvement in Queensland. They involved the following activities.

- A review of Queensland policy relating to off-site stormwater quality improvement
- A review of Queensland guidelines for off-site stormwater quality improvement
- Policy benchmarking
- Significant internal and external stakeholder consultation

The Policy is supported by a planning policy (to be included in the forthcoming Ipswich Plan 2024), a procedure, and guidelines (refer Attachments 3, 4, 5). The planning policy enables off-site stormwater quality improvement in the Ipswich local government area as a means for developers to comply with the State Planning Policy 2017. The procedure establishes business processes and roles and responsibilities for the operation of the Program. The guidelines provide guidance for developers seeking to participate in the Program as well as a framework for council staff to assess developer applications to participate.

# **Voluntary Off-site Stormwater Quality Improvement Payment**

The Payment is made up of an in-lieu fee unit and rate. The term "in-lieu" is used as the Payment is made in-lieu of developers partially or fully meeting their stormwater quality improvement responsibilities on-site. The unit is used to provide a standardised measurement of the on and off-site stormwater quality improvement responsibility. The rate reflects the cost for council to inherit the responsibility per unit of measure.

# In-lieu fee unit

The current unit is square metres (m<sup>2</sup>) of stormwater quality treatment area, specifically the equivalent filter area of bioretention which is considered the most cost-effective stormwater quality improvement technology. The review identified that the current unit is not directly

comparable to the outputs of modelling tools used to assess stormwater quality improvement responsibilities by the development industry and council, and therefore prevents reliable assessments of council's inherited responsibilities and the performance of off-site projects in meeting them. Additionally, it prevents developers from taking credit for partial on-site stormwater quality improvement. This is inconsistent with best practice which seeks to avoid and reduce the quantity of stormwater generated on-site in the first instance.

Based on the benchmarking of in-lieu fee units and rates used by other Australian local governments, as well as advice from external consultants, it was recommended to change the in-lieu fee unit from m² of stormwater quality treatment area to kilograms (kg) of Total Nitrogen (TN) per year (kgTN/year). This unit is consistent with the stormwater quality modelling approach currently employed by the development industry and council and thus addresses the issues noted above.

The conversion of the unit would result in the current rate of \$1,121.23/m<sup>2</sup> being updated to the equivalent value of \$29,506/kgTN/year.

# In-lieu fee rate

Based on the Queensland Government's Point Source Water Quality Offsets Policy 2019, it was recommended that a 50% delivery ratio be incorporated into the in-lieu fee rate to address modelling uncertainties and associated environmental, financial, and other risks. Additionally, and in alignment with the Queensland Government's guidance for off-site stormwater quality improvement, it was recommended that costs for operating the Program and managing the planning and delivery of off-site projects be incorporated into the in-lieu fee rate. This addition accords with Section 97 of the *Local Government Act 2009* which requires local governments to limit fees for the supply of goods and services to cost recovery.

The above would result in the in-lieu fee rate increasing from \$29,605/kgTN/year to \$48,532/kgTN/year, denoting a 64% increase.

# **LEGAL IMPLICATIONS**

This report and its recommendations are consistent with the following legislative provisions: Environmental Protection Act 1994 Planning Act 2016 Queensland State Planning Policy

#### **POLICY IMPLICATIONS**

The Policy is supported by the guidelines (see Attachment 5) which are referenced in the draft Ipswich Plan 2024. To ensure integration of these documents, it is recommended that the Policy be adopted before the Ipswich Plan 2024 comes into effect. No other council policies have been identified that would be impacted by the recommendations of this report.

The Policy works with and towards the objectives and intent of the Queensland State Planning Policy where it refers to Stormwater Quality Management.

#### **RISK MANAGEMENT IMPLICATIONS**

The recommendations of this report have aimed to control the risks described above as well as others associated with the operation of the Program and off-site stormwater quality improvement in the Ipswich local government area.

These include but are not limited to environmental impact risks associated with reducing pollution.

Reputational Risk around the management of developer contributions intended of a specific use.

Legislative risk associated with delivering and achieving requirements under the State Planning Scheme.

# FINANCIAL/RESOURCE IMPLICATIONS

# **Internal financial implications**

The recommendations of this report can be implemented without further funding. The updated Payment will ensure Council can recover costs associated with the implementation and operation of the Program in the future (including Program reviews), reducing pressure for budget funding from general revenue to deliver equivalent stormwater quality improvements.

Given the increasing accrual of responsibilities, the Environment and Sustainability Department continues to review the workload with a focus on the potential need to use the accrued funding to support delivery resourcing through increased labour budgets for contractors.

# **External financial implications**

Relative to historic in-lieu fee rates, the updated Payment will increase costs for developers if and only when off-site stormwater quality improvement is their only feasible option to comply with the State Planning Policy 2017. However, council is not aware of any development circumstance or scenario where this has been the case in the Ipswich local government area. Developers will always retain the option to meet responsibilities on-site, thereby attracting no additional costs relative to business as usual and standard industry practice across Queensland, including in most other local government areas where off-site stormwater quality improvement is not a compliance option. Under the draft Policy, developers will also have the option to partially meet responsibilities on-site and pay an inlieu fee to council to inherit and meet their remaining responsibilities.

Note: the updated charges will be considered as part of the 2025-2026 budget.

#### COMMUNITY AND OTHER CONSULTATION

#### Internal consultation and communication

An internal working group was established to undertake the review of the Program and identify and implement its recommendations. It included representatives from the following council departments and branches.

- Planning and Regulatory Services Department
  - City Design Branch
  - Development Planning Branch
  - Engineering, Health and Environment Branch
- Asset and Infrastructure Services Department
  - Infrastructure Strategy Branch
  - Works and Field Services Branch
- Corporate Services Department
  - Legal and Governance Branch
  - Finance Branch including Financial Accounting and Finance Partnering
- Environment and Sustainability Branch
  - Natural Environment Branch

The Policy and update to Payment were prepared through a collaborative process involving several programmed and ad hoc meetings and workshops drawing together representatives from the above departments and branches.

The final draft of the Policy was reviewed by the following council teams.

- The Legal and Governance Branch's Policy Team to ensure compliance with council's Policy and Procedure Management Framework.
- The Legal and Governance Branch's Legal Team to identify legal risks and ensure compliance with council's legal requirements.
- The Natural Environment Branch's Environment and Sustainability Education Team to ensure compliance with council's writing and style guidance.

The recommended update to the Payment was devised by the Finance Branch in collaboration with the Natural Environment Branch's Strategic Catchment and Conservation Planning Team.

#### **External consultation and communication**

To ensure alignment with current industry practice, relevant staff from all known Queensland local governments with off-site stormwater quality improvement programs were consulted during the preparation of the Policy and update to the Payment, including Brisbane City Council, Logan City Council, and Mackay Regional Council. To ensure alignment with current best practice, including the Queensland Government's guidance for off-site stormwater quality improvement, relevant staff from the Healthy Waters and Wetlands Policy Team within the Department of Environment, Science and Innovation (DESI) were also consulted.

Some Queensland local governments have expressed interest in the Policy and proposed inlieu fee unit and rate to inform their off-site stormwater quality improvement programs, including Brisbane City Council and Logan City Council. Additionally, DESI has expressed interest in using findings of the Program's review to inform an update to the Queensland Government's guidance for off-site stormwater quality improvement, the Water Quality State Interest Supplementary Implementation Guideline 2021.

Advice on the Policy and update of the Payment was communicated to the development industry through a meeting with relevant representatives from the Urban Development Institute of Australia (UDIA) in October 2024. Upon adoption of the Policy and update of the Payment, further advice will be communicated to additional external stakeholders through the following.

- Scripts for development pre-lodgement meetings and customer service enquiries.
- Updates to relevant council webpages (e.g., Offsite Stormwater Quality Improvement Program page on council's website and Engineering, Health and Environment page on planning and development website).
- An eALERT to all subscribers as well as all current and historic development applicants lodged since July 1, 2023 (see Attachment 2).
- The publication of a fact sheet on a relevant council webpage (e.g., Off-site stormwater Quality Improvement Program page on council's website).

# **CONCLUSION**

The recommendations of this report have aimed to control the risks associated with off-site stormwater quality improvement in the Ipswich local government area while ensuring the Program aligns with best practice, meets statutory requirements, and delivers desired economic, environmental, and social outcomes. The Program's review and implementation of the recommendations herein will maintain council's position as a leader in off-site stormwater quality improvement in Queensland. This has been reflected in historic awards for off-site projects (e.g., Small Creek channel naturalisation) and most recently, the 2024 Award for Excellence in Policy and Education from Stormwater Queensland for the Program's review.

# **HUMAN RIGHTS IMPLICATIONS**

HUMAN RIGHTS IMPACTS		
OTHER DECISION		
(a) What is the Act/Decision being made?	Recommendation A state that Council approve a new council policy for off-site stormwater quality improvement and an update to council's Voluntary Off-site Stormwater Quality Improvement Payment.	
(b) What human rights are affected?	No human rights are affected by the recommendations.	
(c) How are the human rights limited?	N/A	
(d) Is there a good reason for limiting the relevant rights? Is the limitation fair and reasonable?	N/A	
(e) Conclusion	The decision is consistent with human rights.	

# ATTACHMENTS AND CONFIDENTIAL BACKGROUND PAPERS

1.	Off-site Stormwater Quality Improvement Council Policy FINAL DRAFT 🗓 🖺
2.	Off-site Stormwater Quality Improvement eALERT 🗓 🖺
3.	Off-site Stormwater Quality Improvement Planning Policy FINAL DRAFT 🗓 🖺
4.	Off-site Stormwater Quality Improvement Procedure 🗸 🖺
5.	Off-site Stormwater Quality Improvement Guidelines 🗓 🖺

# Benny Penhallurick

# **WATERWAY IMPROVEMENT OFFICER**

I concur with the recommendations contained in this report.

Phil A. Smith

# MANAGER, NATURAL ENVIRONMENT

I concur with the recommendations contained in this report.

Kaye Cavanagh

**GENERAL MANAGER (ENVIRONMENT AND SUSTAINABILITY)** 

"Together, we proudly enhance the quality of life for our community"



Version Control and Objective ID	Version No:	Objective ID: A10612534
Adopted at Council Ordinary Meeting on		
Date of Review		

#### 1. Statement

Ipswich City Council (council) recognises that in certain circumstances, off-site stormwater quality improvement can provide superior environmental outcomes compared to developer delivered on-site stormwater quality treatment.

As enabled by the State Planning Policy 2017, council has established an Off-site Stormwater Quality Improvement Program (the Program) whereby eligible developers can volunteer for their stormwater quality improvement responsibilities to be delivered wholly or partially at a nearby off-site location. Eligible developers pay an in-lieu fee to council, and council must use these funds to deliver an off-site solution that achieves an equal or better water quality improvement. Developer eligibility and approval for off-site stormwater quality improvement is at the sole and absolute discretion of council.

Council is committed to ensuring the Program is delivered in a manner whereby superior environmental outcomes are achieved compared to developer delivered on-site stormwater quality treatment.

#### 2. Purpose and Principles

This Off-site Stormwater Quality Improvement Policy (the Policy) guides council's decision-making in relation to off-site stormwater quality improvement. The Policy is guided by the following purposes and principles:

- Off-site solutions will result in equal or better water quality (Total Suspended Solids, Total Nitrogen, Total Phosphorus, and Gross Pollutants) within Ipswich's waterways compared to developer delivered on-site stormwater quality treatment.
- Off-site solutions will provide multiple additional environmental and community co-benefits such as habitat creation, increased biodiversity, flood risk reduction, and urban greening.
- Off-site solutions will lead to a reduction in the number of poorly designed and constructed stormwater quality assets being transferred to council ownership.
- Off-site solutions will reduce ratepayer costs resulting from the need to rectify poorly designed and constructed stormwater quality assets once they are transferred to council ownership.
- Off-site solutions will be planned, delivered, and managed so the required water quality improvements are achieved in perpetuity.

#### 3. Strategic Plan Links

This Policy aligns with the following iFuture 2021-2026 Corporate Plan themes:

# IPSWICH CITY COUNCIL | Off-site Stormwater Quality Improvement Policy

- · Vibrant and Growing
- Natural and Sustainable
- A Trusted and Leading Organisation

# 4. Regulatory Authority

- Environmental Protection Act 1994
- Local Government Act 2009
- State Planning Policy 2017
- Ipswich Planning Scheme

# 5. Human Rights Commitment

Ipswich City Council (Council) has considered the human rights protected under the *Human Rights Act 2019 (Qld)* (the Act) when adopting and/or amending this policy. When applying this policy, Council will act and make decisions in a way that is compatible with human rights and give proper consideration to a human right relevant to the decision in accordance with the Act.

# 6. Scope

This Policy applies to all council staff, contractors, and others that act on council's behalf to ensure they work in accordance with its purposes and principles and relevant regulations.

# 7. Roles and Responsibilities

Responsibilities for the operation of the Program and implementation of this Policy are distributed and sometimes shared across several council departments and branches. Responsibilities for key roles within those departments and branches are:

Role	Responsibility
General Manager (Environment and Sustainability) and General Manager (Planning and Regulatory Services)	<ul> <li>Ensure business processes and decision making in relation to off-site stormwater quality improvement are guided by this Policy.</li> <li>Ensure staff are aware of and follow this Policy.</li> </ul>
Manager, Natural Environment Branch	Own, author, and review documentation supporting the implementation of this Policy including, but not limited to, the Off-site Stormwater Quality Improvement Guidelines (the Guidelines) and the Off-site Stormwater Quality Improvement Procedure (the Procedure).
Manager, City Design Branch	<ul> <li>Own, author, and review planning policies relating to off-site stormwater quality improvement.</li> <li>Ensure alignment and integration of planning policies with this Policy.</li> </ul>
General Manager (Asset and Infrastructure Services) and General Manager (Corporate Services)	Ensure staff are aware of and follow this Policy.

# **IPSWICH CITY COUNCIL | Off-site Stormwater Quality Improvement Policy**

#### 8. Key Stakeholders

Relevant stakeholders within the following council departments and branches will be consulted during the review process:

- Planning and Regulatory Services Department
  - o City Design Branch
  - Development Planning Branch
  - o Engineering, Health and Environment Branch
- Asset and Infrastructure Services Department
  - Infrastructure Strategy Branch
  - Works and Field Services Branch
- Corporate Services Department
  - o Legal and Governance Branch
  - o Finance Branch including Financial Accounting and Finance Partnering
- Environment and Sustainability Department
  - Natural Environment Branch

#### 9. Developer Eligibility

- Developer participation in the Program is completely voluntary. Council cannot require a developer to participate.
- Developer eligibility and participation in the Program is at the sole and absolute discretion of council.
- Payment of an in-lieu fee will only be considered where the development meets requirements identified within the Guidelines. Eligibility must ensure sensitive receiving areas are protected and that council can demonstrate available off-site solutions leading to equivalent or better water quality outcomes.
- Developer delivered off-site solutions will not be considered by council.
- Requests to pay an in-lieu fee for development within priority development areas, including but not limited to the Ripley Valley Priority Development Area, will not be considered by council.
- Requests to pay an in-lieu fee for Material Change of Use (MCU) development will not be considered by council.
- Developers may be eligible for all, or a portion, of their on-site stormwater quality improvement responsibilities to be met at an off-site location.

#### 10. Governance, Transparency, and Responsibility

- The Program will be delivered in a fair, efficient, transparent, and accountable manner that results in a net improvement to the water quality and health of Ipswich's waterways.
- The Program will conform to the State Planning Policy 2017 and associated guidelines for offsite stormwater quality improvement.
- Off-site solutions cannot be credited for other types of offset projects (e.g., Natural Environment Offsetting). Such practice is otherwise known as double dipping and is not supported by this Policy.
- Information regarding the Program will be easily accessible to developers and the public via a dedicated council webpage and other appropriate resources.
- Council will ensure it can achieve required off-site water quality improvements before accepting in-lieu fees from developers through the preparation and review of an Off-site

# **IPSWICH CITY COUNCIL | Off-site Stormwater Quality Improvement Policy**

Stormwater Quality Improvement Delivery Plan (the Delivery Plan). Participation in the Program can only occur where council can demonstrate, through the Delivery Plan, that it can achieve the required water quality improvements in perpetuity.

#### 11. Monitoring and Evaluation

The success and effectiveness of this Policy will be monitored and evaluated through the development and publication of a publicly available Off-site Stormwater Quality Improvement Annual Report (the Annual Report). The Annual Report will illustrate how Council is meeting its off-site water quality improvement responsibilities. The Annual Report will include a summary of revenue and expenditure for the previous financial year and an assessment of water quality improvements achieved in relation to the Delivery Plan.

This Policy will be reviewed in accordance with council's four (4) year review cycle or sooner if required.

#### 12. Definitions

- Co-benefits: Any additional environmental, social, or economic benefits an off-site solution brings beyond the required water quality improvement.
- Ipswich Planning Scheme: Ipswich Plan 2024 or otherwise amended from time to time.
- On-site stormwater quality improvement: The achievement of required post construction phase stormwater quality improvement responsibilities on development sites.
- Off-site stormwater quality improvement: The achievement of required post construction
  phase stormwater quality improvement responsibilities outside of development sites at other
  (off-site) locations.
- Off-site solution: a project undertaken outside of a development site (off-site) that results in
  equal or better water quality within Ipswich's waterways compared to developer delivered onsite stormwater quality treatment.
- Sensitive receiving area: Areas including, but not limited to:
  - A natural drainage feature corridor (stream orders 1 to 8 inclusive), the Bremer River and Brisbane River corridors
  - o The catchment of a naturally occurring wetland
  - Areas where discharge is to an unlined gully or stream that contain in-situ soil conditions which are determined to be of a high dispersion classification
  - Areas that have a high sensitivity to producing adverse outcomes in terms of water quality or water quantity management with small or incremental changes from development activity
  - Waterways and natural drainage features that support species (flora and fauna) that are sensitive to changes in water quality and flow hydrology
  - Receiving environments that may have significant human uses or human values (including cultural values).

#### 13. Related Documents

- Off-site Stormwater Quality Improvement Procedure
- Off-site Stormwater Quality Improvement Guidelines
- Off-site Stormwater Quality Improvement Delivery Plan
- Off-site Stormwater Quality Improvement Register
- Off-site Stormwater Quality Improvement Annual Report

# **IPSWICH CITY COUNCIL | Off-site Stormwater Quality Improvement Policy**

See Attachment 1 for a diagram illustrating the relationships between the above documents that establish the governance framework of the Program.

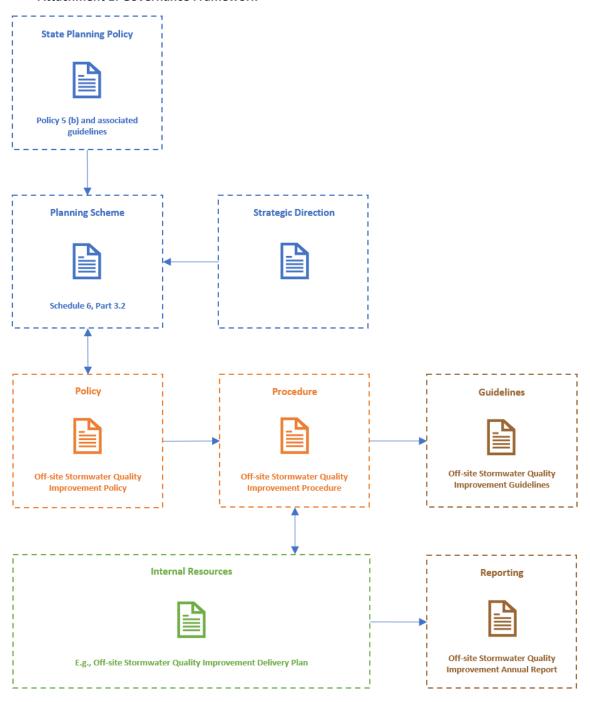
# 14. Policy Owner

The General Manager (Environment and Sustainability Department) is the Policy owner, and the Manager (Natural Environment Branch) is responsible for authoring and reviewing this Policy.



# **IPSWICH CITY COUNCIL | Off-site Stormwater Quality Improvement Policy**

# **Attachment 1: Governance Framework**



Page 6 of 6



Planned Send Date: (please allow 2 weeks scheduling time)

Subject to Council resolution on 12 December 2024

- 13 December 2024
- 1 June 2025

# Subject Line:

New Off-site Stormwater Quality Improvement Policy and updated Voluntary Payment

#### Content:

Since 2012, Ipswich City Council (council) has operated the Off-site Stormwater Quality Improvement Program (the Program). The Program allows eligible developers to voluntarily pay a fee to council in-lieu of meeting some or all of their stormwater quality improvement responsibilities under the State Planning Policy 2017. Council must use the fees to deliver projects off development sites (i.e., off-site) that achieve an equal or greater stormwater quality outcome relative to what would be achieved by developers meeting responsibilities on development sites.

In late 2022, council undertook a review of the Program to ensure it can meet the responsibilities it inherits from developers participating in the Program in the future. The review identified several issues and recommendations to address them including, but not limited to, the following.

- 1. The preparation of a new Off-site Stormwater Quality Improvement Policy (the Policy) to ensure consistent council decisions aligned to best practice and the achievement of desired economic, environmental, and social outcomes in Ipswich.
- 2. The update of council's Voluntary Off-site Stormwater Quality Improvement Payment (the Payment) to ensure environmental, financial, and other risks associated with off-site stormwater quality improvement are minimised for council and the Ipswich community.

In December 2024, council resolved to adopt the Policy and update the Payment in the 2025-2026 Register of Fees and Charges. The Policy, now in effect, can be found on council's policies website <a href="https://example.com/here">here</a>. The update of the Payment, to be included in the next financial year's Register of Fees and Charges, will include the following changes to the unit and rate used to calculate the Payment.

#### Payment unit

To ensure consistent assessments of the stormwater quality improvement responsibilities council inherits from developers, and the performance of off-site projects in meeting them, the current unit will change from square metres (m²) of water quality treatment area to kilograms (kg) of Total Nitrogen (TN) per year (kg/TN/year). The change of unit will result in the current rate of \$1,121.23/m² being updated to the equivalent value of \$29,506/kgTN/year. Note that this does not represent an increase to the fee rate, and therefore the fees to be paid by developers, only a change in the unit used to measure responsibilities.

#### **Payment rate**

To address environmental modelling uncertainties and recover council's costs for the operation of the Program, including the planning and delivery of off-site projects, the updated fee rate will increase from \$29,605/kgTN/year to \$48,532/kgTN/year. This denotes a 64% increase in the fee

rate, made up of a 50% increase to address modelling uncertainties and associated environmental and financial risks, and a 15% increase to recover council's Program and project management costs.

The new Policy and update to the Payment will maintain council's position as a leader in off-site stormwater quality improvement in Queensland. This has been reflected in historic awards for off-site projects (e.g., Small Creek channel naturalisation) and most recently, the 2024 Award for Excellence in Policy and Education from Stormwater Queensland for the Program's review.

For further information, please visit council's <u>Off-site Stormwater Quality Improvement Program</u> website.

#### **Voluntary Off-site Stormwater Quality Improvement Payment**

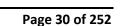
Voluntary payment of a fee in-lieu of on-site stormwater quality improvement may be appropriate, subject to conformity with the Off-site Stormwater Quality Improvement Guidelines.

It is the responsibility of the applicant to demonstrate that the development site conforms with the requirements of the Off-site Stormwater Quality Improvement Guidelines and to provide the necessary technical information to support any request to voluntarily pay an in-lieu fee.

Approval for the payment of an in-lieu fee is solely at the discretion of Council.

In the event that off-site stormwater quality improvement is not applicable, available or appropriate, on-site stormwater quality improvement will be required.

Note: Further guidance on the circumstances and requirements for participation in the Off-site Stormwater Quality Improvement Program can be found in the Off-site Stormwater Quality Improvement Guidelines.





Version Control and Objective ID	Version No:	Objective ID: A10612541
Name of parent policy/administrative directive	Off-site Stormwater Quality Improvement Policy	
Approved by General Manager on		
Date of Review		

#### 1. Background

Ipswich City Council (council) recognises that in certain circumstances, off-site stormwater quality improvement can provide superior environmental outcomes compared to developer delivered onsite stormwater quality treatment.

As enabled by the State Planning Policy 2017, council has established an Off-site Stormwater Quality Improvement Program (the Program) whereby eligible developers can volunteer for their stormwater quality improvement responsibilities to be delivered wholly or partially at a nearby off-site location. Eligible developers pay an in-lieu fee to council, and council must use these funds to deliver an off-site solution that achieves an equal or better water quality improvement. Developer eligibility and approval for off-site stormwater quality improvement is at the sole and absolute discretion of council.

#### 2. Purpose

The purpose of this Off-site Stormwater Quality Improvement Procedure (the Procedure) is to provide standards and processes to ensure the Program is delivered in accordance with the requirements of the Off-site Stormwater Quality Improvement Policy (the Policy). In particular, the Procedure guides the following aspects of the Program:

- Roles and responsibilities of key internal stakeholders
- Development application, review, and approval
- Planning and delivery of off-site solutions
- Calculation, payment, use, and management of in-lieu fees
- Management of uncertainty
- Program tracking and annual reporting.

# 3. Regulatory Authority

- Environmental Protection Act 1994
- Local Government Act 2009
- State Planning Policy 2017
- Ipswich Planning Scheme

# **IPSWICH CITY COUNCIL | Off-site Stormwater Quality Improvement Procedure**

# 4. Human Rights Commitment

Council has considered the human rights protected under the *Human Rights Act 2019 (Qld)* (the Act) when approving and/or amending this procedure. When applying this procedure, Council will act and make decisions in a way that is compatible with human rights and give proper consideration to a human right relevant to the decision in accordance with the Act.

# 5. Roles and Responsibilities

Responsibilities for the operation of the Program and the implementation of this Procedure are distributed and sometimes shared across several council departments and branches. Responsibilities for key departments and branches are:

Department	Branch	Responsibility	
Planning and Regulatory Services Department	Engineering, Health and Environment Branch	<ul> <li>Implement the Off-site Stormwater Quality         Improvement Guidelines (the Guidelines) through the         development assessment process, including assessing         developer eligibility for participation in the Program         and checking on-site and off-site stormwater quality         improvement responsibilities.</li> <li>Include Stormwater Quality Conditions in assessment         report recommendations, including the option to pay         an in-lieu fee.</li> <li>Refer to the Natural Environment Branch to approve         or deny eligible developer requests to participate in         the Program.</li> <li>Confirm the off-site stormwater quality improvement         responsibility for approved developers (i.e.,         (kgTN/year).</li> <li>Update the Off-site Stormwater Quality Improvement         Register with relevant information (the Register).</li> </ul>	
	Development Planning Branch	<ul> <li>Include Stormwater Quality conditions in development approvals when recommended by the Engineering, Health and Environment Branch.</li> <li>Receive confirmation from the Engineering, Health and Environment Branch regarding the payment of in-lieu fees for Plan Sealing applications.</li> <li>Calculate in-lieu fees based on the off-site stormwater quality improvement responsibilities (i.e., kgTN/year) and rate in the most current Register of Fees and Charges.</li> <li>Request invoice for the payment of in-lieu fees.</li> <li>Confirm in-lieu fees have been paid at the time of survey plan application lodgement.</li> </ul>	

# **IPSWICH CITY COUNCIL | Off-site Stormwater Quality Improvement Procedure**

Department	Branch	Responsibility	
	Office of the General Manager	<ul> <li>Prepare invoice and submit to Development Planning Branch.</li> <li>Develop, maintain, and update the Register that tracks requests to pay in-leu fees, approvals, payments, and the associated off-site stormwater quality improvement responsibilities council inherits.</li> <li>Report on updates to the Register on an as required basis.</li> </ul>	
Environment and Sustainability Department	Natural Environment Branch	<ul> <li>Prepare and review the Guidelines in support of the Policy and any associated planning policy for off-site stormwater quality improvement.</li> <li>Prepare and review the Off-site Stormwater Quality Improvement Delivery Plan (the Delivery Plan).</li> <li>Approve or deny eligible developer requests to pay inlieu fees on referral from the Engineering, Health and Environment Branch and provide justification for the decision within requested timeframes.</li> <li>Deliver off-site stormwater quality improvement projects and ensure they are recorded in council's asset management system.</li> <li>Track and annually report on the Program's financial status and council's water quality improvement responsibilities.</li> <li>Collect and analyse the life cycle costs of off-site solutions, assess the need to change the in-lieu fee rate, and when necessary, change the rate in the Register of Fees and Charges.</li> </ul>	
Asset and Infrastructure Services Department	Infrastructure Strategy Branch	Upon delivery of the as constructed documentation package, ensure off-site solutions (e.g., stormwater quality assets) are recorded in council's asset and data management systems and the data is managed as required by relevant policies and procedures.	
	Works and Field Services Branch	Ensure off-site solutions are adequately maintained so the required water quality improvements are achieved in perpetuity.	
Corporate Services Department	Finance Branch	Implement appropriate financial systems to track in- lieu fees and Program expenditure to ensure funds are used and managed in accordance with the Policy and this Procedure.	

# **IPSWICH CITY COUNCIL** | Off-site Stormwater Quality Improvement Procedure

#### 6. Key Stakeholders

Relevant stakeholders within the following council departments and branches will be consulted during the review process for this Procedure and the Guidelines:

- Planning and Regulatory Services Department
  - o City Design Branch
  - o Development Planning Branch
  - o Engineering, Health and Environment Branch
- Asset and Infrastructure Services Department
  - Infrastructure Strategy Branch
  - Works and Field Services Branch
- Corporate Services Department
  - o Legal and Governance Branch
  - o Finance Branch including Financial Accounting and Finance Partnering
- Environment and Sustainability Branch
  - Natural Environment Branch

#### 7. Education and Training Requirements

N/A

#### 8. Developer Eligibility

As noted in the Ipswich Planning Scheme, Guidelines to assist developers understand their eligibility and requirements for paying an in-lieu fee shall be prepared, periodically reviewed, and updated. The Guidelines will also be used by council to assess development applications that request participation in the Program. The Guidelines include the rules, requirements, and eligibility criteria for participation in the Program.

# 9. Development Application, Review, and Approval

The Engineering, Health and Environment Branch will ensure the following:

- Development applications are assessed and eligibility to participate in the Program is determined in accordance with the Guidelines, when a request is made to council.
- Development applications are reviewed to ensure the correct on-site and off-site stormwater quality improvement responsibilities have been identified. These are expressed as percentage reductions in the mean annual loads of Total Suspended Solids (TSS), Total Nitrogen (TN), Total Phosphorous (TP), and Gross Pollutants (GP).
- Stormwater Quality conditions are included in assessment report recommendations, including the option to pay an in-lieu fee.
- Stormwater Quality conditions on development approvals are complied with, including that the in-lieu fee has been paid.

The Development Planning Branch will ensure the following:

- Stormwater Quality conditions are included in development approvals when recommended by the Engineering, Health and Environment Branch.
- Advice from the Engineering, Health and Environment Branch regarding the payment of an in-lieu fee for Plan Sealing applications is received.

# **IPSWICH CITY COUNCIL** | Off-site Stormwater Quality Improvement Procedure

- The in-lieu fee is calculated according to the method described in section 11 of this
  Procedure and council's Register of Fees and Charges for the year in which the relevant
  Stormwater Quality condition is complied with.
- Invoices for the payment of in-lieu fees are requested.
- In-lieu fees have been paid at the time of survey plan application lodgement.

The Office of the General Manager will ensure the following:

- Invoices for the payment of in-lieu fees are generated on request.
- The Register is developed and used to track actioned requests to pay an in-lieu fee and other information useful for the Program and its operation.
- Reports on updates to the Register are provided on an as required basis.

The Natural Environment Branch will ensure the following:

 Requests from eligible developers to pay in-lieu fees are approved or denied and justification for the decision is provided to the Engineering, Health and Environment Branch within requested timeframes.

See Attachment 1 for a diagram illustrating the general process for assessing requests to pay an inlieu fee based on the above.

#### 10. Off-site Solutions

#### **Planning Off-site Solutions**

The Natural Environment Branch will prepare and review a five-year rolling Delivery Plan. Through the Delivery Plan, council will ensure it is able to deliver on all water quality improvement responsibilities inherited from developers before accepting in-lieu fees. Identification and selection of suitable off-site solutions will be guided by the purposes and principles of the Policy as well as the State Planning Policy 2017 and relevant contemporary water quality improvement practices. The following criteria will be used to guide off-site solution identification and selection:

- **Projected demand**: Projected future demand for off-site stormwater quality improvement based on the Register, development and growth projections, Program uptake rates, existing stormwater quality improvement responsibilities, and in-lieu fees.
- **Spatial equivalence**: At a sub-catchment scale, the off-site solutions achieve an improvement in water quality equivalent to or better than the on-site stormwater quality improvement responsibility.
- **Temporal equivalence**: The time between council receiving in-lieu fees and when an off-site solution, that achieves spatial equivalence, enters the operational phase should ideally be eliminated but otherwise minimised to avoid environmental damage. As of writing this Procedure, the average time between council receiving in-lieu fees and when equivalent off-site solutions are delivered is five (5) years.
- **Cost-effectiveness**: Ensure off-site solutions provide a justifiable balance between cost and the water quality improvement achieved.
- **Financial sustainability**: Ensure the Program's net water quality improvement responsibilities are achieved within the limits of the available developer payments of in-lieu fees.
- **Co-benefits**: Maximise the additional environmental, social, and economic co-benefits to the lpswich community.

# **IPSWICH CITY COUNCIL** | Off-site Stormwater Quality Improvement Procedure

- **Strategic outcomes**: Projects should support strategic outcomes identified in relevant council plans, policies, and strategies.
- Maintenance requirements: Selection and design of off-site solutions will be undertaken in consultation with the Works and Field Services Branch to ensure the best possible outcomes for future maintenance.

#### **Delivering Off-site Solutions**

The Natural Environment Branch will deliver off-site solutions in accordance with the Delivery Plan. However, it may not always be feasible to achieve the required spatial and temporal equivalence due to uncertainty as to where (i.e., what sub-catchments) and when (i.e., what year) development will be approved for off-site stormwater quality improvement. This uncertainty will be managed through periodic updates to the Delivery Plan and some flexibility regarding achieving spatial and temporal equivalence, and the source of funding for off-site solutions.

If the time between council receiving in-lieu fees and when an off-site solution enters the operational phase cannot be eliminated or appropriately minimised (e.g., due to insufficient accumulation of funds), then the following options may be applied:

- Temporary use of funds from one sub-catchment to support a project in another subcatchment. This is only allowable provided there is a reasonable level of certainty, supported by evidence, that the water quality improvement responsibilities for the sub-catchment from which funds are borrowed can still be met.
- Seek alternate funding to fill any shortfall. If funds from other offset programs (e.g., Natural Environment Offsetting) are applied, then water quality credits must be divided proportionally to the funding.
- Delay the start of the off-site solution until sufficient funds to complete the identified solution have accumulated.
- Undertake an off-site solution in a nearby sub-catchment within the same catchment. A
  hierarchical decision process should be used to ensure best spatial outcome is achieved.

The Natural Environment Branch will ensure water quality improvements achieved by an off-site solution are estimated using the most appropriate method for the project (e.g., the Model for Urban Stormwater Improvement Conceptualisation software). For projects where the confidence of the estimated water quality improvement is low, performance monitoring may be undertaken and used to update the estimated improvements. This performance monitoring will be funded by the Program.

The Natural Environment Branch, using Program funding, will be responsible for ensuring off-site solutions are completed to a standard so inherited water quality improvement responsibilities are met, including oversight of establishment maintenance and any post-construction rectifications.

The Natural Environment Branch and Infrastructure Strategy Branch will ensure off-site solutions are included in council's asset management system. The Infrastructure Strategy Branch will ensure off-site solutions (e.g., stormwater quality assets) are recorded in council's asset and data management systems and the data is managed as required by relevant policies and procedures. The Works and Field Services Branch will ensure off-site solutions are adequately maintained so the required water quality improvements are achieved in perpetuity.

## **IPSWICH CITY COUNCIL** | Off-site Stormwater Quality Improvement Procedure

#### 11. In-lieu Fee

The unit of the in-lieu fee will be dollars (\$) per kilogram (kg) of Total Nitrogen (TN) per year (\$/kgTN/year) in alignment with best practice and recommendations from a review of the in-lieu fee undertaken in 2023. The amount to be paid will be based on the kilograms of TN removal to be delivered off-site, and the associated rate within council's Register of Fees and Charges for the financial year in which the fee is paid. The in-lieu fee is to include the 1:1.5 delivery ratio and contingency as described in Section 12 of this Procedure.

The in-lieu fee paid by developers will be set at a rate to cover council's cost to operate the Program and meet inherited off-site water quality improvement responsibilities. The in-lieu fee will be determined through an assessment of the overall costs to operate the Program and the costs of planning and delivering all required off-site solutions to meet inherited water quality improvement responsibilities. The in-lieu fee will be adjusted annually to account for factors such as inflation and a detailed review of the Program will be undertaken at least every five (5) years.

While the calculation of the in-lieu fee will be based upon the unit of \$/kgTN/yr, on-site and off-site solutions must ensure water quality improvements for all pollutant types (i.e., TSS, TN, TP, and GP) are met in accordance with Appendix 2, Table B of the State Planning Policy 2017.

The following expenses shall be included in the detailed review of the in-lieu fee:

- Off-site solution planning including the preparation and update of the Delivery Plan
- Off-site solution concept design, detailed design, and the preparation of issue for tender documentation
- Off-site solution construction, including:
  - Construction
  - 12-week establishment period
  - o Post-construction rectifications
  - o Purchase of land that may be required
  - Project management
- Off-site solution performance monitoring
- Off-site solution establishment maintenance (3 years)
- Program management and reporting
- Administrative overheads (e.g., indirect Program costs)

The in-lieu fee rate will be based on an estimated cost to council to achieve off-site water quality improvement responsibilities using bioretention basins. Given that bioretention is the most commonly used technology to achieve on-site stormwater quality improvement responsibilities, this approach will help ensure comparability to developer costs.

Due to the benefits that can be achieved from a well governed Program, council may choose to subsidise the in-lieu fee by not passing along the full cost of implementing the Program and off-site solutions, including Program management and administrative overheads. The level of subsidy, if any, will be identified in the detailed review of the in-lieu fee.

## 12. Managing Uncertainty

In alignment with the Point Source Water Quality Offsets Policy 2019 and associated guidelines for water quality offsets, off-site solutions must aim to achieve a 50 per cent or greater improvement in water quality than would be required on-site (i.e., a delivery ratio of 1:1.5). Accordingly, the inlieu fee is subject to a 1:1.5 delivery ratio to account for uncertainty in modelled off-site water

## **IPSWICH CITY COUNCIL** | Off-site Stormwater Quality Improvement Procedure

quality improvement estimates. Council is required to use these funds to achieve a 1.5 x improvement in water quality at an off-site location.

Recognising that some projects may be delivered across multiple years, the in-lieu fee rate will also include sufficient contingency to reduce council's exposure to the risk of unanticipated cost increases (e.g., cost escalations in products and services required to plan and deliver off-site solutions). This will involve the addition of a 25% contingency to the in-lieu fee rate in alignment with the Asset and Infrastructure Services Department's pre-concept stage project cost estimation methods.

#### 13. Financial Management

The purpose of the collection of in-lieu fees is to provide funding for the Program and the delivery of off-site solutions to achieve the inherited water quality improvement responsibilities. The following rules apply:

- In-lieu fees can only be used to fund operating and capital expenses associated with the implementation of the Program and delivery of off-site solutions, including Program and project management and appropriate administrative overheads.
- In-lieu fees may be combined with other funds to complete an off-site solution. If funds from
  other offset programs (e.g., Natural Environment Offsetting) are applied, then water quality
  credits must be divided proportionally to the funding.
- Financial management of any funds held by council resulting from the payment of in-lieu fees must be in accordance with relevant council policies.
- The relevant costs of delivering off-site solutions will be captured in council's preferred projects sub ledger or general ledger accounting format.
- All funds collected through the Program will be accounted for separately from council's
  general revenue. Funds will not be available at any time for expenditure as general revenue.
  Revenues from in-lieu fees will be transacted in accounts that are specific to the Program so
  as to clearly identify these revenues separate from other revenues.
- Budgeting for Program revenues, expenses, and capital expenditure shall be guided by the appropriate departmental officers and supported by the Finance Partnering Section.
- Budgeting for Program revenues, expenses, and capital expenditure shall be governed by all
  relevant organisational frameworks, policies, and procedures, recognising that constrained
  funds (i.e., net funds) may be available for the delivery of off-site solutions and associated
  Program and project management costs.
- Any net funds available at the end of the annual financial reporting period will be identified
  via an internal cash restriction in council's accounting system and reconciled for the purpose
  of any external reporting.
- Funds collected through the Program will be invested according to council's investment policy.
- Program financial status will be reported annually and made available to the community via a dedicated council webpage and other appropriate resources.

## 14. Monitoring and review

The Natural Environment Branch will develop and publish an Off-site Stormwater Quality Improvement Annual Report (the Annual Report). The Annual Report will illustrate how Council is meeting its off-site water quality improvement responsibilities. The Annual Report will include a

## **IPSWICH CITY COUNCIL** | Off-site Stormwater Quality Improvement Procedure

summary of revenue and expenditure for the previous financial year and an assessment of water quality improvements achieved in relation to the Delivery Plan.

The Annual Report will be received by a relevant Committee of Council before being published and made publicly available. It will be made available to the community via a dedicated council webpage and other appropriate resources.

This Procedure and the Guidelines will be reviewed in accordance with Council's four (4) year review cycle or sooner if required.

#### 15. Related documents

- Off-site Stormwater Quality Improvement Policy
- Off-site Stormwater Quality Improvement Guidelines
- Off-site Stormwater Quality Improvement Delivery Plan
- Off-site Stormwater Quality Improvement Register
- Off-site Stormwater Quality Improvement Annual Report

See Attachment 2 for a diagram illustrating the relationships between the above documents that establish the governance framework of the Program.

#### 16. Definitions

- Catchment: The area of land where all surface water drains to either the Brisbane River or Bremer River.
- **Co-benefits**: Any additional environmental, social, or economic benefits the off-site solution brings beyond the required water quality improvement.
- Delivery ratio: A percentage increase in the required water quality improvement and in-lieu
  fee for a development site (e.g., 50%) that takes into account the uncertainty about
  delivering an equivalent pollution reduction in the receiving environment.
- **Establishment Maintenance**: The period in which more intensive maintenance is required to bring the off-site solution to its intended design condition, that is an operational expense.
- Establishment Period: The 12-week period immediately after vegetation is planted which
  requires establishment watering and intensive maintenance, that can be capitalised with the
  asset.
- Ipswich Planning Scheme: Ipswich Plan 2024 or otherwise amended from time to time.
- **Natural Drainage Feature**: A drainage depression, drainage line, stream, river, or watercourse which surface water, from rainfall, naturally concentrates and flows.
- **Net funds:** Those funds that accumulate over time and result from in-lieu fees collected less the operating and capital expense associated with projects, any relevant Program or project management expenses, and any relevant administrative overheads.
- **On-site stormwater quality improvement**: The achievement of required post construction phase stormwater quality improvement responsibilities on development sites.
- Off-site stormwater quality improvement: The achievement of required post construction phase stormwater quality improvement responsibilities outside of development sites at other (off-site) locations.
- Off-site solution: a project undertaken outside of a development site (off-site) that results in equal or better water quality within Ipswich's waterways compared to developer delivered on-site stormwater quality treatment.

## **IPSWICH CITY COUNCIL** | Off-site Stormwater Quality Improvement Procedure

- **Post-construction rectification**: The iterative, post construction works required to ensure the off-site solution is functioning to its intended design condition.
- **Sub-catchment**: The area of land surrounding the creeks flowing into the Brisbane River and Bremer River. See attachment 3 for a map of sub-catchments within the Ipswich local government area.
- Sensitive receiving area: Areas including, but not limited to:
  - A natural drainage feature corridor (stream orders 1 to 8 inclusive), the Bremer River and Brisbane River corridors
  - o The catchment of a naturally occurring wetland
  - Areas where discharge is to an unlined gully or stream that contain in-situ soil conditions which are determined to be of a high dispersion classification
  - Areas that have a high sensitivity to producing adverse outcomes in terms of water quality or water quantity management with small or incremental changes from development activity
  - Waterways and natural drainage features that support species (flora and fauna) that are sensitive to changes in water quality and flow hydrology
  - Receiving environments that may have significant human uses or human values (including cultural values).

#### 17. Process Model

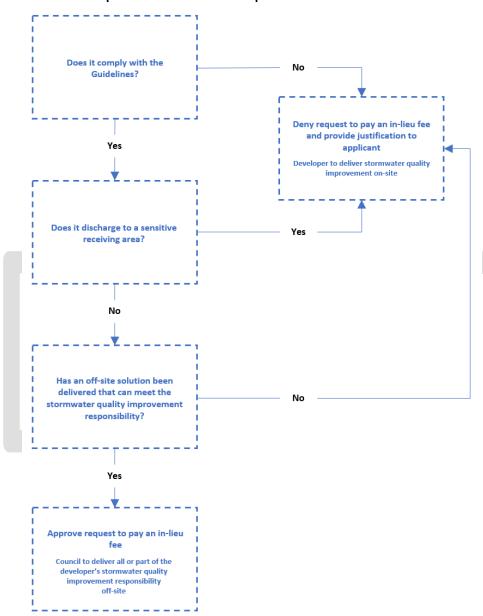
Links to maps of business processes associated with the implementation of this Procedure will be provided in a future update.

#### 18. Procedure Owner

The General Manager (Environment and Sustainability Department) is the Procedure owner, and the Manager (Natural Environment Branch) is responsible for authoring and reviewing this Procedure.

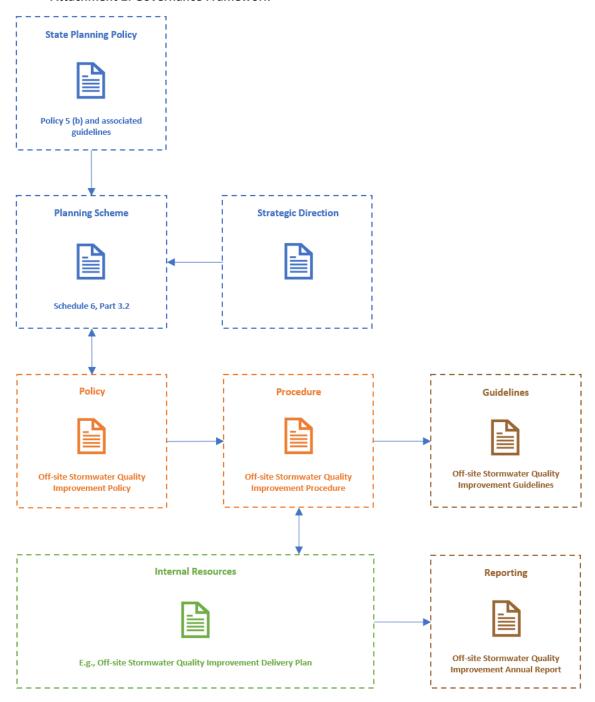
# **IPSWICH CITY COUNCIL | Off-site Stormwater Quality Improvement Procedure**

# **Attachment 1: Request assessment decision process**



# **IPSWICH CITY COUNCIL | Off-site Stormwater Quality Improvement Procedure**

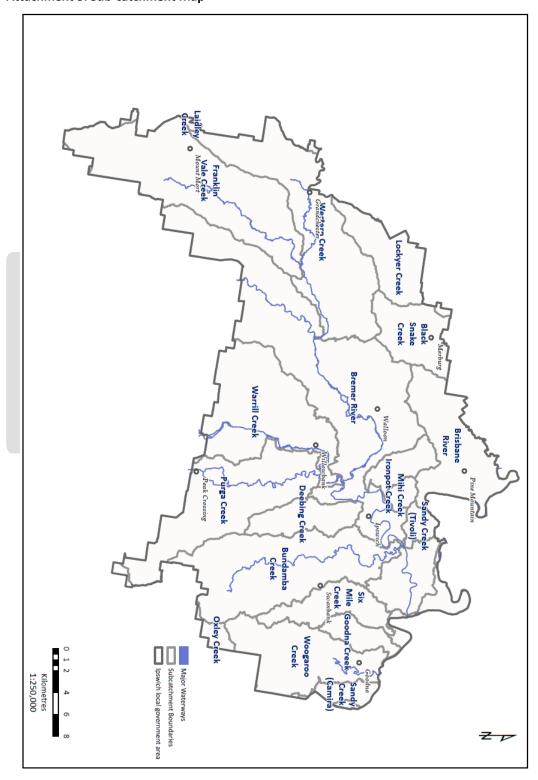
## **Attachment 2: Governance Framework**



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# **IPSWICH CITY COUNCIL | Off-site Stormwater Quality Improvement Procedure**

**Attachment 3: Sub-catchment Map** 



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_	ADDITION	_





# 1. BACKGROUND AND PURPOSE

Ipswich City Council (council) recognises that in certain circumstances, off-site stormwater quality improvement can provide superior environmental outcomes compared to developer delivered on-site stormwater quality treatment.

As enabled by the State Planning Policy 2017, council has established an Off-site Stormwater Quality Improvement Program (the Program) whereby eligible developers can volunteer for their stormwater quality improvement responsibilities to be delivered wholly or partially at a nearby off-site location. Eligible developers pay an in-lieu fee to council, and council must use these funds to deliver an off-site solution that achieves an equal or better water quality improvement. Developer eligibility and approval for off-site stormwater quality improvement is at the sole and absolute discretion of council.

Council has prepared this set of Off-site Stormwater Quality Improvement Guidelines (the Guidelines) to assist with the implementation of the Program as enabled under Schedule 6.2, Part 3 of the Ipswich Planning Scheme and the State Planning Policy 2017. The Guidelines aim to provide clarity and consistency with respect to when the payment of an in-lieu fee may be an option, and what the associated requirements are when developers wish to participate in the Program. In this respect, the Guidelines also aim to offer a degree of certainty to development applicants, council, and the community.

The option to pay an in-lieu fee is offered when it can be assured that an equal or better water quality improvement can be achieved within Ipswich's waterways compared to a developer delivering on-site stormwater quality treatment.

These Guidelines do not preclude the use of alternative innovative solutions proposed by the developer or applicant, nor does compliance with the Guidelines guarantee that council will approve an application to pay an in-lieu fee.

# 2. PARTICIPATION AND ELIGIBILITY

The opportunity for developers to pay a fee in-lieu of on-site stormwater quality improvement is bound by the following rules and requirements.

- Participation in the Program is completely voluntary.
- The Program is limited to the post-construction phase of development to meet State Planning Policy 2017 requirements for Total Suspended Solids (TSS), Total Nitrogen (TN), Total Phosphorous (TP), and Gross Pollutant (GP) load reductions.
- Participation in the Program will satisfy or exceed the stormwater quality improvement responsibilities for development in Schedule 6.2, Part 3 of the Ipswich Planning Scheme, and the State Planning Policy 2017.
- Payment of an in-lieu fee does not remove requirements to meet stormwater management design objectives during the construction phase.
- Payment of an in-lieu fee does not remove other postconstruction phase stormwater management responsibilities at the development site.
- Participation in the Program is limited to those subcatchments where council has identified off-site solutions that will meet projected stormwater quality improvement demand (see Table to the right).

Sub-catchment (see Appendix A)	Eligibility
Black Snake Creek	No
Bremer River	No
Mid-Brisbane River	No
Bundamba Creek	Yes
Deebing Creek	Yes
Franklinvale Creek	Yes
Goodna Creek	No
Ironpot Creek	Yes
Mihi Creek	No
Oxley Creek	No
Purga Creek	No
Sandy Creek (Camira)	No
Sandy Creek (Tivoli)	No
Six Mile Creek	No
Warrill Creek	No
Western Creek	No
Woogaroo Creek	No
Woolshed and Plain Creek	No

The Table on the previous page identifies sub-catchments where payment of in-lieu fees is currently being considered. This Table may be updated periodically depending on the supply and demand for off-site stormwater quality improvement.

See appendix A for a map of eligible sub-catchments within the local government area. See appendix B - E for maps of eligible sub-catchments.

Additional rules and requirements for participation in the Program are listed below.

- Payment of an in-lieu fee may be accepted for Reconfiguration of a Lot development that meets the thresholds identified in Schedule 6, Part 3.2, Table 3.1 of the Ipswich Planning Scheme. For clarity, note that payment of an inlieu fee is not accepted for any Material Change of Use (MCU) development.
- Payment of an in-lieu fee is not accepted within priority development areas, including but not limited to, Ripley Valley Priority Development Area.
- Payment of an in-lieu fee is not accepted where the development discharges to a sensitive receiving area. However, if the developer can demonstrate, to the satisfaction of council, that steps have been taken to ensure protection of the sensitive receiving area (e.g., through minimising impervious area, source control etc.) and no other treatment options are viable, a partial payment for off-site stormwater quality improvement (up to 20% of the on-site stormwater quality improvement responsibility) may be approved.
- Eligible development that does not discharge to sensitive receiving areas may request up to 100% of their
  stormwater quality improvement responsibilities be delivered off-site. If a partial off-site stormwater quality
  improvement is requested, the developer must demonstrate that they are following council determined best
  practice in how they meet their remaining on-site stormwater quality improvement responsibilities. The amount of
  water quality improvement (TSS, TN, TP, and GP) achieved both on-site and off-site must be demonstrated through
  modelling (e.g., using the Model for Urban Stormwater Improvement Conceptualisation [MUSIC] or other council
  approved modelling software).
- Participation in the Program is at the sole discretion of council. Council is not obliged to justify or explain any
  decision made regarding participation in the Program.

## Sensitive receiving area: Areas including, but not limited to:

- A natural drainage feature corridor (stream orders 1 to 8 inclusive), the Bremer River and Brisbane River corridors
- The catchment of a naturally occurring wetland
- Areas where discharge is to an unlined gully or stream that contain in-situ soil conditions which are determined to be of a high dispersion classification
- Areas that have a high sensitivity to producing adverse outcomes in terms of water quality or water quantity management with small or incremental changes from development activity
- Waterways and natural drainage features that support species (flora and fauna) that are sensitive
  to changes in water quality and flow hydrology
- Receiving environments that may have significant human uses or human values (including cultural values).

# 3. REQUIREMENTS FOR APPROVAL

If an off-site solution is approved (full or partial), the developer must:

- Demonstrate how all on-site stormwater quality improvement (if still required) will be achieved in accordance with Schedule 6, Part 3.2 of the Ipswich Planning Scheme and best practice
- Calculate all remaining/required stormwater quality load reductions to be achieved at an off-site location
- Calculate the stormwater quality load reductions (i.e., kilograms per year of TSS, TN, TP, and GP) using MUSIC or another council approved model.

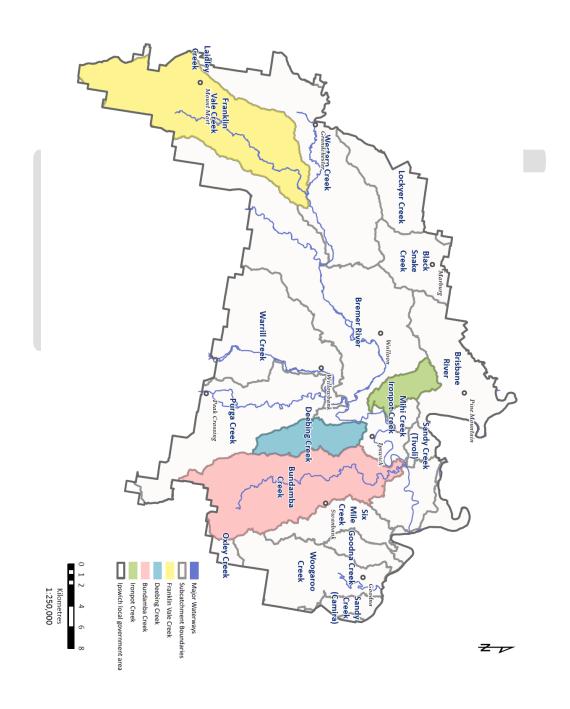
MUSIC modelling must be undertaken in conformity with Schedule 6, Part 3.2 of the Ipswich Planning Scheme. All model files must be provided to council to help verify the results. The in-lieu fee is to be calculated based on the amount of TN load reduction (i.e., kilograms of TN per year) that would otherwise be required by the development after applying a 1:1.5 delivery ratio in accordance with the Off-site Stormwater Quality Improvement Policy (the Policy). The in-lieu fee rate is as specified in council's Register of Fees and Charges and will be applicable to the financial year in which council requires payment of the in-lieu fee.

# 4. DEFINITIONS

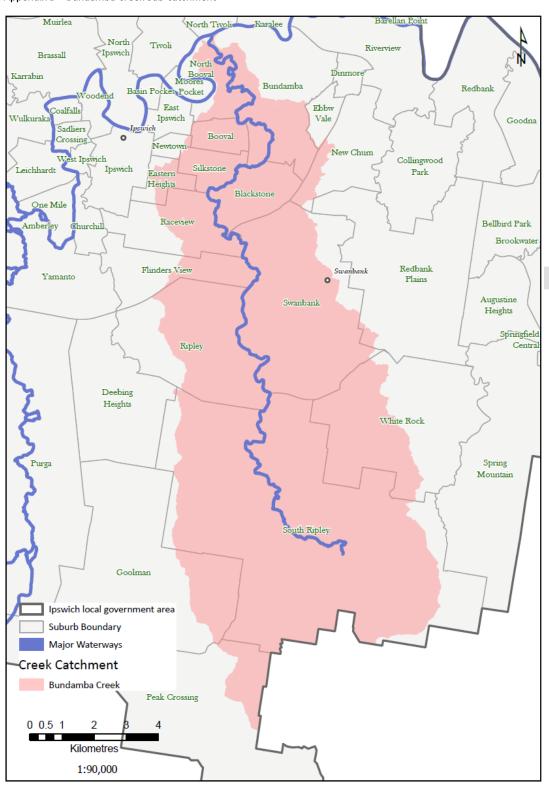
- Catchment: The area of land where all surface water drains to either the Brisbane River or Bremer River.
- **Delivery ratio**: A percentage increase in the required water quality improvement and in-lieu fee for a development site (e.g., 50%) that takes into account the uncertainty about delivering an equivalent pollution reduction in the receiving environment.
- **Ipswich Planning Scheme**: Ipswich Plan 2024 or otherwise amended from time to time.
- Natural Drainage Feature: A drainage depression, drainage line, stream, river, or watercourse which surface water, from rainfall, naturally concentrates and flows.
- On-site stormwater quality improvement: The achievement of required post construction phase stormwater quality improvement responsibilities on development sites.
- Off-site stormwater quality improvement: The achievement of required post construction phase stormwater quality improvement responsibilities outside of development sites at other (off-site) locations.
- Off-site solution: A project undertaken outside of a development site (off-site) that results in equal or better water quality within Ipswich's waterways compared to developer delivered on-site stormwater quality treatment.
- Sub-catchment: The area of land surrounding the creeks flowing into the Brisbane River and Bremer River (See Appendix A).

# **5. APPENDIX**

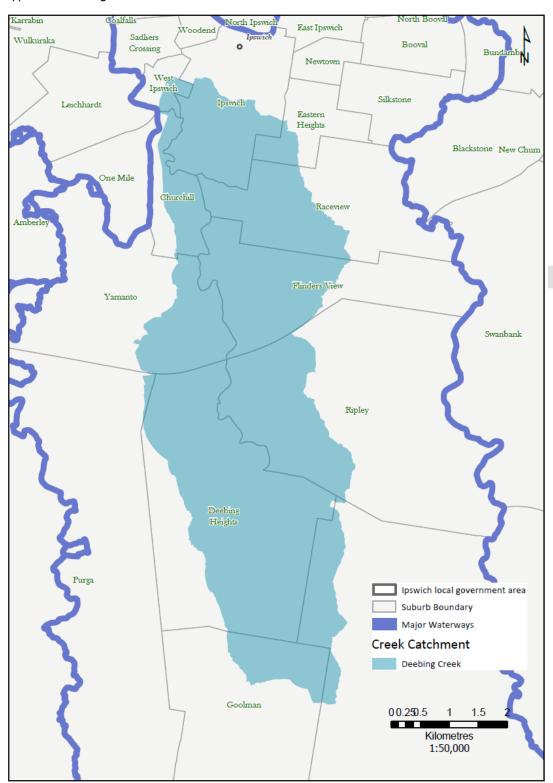
Appendix A – Eligible Sub-catchment Map



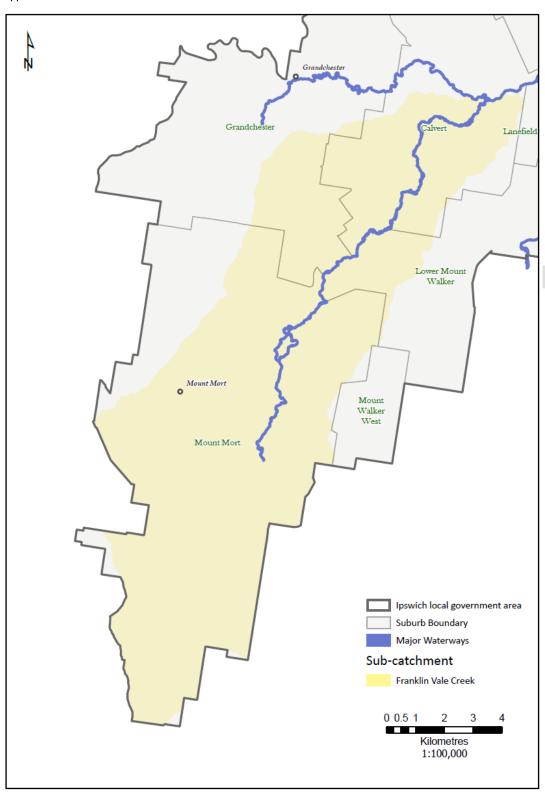
Appendix B – Bundamba Creek Sub-catchment



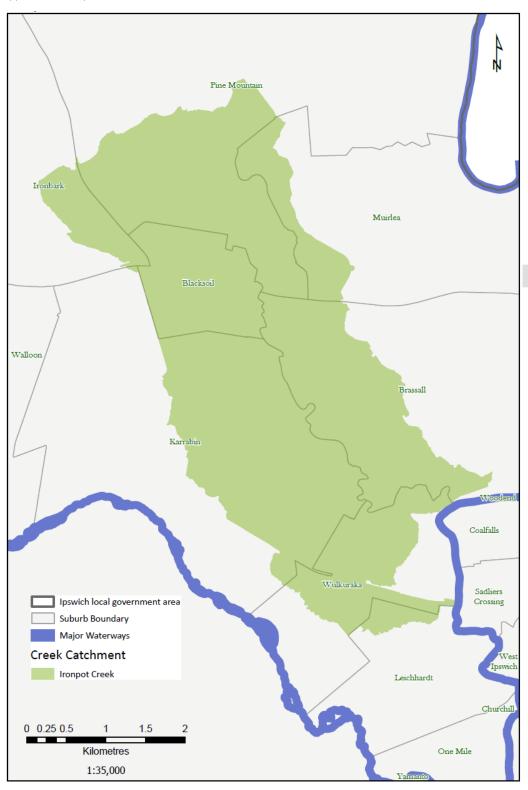
Appendix C – Deebing Creek Sub-catchment

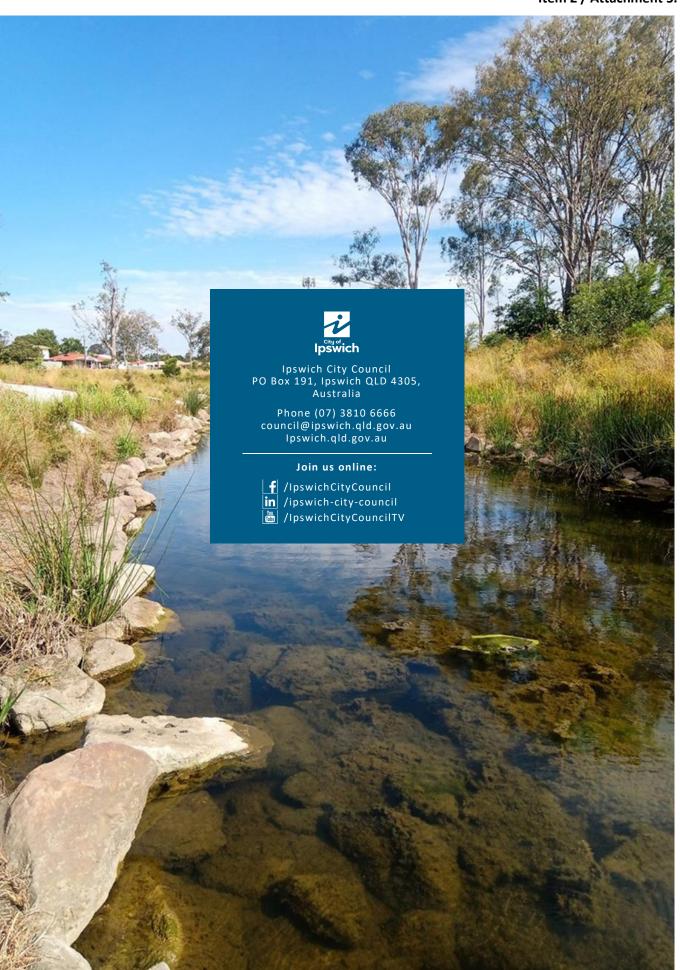


Appendix D – Franklinvale Creek Sub-catchment



 $\label{eq:Appendix E-Ironpot Creek Sub-catchment} \ Appendix \ E-Ironpot \ Creek \ Sub-catchment$ 





Doc ID No: A10929260

ITEM: 3

SUBJECT: SUSTAINABILITY POLICY REVIEW

AUTHOR: SUSTAINABILITY AND CLIMATE CHANGE COORDINATOR

DATE: 12 NOVEMBER 2024

## **EXECUTIVE SUMMARY**

The Sustainability Policy, adopted by the Ipswich City Council (Council) in 2020, was due for mandatory four-year review on 26 November 2024. The policy has been reviewed and updated to enhance its commitment to sustainability, align with current best practices, and incorporate principles such as climate resilience and sustainable procurement. The updated policy is presented for adoption to ensure it remains relevant and demonstrates Council's ongoing commitment to sustainability.

This is a report concerning the update of the Sustainability Policy.

## **RECOMMENDATION/S**

That the revised policy titled 'Sustainability Policy', as detailed in Attachment 3, be adopted.

#### **RELATED PARTIES**

There was no declaration of conflicts of interest.

#### **IFUTURE THEME**

Natural and Sustainable

## PURPOSE OF REPORT/BACKGROUND

The Sustainability Policy was adopted at the Council Ordinary Meeting on 26 November 2020 to demonstrate Council's commitment to sustainability to ensure quality of life for the people and environment of Ipswich from generation to generation.

A mandatory review has been undertaken by the sustainability team in consultation with the Environment & Sustainability General Manager and Environment & Sustainability Department representatives, noting that extensive community engagement and consultation was carried out during the initial development of the policy in 2020.

The revised changes to the policy include, but are not limited to, the following:

• Strengthening dedication to climate and sustainability action.

- Aligning more to current best practices and emerging trends.
- Committing to reducing greenhouse gas emissions.
- Expanding on key principles including climate resilience & sustainable procurement.

The updated policy will span from the new adoption date for four years unless amended sooner.

#### **LEGAL IMPLICATIONS**

No direct legal implications have been identified by adopting this revised policy.

#### **POLICY IMPLICATIONS**

No new policy implications have been identified by adopting this revised policy.

#### RISK MANAGEMENT IMPLICATIONS

Failure to adopt the revised policy in a timely manner presents a reputational risk to the Council. Given that the policy is publicly accessible on Council's website and community interest in sustainability is increasing, an outdated policy could be perceived as a lapse in the Council's commitment to this crucial area.

## FINANCIAL/RESOURCE IMPLICATIONS

No direct financial/resource implications have been identified by adopting this revised policy.

# **COMMUNITY AND OTHER CONSULTATION**

Consultation has occurred with internal stakeholders across the Environment and Sustainability Department. Additionally, extensive internal staff and external community consultation and communication was conducted when the policy was first developed in 2020.

## **CONCLUSION**

In conclusion, the review and update of the Sustainability Policy ensures that Council remains at the forefront of sustainability practices. The proposed amendments strengthen the policy's commitment to climate resilience, emission reduction, and sustainable procurement, aligning it with current best practices. Adopting the revised policy will maintain the Council's ongoing dedication to sustainability and demonstrate its continued commitment to the well-being of the environment and community.

## **HUMAN RIGHTS IMPLICATIONS**

HUMAN RIGHTS IMPACTS		
OTHER DECISION		
(1) What is the Act/Decision being made?	Council is deciding to adopt the revised Sustainability Policy.	
(2) What human rights are affected?	No human rights are affected by this decision.	
(3) How are the human rights limited?	Not applicable.	
(4) Is there a good reason for limiting the relevant rights? Is the limitation fair and reasonable?	Not applicable.	
(5) Conclusion	The decision is consistent with human rights.	

## ATTACHMENTS AND CONFIDENTIAL BACKGROUND PAPERS

1.	Current Sustainability Policy 🗓 🖫
2.	Revised Sustainability Policy with tracked changes 🗓 🏗
3.	Revised Sustainability Policy clean copy 🗓 🖺

Heike Bell

# SUSTAINABILITY AND CLIMATE CHANGE COORDINATOR

I concur with the recommendations contained in this report.

Kaye Cavanagh

**GENERAL MANAGER (ENVIRONMENT AND SUSTAINABILITY)** 

"Together, we proudly enhance the quality of life for our community"



Version Control and Objective ID	Version No: 1	Objective ID: A6598367
Adopted at Council Ordinary Meeting on	26 November 2020	
Date of Review	26 November 2024	

#### 1. Statement

Council is committed to balancing the protection of the environment and the pursuit of prosperity to ensure quality of life for the people of Ipswich from generation to generation. Sustainability encompasses environmental, social and economic considerations and is a shared responsibility between government, business and the community with each party playing a critical role.

For Council, we will strive to ensure all operations, procedures and decision-making activities are underpinned by this policy to be a sustainable organisation. For the community, Council will aim to facilitate and support the people of Ipswich so that we, as a whole, are a Sustainable City.

The commitment to being a Sustainable City also recognises the evidence-based science for climate change, which will be taken into consideration in the transition to a Sustainable City.

# 2. Purpose and Principles

The purpose of the policy is to strengthen council's commitment to corporate sustainability by providing a set of guiding principles for the organisation to conserve and protect the natural environment; promote long term economic viability; and provide social wellbeing outcomes.

Council is committed to the following six sustainability principles:

- 1. Governance & Leadership Council will strive to lead by example in sustainable practices governed by our policies, strategies, procedures and programs. Council will provide support in building community knowledge and capacity through meaningful collaboration and acknowledge community sustainability leadership to achieve a sustainable city.
- 2. Responsible Decision-Making Our decisions are guided by seeking long term beneficial outcomes and are holistic in approach by giving consideration to economic, environmental and social aspects. The precautionary principle will be considered in decision-making where there is plausible risk of causing potential catastrophic or irreversible harm to human health or the environment.
- **3.** Leave a Legacy Now and into the future, Council will aim to manage resources responsibly, protect environmental values and maintain the quality of life in Ipswich, so that the City remains resilient and can be enjoyed by residents and visitors now, and into the future.

# **IPSWICH CITY COUNCIL | Sustainability Policy**

- 4. Sustainable Procurement Council will seek to procure products and services that demonstrate social and environmental credentials; provide value for money over the lifespan of the product and/ or service; and enable the achievement of strategic corporate goals. Council will also consider innovations in technology to achieve sustainability outcomes and support local businesses and enterprises as a priority.
- **5.** Efficient Use of Resources Council will utilise resources efficiently and effectively by implementing best practice measures across operations and programs. Energy, water and waste are the key areas of focus for resource efficiency. Council's fleet, transport and mobility will also be considered here.
- **6. Think Global, Act Local** As a City, we will play our part in taking action at a local level to address sustainability outcomes that connect with regional, national and global scale activities and directions.

# 3. Strategic Plan Links

This policy aligns with the following iFuture 2021-2026 Corporate Plan themes:

- Vibrant and Growing
- Safe, Inclusive and Creative
- Natural and Sustainable
- A Trusted and Leading Organisation

#### 4. Regulatory Authority

- Local Government Act 2009
- Local Government Regulation 2014
- Environmental Protection Act 1994

#### 5. Human Rights Commitment

Ipswich City Council (Council) has considered the human rights protected under the *Human Rights Act 2019 (Qld)* (the Act) when adopting and/or amending this policy. When applying this policy, Council will act and make decisions in a way that is compatible with human rights and give proper consideration to a human right relevant to the decision in accordance with the Act.

## 6. Scope

The policy guides decision making and the development of all future policy, strategy and plans in relation to sustainable practices for Council's operations and community capacity building. The policy applies to all Councillors, Council staff, contractors and others that act on Council's behalf to ensure they work in accordance with the policy principles.

These policy principles are also aspirational for Ipswich's community whereby, through the commitment and actions of Council, they will be realised.

# **IPSWICH CITY COUNCIL | Sustainability Policy**

## 7. Roles and Responsibilities

Position	Responsibility		
Chief Executive Officer and	The CEO and General Managers' are responsible for		
General Managers	advocating, promoting and supporting the principles of the		
	Sustainability Policy as a business as usual practice.		
Environment & Sustainability	Branch/Section Manager		
Branch	Responsible for overall development, implementation and		
	monitoring of the Sustainability Policy		
	<ul> <li>Sustainability Team</li> <li>Responsible for the development, drafting and implementation and review of the Sustainability Policy and strategies in consultation with key stakeholders.</li> <li>Provision of technical support and expertise to assist in the implementation of this policy.</li> <li>Provision of regular reporting and analytics.</li> <li>Liaison and education with key business partners such as</li> </ul>		
	procurement, maintenance operations and infrastructure.		
All Ipswich City Council	Responsible for understanding the principles outlined in the		
Employees	Sustainability Policy and applying these principles in planning,		
	decision making activities and reporting.		

## 8. Key Stakeholders

The Sustainability Policy applies broadly across all Council departments. Key stakeholders sit within each department and branch. However, stakeholders of note are those in the following teams:

- Infrastructure and Environment Department Natural Environment and Land Management, Resource Recovery, Asset Management, City Maintenance, Strategic Infrastructure & Planning, Fleet and Construction, Emergency Management & Sustainability.
- Corporate Services Department Procurement, Corporate Governance, Legal Services, Financial Services and Treasury.
- Planning and Regulatory Services Department Strategic Planning, Environment Assessment, Environmental Health and Development Assessment.
- Coordination and Performance Department Corporate Planning and Major Projects.
- Community, Cultural and Economic Development Department Art Gallery, Libraries, Sport & Recreation, Community Facilities, Economic Development and Community Safety & Innovation.
- Ipswich community residents and businesses

# **IPSWICH CITY COUNCIL | Sustainability Policy**

#### 9. Monitoring and Evaluation

Council's corporate sustainability monitoring and evaluation measures for continual improvement are:

- Organisational greenhouse gas emissions
- Council's operational energy, water and waste consumption.
- Data collection that informs decision making in projects and certain processes across Ipswich City Council's operations.
- Sustainability policy principles embedded in council's corporate documentation. Level of community engagement in council delivered sustainability programs.

#### 10. Definitions

<u>Greenhouse Gas Emissions</u> - Greenhouse gases are those gaseous constituents of the <u>atmosphere</u>, both natural and <u>anthropogenic</u>, that absorb and emit radiation at specific wavelengths within the spectrum of thermal infrared radiation emitted by the Earth's surface, the atmosphere itself, and by clouds. This property causes the greenhouse effect. Water vapour ( $H_2O$ ), carbon dioxide ( $CO_2$ ), nitrous oxide ( $N_2O$ ), methane ( $CH_4$ ) and ozone ( $O_3$ ) are the primary greenhouse gases in the Earth's atmosphere.

<u>Sustainability (local context)</u> – The City will prosper environmentally, socially and economically while preserving and enhancing the ability of our natural environment to support a desired quality of life for current and future generations.

<u>Sustainable Development</u> - Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (World Commission on Environment and Development, Our Common Future Report, 1987)

#### 11. Policy Owner

General Manager, Infrastructure and Environment is the policy owner and the Environment and Sustainability Manager is responsible for authoring and reviewing this policy.



Version Control and Objective ID	Version No: 24	Objective ID: A6598367
Adopted at Council Ordinary Meeting on	26 November 202 <u>4</u> 9	
Date of Review	26 November 2028	4

#### 1. Statement

Ipswich City Council (Council is dedicated to advancing environmental stewardship, climate action, social equity, and economic vitality, aiming to ensure a high quality of life for present and future generations. In alignment with contemporary Australian and global sustainability trends, this policy recognises that sustainability is a multi-dimensional challenge requiring integrated action from all sectors of society. Council will lead by example in sustainability practices and foster collaborative efforts with government bodies, businesses, and the local community to build a resilient and thriving Sustainable City - a city of opportunity for all.

Council is committed to balancing the protection of the environment and the pursuit of prosperity to ensure quality of life for the people of Ipswich from generation to generation. Sustainability encompasses environmental, social and economic considerations and is a shared responsibility between government, business and the community with each party playing a critical role.

For Council, we will strive to ensure all operations, procedures and decision-making activities are underpinned by this policy to be a sustainable organisation. For the community, Council will aim to facilitate and support the people of Ipswich so that we, as a whole, are a Sustainable City.

The commitment to being a Sustainable City also recognises the evidence-based science for climate change, which will be taken into consideration in the transition to a Sustainable City.

## 5.2. Purpose and Principles

This policy aims to reinforce Council's commitment to sustainability by aligning with current best practices and emerging trends. It will guide the conservation and improvement of the city's natural environment and resources, lead the reduction of emissions and waste, lead the reduction of energy and water usage, promote social equity and wellbeing, and enhance economic prosperity through the following six sustainability principles:

#### a) Governance & Leadership

 Enhanced Transparency: Council will improve transparency by regularly reporting on sustainability goals and progress. This includes publishing annual sustainability reports and engaging with the community through public forums.

#### **IPSWICH CITY COUNCIL | Sustainability Policy**

• **Leadership in Innovation:** Council will adopt cutting-edge sustainability technologies and practices, aiming for decarbonisation and sustainable development.

## b) Responsible Decision-Making

Climate Resilience: Decisions will be informed by climate resilience and risk
 assessments to anticipate and mitigate the impacts of climate change. This involves
 integrating climate risk into strategic planning, infrastructure and operational work.

#### c) Leave a Legacy

- Regenerative Practices: In addition to managing resources responsibly, Council will
  implement regenerative practices that restore and enhance ecological health. This
  includes urban greening initiatives, biodiversity restoration, and sustainable land
  management.
- **Community Empowerment:** Council will focus on empowering local communities through education and support for grassroots sustainability initiatives.

#### a) Circular Economy

- Circular Economy: Emphasis will be placed on circular economy principles, prioritising products and services that minimise waste and promote reuse and recycling.
- Sustainable Procurement: Procurement practices will ensure that goods and services are sourced ethically, supporting fair labour practices and sustainable supply chains.

## b) Efficient Use of Resources

- Emissions Reduction: Council is committed to reducing greenhouse gas emissions, incorporating renewable energy sources, and enhancing energy efficiency across all operations.
- Water Stewardship: Implementing comprehensive water management approaches that address water scarcity and quality issues, incorporating advanced water recycling and conservation measures.

•

## c) Think Global, Act Local

- Alignment with state, national and global goals: Council's sustainability actions will
  be aligned with state, national, and global frameworks such as Queensland's
  Department of Energy and Climate Strategic Plan 2024–2028, the United Nations
  Sustainable Development Goals (SDGs) and international climate agreements.
- Local Partnerships: Strengthen partnerships with local organisations, businesses, and educational institutions to foster community-led sustainability initiatives and innovations.
- Strategic Plan Links The purpose of the policy is to strengthen council's commitment to corporate sustainability by providing a set of guiding principles for the organisation to conserve and protect the natural environment; promote long term economic viability; and provide social wellbeing outcomes.

Council is committed to the following six sustainability principles:

# **IPSWICH CITY COUNCIL | Sustainability Policy**

- **O.** Governance & Leadership Council will strive to lead by example in sustainable practices governed by our policies, strategies, procedures and programs. Council will provide support in building community knowledge and capacity through meaningful collaboration and acknowledge community sustainability leadership to achieve a sustainable city.
- Or Responsible Decision-Making Our decisions are guided by seeking long term beneficial outcomes and are holistic in approach by giving consideration to economic, environmental and social aspects. The precautionary principle will be considered in decision-making where there is plausible risk of causing potential catastrophic or irreversible harm to human health or the environment.
- **O.** Leave a Legacy Now and into the future, Council will aim to manage resources responsibly, protect environmental values and maintain the quality of life in Ipswich, so that the City remains resilient and can be enjoyed by residents and visitors now, and into the future.
- O. Sustainable Procurement Council will seek to procure products and services that demonstrate social and environmental credentials; provide value for money over the lifespan of the product and/ or service; and enable the achievement of strategic corporate goals. Council will also consider innovations in technology to achieve sustainability outcomes and support local businesses and enterprises as a priority.
- **0.** Efficient Use of Resources Council will utilise resources efficiently and effectively by implementing best practice measures across operations and programs. Energy, water and waste are the key areas of focus for resource efficiency. Council's fleet, transport and mobility will also be considered here.
- **0.** Think Global, Act Local As a City, we will play our part in taking action at a local level to address sustainability outcomes that connect with regional, national and global scale activities and directions.
- 21. Strategic Plan Links

This policy aligns with the following iFuture 2021-2026 Corporate Plan themes:

- Vibrant and Growing
- Safe, Inclusive and Creative
- Natural and Sustainable
- A Trusted and Leading Organisation

3.

This policy aligns with the following iFuture 2021-2026 Corporate Plan themes and integrates emerging sustainability goals:

- Vibrant and Growing
- Safe, Inclusive and Creative
- Natural and Sustainable
- A Trusted and Leading Organisation

# **IPSWICH CITY COUNCIL | Sustainability Policy**

## 27.4. Regulatory Authority

a)•Local Government Act 2009
b)•Local Government Regulation 2014
•\_\_Environmental Protection Act 1994

#### 28.5. Human Rights Commitment

Council has considered the human rights protected under the *Human Rights Act 2019 (Qld)* (the Act) when adopting and/or amending this policy. When applying this policy, Council will act and make decisions in a way that is compatible with human rights and consider human rights with the considerate of the considerate

(the Act) when adopting and/or amending this policy. When applying this policy, Council will act and make decisions in a way that is compatible with human rights and give proper consideration to a human right relevant to the decision in accordance with the Act.

## 30.6. Scope

This policy applies to all Council activities, operations, and planning processes. It extends to all Councillors, employees, contractors, and partners, guiding them to integrate sustainability principles into their work. The policy also serves as a framework for business and community approach to the contract of the

These policy principles are also aspirational for Ipswich's community whereby, through the commitment and actions of Council, they will be realised.

# **IPSWICH CITY COUNCIL | Sustainability Policy**

# 7. Roles and Responsibilities

Position	Responsibility
Chief Executive	Champion and promote the sustainability principles, ensuring they
Officer and General	are integrated into organisational culture and strategic objectives.
Managers	
Environment &	General Manager & Managers oversee the implementation and
Sustainability	monitoring of the sustainability principles, ensuring alignment with
<u>Department</u>	current trends and best practices.
	Sustainability Team develops, implements, reviews and reports on the Sustainability Policy and strategies in consultation with key stakeholders. Provides technical support and expertise to assist in the implementation of this policy across Council. Liaises and educates key stakeholders.
All Ipswich City	Apply sustainability principles in daily business as usual and project
Council Employees	activities, and in any other decision-making processes.

## 8. Roles and Responsibilities Key Stakeholders

<u>To create a Sustainable City, we all need to play our part, hence the following key stakeholders have been identified:</u>

- All Council Departments: Environment & Sustainability, Planning & Regulatory Services,
   Community, Culture & Economic Development, Corporate Services, Assets &
   Infrastructure Services, and the Office of the CEO.
- Ipswich community: Residents, businesses, and industries of the local Ipswich area.

  31.

Position	Responsibility
Chief Executive Officer	The CEO and General Managers' are responsible for advocating,
and General Managers	promoting and supporting the principles of the Sustainability Policy
	as a business as usual practice.
Environment &	Branch/Section Manager
Sustainability Branch	Responsible for overall development, implementation and
	monitoring of the Sustainability Policy
	Sustainability Team
	Responsible for the development, drafting and
	implementation and review of the Sustainability Policy and
	strategies in consultation with key stakeholders.
	<ul> <li>Provision of technical support and expertise to assist in the</li> </ul>
	implementation of this policy.
	<ul> <li>Provision of regular reporting and analytics.</li> </ul>
	<ul> <li>Liaison and education with key business partners such as</li> </ul>
	procurement, maintenance operations and infrastructure.
All Ipswich City Council	Responsible for understanding the principles outlined in the
Employees	Sustainability Policy and applying these principles in planning,
	decision making activities and reporting.

Page 5 of 7

# **IPSWICH CITY COUNCIL | Sustainability Policy**

## 9. Monitoring and Evaluation

<u>This policy will be reviewed in accordance with Council's four (4) year review cycle or sooner if required.</u>

## 52. Key Stakeholders

The Sustainability Policy applies broadly across all Council departments. Key stakeholders sit within each department and branch. However, stakeholders of note are those in the following teams:

Infrastructure and Environment Department – Natural Environment and Land Management, Resource Recovery, Asset Management, City Maintenance, Strategic Infrastructure & Planning, Fleet and Construction, Emergency Management & Sustainability.

Corporate Services Department – Procurement, Corporate Governance, Legal Services, Financial Services and Treasury.

- c) Planning and Regulatory Services Department Strategic Planning, Environment Assessment, Environmental Health and Development Assessment.
- c) Coordination and Performance Department Corporate Planning and Major Projects.
- c) Community, Cultural and Economic Development Department Art Gallery, Libraries, Sport & Recreation, Community Facilities, Economic Development and Community Safety & Innovation.
- c) Ipswich community residents and businesses

# **IPSWICH CITY COUNCIL | Sustainability Policy**

#### 60. Monitoring and Evaluation

Council's corporate sustainability monitoring and evaluation measures for continual improvement are:

- Organisational greenhouse gas emissions
- Council's operational energy, water and waste consumption.
- Data collection that informs decision making in projects and certain processes across Ipswich City Council's operations.
- Sustainability policy principles embedded in council's corporate documentation.
   Level of community engagement in council delivered sustainability programs.

#### 67.10. Definitions

**Greenhouse Gas Emissions** - Greenhouse gases are those gaseous constituents of the <u>atmosphereatmosphere</u>, both natural and <u>anthropogenicanthropogenic</u>, that absorb and emit radiation at specific wavelengths within the spectrum of thermal infrared radiation emitted by the Earth's surface, the atmosphere itself, and by clouds. This property causes the greenhouse effect. Water vapour ( $H_2O$ ), carbon dioxide ( $CO_2$ ), nitrous oxide ( $N_2O$ ), methane ( $CH_4$ ) and ozone ( $O_3$ ) are the primary greenhouse gases in the Earth's atmosphere.

**Sustainability (local context)** – The City will-prospers environmentally, socially and economically while preserving and enhancing the ability of our natural environment to support a desired quality of life for current and future generations.

**Sustainable Development** - Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (World Commission on Environment and Development, Our Common Future Report, 1987)

# 11. Related Documents

Not applicable.

#### 68.12. Policy Owner

The General Manager of the Environment & Sustainability Department is the policy owner, and the Sustainability & Climate Change Coordinator is responsible for authoring and reviewing this policy.

General Manager (Environment and Sustainability) is the policy owner and the Sustainability Coordinator is responsible for authoring and reviewing this policy.



Version Control and Objective ID	Version No: 2	Objective ID: A6598367
Adopted at Council Ordinary Meeting on	26 November 2024	
Date of Review	26 November 2028	

#### 1. Statement

Ipswich City Council (Council is dedicated to advancing environmental stewardship, climate action, social equity, and economic vitality, aiming to ensure a high quality of life for present and future generations. In alignment with contemporary Australian and global sustainability trends, this policy recognises that sustainability is a multi-dimensional challenge requiring integrated action from all sectors of society. Council will lead by example in sustainability practices and foster collaborative efforts with government bodies, businesses, and the local community to build a resilient and thriving Sustainable City - a city of opportunity for all.

# 2. Purpose and Principles

This policy aims to reinforce Council's commitment to sustainability by aligning with current best practices and emerging trends. It will guide the conservation and improvement of the city's natural environment and resources, lead the reduction of emissions and waste, lead the reduction of energy and water usage, promote social equity and wellbeing, and enhance economic prosperity through the following six sustainability principles:

#### a) Governance & Leadership

- **Enhanced Transparency:** Council will improve transparency by regularly reporting on sustainability goals and progress. This includes publishing annual sustainability reports and engaging with the community through public forums.
- **Leadership in Innovation:** Council will adopt cutting-edge sustainability technologies and practices, aiming for decarbonisation and sustainable development.

#### b) Responsible Decision-Making

Climate Resilience: Decisions will be informed by climate resilience and risk
assessments to anticipate and mitigate the impacts of climate change. This involves
integrating climate risk into strategic planning, infrastructure and operational work.

#### c) Leave a Legacy

Regenerative Practices: In addition to managing resources responsibly, Council will
implement regenerative practices that restore and enhance ecological health. This

## **IPSWICH CITY COUNCIL | Sustainability Policy**

includes urban greening initiatives, biodiversity restoration, and sustainable land management.

• **Community Empowerment:** Council will focus on empowering local communities through education and support for grassroots sustainability initiatives.

#### a) Circular Economy

- **Circular Economy:** Emphasis will be placed on circular economy principles, prioritising products and services that minimise waste and promote reuse and recycling.
- **Sustainable Procurement:** Procurement practices will ensure that goods and services are sourced ethically, supporting fair labour practices and sustainable supply chains.

#### b) Efficient Use of Resources

- Emissions Reduction: Council is committed to reducing greenhouse gas emissions, incorporating renewable energy sources, and enhancing energy efficiency across all operations.
- Water Stewardship: Implementing comprehensive water management approaches that address water scarcity and quality issues, incorporating advanced water recycling and conservation measures.

#### c) Think Global, Act Local

- Alignment with state, national and global goals: Council's sustainability actions will be aligned with state, national, and global frameworks such as Queensland's Department of Energy and Climate Strategic Plan 2024–2028, the United Nations Sustainable Development Goals (SDGs) and international climate agreements.
- **Local Partnerships:** Strengthen partnerships with local organisations, businesses, and educational institutions to foster community-led sustainability initiatives and innovations.

#### 3. Strategic Plan Links

This policy aligns with the following iFuture 2021-2026 Corporate Plan themes and integrates emerging sustainability goals:

- Vibrant and Growing
- Safe, Inclusive and Creative
- Natural and Sustainable
- A Trusted and Leading Organisation

#### 4. Regulatory Authority

- Local Government Act 2009
- Local Government Regulation 2014
- Environmental Protection Act 1994

# **IPSWICH CITY COUNCIL | Sustainability Policy**

## 5. Human Rights Commitment

Council has considered the human rights protected under the *Human Rights Act 2019 (Qld)* (the Act) when adopting and/or amending this policy. When applying this policy, Council will act and make decisions in a way that is compatible with human rights and consider human rights relevant to the decision in accordance with the Act.

#### 6. Scope

This policy applies to all Council activities, operations, and planning processes. It extends to all Councillors, employees, contractors, and partners, guiding them to integrate sustainability principles into their work. The policy also serves as a framework for business and community engagement and collaboration in sustainability efforts.

## 7. Roles and Responsibilities

Position	Responsibility
Chief Executive	Champion and promote the sustainability principles, ensuring they
Officer and General	are integrated into organisational culture and strategic objectives.
Managers	
Environment &	General Manager & Managers oversee the implementation and
Sustainability	monitoring of the sustainability principles, ensuring alignment with
Department	current trends and best practices.
	Sustainability Team develops, implements, reviews and reports on the Sustainability Policy and strategies in consultation with key stakeholders. Provides technical support and expertise to assist in the implementation of this policy across Council. Liaises and educates key stakeholders.
All Ipswich City	Apply sustainability principles in daily business as usual and project
Council Employees	activities, and in any other decision-making processes.

## 8. Key Stakeholders

To create a Sustainable City, we all need to play our part, hence the following key stakeholders have been identified:

- All Council Departments: Environment & Sustainability, Planning & Regulatory Services, Community, Culture & Economic Development, Corporate Services, Assets & Infrastructure Services, and the Office of the CEO.
- **Ipswich community:** Residents, businesses, and industries of the local Ipswich area.

#### 9. Monitoring and Evaluation

This policy will be reviewed in accordance with Council's four (4) year review cycle or sooner if required.

# **IPSWICH CITY COUNCIL | Sustainability Policy**

#### 10. Definitions

**Greenhouse Gas Emissions** - Greenhouse gases are those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and emit radiation at specific wavelengths within the spectrum of thermal infrared radiation emitted by the Earth's surface, the atmosphere itself, and by clouds. This property causes the greenhouse effect. Water vapour ( $H_2O$ ), carbon dioxide ( $CO_2$ ), nitrous oxide ( $N_2O$ ), methane ( $CH_4$ ) and ozone ( $O_3$ ) are the primary greenhouse gases in the Earth's atmosphere.

**Sustainability (local context)** – The City prospers environmentally, socially and economically while preserving and enhancing the ability of our natural environment to support a desired quality of life for current and future generations.

**Sustainable Development** - Development that meets the needs of the present without compromising the ability of future generations to meet their own needs. (World Commission on Environment and Development, Our Common Future Report, 1987)

#### 11. Related Documents

Not applicable.

## 12. Policy Owner

The General Manager of the Environment & Sustainability Department is the policy owner, and the Sustainability & Climate Change Coordinator is responsible for authoring and reviewing this policy.

Doc ID No: A10925549

ITEM: 4

SUBJECT: WASTE & CIRCULAR ECONOMY TRANSFORMATION DIRECTIVE - QUARTERLY

REPORT

AUTHOR: SUSTAINABILITY AND CLIMATE CHANGE COORDINATOR

DATE: 12 NOVEMBER 2024

#### **EXECUTIVE SUMMARY**

This is a report concerning the continuing implementation of the Ipswich City Council Waste and Circular Economy Transformation Policy Directive (the Directive) following the review of the Directive at the Ordinary Council Meeting of 3 September 2024.

As outlined in the attachment to this report, a significant body of work continues to implement actions against the ten (10) principles of the Directive.

#### **RECOMMENDATION/S**

That the report be received and the contents noted.

#### **RELATED PARTIES**

There are many related parties associated with this report including other levels of government, business and industry associated with the waste and circular economy industry.

As this is a report recommending that the report be received and noted, there are not considered to be any conflicts that require declaration.

#### **IFUTURE THEME**

A Trusted and Leading Organisation

### PURPOSE OF REPORT/BACKGROUND

On 3 December 2020, Council resolved to adopt the Directive which prioritises the protection of the health and wellbeing of our community and environment, the liveability of our city, and the future vibrancy of our economy. The Directive is intended to provide a vision for Council reflecting Council's many interests on behalf of the community in respect to the area of waste and circular economy.

Council officers have been implementing a variety of elements of the Directive and its associated Implementation Plan. An attachment to this report outlines the core focus over the last three (3) months. It should be noted that the most significant focus has been placed on the new draft Ipswich Planning Scheme which is awaiting approval from state government.

### **Key matters**

#### Change of State Government

October 2024 saw a change in state government which has resulted in several department changes and new appointments. The Department of Environment, Science and Innovation which leads state waste regulations and management, has been changed to the Department of Environment, Tourism, Science & Innovation. Ms Trish O'Callaghan has been appointed as acting Director-General of the department.

Council will write to the incoming Minister as well as the acting Director General to introduce the Directive, explain its purpose, and reiterate the importance of collaboration on waste management across the Ipswich area.

## **Code of Practice**

To achieve better outcomes for the community, Council committed to guiding best practice among waste producers and operators by creating and implementing an Ipswich Waste Code of Practice in partnership through the Waste Recycling Industry Association QLD (WRIQ). A revised draft has been developed and shared with the CEO of WRIQ and will be discussed further with their board.

## **Waste Communications**

Council's website page regarding the Directive has been scheduled for an update alongside new infographics. This will assist the community in understanding the purpose of the work and inform of the achievements to date. For example, Council's efforts over recent years have resulted in more local waste being diverted away from landfill to green or recycling waste instead.

#### **Waste Compliance**

An additional compliance role within the PRS development compliance area has been funded for this financial year. This role will help drive better compliance within the waste industry through improved programs and enforcement actions. Recruitment is underway for this new role.

#### New City of Ipswich Planning Scheme

Council is in the final stages of seeking approval for its new planning scheme which aims to increase circular economy developments. The approval has been delayed due to the state government election caretaker period. Once this new planning scheme is adopted by Council it will replace the current planning scheme to help Ipswich plan and deliver for its growing city.

#### Sustainable Procurement

Sustainable procurement improvements are a key delivery of the Directive and as part of the Ipswich City Council Sustainability Strategy and has been earmarked for delivery this financial year. Its purpose is to integrate sustainable procurement practices into Council's

existing procurement framework, prioritising local and ethical suppliers, assessing environmental and social impacts, and employing lifecycle analysis, to support Ipswich City Council's emissions reduction and environment goals, enhance community resilience, and ensure compliance with future mandatory reporting requirements.

## Resource Recovery Strategy and Resource Recovery Infrastructure Plan

Implementation work is continuing of Council's Resource Recovery Strategy and the Resource Recovery Infrastructure Plan to manage waste for our community. A 3-year review of the strategy is currently underway.

#### Waste Levy Initiatives

Council continues to source support programs to ensure Ipswich gets the best return for the community through leveraging Government Waste Levey initiatives and grant funding. New funding mentioned previously included close to \$20M funding across the Sub-Regional Waste Alliance (SRA) Materials Recovery Facility (MRF) and GrowFOGO. Additional funding has since been secured under the "Let's get it Sorted" program for yellow top recycling.

#### Compliance Action and Monitoring of Waste and Resource Recovery Developments

Compliance action on strategic sites is continuing, as is monitoring of development applications and enquiries relating to waste and resource recovery matters.

#### **LEGAL IMPLICATIONS**

This report and its recommendations are consistent with the following legislative provisions: *Not Applicable* 

#### **POLICY IMPLICATIONS**

There are no policy implications associated with this report which is for receiving and noting.

#### **RISK MANAGEMENT IMPLICATIONS**

There are no risk management implications associated with this report which is for receiving and noting.

### FINANCIAL/RESOURCE IMPLICATIONS

There are no resource and financial implications associated with this report which is for receiving and noting.

#### **COMMUNITY AND OTHER CONSULTATION**

Not applicable for this report.

#### **CONCLUSION**

A significant body of work continues on the implementation of the Directive and quarterly updates will continue to be reported to the Council.

#### **HUMAN RIGHTS IMPLICATIONS**

#### **HUMAN RIGHTS IMPACTS**

## **RECEIVE AND NOTE REPORT**

The Recommendation states that the report be received and the contents noted. The decision to receive and note the report does not limit human rights. Therefore, the decision is compatible with human rights.

#### ATTACHMENTS AND CONFIDENTIAL BACKGROUND PAPERS

1. WACETD Dashboard Report - 3 Dec 24 🗓 🖫

Heike Bell

#### SUSTAINABILITY AND CLIMATE CHANGE COORDINATOR

I concur with the recommendations contained in this report.

Kaye Cavanagh

**GENERAL MANAGER (ENVIRONMENT AND SUSTAINABILITY)** 

"Together, we proudly enhance the quality of life for our community"

## **WACETD DASHBOARD REPORT**

3 December 2024

Directive Actions
51% Complete

PRINCIPLE	DESCRIPTION	ACTION	STATUS	%	UPDATE
1 - Establish a Waste Code of Practice	To achieve better outcomes for our community, we will guide best practice among waste producers and operators by creating and implementing an Ipswich Waste Code of Practice in partnership with key stakeholders.	1.1 - Execute a Code of Practice for the waste industry to adopt for working in Ipswich.	In Progress	63%	A workshop was conducted jointly with the Waste, Recycling Industry Association of Queensland (WRIQ) to develop content with the industry. A revised draft MoU was developed and provided to the CEO of WIRQ.
2 - Drive Industry Best Practice	We will create and adopt a diverse range of policies and measures which we will use to advocate for other levels of Government to deliver legislative reform, drive industry transformation, and guide Ipswich City Council to deliver best practice waste management services on behalf of our community.	2. 1 - Ensure through the Directive that instruments can be prepared and implemented to lobby for change and reform in State Government on the industry.	In Progress	50%	This is a continued effort occurring across the resource recovery and sustainability areas of Council with intent to influence future policy improvements.
		2.2 - Adopt and deliver on a new Resource Recovery Plan for municipal waste for Ipswich.	In Progress	83%	Resource Recovery Strategy 2021 - 2031 was developed and adopted by Council. Three-year review underway. This is an ongoing matter.
		2.3 - Establish a program for best practice recognition for the industry.	Not Started	0%	Following the establishment of the MoU (action 1.1) Council will be in a better position to celebrate best practice examples within the industry.
3 - Strong Compliance	We will use the full power of Council's policy and legal instruments to drive performance improvements of waste management operations within our communities. We will monitor and enforce approval conditions with greater diligence, and we will hold the State Government to account to take greater action on matters for which it is responsible.	3.1 - Educate the community on their ability to report environmental issues and enforce outcomes.	In Progress	50%	Council is in the process of recruiting a waste compliance role to assist with the delivery of enhanced education and compliance
Culture		$3.2 \hbox{-} \text{Drive better compliance within the industry through improved programs and enforcement actions.}$	In Progress	38%	action.
4 - Strategic and Sequenced Remediation	We will advocate for and seek to ensure the orderly sequencing and proper remediation of mining voids and end-of-life sites across the Ipswich local government area and seek for a range of alternate remediation options to be considered. Strategic sequencing will be based on infrastructure, topographical, environmental and social opportunities and constraints. We will proactively seek appropriate investment and funding to ensure community benefits are realised from site remediation.	4.1 - Establish a relationship with the State Government to ensure former mining site remediation is addressed as required with acceptable and manageable outcomes.	In Progress	54%	Council has identified extent of existing voids and obtained mine void mapping data to help understand extent. Council's planning team has recently met with state government to discuss better outcomes and sustainability practices for mining rehabilitation.
5 - Protect Our Residential Amenity	We will actively discourage new waste industry developments in close proximity to residential areas where it is clear the development impacts will not be manageable onsite and will negatively detract from amenity. At the same time, we will discourage residential encroachment in close proximity to areas designated for future industrial development.	5.1 - Maintain informed oversight of Development Applications on former mining and contaminated land.	In Progress	50%	Council is maintaining informed oversight of Development Applications on former mining and contaminated land as they are submitted.
		5.2 - Adopt Temporary Local Planning Instrument (TLPI) to address future planning constraints and land uses for mining voids and proposed waste sites.	Completed	100%	Council adopted a temporary local planning instrument to address future planning constraints and land uses for proposed waste sites.
		5.3 - Adopt new City of Ipswich Planning Scheme with increased and more prescriptive requirements for proposed resource recovery and waste sites to achieve.	In Progress	98%	Council has developed a new draft planning scheme that is now awaiting approval from state government. Approval has been delayed due to the recent election caretaker period.

1

## **WACETD DASHBOARD REPORT**

## 3 December 2024

PRINCIPLE	DESCRIPTION	ACTION	STATUS	%	UPDATE
6 - Partnering and Collaboration	We will lead and work collaboratively with all levels of government and SEQ Councils to transform the region's management of waste streams from linear to a circular 'recycle reuse-remake' solution to achieve an overall reduction of waste going to landfill in Ipswich.	6.1 - Development and release of Council of Mayors South East Queensland - South East Queensland Waste Management Plan.	In Progress	65%	SEQ Waste Management Plan has been developed and released. The plan forms core of CoMSEQ engagement and Council activity drive collaboration between Councils. This is an ongoing matter.
		6.2 - Establish a better working relationship with State Government on compliance related matters and overall coordination between all areas.	In Progress	75%	Council has previously met with DSE ERA Assessment Team and Compliance Team to discuss ongoing issues and coordination between teams. Council will request the reinstatement of the Taskforce meetings by the new state government. This is an ongoing matter.
7 - Lead by Example	We will investigate and progressively adopt relevant best practice waste collection and management solutions; and we will provide clear market signals and explicit benchmarks so best practice commercial operators will invest in Ipswich with confidence.	7.1 - Ensure council's Procurement objectives consider and adopt sustainable practices and consider best practice waste management through all aspects of council business.	In Progress	50%	Council has established a focus group and developed a draft sustainable procurement project plan for implementation. The goal of the project it to integrate sustainable procurement practices into the Council's existing procurement framework, prioritising local and ethical suppliers, assessing environmental and social impacts, and employing lifecycle analysis, to support lpswich City Council's emissions reduction and environment goals, enhance community resilience, and ensure compliance with future mandatory reporting requirements.
		7.2 - Adopt and deliver a new Sustainability Strategy for council with outcomes supported by the directive.	In Progress	63%	Council has made significant progress in sustainability through initiatives such as establishing a renewable energy power purchase agreement, retrofitting facilities with energy-efficient lighting, recruiting a Climate Resilient Coordinator to lead the SEQ Climate Resilient Alliance, launching various solar PV projects, and advancing sustainability efforts through a green energy precinct design, sustainable procurement project, and climate risk management, while also promoting these efforts in the community and developing tools for carbon emission reporting. Approximately 32% of the strategy implementation plan has now been completed with 21 actions in progress and 14 to be commenced in the coming years.
8 - Leverage Waste Industry Opportunity	We will seek to influence State and Commonwealth waste management policies and strategies, and we will align our current and future waste management activities and attract funding so we can leverage industry development opportunities.	8.1 - Establish, implement and maintain a Joint Task Force between council and the State Government to inform, cover and influence changes to land use, environment, compliance, policy, industry and waste levy to better Ipswich.	In Progress	72%	The taskforce was established with an agreed ToR. Council attended several meetings which provided valuable collaboration opportunities as part of a work program. The last meeting was held in 2023. Council will request the reinstatement of the Taskforce meetings by the new state government. This is an ongoing matter.

## **WACETD DASHBOARD REPORT**

## 3 December 2024

PRINCIPLE	DESCRIPTION	ACTION	STATUS	%	UPDATE
9 - Create a Better Return for Ipswich	We will advocate for fair and equitable compensation, investment and benefits proportionate to the waste volumes processed in Ipswich from both industry and other levels of government.	9.1 - Seek to reduce the Waste Levy payable by council and increase the return for Council.	In Progress	49%	Council has previously responded to the Waste Levy report and has implemented several changes to domestic waste collection as part of the Resource Recovery Strategy which have resulted in positive outcomes. Council is also looking at taking actions to reduce its own waste production as part of the Sustainability Strategy and has advocated for and received funding such as \$20M funding across the Sub-Regional Waste Alliance (SRA) Materials Recovery Facility (MRF) and GrowFOGO. Additional funding has recently been secured under the "Let's get it Sorted" program for yellow top recycling.
		9.2 - Determine opportunities to gain better returns for Ipswich through legislative avenues and levies charged by Council.	In Progress	10%	This is an ongoing matter.
		9.3 - Maintain awareness for state and national funding and grant opportunities for both Council and the industry.	In Progress	10%	Regular meetings are occurring between Council and CoMSEQ PMO / DESI / DSDID to review initiatives and funding opportunities that may be applicable. This is an ongoing matter.
10 - Plan for the Future	ensure that all landfill and waste processing sites, once they are closed, do not leave a negative legacy impact on the city or our residents.	10.1 - Council to assess and respond to all application enquiries in line with the directive and which supports new and continued industry in Ipswich.	In Progress	15%	Council continues to assess and respond to all application enquiries inline with the directive and which supports new and continued industry in Ipswich. This is an ongoing matter.
		10.2 - Ensure consideration of future planning and legislation in the instance of major disaster events.	In Progress	50%	Council will participate in on-going discussions that ensure, legislative (QLD level), policies and strategies are practical and achievable at Council controlled facilities. Council is taking direct action at controlled facilities to ensure they have appropriate means and planning to manage natural disasters.
		10.3 - Undertake meaningful engagement with both the community and the industry to advise, educate and seek feedback on industry and development waste matters.	In Progress	25%	Council will ensure current and future community requirements, at Council controlled facilities, are built into the Council strategy and policies to provide opportunities to design for future changes and development in waste and resource recovery. This may involve improvements to specific waste related communication and community engagement planning and development to better explain decisions made by Council to the community. This is an ongoing matter.

Doc ID No: A10937818

ITEM: 5

SUBJECT: IPSWICH RIVERS IMPROVEMENT TRUST NOTICE OF ANNUAL PRECEPT FOR

2024-2025

AUTHOR: MANAGER, NATURAL ENVIRONMENT

DATE: 14 NOVEMBER 2024

#### **EXECUTIVE SUMMARY**

This is a report concerning the annual Precept issued to Council under the *Rivers Improvement Trust Act 1940* and the associated program of works for the Ipswich Rivers Improvement Trust for 2024-2025.

#### **RECOMMENDATION/S**

That the report be received and the contents noted.

#### **RELATED PARTIES**

The Ipswich Rivers Improvement Trust

#### **IFUTURE THEME**

Natural and Sustainable

#### PURPOSE OF REPORT/BACKGROUND

River Improvement Trusts are established to protect and improve rivers. Under the *Rivers Improvement Trust Act 1940* (the Act) they can carry out works such as improving the flow of water in rivers to correct erosion and reduce the impact of flood waters.

River Improvement Trusts may carry out activities within a river improvement area. They are statutory bodies constituted under the Act, which gives them the power to raise funds, enter land, occupy land, enter contracts and carry out works. Not every catchment or region has a Trust, and in many Local Government Areas much of function is delivered by Councils, Catchment groups or Natural Resource Management bodies.

There are 11 river improvement trusts in Queensland, predominantly in rural areas and these are supported by the State Council of River Trusts Queensland Inc.

These Trusts are:

Burdekin Shire Rivers Improvement Trust Cairns River Improvement Trust Cassowary Coast River Improvement Trust Don River Improvement Trust Herbert River Improvement Trust

#### **Ipswich Rivers Improvement Trust**

Scenic Rim Rivers Improvement Trust
Stanthorpe Shire River Improvement Trust
Wambo Shire River Improvement Trust
Warwick Shire River Improvement Trust, and
Whitsunday Rivers Improvement Trust

Under the aforementioned act the Trusts have the authority to issue a Precept to Council to pay the requested amount to support the annual works program. This historically was then supplemented with further Queensland Government funding.

Historically the work of the Trust has been focused on woody weed removal along Ipswich waterways. In the past couple of years, the works have expanded to more holistic catchment needs including bank stabilisation and revegetation works. The annual works plan is developed in consultation with relevant council officers and designed to expend the annual precept value.

#### **LEGAL IMPLICATIONS**

This report and its recommendations are consistent with the following legislative provisions: Rivers Improvement Act 1940

## **POLICY IMPLICATIONS**

NA

## **RISK MANAGEMENT IMPLICATIONS**

NA

#### FINANCIAL/RESOURCE IMPLICATIONS

The \$300,000 is included in the approved budget for Natural Environment Branch of the Environment and Sustainability Department for 2024/2025.

#### **COMMUNITY AND OTHER CONSULTATION**

NA

## **CONCLUSION**

Council is required to pay an annual precept to the Ipswich Rivers Improvement Trust to support delivery of their annual works program under the *Rivers Improvement Trust Act* 1940. This year's precept is \$300,000.

#### **HUMAN RIGHTS IMPLICATIONS**

#### **HUMAN RIGHTS IMPACTS**

#### **RECEIVE AND NOTE REPORT**

The Recommendation states that the report be received, and the contents noted. The decision to receive and note the report does not limit human rights. Therefore, the decision is compatible with human rights.

#### ATTACHMENTS AND CONFIDENTIAL BACKGROUND PAPERS

1. IRIT Precept Letter for the 2024 - 2025 Financial Year 🕹 🖺

Phil A. Smith

## MANAGER, NATURAL ENVIRONMENT

I concur with the recommendations contained in this report.

Kaye Cavanagh

**GENERAL MANAGER (ENVIRONMENT AND SUSTAINABILITY)** 

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## **IPSWICH RIVERS IMPROVEMENT TRUST**

Level 1 Hayden Centre, South Street, Ipswich

## ALL CORRESPONDENCE TO:

The Secretary
Ipswich Rivers Improvement Trust
PO Box 191
IPSWICH QLD 4305
Telephone: (07) 3810 7336
Email: normcraswell@netspace.net.au

#### **PRECEPT**

TO:

The Council of the City of Ipswich 1 Nicholas Street IPSWICH QLD 4305

This is to require you, the COUNCIL OF THE CITY OF IPSWICH, to pay on or before the THIRTIETH day of NOVEMBER 2024, into the hands of LEANNE SAVAGE, the Chairperson of the IPSWICH RIVERS IMPROVEMENT TRUST, the sum of THREE HUNDRED THOUSAND DOLLARS (\$300,000) being the amount required for expenses of the Trust.

DATED at Ipswich this Eleventh day of November 2024.

Learne Davage.

LEANNE SAVAGE CHAIRPERSON Doc ID No: A10906557

ITEM: 6

SUBJECT: ENVIROPLAN ANNUAL REPORT 2023-2024

AUTHOR: MANAGER, NATURAL ENVIRONMENT

DATE: 5 NOVEMBER 2024

#### **EXECUTIVE SUMMARY**

This is a report concerning the Ipswich Enviroplan Program and Levy Annual Progress Report for the 2023-2024 Financial Year (Attachment 1). Contained within the report is an overview of project delivery, outcomes and a financial summary including expenditure and revenue and highlights from the past year which include:

- A land acquisition in April 2024 of 93 hectares at Mt. Flinders Road, Peak Crossing
- \$164,778 was provided to the Ipswich community in Nature Conservation Grants
- \$351,324 towards 156 hectares of ongoing fuel-reduced area maintenance for the control of wildfires in Natural Area Estates and protection of life and property

#### **RECOMMENDATION/S**

That the report concerning the Enviroplan Annual Report 2023-2024 be received and the contents noted.

#### **RELATED PARTIES**

There are no conflicts of interest identified in relation to this report.

#### **IFUTURE THEME**

Natural and Sustainable

#### PURPOSE OF REPORT/BACKGROUND

The Enviroplan Levy continues to be a much supported and vital tool for Council and the city of Ipswich in preserving and enhancing the environmental and Aboriginal Cultural Heritage values of the city.

At its inception, Ipswich was one of the first and remained as one of only a handful of local governments to introduce a levy focused on protecting and enhancing the environment. Since then, the community and council have worked together to implement the Enviroplan Program and deliver against the newly adopted Natural Environment Strategy and the many initiatives within it.

In line with best practice and the council's commitment to transparency and integrity, as of 2019 Council committed to the annual publication of the Enviroplan Annual Report. As well as this the financial data is provided for publication on the Transparency and Integrity Hub.

Given the importance of understanding the needs, costs, and investment direction of the Enviroplan Levy into the future, this report allows the community to better understand what their Levy is used for. Building this understanding should aid in better dialogue and engagement when it comes to City wide directional decisions around the Environment including working hand in hand with the implementation of the new Natural Environment Strategy endorsed by Council last year.

As Council has grown and matured over the last 25+ years, the strategic focus, priority and needs of the city have changed and the Enviroplan has evolved with that. Like many other Southeast Queensland local governments who followed in the footsteps of the Enviroplan Levy; initial investment focussed on acquisitions of strategically important, high value conservation land parcels. As the portfolio grew it was identified that the need to manage and maintain this land grew with it as did the resourcing required. As such spending shifted to consolidation and connectivity. Following the recent adoption of the new Natural Environment Strategy, expenditure is balanced between strategic and opportunistic expansion of the protected areas (council and private) and the protection, embellishment and management of the land that Council has responsibility for.

Enviroplan and the associated policy and procedure allow some flexibility, however, with the advent of new and emerging challenges, pressures, opportunities and community priorities it is likely that existing policies will need to be reviewed in line with the new strategic direction to ensure they are fit for purpose and adequately support the achievement of future goals and objectives. With this, we will continue to use and review the current revenue generated and the future needs of the organisation in achieving the strategic goals.

#### **LEGAL IMPLICATIONS**

This report and its recommendations are consistent with the following legislative provisions: Local Government Act 2009

#### **POLICY IMPLICATIONS**

The report and the Enviroplan Levy are managed in line with the Natural Environment Policy, the Ipswich Enviroplan Policy, and the relevant associated Procedures.

#### **RISK MANAGEMENT IMPLICATIONS**

The content of this report presents little or no risk to Council.

Publication of the financial and annual report aligns with Council's position on good governance, transparency openness in allowing for public visibility.

## FINANCIAL/RESOURCE IMPLICATIONS

There are no forward financial or budget implications from receiving or noting this report or the attached document. The Natural Environment Branch will continue to consider management and plan the Levy Funds with a view of using the funds efficiently and effectively to deliver against Council's strategic environmental goals.

#### COMMUNITY AND OTHER CONSULTATION

In line with the adopted process annual report was produced in consultation and approved by the Chief Financial Officer and the assistance of the Finance Business Partners.

The annual report will be published on the Council website and the Transparency and Integrity hub in order to inform the community of where and how the money is invested.

The direction of the Enviroplan moving forward is largely set by the Natural Environment Strategy which was complied with extensive community engagement.

#### **CONCLUSION**

This report presents the annual City of Ipswich Enviroplan Program and Levy Progress Report 2023-2024 to be received and noted. As well as a summary of the financial details, it includes summaries of key programs and projects for the 2023- 2024 financial year.

#### **HUMAN RIGHTS IMPLICATIONS**

### **HUMAN RIGHTS IMPACTS**

#### **RECEIVE AND NOTE REPORT**

The Recommendation states that the report be received and the contents noted. The decision to receive and note the report does not limit human rights. Therefore, the decision is compatible with human rights.

#### ATTACHMENTS AND CONFIDENTIAL BACKGROUND PAPERS

1. Ipswich Enviroplan Annual Progress Report 2023-2024 🗓 🖺

Phil A. Smith

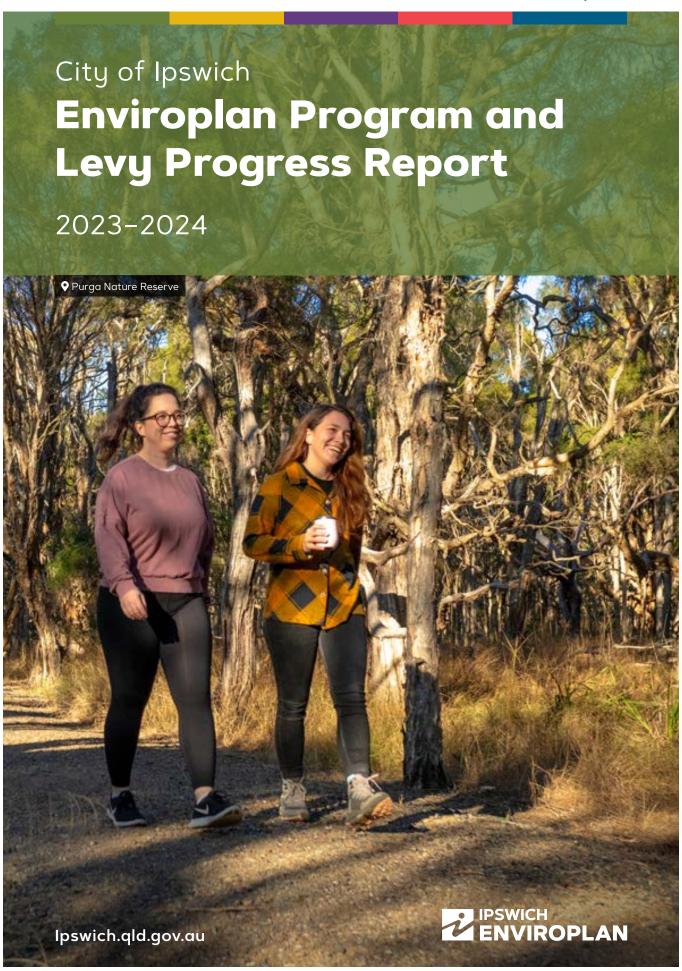
#### MANAGER, NATURAL ENVIRONMENT

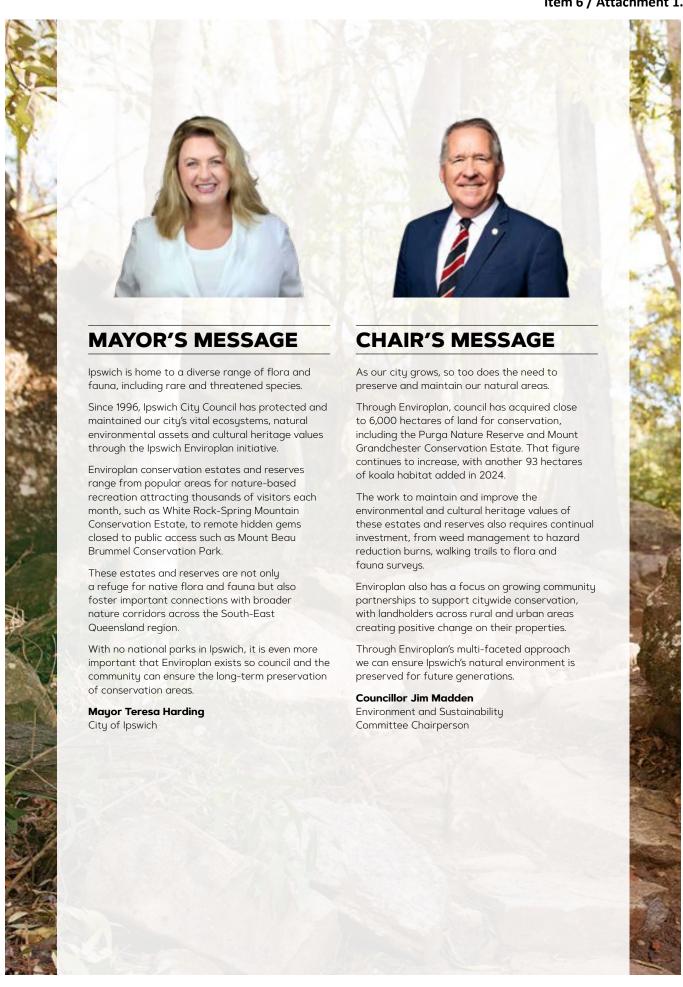
I concur with the recommendations contained in this report.

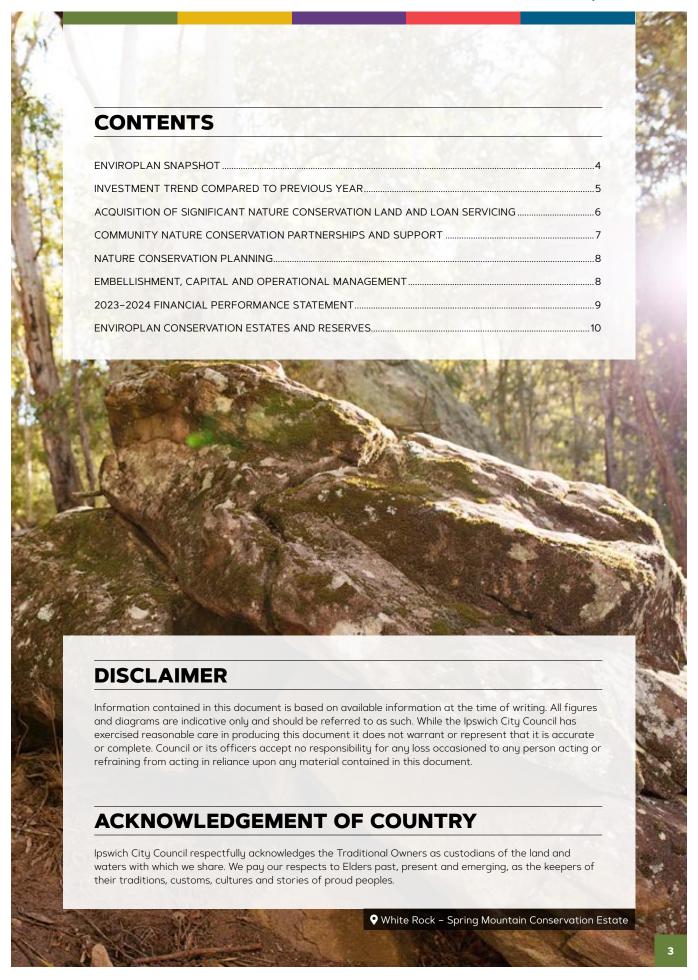
Kaye Cavanagh

**GENERAL MANAGER (ENVIRONMENT AND SUSTAINABILITY)** 

"Together, we proudly enhance the quality of life for our community"







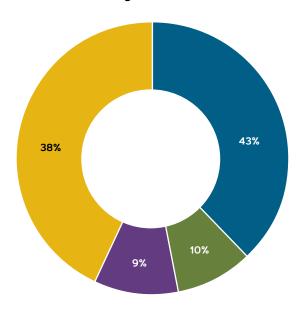
## **ENVIROPLAN SNAPSHOT**

The initiative is funded through a levy paid through household rates. By committing to Ipswich Enviroplan, council is able to deliver citywide conservation outcomes in four key areas; land acquisition, estate management, conservation planning and community partnerships.

Currently, the Ipswich Enviroplan portfolio includes more than 6,700 hectares of conservation land and broader community activities. It includes:

- Maintenance such as weed removal, hazard reduction burns, pest management
- Research and planning, including flora and fauna surveys, masterplans
- Recreational facilities such as walking tracks, amenities, signage
- Community-facing initiatives such as the Landholder Conservation Partnerships Program to inspire community action.

#### Where did the funds go in 2023-2024?



- Acquisition of significant nature conservation land and loan servicing \$1,742,537
- Community nature conservation partnerships and support \$420,450
- Nature conservation planning \$467,917
- Embellishment, capital and operational management within the Natural Area Estate \$1,971,481

Total Spend: \$4,602,384



# INVESTMENT TREND COMPARED TO PREVIOUS YEAR

TREND	ТНЕМЕ	CHANGE FROM 2022-2023
1	Acquisition of significant nature conservation land and loan servicing	(+) \$881,509
4	Community nature conservation partnerships and support	(-) \$64,463
1	Nature conservation planning	(+) \$238,380
4	Embellishment, capital and operational management within the Natural Area Estate	(-) \$382,036



# ACQUISITION OF SIGNIFICANT NATURE CONSERVATION LAND AND LOAN SERVICING

- There was a land acquisition in April 2024 of 93 hectares at Mt. Flinders Road, Peak Crossing
- \$861,028 went towards servicing the loan
- Council continues to investigate voluntary acquisition opportunities as they arise, assessing properties against a set of criteria including ecological values.



# COUNCIL PROTECTS VALUABLE KOALA HABITAT THROUGH ENVIROPLAN

Council's largest conservation land acquisition in more than 10 years will protect a substantial koala priority habitat area for future generations.

Two blocks of land at Peak Crossing, totalling 93 hectares, were voluntarily acquired through Enviroplan.

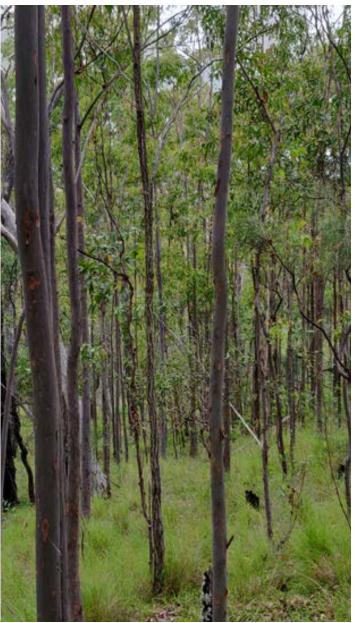
The blocks of land border Flinders-Goolman Conservation Estate and will increase the environmental and habitat value of this estate for a variety of rare and threatened species.

The majority of the site is mapped as priority koala habitat and recognised as being high value to this endangered species.

The acquired land contains important environmental values that have largely been preserved over the long term, including intact ecosystems and diverse landscape.

While there has been some historical logging, there are good areas of dense vegetation and trees approaching the size where hollows begin to form, which is essential for native bird and mammal species.

The site also scored highly as being a large area of stable habitat that will be resilient to the changes in our climate. Areas such as this are becoming increasingly important to preserve as they can sustain viable populations of native plants and animals and help ensure long-term survival of species.



# COMMUNITY NATURE CONSERVATION PARTNERSHIPS AND SUPPORT

- \$164,778 was provided in Nature Conservation Grants
- \$15,711 funded landholder education and incentive activities
- More than 1,000 members registered with the Habitat Gardens program
- Close to 200 properties registered with a Voluntary Conservation Agreement
- Renewed regional partnerships
- \$16,363 Land for Wildlife South East Queensland
- \$17,277 SEQ Fire and Biodiversity Consortium





# OVERCOMING BARRIERS AND CREATING CHANGE

With much of Ipswich's environmentally significant land held as private property, landholders' conservation efforts are vital to citywide conservation efforts. However, landholders can face barriers to improving the environmental values of their property, such as physical capability for the work required, financial capacity for the cost of works or technical expertise and knowledge.

Through Enviroplan, council supports landholders to overcome these barriers. One mechanism is the Enviroplan-funded Nature Conservation Grants.

Members of the Landholder Conservation Partnerships Program who have created a property management plan with council are eligible to apply, with the grants able to fund a wide range of on-ground actions.

At a 20-hectare property in Calvert, the grants have supported a Biodiversity Conservation Agreement landholder with a range of improvements that would not have been possible otherwise.

A number of nest boxes have been installed around the property, suitable for parrots, possums and gliders.

The project included two large black cockatoo nest boxes. One of Australia's rarest birds, the Glossy-black cockatoos visit the property to drink from the dam and feed from the Casuarina trees. The hope is that the nest boxes will entice these wary birds to breed on the property.

The grants have also allowed the landholder to engage a specialised contractor to progressively remove lantana, which had formed an impenetrable thicket in the gully.

It is hoped that once the lantana is under control, more species such as koalas will be able to access the property. Continued weed management will also allow native plant species to regenerate.

## NATURE CONSERVATION PLANNING

- Conservation works with a focus on Brush-tailed rock wallaby foraging areas, including:
  - \$34,715 for weed management and restoration works at Flinders-Goolman Conservation Estate
  - \$27,000 for ecological specialist services
  - \$7,715 for new monitoring cameras

# EMBELLISHMENT, CAPITAL AND OPERATIONAL MANAGEMENT

- \$466,681 for maintenance work including weed control, service trails, labour and equipment
- \$339,742 for 111 hectares of habitat restoration works
- \$34,121 for upgrades to the Kupmurri at Hardings Paddock, including walking tracks and gardens, solar lighting, gates and fencing
- \$12,895 for Purga Nature Reserve wayfinding signage installation for all tracks
- \$99,877 for the installation of new fire management areas in Redbank Rifle Range
- \$351,324 towards 156 hectares of ongoing fuel reduced area maintenance for the control of wildfire in Natural Area Estates and protection of life and property
- 96 hectares of hazard reduction burn completed at Flinders-Goolman Conservation Estate in July 2023
- 30 hectares of hazard reduction burn completed at Hillview Drive Reserve in June 2024
- 591 hours of pest animal management activities



## PROTECTING PRIORITY SPECIES

Our Enviroplan conservation estates and reserves are refuges for many threatened, locally significant priority species. Conservation works undertaken in these protected areas, such as weed and pest management, and bushfire mitigation, improve habitat and reduce threats to these important species.

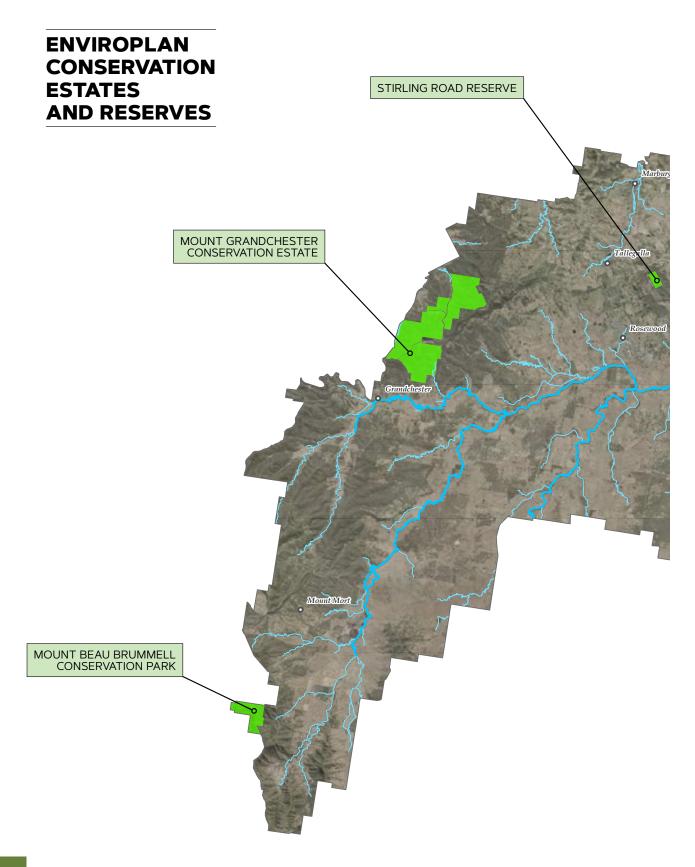
Key species supported by Enviroplan include koalas, Glossy-black cockatoos, Black-breasted button quails, Rufous bettongs, Brush-tailed phascogale, Grey-crowned babbler and the Plunkett mallee.

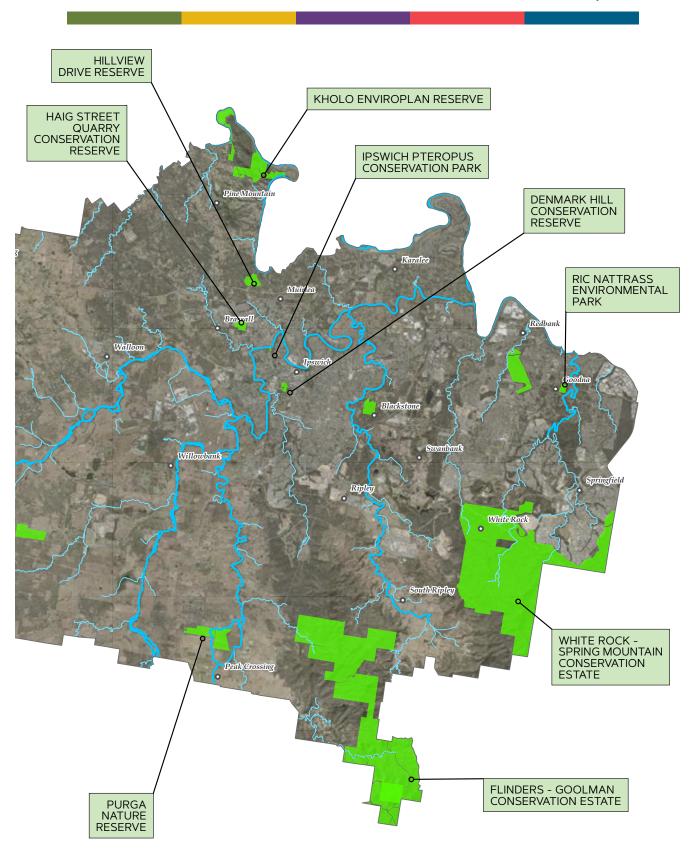
In the 2023/2024 Financial Year, there was 111 hectares of habitat restoration works that targeted the improvement of endangered Yellow Box vegetation community, Brush-tailed rock wallaby habitat and the removal of declared weeds such as Cat's claw creeper and Lantana.

## **2023-2024 FINANCIAL PERFORMANCE STATEMENT**

This statement is certified by the Chief Financial Officer on the 4 November 2024.

PROJECT/ACTIVITY		ACTUALS
STRATEGIC THEME: ACQUISITION OF SIGNIFICANT CONSERVATION LAND		
Land Acquisition Program		Ć004 F04
Assessments and purchases  Loan service		\$881,509
	4.4.4	\$861,028
Sub-program Theme		\$1,742,537
STRATEGIC THEME: COMMUNITY NATURE CONSERVATION PARTNERSHIPS AND SUPPORT	totai	\$1,/42,53
Landholder Conservation Partnerships Program		
		\$148,07
Program management operational expenses  On-ground landholder support projects		\$164,778
Voluntary Conservation Agreement incentives: Education and capacity building		\$15,71
	total	\$328,566
Sub-program	totai	\$320,500
Community Partnerships Program  Annual city-wide events		\$12,95
On-ground community projects		\$16,85
* * *		\$23,540
Digital and printed material		\$23,54
Citizen science program		\$4,89
SEQ Land For Wildlife Program Partnership		\$17,27
SEQ Fire and Biodiversity Consortium Partnership	4.4	\$91,884
Sub-program		
STRATEGIC THEME: NATURE CONSERVATION PLANNING	totai	\$420,450
City-wide Nature Conservation Planning Program		
Nature Conservation Planning: Operational expenses		\$346,136
		\$540,150
Continual improvement projects	total	\$346.18!
Sub-program Threatened and Key Species Recovery Program	totai	\$340,10
Threatened and Key Species Recovery Program  Display to the series of th		\$86,340
Biodiversity planning: operational expenses  Koala conservation and habitat management		\$67
		\$34,71!
Brush-tailed rock wallaby recovery	4.4.4	
Sub-program		\$121,73
Theme Strategic Theme: Embellishment, Capital and Operational Management Investment	totai	\$467,91
Natural Area Maintenance Program		
Natural Area Maintenance: Operational expenses		\$606,480
Sub-program	total	\$606,480
Natural Area Management Program	totai	3000,400
Natural area management operational expenses		\$93,01
Conservation Works Program on-ground operational projects		\$335,48
Fire Management Program on-ground operational projects		\$421,09
Natural area capital investment program		\$401,94
Pest animal management program		\$18,789
Natural area estate visitor management operational expenses		\$46,248
Natural area estate visitor management operational expenses  Natural area estate activation program		\$7,70
Natural area estate activation program  Natural area estate enforcement program		\$40,720
	total	
Sub-program Theme		\$1,365,00 \$1,971,48
PROGRAM T		\$1,971,48 \$4,602,384
Revenue PROGRAM I	OTAL	\$4,973,16
		Ç4,∀/3,ID.
External Grant Funding for Enviroplan Projects  Adjustment to Passaria (Passaria Chamudaura)		¢270.70
Adjustment to Reserve (Drawdown)		\$370,783
Reserve Balance	1 3	\$5,682,89







Doc ID No: A10926467

ITEM: 7

SUBJECT: UPDATED FLYING-FOX ROOST MANAGEMENT PLAN

AUTHOR: MANAGER, NATURAL ENVIRONMENT

DATE: 8 NOVEMBER 2024

#### **EXECUTIVE SUMMARY**

Council's Flying-fox Roost Management Plan and Statement of Management Intent have undergone a review and update. This update included third party expert input as well as community engagement through Shape Your Ipswich. Attached for consideration and adoption by Council is the final draft of the updated Ipswich City Council Flying Fox Management Plan 2024 (Attachment 1). The Statement of Management Intent (Attachment 2) required a small suite of changes to align it with the newly drafted Flying-fox Roost Management Plan.

#### **RECOMMENDATION/S**

- A. That Council adopt the new Ipswich City Council Flying-fox Roost Management Plan 2024, as detailed in Attachment 1.
- B. That Council adopt the updated Flying-fox Statement of Management Intent, as detailed in Attachment 2.

### **RELATED PARTIES**

No conflicts of interest are identified as part of this report.

#### **IFUTURE THEME**

Natural and Sustainable

## PURPOSE OF REPORT/BACKGROUND

Council's regional Flying-fox Roost Management Plan (FFRMP) (Attachment 1) has been developed and updated to provide contemporary, best practice advice to guide council's management of current and future flying-fox roosts within the region. It contains the key information and management processes necessary to implement council's Statement of Management Intent (SOMI) — Flying-fox Roost Management in Ipswich City (Attachment 2) which has also been updated to align with the new FFRMP and ensures that where council does seek to undertake roost management actions that these are completed in an equitable and balanced manner, and in accordance with Queensland and Commonwealth legislation. A markup of the proposed changes to the SOMI is contained in Attachment 3. The Flying-fox Roosts of Ipswich document is intended to be a live document that may be updated on a

more frequent basis than the SOMI to reflect changes in roost occupation across the city (Attachment 4).

The purpose of the update and review of the Flying-fox Roost Management Plan is to:

- 1. Ensure the plan remains consistent with State legislation.
- 2. Reconfirm Council's position on managing roosts.
- 3. Ensure council's suite of management options remains up to date with best practice and consistent with other local governments across south-east Queensland.
- 4. Develop further clarity around the consistent and appropriate application of the plan across geographical areas, divisions and across our known roost sites.

This update was funded thought Queensland Government, Department of Environment, Tourism, Science and Innovation Flying Fox Management Grants 2024 and the plan has been shared with the department.

The primary objectives of the development and implementation of the plan are as follows:

- Implement appropriate conservation strategies to protect flying-foxes within the Ipswich region.
- Address concerns of residents within the Ipswich region who are experiencing impacts associated with flying-foxes.
- Develop and provide advice on roost management strategies which assist residents while adhering to State and Commonwealth legislation.
- Improve education and appreciation within the community regarding the ecological importance of flying foxes.
- Improve council's knowledge and understanding of local flying-fox roosts through increased monitoring and research.
- Achieve endorsement of the plan by the Department of Environment Tourism Science and Innovation (DETSI).

#### **LEGAL IMPLICATIONS**

This report and its recommendations are consistent with the following legislative provisions: *Nature Conservation Act 1992* 

#### **POLICY IMPLICATIONS**

The Statement of Management Intent for Flying-foxes is a statutory document required under the State Legislation and listed alongside councils other Policies and Administrative Directives within councils internal governance framework.

#### **RISK MANAGEMENT IMPLICATIONS**

The Plan and the Statement of Management Intent are risk management tools to manage council's obligations to protected native fauna and manage conflicts between flying-fox (roosts) on Council land and the residents of Ipswich who may be impacted.

## FINANCIAL/RESOURCE IMPLICATIONS

Responsive management of interactions between the public and wildlife, especially flying-foxes during the summer months requires intensive seasonal resourcing that currently comes from within the Natural Environment Branch of Environment and Sustainability Department.

Historically, in years where larger numbers of flying-foxes migrate to Ipswich, we see an increase in requests to manage community impacts, especially in association with heat stress events or other factors. This takes the form of carrying out urgent welfare or community safety actions, at an additional cost to council, often above budget allocation.

The Queensland Government offers regular grant funding to support the production of roost management plans and management actions. Officers are exploring the possibility of grant funds to support resourcing in this space.

#### **COMMUNITY AND OTHER CONSULTATION**

The community was consulted through Shape Your Ipswich as part of the review and update to the Flying-fox Management Plan. A summary of the results is attached to this report (Attachment 5).

#### **CONCLUSION**

The updated Ipswich Flying-fox Roost Management Plan provides council with a robust framework for assessing the need for management actions on a case-by-case basis. The plan remains consistent with State and Commonwealth legislation whilst providing council with the tools for consistent application across the local government area.

#### **HUMAN RIGHTS IMPLICATIONS**

HUMAN RIGHTS IMPACTS	
OTHER DECISION	
(a) What is the Act/Decision being made?	Recommendation A States that; That council adopt the document, Attachment 1 as the new Ipswich Council Flying-fox Management Plan 2024  Recommendation B States that; That council adopt the document, Attachment 2 as the updated Flying-fox Statement of Management Intent
(b) What human rights are affected?	Not applicable

(c) How are the human	Not applicable
rights limited?	
(d) Is there a good	Not applicable
reason for limiting	
the relevant rights? Is	
the limitation fair and	
reasonable?	
(e) Conclusion	The decision is consistent with human rights.

## ATTACHMENTS AND CONFIDENTIAL BACKGROUND PAPERS

1.	Ipswich City Council Flying-fox Roost Management Plan 🗓 🖺
2.	Flying-fox statement of management intent - revisions incorporated 🗓 🖺
3.	Flying-fox statement of management intent - track changes 🗓 ื
4.	Flying-fox roosts of the Ipswich region 🗓 ื
5.	Shape Your Ipswich Survey Results - Flying-fox Management 🗓 🖺

## Phil A. Smith

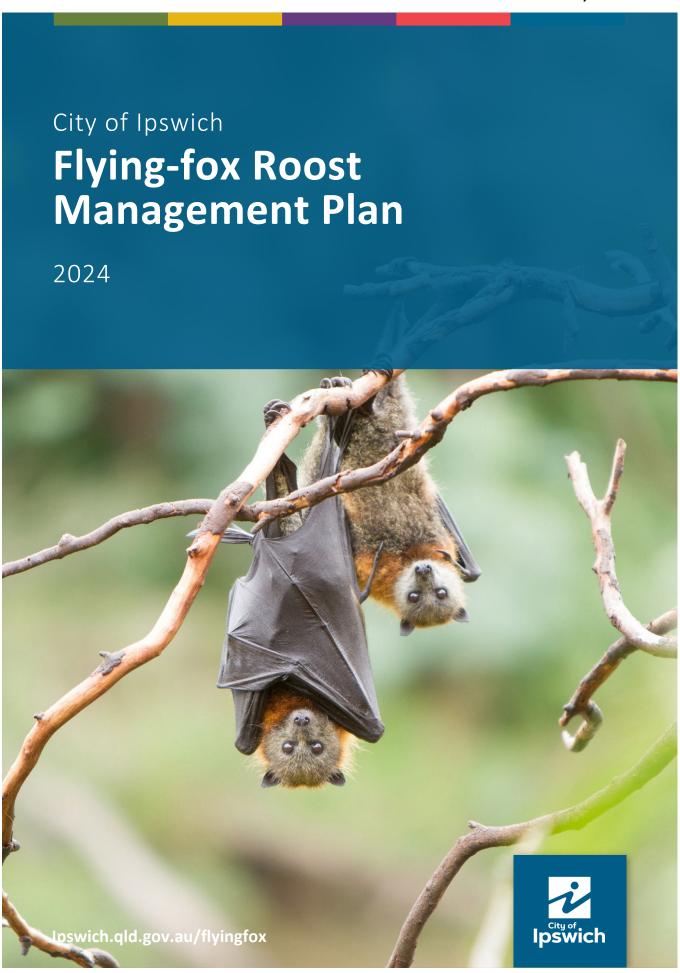
## MANAGER, NATURAL ENVIRONMENT

I concur with the recommendations contained in this report.

Kaye Cavanagh

**GENERAL MANAGER (ENVIRONMENT AND SUSTAINABILITY)** 

"Together, we proudly enhance the quality of life for our community"



## **DOCUMENT CONTROL**

VERSION	PURPOSE	LEAD AUTHOR	REVIEWER	APPROVED BY	DATE
1	Draft Report 1	НВ	WG	LMT	30/06/2023
2	Draft Report 2	НВ	TS & BW (ICC)	LMT	6/09/2023
3	Draft Report 3	НВ	WG	LMT	12/06/2024
4	Draft report 4	TS (ICC)	WG	-	12/11/2024



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## **GLOSSARY OF TERMS**

### **Flying-fox Roosts**

The Department of Environment, Tourism, Science and Innovation's (DETSI) Operational Policy Interim policy for determining when a Flying-fox congregation is regarded as Flying-fox roost under Section 88C of the *Nature Conservation Act 1992* provides the State Government legislative definitions for a Flying-fox roost. The below definitions have been included from version 2.0 (July 2021) of this Policy.

The Ipswich City Council (council) definitions for a Flying-fox roost, as below in the definitions, refers to a discrete spatial area where Flying-foxes (50 or greater) congregate during the hours of 6am to 6pm, regardless of breeding or temporal status. This definition will be utilised by council in the first instance where consideration of these definitions is required in assessment of council's capacity to complete roost management actions.

TERM	DEFINITION	SOURCE
Appropriately trained person	Means a person with experience and training in the safe handling of Flying- foxes, who is appropriately vaccinated	Code of practice - Ecologically sustainable management of Flying-fox roosts
As-of-right authority	In the context of Flying-fox roost management, is a legal right to carry out a Flying-fox roost management activity, provided the activity is carried out in accordance with the relevant Queensland Government code of practice and roost management guidelines, within the urban Flying-fox management area (UFFMA), by a Local Government.	Adapted from Flying-fox roost management guideline
Buffer zone	Refers to physical separation between humans and Flying-foxes (such as an area cleared of roost trees) aimed at reducing conflict with the surrounding area, providing visual separation or mitigating noise and smell.	Council defined term
Buffering	Creation or maintenance of a physical separation between humans and roosting Flying-foxes aimed at reducing conflict with the surrounding area, providing visual separation or mitigating noise and smell.	Council defined term
Common use area	Refers to areas of a property which are accessed and/or actively used by residents, visitors or occupants, for example outdoor seating areas or veranda areas. Common use areas do not include backyards associated with a dwelling.	Council defined term
Commonwealth- owned or Commonwealth- managed land	Is property which is under Australian Government control.	Council defined term
Containment	Refers to management actions (such as creation of cleared buffer zones) which are aimed at containing Flying-foxes within an area of a roost which reduces the impact of the roost on sensitive receptors.	
Council-owned or Council-managed land	Is property which is under Ipswich City Council control. This can include land owned by the State Government but managed by Council as trustee.	Council defined term
Creche	Is a tree or other place where females leave dependent young.	Council defined term
Dependant young	Are juvenile flying-foxes unable to independently fly.	Council defined term

TERM	DEFINITION	SOURCE
Dispersal	Refers to management actions which result in temporary or permanent relocation of Flying-foxes to alternative roosts (driving away Flying-foxes from a high-conflict roost site).	Adapted from Flying-fox Roost Management Guideline 2020
Flying-fox camp or roost	Refers to a discrete spatial area where Flying-foxes (50 or greater) congregate during the hours of 6am to 6pm, regardless of breeding or temporal status.  Where this plan refers to a 'roost' the council defined term is to be utilised.	Council defined term
Flying-fox Roost Management Plan (FFRMP)	Refers to a document which outlines the management approach/strategy for a singular roost or several related roosts (this document).	Council defined term
Food tree	Is a tree or other plant which Flying-foxes use as a source of food, typically at night.	Council defined term
Juvenile flying- foxes	Are Flying-foxes up to 6 months of age.	Council defined term
Low impact activities	Means mulching, mowing, weeding, watering under or near roost trees, minor trimming of roost trees, and installation, maintenance or removal of infrastructure, where the activities are not directed at destroying a flying-fox roost, driving away, or attempting to drive away, a Flying-fox from a Flying-fox roost, or disturbing a Flying-fox in a Flying-fox roost.	Code of practice – Low impact activities affecting Flying-fox roosts
Management actions	Means non-lethal actions intended to stop Flying-foxes from making use of a site or part of a site, and include destroying and/or trimming vegetation at a site, as well as coordinated action to drive Flying-foxes away from a site or move Flying-foxes within a roost site.	Code of practice – Ecologically sustainable management of Flying-fox roosts
Maternity roost	A roost with a high proportion of pregnant females or females with dependent young.	Council defined term
Maternity roost	A roost with a high proportion of pregnant females or females with dependent young. Dependent young are juvenile Flying-foxes unable to independently fly.	Council defined term
Owner (of a property)	In the context of this document may refer to the person or organisation who owns, manages, occupies, leases or is otherwise responsible for the property in question (e.g. trustee)	Council defined term
Person in charge	1. If the management actions are being performed by a local government— the local government officer on site and leading the management actions (or the local government officer directing a contractor to undertake the management actions); or  2. If the management actions are being performed by a person under an approved Flying-fox roost management permit— the person on site who is leading the management actions.	Code of practice - Ecologically sustainable management of Flying-fox roosts

TERM	DEFINITION	SOURCE
Person knowledgeable about Flying-fox behaviour	Means a person, who may also be the person in charge, able to demonstrate experience in successfully:  (a) classifying Flying-fox species; and  (b) assessing Flying-fox population numbers in particular roosts; and  (c) identifying Flying-fox breeding cycles including evidence of breeding and rearing activity in particular roosts; and  (d) recognising signs of (and circumstances which may result in)—  i) distress in Flying-foxes, and  ii) harm to Flying-foxes, and  iii) abandoned dependent young Flying-foxes.	Code of practice - Ecologically sustainable management of Flying-fox roosts
Preferred roosting location (PRL)	Means areas of suitable vegetation:	Council defined term
Pollarding	Is the removal of the upper branches of a tree. This may include reducing the tree back to only its basic structural components (the trunk).	Council defined term
Private property	In the context of this document is a property which is owned by a member of the public or a private entity, and the property is occupied by an owner, tenant or manager.	Council defined term
Residential dwelling	Is a permanent, approved place of residence, and does not include temporary living facilities, sheds or other constructs on private property.	Council defined term
Sensitive site (public or private)	A public or private facility where high volumes of people congregate, who may be disrupted, or perceived to be disrupted by flying-foxes (e.g. hospitals, schools, aged care facilities, child care centres, parks, etc. It also includes equestrian facilities or aviation facilities who's intended primary function may be disrupted or perceived to be disrupted by flying foxes.	Council defined term
Statement of Management Intent	The Statement of Management Intent (SoMI) will articulate the approach the local government intends to take with respect to roost management across the UFFMA, any rationale the local government considers appropriate to declare and any specific plans local government has in relation to roost management.  A copy of Ipswich City Council's Statement of Management Intent is provided at Error! Reference source not found	Flying-fox Roost Management Guideline
Splinter roost	Refers to a roost which contains a smaller number of Flying-foxes which have established in close proximity to an existing roost, typically as a consequence of dispersal actions.	Council defined term
State-owned or State-managed land	Is property which is under Queensland Government control.	Council defined term
Urban Flying-fox management area (UFFMA)	Refers to the Queensland Government Urban Flying-fox Management Area (Error! Reference source not found.). An UFFMA delineates where a local government maintains as 'as of right authority' to undertake Flying-fox management actions without an approved FFRMP.	Flying-fox Roost Management Guideline

### LIST OF ACRONYMS

EHP: Department of Environment and Heritage Protection (former) (State)

ABL: Australian bat lyssavirus (ABLV)

ACPA: Animal Care and Protection Act 2001 (State)

**DAFF:** Department of Agriculture, Forestry and Fisheries (State)

DCCEW: Department of Climate Change, Energy, the Environment and Water (Cth)

**DETSI:** Department of Environment, Tourism Science and Innovation (formerly the Department of Environment, Science and

Innovation/Department of Science/Department of Environment and Heritage Protection)

**DMP:** Damage Mitigation Permit

**EFFMT:** Electronic Flying-fox Monitoring Template

EPBC Act: Environmental Protection and Biodiversity Conservation Act 1999 (Cth)

FFRMP: Flying-fox Roost Management Plan

HeV: Hendra virus

ICC: Ipswich City Council

LGA: Local Government Area

NAT: Natural Areas Team (Council)

NCA: Nature Conservation Act 1992 (State)

**NES:** National environmental significance

PPE: Personal Protective Equipment

**SoMI:** Statement of Management Intent

**UFFMA:** Urban Flying-fox Management Area

VMA: Vegetation Management Act 1999 (State)

### 1. INTRODUCTION

Ipswich City Council's (council) regional Flying-fox Roost Management Plan (FFRMP) has been developed to provide up to date best practice advice to guide council's management of current and future flying-fox roosts within the region. It contains the key information and management processes necessary to implement council's Statement of Management Intent (SOMI) – Flying-fox Roost Management in Ipswich City (provided at Appendix A) and ensures that where council does seek to undertake roost management actions that these are completed in an equitable and balanced manner, and in accordance with Queensland and Commonwealth requirements.

#### 1.1 GOALS AND OBJECTIVES

This plan is designed to guide council's management of Flying-foxes and, in particular flying-fox roosts. It aims to ensure that any and all management actions undertaken are lawful, well informed and consistent throughout the city.

Council's primary objectives through the development and implementation of this plan are to:

- Implement appropriate conservation strategies to protect flying-foxes within the Ipswich region
- · Address concerns of residents within the Ipswich region who are experiencing impacts associated with flying-foxes
- Develop and provide advice on roost management strategies which assist residents while adhering to State and Commonwealth legislation
- Improve education and appreciation within the community regarding the ecological importance of flying-foxes
- Improve council's knowledge and understanding of local flying-fox roosts through increased monitoring and research
- Achieve endorsement of the plan by the Department of Environment, Tourism, Science and Innovation (DETSI).

The regional FFRMP was developed to provide effective, long-term management of flying-fox roosts, particularly in potential and realised high-conflict areas. The key objective of the regional FFRMP is to balance community expectations of council, public amenity and conservation of flying-fox species across the region. This regional FFRMP has been informed by a SOMI, which outlines council's framework for management of roosts. The SOMI has been incorporated into this document and is provided in Appendix A.

### 1.2 ECOLOGICAL IMPORTANCE OF FLYING-FOXES

Flying-foxes are essential pollinators, by transporting pollen grains between tree species while feeding (Eby 1991; Fujita & Tuttle 1991; Wescott et al. 2008). Fruit seeds are also digested and spread over large areas as they feed and move between roosts (McConkey et al. 2011; Wescott et al. 2008). The ecological function of flying-foxes maintains native forest ecosystems, including hardwood species which are commercially important (Hall & Richards 2000; Rose 2011).

Flying-foxes are able to maintain genetic diversity of forest ecosystems as they have high mobility and can travel long distances regularly, allowing for transport of genetic material to isolated forest patches. This genetic movement/exchange is becoming even more important with increased habitat fragmentation (Eby 1995).

### 1.3 MANAGEMENT RESPONSIBILITIES

The responsibility to manage flying-foxes lies with the owners of lands containing a flying-fox roost. Council is not responsible for the management of flying-foxes on land which is not controlled by the council (e.g. private, State, or Commonwealthowned or controlled lands).

Council will provide advice (e.g. provision of education materials) to private landowners with flying-fox roost management issues where roost management activities are sought. Council will not extend its 'as or right' authority to private landholders unless management actions are joint exercises across both council and private lands completed with council's approval, following the processes described in this plan.

Where landholders seek to conduct roost management actions on their land they will require a flying-fox roost management permit from the State Government. The contribution, and extent made by council in these circumstances are at the discretion of council and will be assessed on a case-by-case basis.

#### 1.4 MANAGEMENT APPROACH

There is a significant level of uncertainty around the success of management actions along with high financial costs to intervention, and as such council's preferred position is to minimise interference with flying-fox roosts. Council will consider further management actions where necessary (e.g. roosts posing a high risk to public health [Section 6]), however interventions must have a reasonable probability of success not just at the target location but within Ipswich more broadly.

Central to implementation of the plan, is a risk-based approach to flying-fox roost management. This plan seeks a balanced delivery of council's key policy objectives. Actual levels of risk and associated requirements for management actions are informed by an ongoing program of roost monitoring.

A hierarchical approach to the application of management actions is used throughout this plan to achieve appropriate community outcomes whilst minimising the potential of unnecessary harm or disturbance to Flying foxes, or needlessly transferring the site of conflict. Flying-fox roosts are highly dynamic with number, species composition and location of flying-foxes subject to frequent change. As such this dynamic requires management actions to be based on individual site circumstances and consideration of impacts to the community.

### 1.5 MANAGEMENT PLAN STRUCTURE

This FFRMP has a key goal of facilitating education of council staff and the community on flying-fox roost management opportunities and challenges. Four key knowledge pillars are identified in this plan which establish the legislative and policy setting for management of flying-fox roosts, the ecology of flying-foxes and reactive and proactive management opportunities and limitations (Figure 1).

#### Legislation and About flying Proactive Reactive Policy foxes management management Commonwealth Biology and ecology • Risk framework Embellishment •Living with flying State •Land ownership Recurring actions foxes Council •Short to medium Responding to • Flying foxes in issues term actions ipswich Methods of Long term actions management Heat events

Figure 1: Key knowledge pillars of FFRMP document

This plan provides an overview of the following relevant information:

- State and Commonwealth Government legislative requirements
- Flying-fox ecology
- Living with flying-foxes
- Regional context
- Council's approach to roost management
- Reactive and proactive management actions
- Short, medium and long-term actions
- Recommendations

• Further information and resources

This plan is supported by several additional documents including, but not limited to:

- Flying-fox roosts of the Ipswich region
- GIS analysis of alternate roost and foraging habitat areas EHP: Department of Environment and Heritage Protection (former) (State)

### 2. LEGISLATION AND POLICY

#### 2.1 FEDERAL LEGISLATIVE CONSIDERATIONS

The Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) protects the environment in relation to Matters of National Environmental Significance (MNES) which include listed threatened species and ecological communities. This includes the Grey-headed flying-fox, which is listed as 'vulnerable' under the Act.

Under the EPBC Act, actions that are likely to result in a significant impact to Grey-headed flying-foxes and its habitat must be referred to the Department of Climate Change, Energy, the Environment and Water (DCCEEW) for assessment against the Act.

The EPBC Act *Policy Statement: Referral guideline for management actions* in Grey-headed and Spectacled flying-fox camps (DoE 2015) provides assistance for assessing whether an action may require approval under the EPBC Act. Impacts within roosts which are not identified as nationally significant roosts or which constitute low impact activities such as mowing, minor vegetation trimming, or other activities which apply best practice mitigation standards (outlined in the EPBC Act Policy Statement) are unlikely to require referral to DCCEEW. Flying-fox roosts which are occupied by 10,000 of more Grey-headed flying-foxes more than once within the past ten years or are occupied (either permanently or seasonally) by more than 2,500 Grey-headed flying-foxes each year for the past ten years are considered nationally important.

The National Flying-fox Monitoring Viewer identifies nationally important roosts. However, due to the variability of roost populations, and lag times between data collection and data update on the viewer, project proponents are strongly encouraged to perform a manual assessment of the significance status of local flying-fox roosts prior to commencing works.

Foraging habitat for the Grey-headed flying-fox is protected under the EPBC Act. A significant impact assessment against the relevant Commonwealth guidelines is recommended to be undertaken where an ecological values assessment identifies Grey-headed flying-fox habitat is likely to be impacted by a project proposal.

### 2.2 STATE LEGISLATIVE CONSIDERATIONS

All species of flying-fox in Queensland are protected under the State Nature Conservation Act 1992 (NCA).

Flying-fox roosts are protected under Section 88C of the NCA. Under the Act a person must not:

- destroy a flying-fox roost unless the person is an authorised person or the destruction is authorised under this Act;
- drive away, or attempt to drive away, a flying-fox from a flying-fox roost unless the person is an authorised person or the driving away is authorised under this Act; or
- disturb a flying-fox in a flying-fox roost unless the person is an authorised person or the disturbance is authorised under this Act.

However, local governments are permitted to interfere with flying-fox roosts within their designated Urban Flying-fox Management Areas (UFFMA) under an 'as of right authority' (extent of Ipswich UFFMA shown in Appendix B). Where management actions are proposed these are required to be undertaken in compliance with one of the two relevant codes of practice:

- Code of Practice Ecologically sustainable management of flying-fox roosts
- Code of Practice Low impact activities affecting flying-fox roosts

Where local governments interfere with a Flying-fox roost, methods are limited to non-lethal techniques with implemented controls to avoid harm or death occurring to an animal. The DETSI Flying-fox Roost Management Guideline (DES 2020) aids the assessment of viable management options, and the planning of safe and effective management actions in relation to Flying-fox roosts.

Table 1: Approvals required under legislation for management activities

Entity undertaking activity	Location of activity	Type of activity: Low impact activities*	Other activities**	Activities affecting GHFF
Councils	Within UFFMA	Allowed	Allowed under as-of-right authority	EPBC Act referral and/or application may be required by DCCEEW
	Outside UFFMA	Allowed	Flying-fox Roost Management Permit required from DES	EPBC Act referral and/or application may be required by DCCEEW
Others (e.g., private, State department owned land)	Within UFFMA	Allowed	Flying-fox Roost Management Permit required from DES	EPBC Act referral and/or application may be required by DCCEEW
	Outside UFFMA	Allowed	Flying-fox Roost Management Permit required from DES	EPBC Act referral and/or application may be required by DCCEEW

<sup>\*</sup> In accordance with Code of Practice: Low impact activities affecting flying-fox roosts, *Nature Conservation Act 1992* https://environment.des.qld.gov.au/ data/assets/pdf file/0029/89453/cp-wl-ff-low-impact-roosts.pdf

Under the Queensland planning framework vegetation clearing is regulated under the *Planning Act 2016*, subordinate regulation, and associated legislation. Where clearing of vegetation is proposed, this must be completed in accordance with the requirements of the *Planning Act 2016* and subordinate regulation.

Further constraints which need to be taken into account in flying-fox roost management include native vegetation, fauna and environmental protection under Queensland legislation:

- Vegetation Management Act 1999
- Nature Conservation Act 1992
- Environmental Protection Act 1994
- Animal Care and Protection Act 2001
- Water Act 2000
- Land Act 1994

### 2.2.1 Timing of management activities at roosts

### 2.2.1.1 Requirements of Codes of Practice

In Queensland, there are two (2) Codes of Practice which must be adhered to when flying-fox management works are being undertaken. The purpose statement 1.1. of both Codes of Practice is "to ensure that the chance of low impact activities under this code resulting in harm to flying-foxes is minimised and that appropriate welfare standards are upheld" (DES 2020).

In accordance with the Code of Practice – Low impact activities affecting flying-fox roosts and Code of Practice - Ecologically sustainable management of flying-fox roosts, both management actions and low impact activities may be undertaken at any time of year. However, as further discussed in Section 3.6, the person in change must avoid the consequences of conducting both low impact activities and management activities:

- where possible during certain periods of the year, for example—when females are in the late stages of pregnancy or there are dependant young (e.g. crèched young, pups) that cannot sustain independent flight
- during or immediately after climatic extremes, or weather events that may cause food shortages, such as periods of
  unusually high temperatures or humidity, droughts, cyclones and fires, and
- which may negatively impact the conservation of flying-fox species which are listed as threatened under the NCA.

<sup>\*\*</sup> In accordance with Code of Practice: Ecologically sustainable management of flying-fox roosts, *Nature Conservation Act* 1992 https://environment.des.qld.gov.au/\_\_data/assets/pdf\_file/0033/89853/cp-wl-ff-roost-management.pdf

Council gives due consideration of the likely and potential impacts of works and will ensure works are undertaken in a manner which minimises potential to negatively impact the conservation of flying-fox species.

#### 2.3 COUNCIL POLICY

Council's actions are guided by iFuture, council's Corporate Plan for 2021-2026.

This plan is guided by council policy and strategy including, but not limited to, the Natural Environment Policy and Natural Environment Strategy.

As part of the amendments to the *Nature Conservation Act 1992* in 2014, council developed a Statement of Management Intent (SOMI) for flying-fox roost management within their UFFMA (Appendix A – Document No: A3853164). The SOMI has been updated with new definitions as per the new FFRMP.

Council's document hierarchy (Figure 2), outlines the role and context of the flying-fox roost management plan in council's policy context.

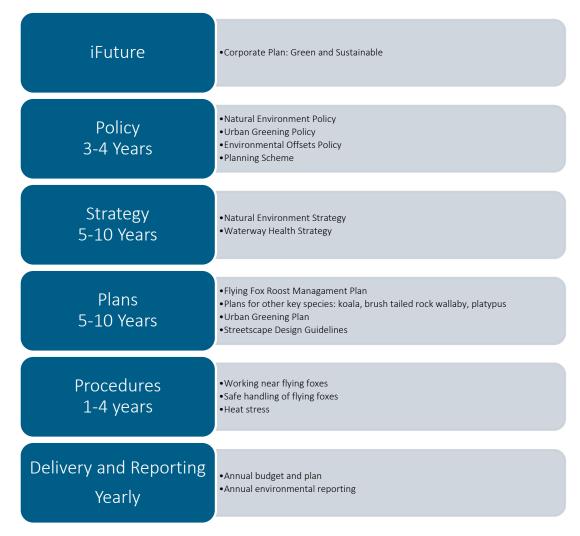


Figure 2: Council document hierarchy

#### 2.3.1 Protection of viable flying-fox roost locations

Council supports retention and protection of Flying-fox roosts unless a high risk to public health can be demonstrated. Where significant impacts to sensitive receptors can be demonstrated and the roost is on council managed land, council will provide a tailored management strategy to manage conflict at the site.

Cost sharing arrangements will be sought with the State Government (including through grant programs) to support provision of management actions in identified roosts where these are to be undertaken. Where roost or foraging habitat embellishment works is sought to be undertaken cost sharing arrangements with the State Government will be requested.

### 2.3.2 Identification and establishment of alternative long-term Flying-fox roost locations

Council supports identification, rehabilitation and establishment of low-conflict, long-term Flying-fox roost locations throughout the region. Long-term roost locations are preferred on council or state managed lands to ensure effective, long-term sustainable management of roosts. Long-term roosting locations may also be supported on high-conservation value properties which are registered with council or the Department of Environment, Tourism, Science and Innovation (such as properties with Voluntary Conservation Agreements, Nature Refuges or Special Wildlife Reserves).

### 2.3.3 Protection and restoration of Flying-fox foraging habitats

Protection and restoration of foraging habitats for Flying-foxes is supported by council. This approach also provides protection for habitat used by other species of conservation significance.

### 2.3.4 Support for additional research

Council supports provision of additional research to fill knowledge gaps in Flying-fox ecology, roost choice behaviours, foraging tree species preferences and management strategies. Council will seek to partner with the Department of Environment, Tourism, Science and Innovation, neighbouring Local Governments, industry and research organisations to facilitate region-based research opportunities. Research topics of high interest to council include the following:

- GPS tracking research, focusing on the following study areas;
  - o Identifying additional roost locations
  - o Understanding regional population dynamics
  - Understanding foraging patterns
- Roost impact mitigation and ongoing management measures;
- Roost habitat characteristics;
- Human conservation psychology;
- Heat stress monitoring and assessments, determining at-risk roost locations; and
- Detailed further assessment and modelling of long-term, low-conflict alternative roost locations.

### 2.4 Council Planning Scheme

Vegetation protection provisions may also apply under the local planning scheme in addition to State restrictions. Vegetation clearing within areas of local biodiversity significance may be assessable development. It is recommended that any private landholders looking to conduct vegetation clearing on their land should seek pre-lodgement advice from council and the State Government.

In association with future amendments of Ipswich City Council local planning instrument (the Planning Scheme), performance outcomes associated with impacts to Flying-fox roosts and reverse amenity considerations may be included. Incorporation of considerations related to Flying-fox roosts within the Planning Scheme ensures that residents of the region are protected from adverse impacts of Flying-fox roosts and that future development does not negatively impact existing roosts (e.g. unintentionally dispersing them elsewhere). Locating development outside of buffers (e.g. 50 metres from the edge of a known roost extent), may assist in reducing human-wildlife conflict such as impacts from Flying-fox noise, odour and mess.

Lockyer Valley Regional Council has included performance outcomes associated with the protection of Flying-fox camps as Matters of Local Environmental Significance (MSES) in the Lockyer Valley Planning Scheme. Incorporation of considerations relating to Flying-fox camps within planning schemes is expected to limit further increases in conflict which can be associated with intensification of surrounding land uses.

### 3 FLYING-FOX BIOLOGY AND ECOLOGY

Australia's Flying-foxes belong to *Pteropodidae*, a family of megabats also known as fruit bats. Three species reside and visit South-East Queensland and the Ipswich region, with their national distributions depicted in Figure 3. Species present in the Ipswich region include Grey-headed flying-fox (*Pteropus poliocephalus*), Black flying-fox (*P. alecto*) and the Little red flying-fox (*P. scapulatus*).

The size of Flying-fox roosts range from a few hundred individuals to hundreds of thousands (Hall & Richards 2000). Roosts are generally located within dense vegetation with thick, native or weedy understorey, close to sources of water where humidity is high (Loughland 1993). Roost choice is also closely associated with the proximity and abundance to foraging resources (Palmer & Woinarski 1999). Given that Flying-foxes are highly mobile, they often migrate large distances to follow the availability of foraging resources (Markus & Hall 2004).

All of Australia's major cities along the east coast, along with many other towns, contain continuously occupied Flying-fox roosts (Plowright et al. 2011). As a result of continuing urban development, a greater proportion of Flying-fox camps are becoming urbanised (Parry-Jones & Augee 2001; Markus & Hall 2004; McDonald-Madden et al. 2005). Following increased contact, the number of people concerned about the implications of living in close proximity to Flying-fox roosts has also grown

Flying-foxes deliver important ecosystem services. Flying-foxes have a pivotal role in the maintenance of various forested ecosystems (Hall & Richards 2000). Primarily through their function as long distance dispersers and pollinators of numerous native plant species (Eby 1991; Fujita & Tuttle 1991). Areas which may provide foraging habitat within the Ipswich region are shown in Figure 4.

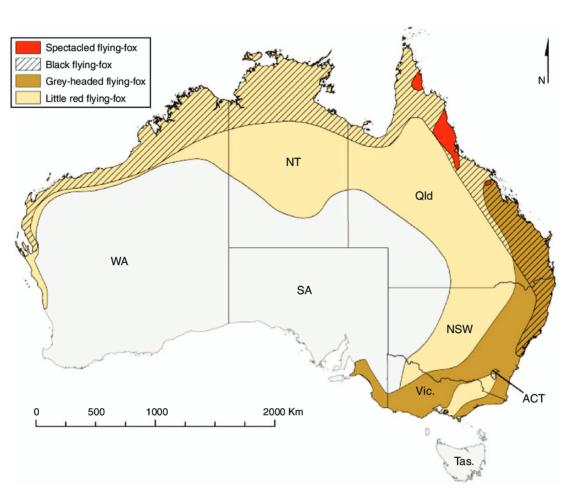
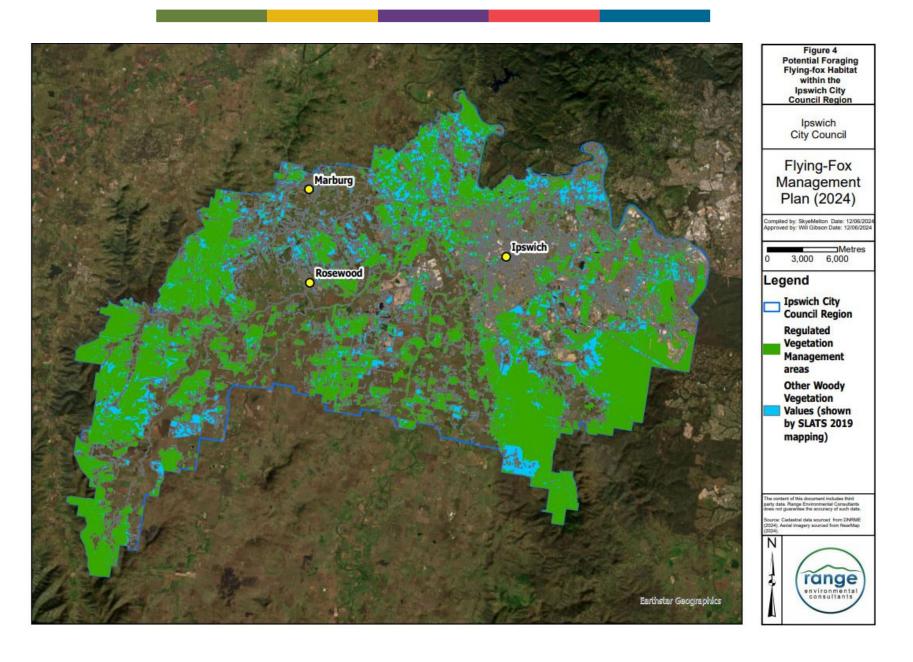


Figure 1: Distribution map of Australian flying-foxes (Lentini & Welbergen 2018)



#### 3.1 BLACK FLYING-FOX

The Black flying-fox (*Pteropus alecto*), within Australia, ranges from sub-tropical to tropical latitudes spanning the entire northern coast and the majority of the east coast of the mainland (Palmer & Woinarski 1999). Both Grey-headed and Black flying-foxes have a similar diet, feeding within tree canopies on various fruits, nectar and pollen (Richards 1995; McDonald-Madden et al. 2005). These species especially favour blossoms and fruits of eucalyptus, melaleuca and rainforest trees. The blossoms and fruits from introduced tree species (such as those found in commercial orchards) or in urban gardens are also consumed, particularly in times of limited native food sources (Harden et al. 2004).

Black flying-foxes give birth to only one young per year, as do other Flying-fox species. The timing of births varies considerably based on location. Around South-East Queensland most births occur between October and November (Vardon & Tidemann 1998). Generally the peak birth rates for Black flying-foxes are strongly associated with maximum food availability however other environmental factors may also be influential (Vardon & Tidemann 1998).

Approximately two thirds of Black flying-foxes reach maturity (Vardon & Tidemann 2000). Given this mortality rate, it is estimated that each breeding female would need to produce six young in their lifespan to ensure a stable population - meaning all young would need to survive until at least age seven (Vardon & Tidemann 2000). This raises concerns that *P. alecto* may be suffering rapid population decline leaving it more vulnerable to extinction (Vardon & Tidemann 2000).

Black flying-foxes are also vulnerable to mass mortality events following extreme heat events. A temperature above 37°C has a substantial effect on Flying-foxes and upwards of 42°C is considered a critical point where mortality increases exponentially (Welbergen et al. 2008). These events have increased in frequency as Black flying-foxes habituate areas further south where temperatures are highly variable and often spike in summer (Welbergen et al. 2008). It is suggested that this southern expansion can be attributed to a decrease in the number of days with frost, in southern parts of the east coast, which Black flying-foxes cannot tolerate (Tidemann 1999).

Across the Ipswich region, Black flying-foxes are the typical roost inhabitants, with this species recorded year-round.

### 3.2 GREY-HEADED FLYING-FOX

The Grey-headed flying-fox, *Pteropus poliocephalus*, is found only in Australia ranging along the east coast from Finch Hatton in the north to Melbourne in the south (Paris & Hazell 2005; Snoyman & Brown 2010). Interestingly this makes it the most southerly distributed member of the *Pteropus* genus (Peacock 2004). The distribution of Grey-headed flying-foxes aligns with some of the most heavily populated areas of Australia, which often leads to conflict with residents who interact with the species (Snoyman & Brown 2010).

Their diet is very similar to the Black flying-fox, feeding on various fruits, nectar and pollen (McDonald-Madden et al. 2005). Consequently, Grey-headed flying-foxes also migrate long distances in response to available food supplies (Tidemann & Nelson 2011). Like Black flying-foxes they are also important pollinators and seed dispersers (Schmelitschek et al. 2009).

The Grey-headed and Black flying-foxes often inhabit the same roost sites and are similar in size, making it often difficult to tell them apart. Figure 5 provides an identification key that can be used when trying to distinguish between the local species.

Grey-headed flying-foxes have an average life expectancy estimated at  $7.1 \pm 3.9$  years (Tidemann & Nelson 2011). Females generally have a single offspring annually around September to October. Young are carried until about four weeks of age, after which they are left in roosts overnight while females leave to forage at dusk. Young may begin to fly at eight weeks of age, however, are dependent on their mothers for at least three months.

Loss of foraging and roosting sites due to urbanisation, forestry and agriculture has led to a rapid decrease in the size of the Grey-headed flying-fox population (Duncan et al. 1999). In 2002 it was estimated that numbers were 35 per cent lower than they were a decade prior (Eby & Lunney 2002). Grey-headed flying-foxes appear to have a greater capacity to deal with extreme heat events compared to Black flying-foxes, although they too often perish in heatwave events.

In a study, Tidemann and Nelson (2011) found that 18.6 per cent of their Grey-headed flying-fox study sample died of electrocution and nearly 10 per cent died from entanglement in either fruit-tree protective netting or barbed wire. The Grey-headed flying-fox is currently listed as a vulnerable species under the Commonwealth Environmental Protection and Biodiversity Conservation Act 1999 (EPBC Act).

### 3.3 LITTLE RED FLYING-FOX

The Little red flying-fox, *Pteropus scapulatus*, has the widest geographical range of Australia's Flying-foxes encompassing more than 3-5 million km² across a variety of different climates throughout eastern, northern and north-western Australia (Hall 1987; Vardon and Tideman 1999). Little red flying-foxes are highly migratory and are considered to be more nomadic than Black flying-foxes and Grey-headed flying-foxes. The movements and duration of time spent in a single location by Little red flying-foxes is understood to be influenced by the availability of food sources (Roberts et al. 2012). It has been suggested that the Little red flying-fox exists as one giant meta population, based on the little genetic variation between subpopulations (Sinclair et al. 1996).

Considering they have an overall population estimated in the millions, roosts tend to swell in size when Little red flying-foxes arrive (Sinclair et al. 1996). Similar food sources are also shared with other Flying-fox species, as is the trend of moving to follow the changing food supply (EHP 2011). Unlike the other two species, Little reds do not often consume fruit as part of their diet, instead primarily feeding on eucalypt blossoms (Hall and Richards 2000; Birt et al. 2008 & Bradford et al. 2022).

Little reds are the smallest Flying-foxes in Australia, with large males weighing around 550g, and the majority between 200-600g (Sinclair et al. 1996). They are easily distinguished next to other species due to their smaller size, reddish brown body fur, semi-transparent wings and hairless legs (See Figure 5).

Mating season also differs from the other species, with the majority of mating occurring in November-December (O'Brien 1993). Gestation periods usually last 5 months with young being born between April and May (O'Brien 1993).

Whilst Black and Grey-headed flying-foxes usually roost an arm's length apart, Little reds clump together with numerous individuals on a single branch (EHP 2011). They also roost lower to the ground than other Flying-fox species (EHP 2011). In general, Little red flying-foxes have been poorly studied, with the majority of academic focus centred on their Grey-headed counterparts. However, the Little red flying-foxes are currently considered to be of least concern from a conservation status perspective.

Little red flying-foxes arrive in the Ipswich region in the warmer summer months as flowering eucalypts provide a ready source of foraging resources. During this period, they may temporarily join camps of Grey-headed or Black flying-foxes, appearing suddenly in large numbers and remaining from a few days to several months. Considerable damage may occur to trees as Little red flying-foxes roost in dense clusters on individual branches. Where large congregations of this species occur significant community concerns may arise due to the rapid expansion of the roost footprint and the number of animals contained therein intensifying noise and odour impacts to nearby residents.

DISTINGUISING CHARACTERISTIC	GREY-HEADED FLYING-FOX (Pteropus poliocephalus)	BLACK FLYING-FOX	LITTLE RED FLYING-FOX
CHARACTERISTIC	(Pteropus poliocepnalus)	(Pteropus alecto)	(Pteropus scapulatus)
Head	Head covered in light grey fur. Large, dark brown eyes.	Head covered in thick black fur. Large, dark brown eyes.	Thinner fur ranging from dark brown to a light grey in colour. Large, dark brown eyes. Ears very prominent
Neck	Thick, prominent, scarf like band of bright orange fur, wrapping the entire neck. Sharp colour contrast between head, neck and the rest of the body.	Often messy patches of dark brown to dark orange fur on the back of the neck. Does not wrap the entire neck.	Thin, auburn coloured hair, which often wraps the entire neck. Contrast between head, neck and body fur, not as pronounced as <i>P. poliocephalus</i> .
Body	Long, light to dark grey fur extending from the base of the neck to the toes. Often a similar colour to the head. Weight between 600-1000g.	Shorter, dark black fur, spanning from the head to the inner thighs. Legs and ankles are hairless. Weigh between 600-1000g.	Light to dark brown fur (sometimes dark reddish) spanning from the neck to the thighs. Legs are hairless. Significantly smaller, weighing between 200-600g.
Wings	Large black wings, connected from the forefingers to the ankles. Wings are opaque.	Large black wings, connected from the forefingers to the ankles. Wings are opaque.	Smaller, lighter coloured wings. Wings are semi-transparent.
Roost behaviour	Often roost in the mid to lower canopy. Roost a wingspan apart.	Often roost higher than other Flying-fox species. Roost a wingspan apart.	Always found roosting in the lower canopy, wherever space is available. Roost in tight clusters.

NOTE: When nursing young, all species of Flying-fox rest their babies on the inside of the wings attached to either armpit. Young are easily spotted in flight or when observing from below roosting adults.

Figure 5: Flying-fox species identification key (Ipswich City Council 2014)

### 3.4 THE VARIABLE NATURE OF FLYING-FOX ROOSTS

Flying-fox roosts are highly variable in species composition, numbers and distribution over time. The seasonal migration of nomadic Little red flying-foxes is one of the main reasons for this variation. Camps often swell in size dramatically in summer due to an influx of Little red flying-foxes but these changes are often short-lived. This is a key factor for consideration in any management action, with a large proportion of Flying-fox related complaints driven by this seasonal influx which is often resolved as foraging resources are depleted and Flying-foxes move out of the area, or region.

The behavioural ecology of Flying-fox species also causes variability. Their ability to fly and tendency to migrate large distances in search of food means that many Flying-foxes change their roosting site frequently. A study by Tidemann and Nelson (2004) followed two radio collared Grey-headed flying-foxes with results supporting this variability. One of the tracked Flying-foxes moved from Dallis Park near Murwillumbah in April 2000 and roosted in a total of 15 other roosts before returning to its original roost in September 2000 (Tidemann & Nelson 2004). Another Flying-fox made similar movements

between seven different roosts (Tidemann & Nelson 2004). Both Flying-foxes travelled more than 2,000km between roosts during this period, and moved through 4° (440km) of latitude (Tidemann & Nelson 2004).

The management of Flying-fox roosts must consider their variable and dynamic nature. Large shifts in a roosts' population, or potential for large shifts may make evaluating the appropriate course of action difficult. This is because the management action chosen may be unsuitable by the time it's time to implement it, or the variable nature makes evaluating the chance of success of any chosen action difficult. Often, successful Flying-fox dispersals have been confused with the animals moving and or migrating based on their natural behaviour (Thiriet 2005). In addition to this Flying-foxes have a high fidelity to the roosts in which they occupy and may attempt to reoccupy roosts from which they have been dispersed. This has led to situations in which Flying-foxes are frequently recorded moving back in days or weeks later, along with some of the roost splintering to new locations.

Historical events recorded in Ipswich provide an insight this nature of Flying-fox roosts. Following a heat related mortality event in the Queens Park Nature Centre in January 2014, nearly the entire camp, totalling over 3,000 Flying-foxes succumbed to heat stress. However, less than a week later, the site was recolonized with more Flying-foxes than had ever been previously recorded. Further, while planning a dispersal of this roost, council officers recorded changes in Flying-fox species composition, total numbers, and roosting locations on a frequent and sometimes daily basis.

A case-by-case assessment is essential to identify and implement the most appropriate, site-specific management action for a roost experiencing human wildlife conflict, without further exacerbating conflict levels within the greater community.

### 3.5 FLYING-FOX MOVEMENTS

Flying-foxes are understood to predominantly forage within 25km from a roost (Roberts 2012 & Welbergen unpub. data). Flying-foxes can travel hundreds of kilometres over several nights when moving between roosts, which allow them to arrive in large numbers overnight to local flowering events. (Welbergen et al. 2020).

Grey-headed and Black flying-foxes have typically roosted year-round within the region, with regular summer arrivals of Little red flying-foxes. Limited radio tracking of Flying-foxes has been conducted across the region to inform discussion of interroost dynamics. Based on the results of other South-East Queensland based tracking projects regular movement between roosts is highly likely, with constant turnover of individuals at each roost location (Moreton Bay Regional Council 2022). Thinking of roosts as regional 'airports' for Flying-foxes, with large amounts of different visitors coming and going all the time can help appreciate the management complexities for management of roosts.

### 3.6 FLYING-FOX BREEDING CYCLES

Flying-fox breeding cycles have a major influence on dynamics within the roost. In addition, several animal welfare considerations, statutory requirements and best practice considerations are associated with any management of the species during periods of mating, birthing or raising of young.

Flying-foxes reach reproductive maturity between two to three years of age, with females producing a single offspring each year, resulting in slow population growth (Westcott et al. 2018).

Flying-fox young are carried by their mothers 'under wing' for approximately four weeks following birth (Markus and Blackshaw 2002). As young grow and become too heavy for their mothers to carry while foraging they are left in crèches within roosts overnight, for up to 8 weeks (Churchill 2008).

The following table is based on Birt (2005) and shows the critical periods in the lifecycle of local Flying-fox species. Disturbance, particularly sustained, in the form of shifting or relocation attempts should be avoided during mating and birthing seasons to avoid lifecycle impacts. However, breeding cycles may be varied in response to environmental conditions and nutritional stress, so site specific assessment is important prior to planning any management action.

Black and Grey-headed flying-foxes both birth their young at roosts across the region.

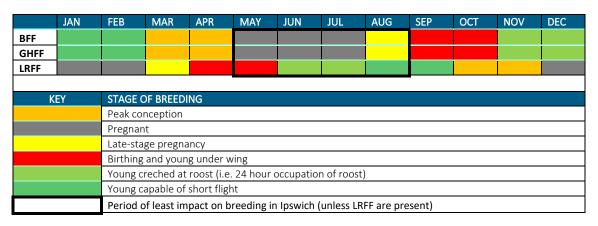


Figure 6: Birthing and breeding cycle for flying-fox species present within the region

Where works are undertaken adjacent to or within camps across the region works should predominantly be undertaken in May to July/mid-August, minimising impacts to breeding cycles and dependent young.

As can be seen from the table, the breeding cycle of little red flying-foxes is not aligned with that of black and grey-headed flying-foxes. Where all three species are present in a roost, opportunities for intensive roost management actions such as vegetation removal or dispersal are significantly restricted during times of breeding.

### 3.7 THREATS

### 3.7.1 Loss of foraging habitat

Flying-fox foraging habitats include a broad range of eucalypt woodlands, rainforests, semi-evergreen vine thickets and urban green spaces. These habitats have historically been threatened through clearing for agriculture, heavy industry, infrastructure, and urban development. The introduction of the *Vegetation Management Act 1999* was significant in slowing and minimising clearing of remnant and high-value regrowth native vegetation values and has played a key role in slowing the loss of foraging habitat values for Flying-foxes.

Within urban areas where most of the vegetation comprises regrowth, gardens and parks, streetscape areas and landscape feature trees, limited protection is generally afforded to potential foraging trees. These trees play a potentially significant role in providing food resources for local populations during periods of drought and heat stress.

### 3.7.2 Roost fragmentation

Flying-fox roosts have been historically disturbed to remove populations from urban and rural centres where noise, odour and disease impacts to residents and landowners can cause significant disruption (Lane 1984). Through these roost management actions, large, significant roosts have been disturbed and fragmented resulting in numerous splinter or offshoot roosts. Along waterway corridors this may have resulted in increased 'roost hopping', where a roost seasonally shifts up and down a vegetated corridor.

As a result of historic camp disturbances, amongst other factors, roost sized have potentially decreased, particularly in very large roosts. However, due to the splintering of roosts the number and overall spatial impact of roosts on residents and land managers has likely increased, especially in urban areas.

### 3.7.3 Heat stress and climate change

Long-term changes to the climate of the Ipswich region may lead to increased incidence of extreme weather events including flooding, bushfires, temperature extremes and altered weather patterns. Flying-foxes are extremely vulnerable to high temperatures above 38°C and have suffered widespread mass mortality events where temperatures exceed 42°C. Increases in the frequency and intensity of extreme heat events may result in a rapid population decline, and possible extinction of flying-foxes through death of individuals and reduced reproductive capacity (Welbergen et al. 2008).

Of the three Flying-fox species found in the Ipswich region, Black flying-foxes are the most susceptible species to heat stress, followed by Grey-headed flying-foxes (Welbergen et al. 2008). This increased vulnerability to heat stress events is potentially a result of increasing dispersal ranges to regions where these species were not previously found with increased temperature extremes (Welbergen et al. 2008). Evidence suggests that Black flying-foxes have lower species-specific physiological limits, which reduces their ability to cope with higher temperatures (Welbergen et al. 2008). When Flying-foxes are experiencing higher metabolic activities (e.g. when pregnant or lactating), resting core body temperature is higher, increasing susceptibility to heat stress events (Welbergen et al. 2008). Little red flying-foxes may have increased resilience to heat stress events through their regular exposure to high temperature, high humidity climates in northern Australia.

In 2019 and 2020, broad-scale food shortages contributed to mass mortalities of Flying-foxes across Australia, with significant mortalities across greater South-East Queensland. Climate-change impacts temperature and rainfall, which influences the timing and volume of flowers and fruit produced by eucalypt species, a primary food source for Flying-foxes (DAWE 2021). During periods of food shortages, Flying-foxes may be more likely to utilise foraging and roosting resources within urban locations (e.g. fruit trees within backyards), increasing human-wildlife interactions and conflicts.

#### 3.8 HEAT STRESS EVENTS

### 3.8.1 Signs of heat stress in flying-foxes

Welbergen et al. (2008) described various signals and behaviours exhibited by Flying-foxes suffering from heat stress during the heat events of 2002. The actions were noted in the following order:

- 1. Fanning with wings
- 2. Seeking shade
- Panting; and
- Spreading their saliva (e.g. wrist licking)

Often, after these stages, species unable to cope with temperatures were observed to descend or drop from branches some 15-20 minutes later. The timing and extent of these Flying-fox behaviours, as well as the number of mortalities, will depend not only on the temperature of the day and the evening, but also the influence of the microclimate within a particular roost (Welbergen et al. 2008).

Of particular importance to Flying-fox survival are good canopy cover for shade, a dense understorey to regulate the microclimate, and access to water. Past mortality events have revealed that camps with access to a large water body, thick understorey and denser canopy cover retain a larger proportion of the population after a heat event (Stanvic et al. 2013).

### 3.8.2 Historical heat stress events

In 1994, Ipswich recorded its highest ever temperature at 44.3°C, which was followed by the deaths of around 1,000 Flying-foxes from throughout the city (Welbergen et al. 2008). A similar event in 2000 (40.7°C) killed around 500 individuals (Welbergen et al. 2008).

In 2014, a series of days over 40°C peaked at 43.9°C on Saturday 4 January. This heatwave resulted in unprecedented loss of Flying-foxes with almost every roost within the city suffering substantial losses. Worst hit were the roosts located at Lorikeet Street Reserve, Pan Pacific Peace Gardens, Woodend Flying-fox precinct and the Queens Park Nature Centre, all of which lost the majority of their Black flying-fox populations.

Estimated mortalities of approximately 15,000 were collected at this time. An additional unknown number of Flying-foxes perished on private property, high in trees or at unknown locations. Information collated by Welbergen et al. (2014) suggests that around 45,500 flying-foxes perished throughout the entire South-East Queensland region.

Unfortunately, around 98 per cent of mortalities were Black flying-foxes, with the remainder being Grey-headed and a few Little reds. The combined estimate of Black flying-fox mortalities in South-East Queensland indicates this species has suffered a major population decline. The loss of large numbers of juveniles will also impact on the future viability of the species.

In areas of Australia where mass mortality events have occurred, temperatures have noticeably increased by around 0.17°C per decade (Jones et al. 1999). This trend is expected to continue increasing and it is therefore assumed that the frequency and intensity of extreme weather events will also increase (Easterling et al. 2000). Areas such as Ipswich where Flying-fox mass mortality events have occurred in the past have seen a 0.17°C temperature increase per decade (Jones et al. 1999). These trends are expected to continue along with a possible increase in the frequency and intensity of extreme weather events (Easterling et al. 2000).

### 4 IMPACTS OF LIVING WITH FLYING-FOXES

Where Flying-fox roosts are close to urban or residential land uses, potential exists for human/wildlife conflict. Typical impacts reported include noise, odour, disease concerns and impacts to infrastructure and vegetation. Droppings from flying-foxes and loss of fruit from fruiting trees can also be a source of annoyance to both residents near roosts and residents with significant feed trees within or around their properties or which are within regular flight paths of Flying-foxes.

#### 4.1 NOISE

Flying-fox roosts can often be a source of nuisance to adjacent residents due to loud vocalisations from individuals within roosts. Where roosts are disturbed regularly by human activities or by other animals (such as ibis, crows, sea eagles/birds of prey and domestic dogs) a near consistent level of vocalisation can be heard during the day. Roosts can also become disturbed where individual animals are competing over territorial spaces or mating partners. Flying-fox roosts are generally quiet when undisturbed; however, can be noisier, particularly after midnight, during peak mating season, for a period of approximately 4 weeks between March and April. During this time the males come back from foraging earlier in the evening and can be vocal while jostling for prime positions within a roost (Pearson and Cheng 2018).

During the summer months when Little red flying-foxes arrive roost noise levels can increase rapidly as the roost size and extent increase. These impacts typically subside as the seasonal Little red flying-foxes continue to follow the flowering eucalypts south.

#### 4.2 ODOUR

The smell of Flying-foxes is not from being unclean or urine, but is a scent the Flying-foxes produce as another form of communication, including identification, marking of territory or mate attraction. Odour of Flying-fox roosts is particularly strong following rain, during hot and humid weather, and large population events (e.g. Little red flying-foxes temporarily joining a camp). Juvenile Flying-foxes also emit scent to help mothers correctly identify their young upon returning from foraging activities.

### 4.3 DROPPINGS

Flying-foxes often defecate at feeding sites and when arriving back at their roosts, which can impact residents property, including; outdoor furniture, cars, swimming pools, solar panels, washing and roofs. When Flying-foxes consume fruit of the introduced Cocos palm (*Syagrus romanzoffiana*), their faeces become particularly sticky and more difficult to remove (DAFF 2013). The Cocos palm is commonly planted in gardens for ornamental purposes and has been spread and become naturalised throughout South-East Queensland as Flying-foxes and birds spread its seeds.

### 4.4 VEGETATION DAMAGE

Where Flying-foxes roost in large numbers, impacts to vegetation values have been recorded. Impacts typically consist of temporary defoliation (loss of leaf cover) and damage (cracking or snapping of branches). Concern generally is raised where impacts to heritage or locally significant trees (i.e. street trees) are observable. However, Flying-foxes often adjust their core roosting locations within permanent roosts. Within intact forests, damage to vegetation opens the canopy, and initiates a natural cycle of vegetation regeneration in the impacted area (SEQ Catchments 2012). In small remnant vegetation patches with edge effects, damage to vegetation caused by Flying-fox activity may increase the impact of invasive weeds within the site (particularly vines) (SEQ Catchments 2012).

From observations of historical Flying-fox roosts which have been abandoned, disturbed areas of native and exotic vegetation often naturally regenerate, allowing for cycling of the vegetation community back to a typical mature status.

Similar to any impacts to the community as a result of local Flying-fox roosts, where heritage or locally significant trees are at risk, management options will be considered on a case by case basis. Management options may include the use of tree trimming to ensure safety of staff and patrons of public spaces where trees are at risk of poor health as a result of roosting. Where long-term occupation of these trees occurs, pre-emptive replacement plantings may be considered depending on the Roost Risk Rating.

#### 4.5 FLYING-FOXES AND PUBLIC HEALTH

Concern about Flying-foxes spreading disease and threatening human and animal (pets and livestock) health is often raised by members of the community impacted by Flying-foxes. While a small proportion of Flying-foxes may carry diseases such as Australian bat lyssavirus and Hendra virus, the risk of those diseases being transmitted to people or animals can be effectively controlled through education, basic hygiene measures, management protocols and personal protective equipment (PPE).

The perceived health risk from Flying-foxes is often exacerbated by the media (Thiriet 2005). However, genuine risks may be present and community requests for management action resulting from fear of disease must be carefully considered and assessed. Council must assess whether the risk of infection from Flying-foxes has the potential to become realised and what mitigation strategies and actions are appropriate. In doing so, council will rely on expert agencies such as Queensland Health and Biosecurity Queensland and ensure the public have access to the most up to date sources of information.

While flying-foxes may carry viruses and bacteria which can be harmful to humans, with appropriate management, the risk of infection is low. People should avoid assisting or handling Flying-foxes directly. If a sick, injured or orphaned Flying fox is found the RSPCA should be called immediately. If a person is bitten or scratched by a Flying-fox, Queensland Health should be called immediately.

The rapid emergence of human pathogens from a single host genus in a short period of time suggests that recent changes in host ecology may play a role in their emergence (Plowright et al. 2008). Namely this refers to the increasing urbanisation of the Flying-fox roosts due to large scale development and deforestation (Wynne & Wang 2013). Logically the emergence of these viruses has coincided with increasing human to bat contact meaning that the recent discovery of these diseases does not necessarily indicate that they are newly developed (Tidemann et al. 1997).

In general, the potential for disease exposure from infected Flying-foxes does not relate to the size of the Flying-fox camp (Streicker 2013). A common historically stated management approach where Flying-foxes generate community conflict is to reduce the size of populations through culling or dispersal as an attempt to reduce disease exposure. However, studies have shown that culled camps often display a higher viral exposure than other camps due to the increased dispersal and spread (Streicker et al. 2012; Blackwood et al. 2013). Culling is not supported by the Queensland Government as an accepted management action for management of Flying-fox roosts.

### 4.5.1 Queensland Health advice on Australian bat lyssavirus (Queensland Health 2022)

Australian bat lyssavirus (ABLV) is a virus closely related to the rabies (classical rabies) virus which causes serious and usually fatal disease in humans. Australia is free from classical rabies in land-dwelling animals. However, ABLV has been found in several bat species including Flying-foxes/fruit bats and microbats. Surveys of wild bat populations have indicated less than one per cent of bats carry ABLV. In sick and injured bats, around seven per cent have been found to carry the virus. However, it must be assumed that any bat (sick, injured or healthy) in Australia could be infectious with ABLV.

Cases of human infection of ABLV were all associated with being bitten or scratched by a bat. Do not touch bats, even if they are injured. Only trained and vaccinated handlers should touch bats to prevent the risk of infection.

### 4.5.2 Queensland Health advice on Hendra virus (Queensland Health 20221)

Hendra virus was discovered following an outbreak of illness in horses in a large racing stable in the suburb of Hendra, Brisbane in 1994. The natural host for Hendra virus is the Flying-fox. The virus can spread from Flying-foxes to horses to horses and rarely, from horses to people.

Since Hendra virus was identified, more than 90 horses are known to have been infected. These animals have either died as a direct result of their infection or have been euthanised. Several hundred people have been exposed to Hendra virus infected horses but have not been infected. However, seven people have been confirmed to have Hendra virus following high levels of exposure to infected horses (excessive contact with horse bodily fluids). Four of these people died, the most recent in 2009.

Evidence of exposure to Hendra virus has been identified in asymptomatic dogs on two occasions. These dogs were identified as contact animals on properties with infected horses. Research and testing of many other animals and insects has shown no evidence of Hendra virus infection occurring naturally in any other species.

Methods of managing the potential risks associated with living near flying-foxes is discussed in section 6.

## 5 IPSWICH REGION AND ITS FLYING-FOX ROOSTS

#### 5.1 CONTEXT OF THE IPSWICH REGION

Subject to changes in season and food availability, Ipswich generally contains between 4 and 10 Flying-fox camps across the region at any given time. Roosts are generally found along natural or artificial watercourses in urban, peri-urban and rural areas of the city. The highest number of both camps and individual Flying-foxes occurs during the summer months with the seasonal influx of Little red flying-foxes.

Research undertaken in the preparation of this plan has identified several temporal and spatial associations between local roosts. This is first understood to have commenced with the mass movement of Flying-foxes from Sapling Pocket to Woodend following a roost destruction/dispersal action in 1984. Following degradation of roosting habitat at Woodend, several smaller local roosts have emerged. In several instances of historic roost-based management actions, these actions appear to be the catalyst for the formation of new roost locations.

### 5.1.1 Climate

Ipswich's (Bureau of Meteorology site number 040101) mean average maximum summer temperatures range from approximately 21.1°C in July to 32°C in December. The highest temperatures recorded across the region is 44.6°C (26 December 1972). Mean minimum temperatures range from 7°C in July to 20°C in December. Ipswich's coldest recorded day is -0.8°C (28 June 1971). Ipswich's annual mean rainfall is 877.8mm, with an annual highest recorded rainfall of 1794.8mm (1893), and lowest of 358.1mm (1902).

Since 1910, when national records began, Australia on average has warmed by  $1.47 \pm 0.24$ °C. Every decade since 1950 has been warmer than the preceding decades (Bureau of Meteorology, 2024).

### 5.1.2 Vegetation

The region contains a variety of vegetation communities with the pre-clear dominant vegetation community comprised of eucalypt forest and woodland. Areas of Swamp Tea-tree (*Melaleuca irbyana*), Brigalow (*Acacia harpophylla*), semi-evergreen vine thicket (SEVT) and notophyll to microphyll vine forest also occur across the region and provide potentially suitable roosting habitat for Flying-foxes.

Current known occupied Flying-fox roosts predominately occur in remnant/regrowth eucalypt woodland/forest and in association with landscaped parklands and urban areas. The historic Sapling Pocket roost was understood to be associated with previously occurring *Eucalyptus tereticornis* dominated watercourse vegetation and complex notophyll to microphyll vine forest.

### 5.1.3 Population

As of the 2021 national census the Ipswich region contains approximately 229,208 residents (Australian Bureau of Statistics 2023). By 2046 Ipswich is expected to be home to 528,000 residents, more than doubling in size over a 25-year period (ShapingSEQ 2023 update). As Ipswich grows, managing the interaction between the built environment and the region's natural areas will be more important than ever.

### 5.1.4 Land use

The Ipswich region contains a range of varied land uses including residential, light, medium and heavy industry, commercial, aviation/military, rural, conservation and open space.

To the east of Amberley, the region contains existing urban and industrial development with areas of retained conservation lands and undeveloped lands. To the west of Amberley, the region contains rural landholdings predominately, with associated conservation and township uses.

The Warrego Highway/Ipswich Motorway passes through the centre of the region, passing from the Lockyer Valley in the west, to Brisbane and Logan in the east.

In the southeast of the region are large contiguous conservation reserves which form part of the Greenbank-Karawatha Corridor known as the largest remaining continuous stretch of open eucalypt forest in South-East Queensland. On the western boundary, the Little Liverpool Range contains large areas of intact remnant vegetation linking Main Range National Park and the Great Eastern Ranges.

#### 5.2 ROOSTS OF IPSWICH

A total of 18 Flying-fox roosts have previously been recorded within the Ipswich region as of November 2024. Roost locations have been determined through a combination of access to the national Flying-fox monitoring viewer, council records and Department of Environment and Science and Innovation records.

The location of known current and historical roosts is provided in the supporting document 'Flying-fox roosts of the Ipswich Region'.

### 5.3 REGIONAL CONTEXT – ANALYSIS AND OVERVIEW OF ADJACENT LOCAL GOVERNMENT AREA ROOSTS

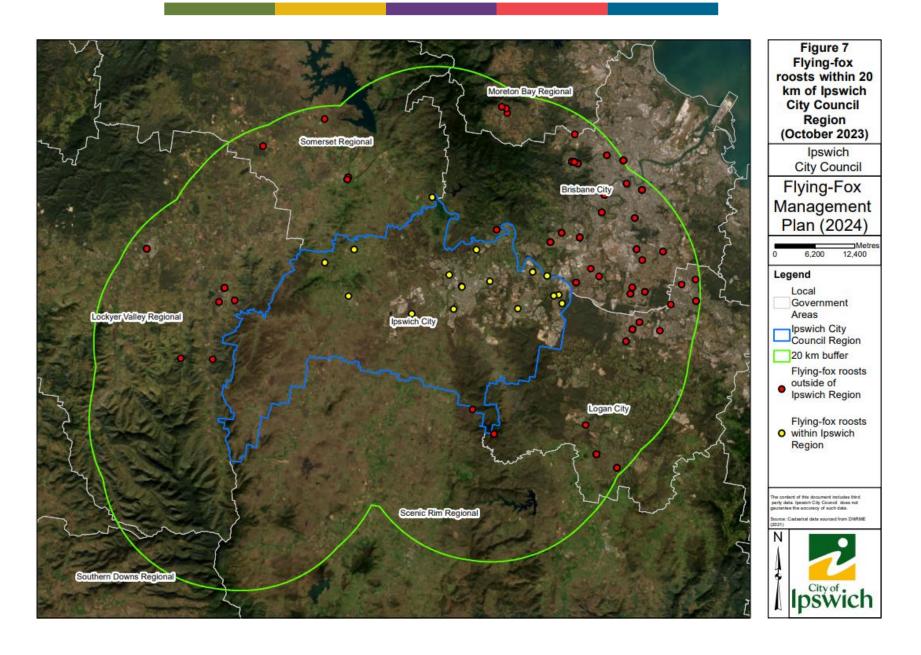
Within 20km of the boundaries of the Ipswich City Council Local Government Areas (LGA) there are numerous mapped Flying-fox roosts across six adjacent and nearby LGAs (Queensland Government 2023). The recorded Flying-fox roosts within 20km of the Ipswich City Council LGA (October 2023) is shown in Figure 7. To achieve successful conservation and management of Flying-fox roosts it is imperative that all council LGAs cooperate for successful management practices. Over time this number may increase or decrease reflecting Flying-fox roost dynamics are constantly changing and evolving within the broader landscape of South-East Queensland.

### 5.4 SHIFTING CLIMATE AND FLYING-FOXES – IMPACTS OF CLIMATE CHANGE

Extreme weather events have increased in frequency and resulted in significant mass mortalities within local flying-fox roosts. As this continues to occur within the Ipswich region, the likelihood of heat-stress related deaths of flying-foxes will increase.

The availability of foraging resources may be impacted due to changing weather patterns which result in drought impacts to locally occurring vegetation communities.

Flying fox mortalities were observed across Southeast Queensland during the 2019/2020 food shortage along high-speed state-controlled roads. This was due to flying foxes attempting to access the flowering melaleucas associated with roadside landscaping works. With a shifting climate, these knock-on effects will continue to place pressure on flying-fox populations.



### 6 REACTIVE MANAGEMENT OF FLYING-FOX ROOSTS

The size, context and impacts of a Flying-fox camp must be carefully considered before planning and commencing any roost management actions. Larger populations will likely be harder to manage due to the potential size of roost footprints and scale of impacts to nearby residents. The likely success of any management action must be strongly considered against the risk of an adverse outcome.

### 6.1 MANAGEMENT RESPONSIBILITIES AND APPROACH

Where a Flying-fox roost is located on council owned or managed land, Ipswich City Council assumes management responsibility of that roost. Where the roost falls on both council owned land and private property council will seek to lead implementation of any actions.

Council will not permit any private entity to complete roost management works on council owned land.

Where a Flying-fox roost is located on private property, management responsibilities are assumed by the landholder, and any management activities must occur in accordance with the state and commonwealth requirements.

#### 6.2 RISK-BASED MANAGEMENT FRAMEWORK

Flying-foxes roosting in large camps within urban and rural areas often generates community concerns and or conflict. Excessive noise at dusk and dawn, odour and risk of disease spread are a common cause of complaint. In addition, the rural areas of Ipswich have large numbers of horse owners for whom the potential spread of Hendra virus is also of concern.

Strong seasonal trends are also evident with public concerns spiking during the summer months, particularly with the arrival of Little red flying-foxes. This is a key aspect of Flying-fox management as this species is nomadic and changes roosts regularly. Concerns for large colonies of roosting Flying-foxes are often allayed when Little reds commence their northern migration at the end of summer.

The extent to which an individual roost creates a risk to public health or generates community conflict may depend on a number of factors. These can include species numbers and location, camp structure, camp health and surrounding land use. Media coverage and the level of knowledge and or sensitivity of the surrounding community are also important factors.

To protect public health while also maintaining a consistent approach to Flying-fox roost management council will employ a risk-based management approach. This recognises that some land uses are less compatible with Flying-fox roosts than others and that physical separation between people and roosting Flying-foxes is an effective risk management tool. The following sections describe a hierarchy of risk-based management zones identified by the proximity of Flying-foxes roosting on council owned or managed land to a range of surrounding land uses.

Table 2: Roost Risk Rating categories of Flying-fox roosts across the Ipswich region

RISK CATEGORY	DESCRIPTION	CRITERIA / EXAMPLES
High	Flying-fox roosts may be located in areas that are considered to be in high conflict with the potential to have considerable adverse implications for the local community. Examples of such localities include roosts located on council owned or managed land within 50 metres of sensitive public or private facilities.	Located within 50m from sensitive public or private facilities which may include:  Hospitals Medical facilities Childcare centres Aged care homes Schools High profile public places (e.g. sporting facilities, public pools, restaurants, parks, children's playground, areas of historical or cultural significance, etc.) Formal equestrian facilities Aviation facilities
Medium	Flying-fox roosts located greater than 50 metres from sensitive public or private facilities may still be capable of generating conflict within the community in certain circumstances. Roosting Flying-foxes on council owned or managed land will be considered to be in medium conflict where they meet with the following criteria:	<ul> <li>Located between 50 to 150 metres from a sensitive public or private facility; and</li> <li>Within 150 metres of a place of residence or commercial facility; or</li> <li>Within 150 metres of an area where horses commonly graze; or</li> <li>Within 150 metres of public facilities such as barbeques and toilets</li> </ul>
Low	Flying-fox roosts with a low potential for community conflict will be considered to be low conflict roosts. These roosts will generally have significant roost separation consistent with the following criteria:	<ul> <li>Located greater than 150m from a sensitive facility; and</li> <li>Located greater than 150m from any place of residence or commercial facility; or</li> <li>Greater than 150 metres from an area where horses commonly graze; or</li> <li>Greater than 150 metres from public facilities such as barbeques and toilets</li> </ul>
Preferred location	In some situations roosting Flying-foxes create minimal community conflict and should be left alone to perform their important ecological role as pollinators and seed dispersers. The former Sapling Pocket roost is a good example of a location with limited impacts to the public.  Council will seek to minimise disturbance to Flying-foxes in identified preferred roosting locations (potential low risk locations) and preserve potential preferred locations.  Areas which contain suitable vegetation and a combination of potentially suitable bio spatial features (such as proximity to water, vegetation patch size, slope, proximity to foraging	<ul> <li>Greater than 150 metres from a sensitive facility; and</li> <li>Greater than 150 metres from any place of residence or commercial facility; and</li> <li>Greater than 150 metres from an area where horses commonly graze; and</li> <li>Greater than 150 metres from public facilities such as barbeques and toilets; or</li> <li>On a Protected Area declared under the Nature Conservation Act</li> </ul>



### 6.3 LAND TENURE AND FLYING-FOX MANAGEMENT

Flying-fox roosts are highly dynamic, expand and contract and are colonised or potentially abandoned on a frequent and irregular basis respectively. Flying-foxes are also blind to land tenure, moving or spilling from one to another in ignorance of the potential impacts and likely consequences.

The following section describes the relationship of this management plan to some of the key land tenures on which Flying-foxes may roost. Where applicable, an overview of council's intent to respond to Flying-foxes roosting in these situations is also provided.

The following table sets out the maximum level of advice or action which may be provided or undertaken by council, based on property tenure and ownership. The actual level of advice or action is determined by an assessment process.

Officers should familiarise themselves with the requirements of the codes of practice in relation to the prescribed methods for management actions and prescribed methods for low impact activities. In all situations council will provide advice on minimising the impacts of Flying-fox roosts.

Table 3: Scenarios where Council action may be considered\*\* (Council pays cost).

	AFFECTED PROPERTY TYPE			
Tenure of property where roost is located	Type 1 Private property – sensitive sites For example: • Residential dwelling • Day care centre • Nursing home • Private school • Private hospital	Type 2 Private property – other land uses For example: • Commercial • Retail • Industrial • Agricultural • Animal husbandry	Type 3 Australian or Queensland Government owned or managed property – sensitive site For example: Public school Public hospital National Park	Type 4 Council owned or managed property – sensitive site For example:  Public children's playground  Public pool  Council library
Private Property	×	×	×	?*
Council owned or managed land (within or outside UFFMA)	✓	<b>√</b>	✓	<b>√</b>
Australian or Queensland Government owned or managed land	×	×	×	<b>√</b>

<sup>\*</sup> Council has an as-of-right authority and may allow third party use of this authority where the roost location is on private land but is impacting a Type 4: Council owned or managed property – sensitive site.

<sup>\*\*</sup> Level of action (no action, low impact, high impact, affecting GHFFs) determined by assessment and case-by-case consideration

✓ = yes

x = n0

? = possibly, depending on situation

### 6.3.1 Private, State or Commonwealth owned or managed lands

The management of Flying-foxes and their roosts on lands under private, State, or Commonwealth control is beyond the scope of this management plan. Where these matters arise, they should be discussed directly with the respective landowner or manager. Where feasible and where landowner consent is provided, council will endeavour to monitor these roost locations to maintain a comprehensive understanding of regional Flying-fox roost dynamics.

Council will not undertake vegetation management, dispersal or significant roost destruction activities on private lands where they are impacting other private sensitive land uses. Council may provide advice and assistance to landowners and residents about Flying-fox ecology (education), buffer management options and asset protection measures. Where a roost is sited over private and council lands, council will seek to lead management of the roost and may assist with weed management and minor vegetation works on private lands where a clear community benefit is able to be demonstrated.

Council may seek to assist landowners to obtain their own Flying-fox roost management permit from the State Government where they seek to obtain one to conduct roost management actions on private lands. Private landowners are able to conduct low impact activities in accordance with the *Nature Conservation Act 1992*, Code of Practice: low impact activities affecting flying-fox roosts. Private landowners who wish to destroy of disperse a Flying-fox roost is required to apply for a Flying-fox roost management permit issued by DETSI to manage Flying-fox roosts irrespective of the roost location.

To apply for a Flying-fox roost management permit from the State Government a Flying-fox management plan is required to be prepared. It is recommended that persons wishing to apply for a Flying-fox roost management permit engage a person knowledgeable about Flying foxes, such as a suitably qualified and experienced ecologist.

Council may also support landowners through the following:

- Provision of detailed advice on the vegetation composition of their properties (native/exotic species) and options for management
- Advice on Flying-fox ecology and roost information.
- Opportunities for wildlife conservation, such as involvement in council's Land for Wildlife program.
- Assistance to landowners in developing an implementation strategy (plan) for low impact activities within the roost, under the Code of practice - Low impact activities affecting Flying-fox roosts.

At the same time, council will endeavour to make landowners aware of the relative risks and likely outcomes of their proposed actions. In these cases, council may provide technical assistance to landowners wishing to apply a Flying-fox roost management permit but will not make application to the State or Commonwealth on behalf of a property owner.

### 6.3.2 Council owned or managed land

Council is responsible for management of Flying-fox roosts on land under its ownership and control or where council is the trustee. To maintain knowledge of their current status these roosts will be subject to regular monitoring and evaluation. In addition, council will remain cognisant of community concerns and expectations surrounding these roosts.

Where concerns about Flying-fox roosts on council owned or managed lands are raised these will be assessed in accordance with Section 6.4 of this document.

### 6.3.2.1 Works conducted under 'as of right authority'

Council's as-of-right authority allows for management of roosts within Urban Flying-fox Management Areas (UFFMA) within the Local Government Area. Where council undertakes management of roosts outside of the UFFMA a roost specific Flying-fox Roost Management Plan (roost specific FFRMP) shall be developed and approved by the state prior to commencement of works. Roosts within and outside the UFFMA are to be managed in a manner consistent with council's approach to roost management (Section 1.4). Council will not extend their as-of-right authority to private landholders/organisational entities to manage any roosts that are wholly located on private or state managed lands.

Council will attempt, where possible, to avoid management actions and works believed likely to cause Flying-foxes roosting on council land to spill over onto private property. In particular, techniques such as 'buffering' may be used to encourage roosts to remain on council property. While every effort will be made to ensure success of management works when undertaken, there is no guarantee that management actions will be effective to resolve human-wildlife conflicts. Where conflicts may not be completely resolved from direct management of roosts (e.g. buffering may resolve visual concerns, but not odour) alternative solutions may be required (e.g. the use of air conditioning to allow windows to be closed during summer to minimise odour impacts or the use of double glazed windows to minimise noise impacts).

In some circumstances it may be possible to establish managed buffers between Flying-fox roosts and sensitive receptors which adequately reduce impacts to neighbouring landholders (subject to tenure, vegetation protection, amenity, cost and conservation considerations). A buffer can provide an appropriate balance in retention of local vegetation values and provision of setbacks to minimise nuisance to sensitive receptors. Determination of an appropriate buffer distance (where proposed) is determined on a case-by-case basis. There are clear situations where establishment of managed buffers may not be possible, desirable, or appropriate for the circumstances such as where roosts occur in narrow, isolated vegetated corridors and the establishment of buffers will result in the shifting of the roost up or down the corridor, or where vegetation management restrictions apply.

Council will first undertake community engagement and education actions to understand impacts to sensitive receptors and any other impacted parties. Council will implement the following staged approach where management of a roost is undertaken in accordance with the relevant code of practice.

Where works are to be undertaken, they are to be completed in a manner consistent with the following:

- Code of Practice Low impact activities affecting flying-fox roosts (DETSI)
- Code of Practice Ecologically sustainable management of flying-fox roost (DETSI)
- Flying-fox Roost Management Guideline (DETSI)
- Any relevant guidance under the EPBC Act 1999 in relation to management of grey-headed flying-fox roosts

### 6.3.2.2 Retention of low-risk roosts

Flying-fox roosts on council owned or managed land which meets preferred roost location criteria will be encouraged and may be embellished as Flying-fox habitat. This process may involve works to enhance native vegetation, remove exotic (weed) vegetation and manage fire. A selection of Flying-fox roost and feed plants suitable for revegetation in the Ipswich area is detailed in the supporting document Regional preferred Flying-fox foraging tree species.

### 6.3.3 Adjoining council owned or managed land

Council will seek to work in co-operation with private property owners where roosts occupy council owned or managed land and adjoining private property. Again, in these instances, the process outlined in Section 6.4 will form the basis for evaluating the need for, and most appropriate form of management action.

In these circumstances, council will assist adjoining private property owners through provision of a range of support services. These include access to educational and research materials, technical advice regarding key management strategies and referral to sources of expertise on Flying-fox management and public health.

Where a roost exists on council land and an adjoining private property requires management actions to be undertaken, council will seek to identify and implement management actions in conjunction with property owners, consistent with council's policy and this management plan. This may involve council taking the lead in obtaining any permit approvals and or co-ordinating delivery of on ground works. In these circumstances, council, at their discretion may seek to enter into cost sharing arrangements where works are undertaken on private land.

However, should a landowner be dissatisfied with council's preferred course of management action in regards to management actions where a roost is located on both council owned or managed, and private property, the private landowner may still apply for a Flying-fox roost management permit directly through the Department of Environment, Tourism Science and Innovation (DETSI) for their own property. Council will not permit private residents to conduct roost management actions such as vegetation clearing on council-controlled lands.

### 6.4 REACTIVE MANAGEMENT APPROACH

### 6.4.1 Considerations for management approach

Council will consider the management of individual roosts in a balanced manner to ensure equitable and responsible governance is provided for the region. Council will consider the following factors when determining a management approach:

- Whether a roost is permanently occupied or seasonal
- The period of occupancy, and roost dynamics (do populations naturally fluctuate significantly in size, extent or location, breeding status)
- The proximity of sensitive receptors/sites
- The level of impacts to adjacent sensitive receptors/sites
- The probability of success in providing enhanced health, amenity and environmental outcomes as a result of the management actions (i.e. addressing community concerns)
- Regulatory factors (including vegetation management legislation)
- The status of the roost (nationally significant and/or maternity roost)
- The cost of management actions, and opportunities to receive assistance with funding from the State Government

Requirements for roost interventions on council land will be assessed on a case-by-case basis. Council will assess concerns raised by residents and members of the public in accordance with the following processes:

- An initial customer service engagement (collection of information about where the roost is located and what the
  matter of concern for the customer is).
- An assessment or review of the Roost risk assessment decision process map to confirm the roost risk category detailed in Section 6.4.3.
  - o In association with the preparation of this FFRMP roost risk categories have been assigned to all identified roosts and are included within the supporting document Flying-fox roosts of the Ipswich region.
- Where a roost is identified as a medium or high-risk roost, assessment against the management action assessment process – detailed in Section 6.4.4.

This assessment process will ensure council achieves the goals and objectives established in its policy and management plan while also complying with legislative requirements.

Again, it must be emphasised that roosts are highly dynamic and subject to frequent change. As such the management action assessment process will be used as a guide to be applied to a particular set of circumstances, at a given point in time.

Several Flying-fox roosts on council owned or controlled land are also heavily constrained by State vegetation protection requirements or occur in circumstances where vegetation removal actions would likely result in significant environmental harm through loss of watercourse bank stability or reduction in threatened species habitat or cultural heritage values. Additionally, roosts may have previously been subject to management actions which have exhausted acceptable available options to council.

### 6.4.2 Customer request process

The Customer request process map depicted in Figure 8 separates community concerns into common categories raised by the community. Appropriate responses are then identified based on council's SOMI and this plan. Where the most appropriate response is referral of the matter to expert agencies such as Queensland Health or Biosecurity Queensland these agencies are also identified.

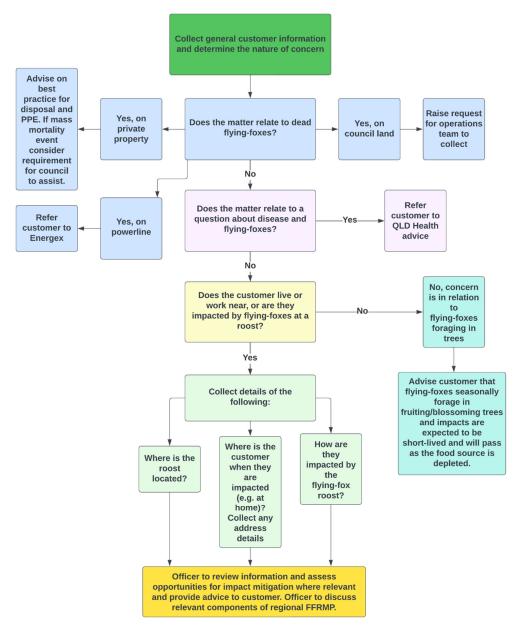


Figure 2: The customer request process map is used to inform and guide council in considering and responding to community concerns for Flying-foxes roost issues.

### 6.4.3 Roost risk assessment decision process

Local governments have an 'as-of-right authority' to manage flying-fox roosts within a defined UFFMA, where they choose to do so. This potentially involves a broad range of roost management issues, land tenures, community interests, risk settings and costs.

To guide council through this process, and to achieve consistency with council's SOMI and management plan, a Roost risk assessment decision process map has been developed (Figure 9). The hierarchy utilises the roost risk categories to determine the priority setting and most appropriate form of management response. This assessment is to be conducted in concurrence with Table 2, which outlines the criteria for risk categories of flying-fox roosts across the Ipswich region. Review of individually assigned Roost Risk Rating categories in the supporting document Flying-fox roosts of the Ipswich region should also be undertaken.

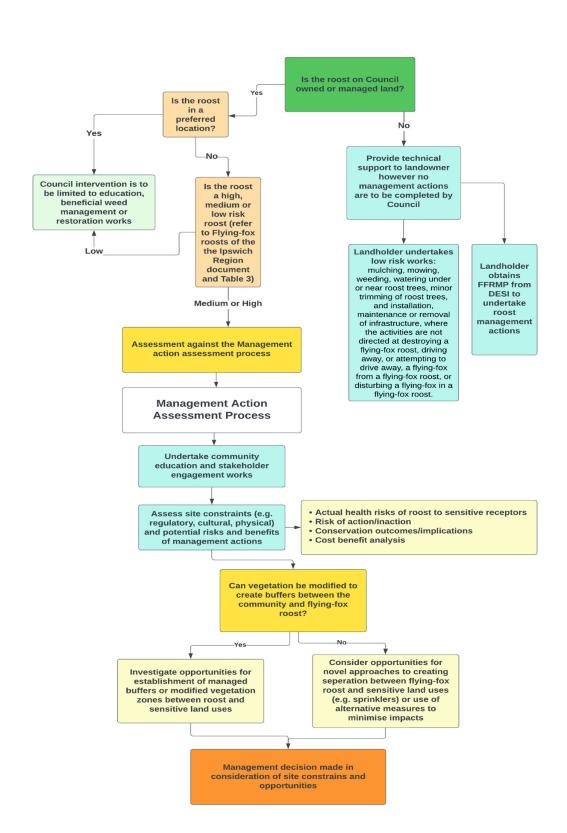


Figure 3: The roost risk assessment decision process map displays the key considerations required, to identify the management action pathway for a roost

#### 6.4.4 Management action assessment process

Identifying the most appropriate form of management action requires careful consideration of the underlying issues, particular circumstances, suite of potential actions, their likely outcomes, risk levels and costs. Council will use the management action assessment process depicted in Figure 9 to evaluate and determine the requirements for action on a case-by-case basis. The process map establishes a formal process for identifying balanced and consistent Flying-fox roost management actions across the region.

Council has an obligation to ensure public monies are allocated and used in a responsible and efficient manner. As such, costs will form an important overlay to council's determination of the most appropriate form of management action. Council will be vigilant in identifying and avoiding management actions which require costly, ongoing efforts with limited opportunities for a successful outcome.

### 6.5 METHODS OF MANAGEMENT

The hierarchy of management utilises the roost risk categories described in Section 6.2 to determine the priority setting and most appropriate form of management response.

The following sections outline the possible management actions which council may take in relation to management of Flyingfox roosts through implementation of this plan. Potential actions are presented in a hierarchical order from least to most invasive.

As depicted in Figure 10 there is a strong correlation between increasing level of roost intervention and increasing costs and risks. More intrusive actions will only be considered where passive management actions have been tried unsuccessfully. This approach is intended to balance community needs while ensuring management actions demonstrate value for money and have a high probability of management intent success.

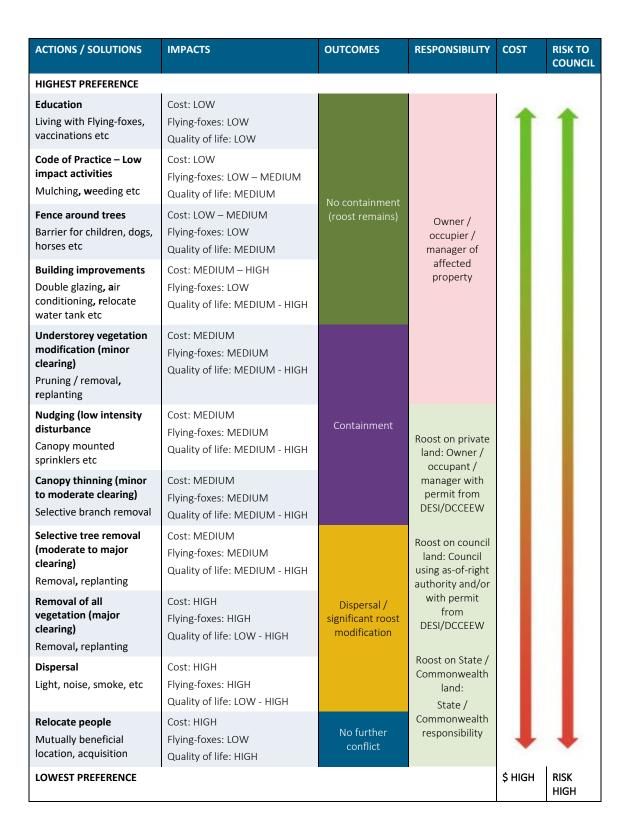


Figure 4: Management action hierarchy matrix

#### 6.5.1 Proactive actions

Council undertakes regular monitoring of occupied, known roosts across the region. Roosts which are wholly on private land, and which are unable to be accessed or viewed publicly are not monitored unless landholder consent is provided to access and monitor. Council is supportive of extending monitoring of roosts to additional roosts across the region and encourages residents to contact council to notify of any unrecorded roosts.

Quarterly monitoring will be undertaken at minimum in February, May, August and November each year. Additional monitoring may be conducted throughout the summer months. Local Flying-fox roosts often swell at this time with the seasonal influx of Little red flying-foxes. This is also the time when community concerns are heightened and requests for council information, advice and interventions peak. Monitoring the movements of Little red flying-foxes will increase understanding of their roost dynamics and interactions with other Flying-fox species increasing council's ability to respond to community concerns. In addition, where a Flying-fox roost is identified as being of medium or high conflict more frequent monitoring (e.g. monthly) may be undertaken to advise and inform potential management actions.

Council monitors roosts to maintain an understanding of roost dynamics, local breeding observations and potential impacts to the community which allows for informed management decisions to be made. As more roosts are recorded across the region these are to be added to the existing quarterly monitoring schedule.

Data collected by council officers is provided to the State Government.

#### 6.5.2 Education

Typical community education on Flying-foxes as a reactive management action is associated with print and digital media releases, mailouts and temporary signage aimed at addressing concerns about increases in roost size or extent, significant seasonal fluctuations and where works are proposed which may impact residents. Where residents seek further information about Flying-foxes council will make available a range of print media resources (such as factsheets, flyers or information packages).

# 6.5.3 Engagement with impacted parties (landholders) and reactive education

Council will seek to respond and engage with landowners and residents concerned about Flying-foxes. Council will share information on Flying-fox ecology, roosts and management with interested parties. As camps swell in summer, and media coverage increases, council may expect an escalation in community concerns and requests for intervention. Questions or concerns regarding human health and Flying-foxes will be referred to Queensland Health and Biosecurity Queensland where detailed advice is sought.

Council will provide advice to landowners and residents on options they may take to mitigate impacts of nearby Flying-fox roosts or individual Flying-foxes. Options for residents to consider include fruit tree netting, car and vehicle covers, building treatments (glazing improvements and insulation), air conditioning, bringing the washing in at night, trimming of trees, clearing of roofs and water tanks and landscaping which does not attract or support Flying-fox roosting behaviour.

To ensure that council responds to community requests in a fair and balanced manner a community concerns customer request process has been developed. This focuses on gathering appropriate information to inform and guide council's response including the provision of appropriate information and advice to the community.

The Customer Request Process map (Figure 8) separates community concerns into common categories. Appropriate responses are then identified based on council's SOMI and this plan. Community concerns for Flying-foxes roosting on council owned or managed land will be subject to assessment under this management plan.

### 6.5.4 Vegetation management

Management of vegetation within Flying-fox roosts is a costly, resource intensive and often frustrating experience for land managers due to the uncertainty in management success and potential for unintended impacts such as roost shifting. Where council seeks to undertake vegetation management works on council owned land this will be completed in a staged approach commencing with low risk weed management works. Council will plan works with due regard to any local, State or Commonwealth vegetation or species protection requirements and consideration of amenity and cultural heritage values of vegetation proposed to be managed.

#### 6.5.4.1 Minor vegetation management (weed management)

Minor vegetation management may occur to modify edges of roosts or to increase separation between roosts and sensitive receptors. Minor vegetation management is limited to non-native vegetation within the understorey layers and trimming of roost trees (less than 10 per cent of canopy). Minor vegetation management is unlikely to require State or Commonwealth approval. Examples of works include:

- Control of non-native understorey species (e.g. slashing or spraying);
- Removal and disposal of non-native tree saplings; and
- Minor trimming of native and non-native roost trees (in accordance with low-impact guidelines), for example when a
  large native tree branch is overhanging a private property.

Minor vegetation management works are to be designed to reduce densities of Flying-foxes in proximity to sensitive receptors or to modify understorey vegetation to minimise suitable roost habitat features in buffer areas. Flying-fox roosts are highly sensitive, and measures will be undertaken to avoid significant reduction in roosting habitat where no suitable replacement habitat is available as this may splinter roosts. This may include completing weed management works over a staged period, allowing for establishment of alternative native roosting habitat within areas with greater separation from sensitive receptors.

Impacts to microclimates in respect to heat-stress management should also be considered when planning works, with significant modification of understorey vegetation potentially increasing risk of heat stress within roosts, therefore timing of works in relation to climate and breeding cycle is important.

#### 6.5.4.2 Moderate vegetation management

Council may conduct moderate vegetation management works to deliberately modify roost environments to create buffers or areas which support lower densities of Flying-foxes in proximity to sensitive receptors. Moderate vegetation management actions include removal of non-native vegetation (all stratum) and removal of native understorey vegetation. Moderate vegetation management may require approval and conditions set by either the State or Commonwealth Governments depending on the extent of works. Examples of works include:

- Removal of portions of understorey vegetation (native/non-native);
- Removal of saplings (non-native);
- Removal of canopy tree species (non-native); and
- Trimming of native and non-native roost trees above the low impact guidelines.

Moderate vegetation management actions are likely to impact roosting habitats within sites and are to be undertaken in a strategic manner, minimising impacts to vegetation values which provide ancillary environmental benefits such as creek bank stabilisation.

At this level of works potential for unintended impacts is readily present and roosts may splinter or change location. Consideration of breeding cycle and potential heat stress impacts from vegetation removal is recommended to be made at this stage of works.

#### 6.5.4.3 Major vegetation management and establishment or other novel setback methods (i.e. canopy mounted sprinklers).

Major vegetation management may occur to significantly modify roost extent and to create large, cleared buffers in proximity to sensitive receptors. This may also include 'nudging' of Flying-fox roosts to a preferred roost extent location. Major vegetation management actions include removal of native and non/native vegetation over all strata. These works do not have the objective of destroying a roost and are predominately in relation to creating cleared buffers, allowing for nudging of roosts to achieve greater separation distances. Major vegetation or roost management works may require approval and conditions set by either the State or Commonwealth governments. Examples of works include:

- Removal of all understorey vegetation (native/non-native);
- Removal of saplings (native/non-native);
- Removal of canopy tree species (native/non-native);
- Pollarding or major trimming of native and non-native roost trees;
- Installation of canopy mounted sprinklers or other novel deterrent methods.

Following major vegetation works, actions are to be undertaken to establish a native understorey cover inconsistent with Flying-fox roosting (such as a native grassland or low height shrub layer). This is likely to incur additional ongoing costs and responsibilities to the party undertaking works and should be planned in conjunction with the initial vegetation management works.

Major vegetation works are likely to result in high levels of disturbance to Flying-foxes, potentially resulting in shifting or long-term changes to roost population and dynamics. At this level of on-ground works, significant impacts to a roost microclimate are likely, with potential heat stress event impacts. Consideration of species breeding cycles is to be made when planning these works.

Buffers between Flying-fox roosts and sensitive receptors generally have the specific aim of increasing separation between roosting Flying-foxes and site users/residents. The creation of buffers is unlikely to fully resolve concerns about noise and odour and may result in fragmentation of roost habitat areas. Buffers to a maximum of 35m may be considered to facilitate direct physical separation between roosting areas and adjacent sensitive receptors. Site-specific factors may not permit the establishment of a buffer, or result in the use of reduced buffer distances when regulatory, environmental or riverine clearing restrictions limit clearing within the roost footprint.

#### 6.5.5 Dispersal

Flying-fox roost dispersal, which is the permanent exclusion of Flying-foxes near human settlements, is a management tool historically utilised to mitigate human-wildlife conflict (Roberts et al. 2021). Attempts to remove or disperse a Flying-fox camp are rarely successful. Often the animals will have developed attachment to a roost site and therefore remain at the site despite substantial levels of disturbance (Thiriet 2005). Alternatively, Flying-foxes may have nowhere else to go and will begin roosting in even less desirable locations, such as backyards. Many apparently successful management actions are confused with Flying-foxes leaving on completely natural migratory patterns in response to changing food supplies (Thiriet 2005).

In their review of 48 dispersal attempts at Flying-fox roosts across Australia, Roberts et al. (2021), found that in 88 per cent of cases alternative roosts formed within 1km of the original roost site following management actions, transferring conflict to alternative residents. Of the 48 roost dispersal attempts only 23 per cent were considered successful, generally after expensive destruction of roost vegetation.

Costs were poorly documented; however, no roost attempt costing less than \$250,000 was successful. The authors of this review paper concluded roost dispersal is a high-risk, high-cost tool for mitigating human—wildlife conflict.

Dispersal is unlikely to provide positive long-term outcomes for the community in terms of conflict management. As the majority of modelled potential high suitability roosting habitat within the Ipswich region is identified as occurring within potential high conflict areas near existing sensitive uses this approach is considered likely to shift conflict rather than resolve conflict.

#### 6.5.6 Lethal management action

Lethal management actions are actions directly intended at killing or taking Flying-foxes, often referred to a culling. Under current State provisions these actions are not available to councils.

Council views lethal management of flying-foxes as an ineffective, non-practical and an unethical form of management. Lethal management will not be undertaken or supported by council under any circumstances.

#### 6.6 ADDITIONAL REACTIVE ACTIONS AND MANAGEMENT

#### 6.6.1 Significant influx of Flying-foxes

Following a significant influx of Flying-foxes to a roost or area, council will seek to engage with the community, staff and any additional impacted parties to provide educational materials and advice on opportunities to mitigate any adverse impacts.

Due to the short-term nature of most significant population influxes which are typically associated with regional flowering patterns which drive localised foraging, council is unlikely to support reactive vegetation management actions.

Where impacts associated with foraged fruit and droppings are identified on council-controlled lands, council will consider adapting operational footpath cleaning and street sweeping programs to ensure safety is maintained.

#### 6.6.2 Starvation events

During regional starvation events a greater number of deceased Flying-foxes are expected to be located across public and private lands, often in proximity to opportunistic feed trees (e.g. figs, silky oaks and fruit trees). Council will seek to engage with the community, staff, and any additional impacted parties to provide educational materials during starvation events. Council will seek to remove deceased Flying-foxes on council-controlled lands in a proactive manner and in response to requests to specific requests by the community.

Where requests from the community are made regarding sick and injured flying-foxes council will refer the community to appropriate wildlife care entities.

#### 6.6.3 Heat stress events

#### 6.6.3.1 Approach by council

Future heat mortality events are a major concern regarding the management of Flying-foxes, particularly for Flying-fox roosts located on council owned or managed land with public access or use. Maximum daily temperature forecasts in excess of 37°C are a sign that additional roost-based management actions may be required. Heat-stressed or deceased Flying-foxes coming to ground are a source of significant community concern.

In the past, lack of public education concerning these events has led to a number of people being unnecessarily bitten, scratched and exposed to potential infection. Council will seek to provide leadership during Flying-fox heat stress events to facilitate humane care of Flying-foxes in distress by experienced wildlife carers, and to ensure that public amenity is maintained during these periods.

While Flying-foxes are suffering from heat stress, human disturbance may push them beyond their limits and greatly increase the chances of mortality. Persons attempting to undertake animal welfare actions during these events should take note of the State guideline Managing Heat Stress in Flying-fox Colonies. The guideline describes the protocols and practices which may be employed including the use of misting or spraying. Case studies highlighted in the guideline indicate the success of properly executed animal welfare actions during historical heat events.

Animal welfare activities undertaken during heat events must be careful to ensure that any actions aimed at minimising Flying-fox suffering do not inadvertently cause them any additional stress. For example, if spraying or misting leads to Flying-foxes leaving the roost, or showing signs of greater heat stress, the action could not only worsen the situation for the animals, but also constitute a breach of the *Nature Conservation Act 1992*.

It is critical that live Flying-foxes should only be handled by appropriately vaccinated persons who have undergone training in bat handling. Additional procedures for dealing with injured or orphaned Flying-foxes on council land have previously been put in place and this process will continue where a need is identified.

Noting the potential significant overlap between high-risk bushfire events and Flying-fox heat stress events council is unable to guarantee the supply of water transport and spray units. In the first instance council's immediate priority is to respond to imminent threats to life and property posed by bushfire events.

Council is to prepare a regional heat stress response procedure as an identified short-term action.

# 6.6.3.2 Public preparation for heat related mortality events

Where an extreme heat event is anticipated council will provide advice to the public via the website, social media and print materials (where available). This will alert the public to the possibility of large numbers of heat-stressed or deceased Flying-foxes coming to ground or falling from trees. Advice will also be provided on recommended handling and clean up procedures where required.

Where roosts are located on council owned or managed land efforts will be put in place to minimise contact between heat affected Flying-foxes and the public. Subject to the nature of the heat event this may entail measures such as additional park signage, area access restrictions or park closures.

Clear, basic messaging to the community to not touch or handle Flying-foxes and to contact your local wildlife carer where Flying-foxes are sick or injured is to be emphasised through available print and digital media. Temporary physical signage may also be installed in proximity to known roosts.

#### 6.6.3.3 Liaison with wildlife carers

During heat stress events council will liaise with wildlife carers to facilitate access to impacted roosts for immediate treatment and care of impacted Flying-foxes. Where a roost is located on private land council will seek permission from the landowner for council staff and wildlife carers to access the property and provide support.

Council will provide water resources to assist with care where available, noting that heat stress events may coincide with high-risk bushfire weather.

# 6.6.3.4 Waste disposal

During heat stress events council will seek to isolate deceased or heat-impacted Flying-foxes from publicly accessible areas to minimise potential for community interaction with stressed Flying-foxes.

Following completion of a heat stress event council will seek to undertake removal of deceased Flying-foxes. Subject to the severity of the heat stress event, council will seek to assist impacted landowners and landowners with Flying-fox roosts on their properties, however priority for immediate clean-up will be council managed lands.

Where landowners provide consent to access for management of heat stress events council will seek to assist within clean-up of deceased Flying-foxes.

#### 6.6.3.5 Record keeping and information sharing

Accurate record keeping is important if the full impact of extreme heat events on Flying-fox populations is to be better understood. Post heat event, council will collect and count deceased Flying-foxes on council owned or managed land.

# 7 PROACTIVE MANAGEMENT OF FLYING-FOX ROOSTS

#### 7.1 EDUCATION, ENGAGEMENT AND SOCIAL MEDIA

The following community education strategies present opportunities to achieve enhanced community environmental awareness, particularly in relation to Flying-foxes, their role in the community and how humans can co-exist with them:

- Proactive newsletter or roost status letter updates to nearby residents during periods of high occupancy, discussing local flowering species or breeding patterns
- Engagement with local schools and the broader community to provide informative, targeted education on Flyingfoxes. This could be through print resources (e.g. No me, No tree stickers) or integrating with relevant classes such as environment, geography and biology
- Broad active engagement including community seminars, workshops and stalls at local markets and events
- Education events to highlight the importance of reducing risk of disease through the "no touch, no risk" policy
- Education events targeted at families such as Flying-fox fly out viewing
- Installation of fixed binoculars at suitable roosts to allow the community to watch Flying-foxes roosting.
- Information workshops for conservation landowners across the region to build knowledge among landowners on Flying-fox habitats and foraging resources (e.g. engagement with Land for Wildlife community).
- Media engagement during large influxes, reinforcing messaging on the temporal nature of large congregations and the ecological reasons for visiting the region (large amounts of foraging resources)
  - o This could be facilitated through print, radio and television interviews or short videos on various platforms.

#### 7.1.1 Breakdown of innovative methods used by other councils in Flying-fox management and education

Locally, Sunshine Coast Council and City of Moreton Bay both deliver comprehensive community education programs in association with their Flying-fox roost conflict management strategies. Innovative methods of engagement which are notable across these regions include:

- Educational workshops with impacted residents, environmental groups and interested members of the public about
   Flying-fox ecology, rehabilitation and care.
  - o These workshops can include the attendance of one or several live Flying-foxes to enable close viewing
- Batpod podcast: a 'choose your own adventure' series in the life of a conservation officer for children ages 10–15
  about living near Flying-foxes
- Attendance by 'Frankie' the Flying-fox at markets and community pop-up events
- Batmap an interactive online viewer which shows regional monitoring and distribution data for Flying-fox roosts across the region.

Council will investigate opportunities to develop and deliver innovative environmental education initiatives, including in relation to Flying-fox community education.

#### 7.2 CONFLICT MANAGEMENT – PRE-EMPTIVE BUFFERING AND TRIMMING AROUND A ROOST

Council may proactively identify and conduct vegetation management opportunities within and in proximity to an existing Flying-fox roost. Works may include the establishment of buffer areas between sensitive receptors, residences, commercial facilities, equestrian related uses and public facilities. Council may identify opportunities to complete these works in association with operational works programs or opportunistically in association with Queensland Government Flying-fox roost management grant programs.

Where council identifies areas with the potential to conduct pre-emptive vegetation works to minimise human-wildlife conflict in association with Flying-foxes, council will consider a range of factors including but not limited to the presence of species habitat values, State regulated vegetation, internal council and external stakeholder views, revegetation and maintenance requirements.

Where council identifies potential to complete these works, council will seek to balance considerations of greatest need and likely effectiveness in reducing community conflict levels.

#### 7.3 EMBELLISHMENT OR PROTECTION OF ALTERNATIVE, LOW CONFLICT ROOSTING HABITAT AND FORAGING HABITAT

Council supports the establishment or expansion of alternate roosting sites to encourage Flying-foxes to roost in areas that will not affect residents. Council will investigate opportunities to integrate roost rehabilitation, embellishment and establishment actions at suitable locations in a strategic and balanced manner. Council will also seek to consider and protect Flying-fox foraging habitat.

While subject to previous research no single factor has been determined to conclusively draw Flying-foxes to roost locations. Establishment of new roost sites accordingly is a challenging and potentially frustrating exercise for land managers. Where council seeks to establish or improve potential roost locations this will be conducted in a manner which allows for a suite of potential biodiversity outcomes. Additionally, council will seek to protect existing preferred and low-conflict roosts, and enhance and expand roost locations which are considered to be viable in the long-term. Council will continue to use latest research in analysing best locations for alternative low conflict roosting habitat and foraging areas.

In association with the preparation of this FFRMP document a standalone GIS analysis of potential Flying-fox roost habitat areas has been completed. As part of the completed analysis potential low conflict areas on Council owned or managed lands have been identified. This analysis is provided in the document 'GIS analysis of alternate roost and foraging habitat areas'.

Council will continue to review the findings and refine the analysis recommendations and will engage with internal and external stakeholders to deliver of roost habitat embellishment works within identified potential low conflict areas.

#### 7.4 PROACTIVE MANAGEMENT ACTION TIMELINE

The below management action timeline identifies proactive management actions across three categories:

- Recurring actions: actions which proceed operationally at routine intervals
- Short-term actions: actions which have been identified for completion within 1-2 years
- Medium to long-term actions: actions which have been identified for completion within 1-5 years

#### 7.4.1 Recurring actions

Quarterly monitoring:

- Council is to undertake monitoring of identified and accessible Flying-fox roosts at a minimum frequency of quarterly, with potential increases during summer influx periods
- Council is to review a roosts status as a nationally significant Grey headed flying-fox roost where greater than 2500
   Grey headed flying-foxes are recorded during a monitoring event.

Additional project monitoring:

• Where works are proposed within 75m of a Flying-fox roost, council is to complete a pre-works monitoring event, including an assessment for the presence of Grey headed flying-fox.

Heat event preparation:

- Council is to undertake an annual review and update of its Flying-fox heat stress management plan
- Council is to undertaken annual stocktake of equipment to be utilised during a heat stress event and engagement
  with operations team leads who would be called upon during an event.

### Mailbox drop:

Council is to undertake a seasonal mailbox drop to high-risk roosts

Coordinating with appropriate land managers for management of weeds and Flying-fox appropriate vegetation structure:

- Pilny reserve, Camira
- Woodend roost, Woodend
- Lorikeet St Reserve, Bundamba

Table 4: Identified recurring actions

TIMING	ACTION	RESPONSIBILITY
February	Quarterly monitoring	Natural Environment Branch
May	Quarterly monitoring	Natural Environment Branch
August	Quarterly monitoring	Natural Environment Branch
September	Heat event preparation	Natural Environment Branch
October	Mail box drop	Natural Environment Branch
November	Quarterly monitoring	Natural Environment Branch

#### 7.4.2 Short-term actions

Table 5: Identified short-term pro-active flying-fox management program actions

Action	Category	Location	Timing	Priority	Responsibility
S1. Investigate opportunities to provide additional covered areas and walkways at both Nerima Gardens and the Ipswich Nature Centre	Conflict management	Queens Park Nature Centre and Nerima Gardens	Year 1	Medium	Capital Delivery Branch
S2. If S1 is deemed feasible, provide additional covered areas and walkways at Nerima Gardens and/or the Ipswich Nature Centre (subject to budget)	Conflict management	Queens Park Nature Centre and Nerima Gardens	Years 2-4	Medium	Capital Delivery Branch
S3. Prepare a site-specific roost management plan for Nerima Gardens, including working with the Nerima Gardens co-design workshop team to achieve suitable outcomes for other stakeholders, and park amenity	Conflict management	Nerima Gardens	Years 1-3	Medium	Natural Environment Branch
S4. Following completion of S3, implement the site-specific roost management plan for Nerima Gardens	Conflict management	Nerima Gardens	Following completion of S3	Medium	Operational units/ Natural Environment Branch
S5. Implement updated permanent Flying-fox education and 'no touch' signage at Nerima Gardens and/or the Ipswich Nature Centre	Education	Queens Park Nature Centre and Nerima Gardens	Year 1	High	Capital Delivery Branch/ Natural Environment Branch
S6. Formalise quarterly monitoring program including understanding of resourcing required	Systems and processes	Regional	Year 1	High	Natural Environment Branch
S7. Implement dedicated Flying-fox specific customer request codes to allow for accurate recording and filing of questions and complaints	Systems and processes	n/a	Year 1	Medium	Natural Environment Branch
S8. Establish regional Flying-fox management communications register	Systems and processes	n/a	Year 1	High	Natural Environment Branch
S9. Investigate a coordinated approach to Hendra virus vaccination and awareness with Biosecurity Queensland	Systems and processes	n/a	Year 2-4	Medium	Natural Environment Branch
S10. Include consideration of environmental values of Flying-fox low conflict habitat and foraging habitat in environmental acquisition process update	Systems and processes	n/a	Year 2-4	Medium	Natural Environment Branch

S11. Develop heat stress response procedure and associated internal documents	Systems and processes	n/a	Year 1	High	Natural Environment Branch
S12. Investigate internal and joint funding arrangements within council and with the State Government for a dedicated urban wildlife conflict officer, specialising in community Flying-fox education and conflict management	Systems and processes	n/a	Year 1	High	Natural Environment Branch
S13. Investigate internal or joint funding arrangements within council and with the State Government for provision of enhanced Flying-fox roost monitoring and survey tools (including but not limited to electronic data collection and management software)	Systems and processes	n/a	Year 1	Medium	Natural Environment Branch
514. Investigate and identify opportunities to collaborate with State and local government(s) to improve Flying-fox knowledge through research	Research	n/a	Year 2-4	Low	Natural Environment Branch
515. Assessment of all associated parks master plans with internal and community consultation, followed by repeal of master plans and creation of roost habitat embellishment plan where approved and appropriate. Considerations must be made where this document will make amendments to the planning scheme to consider Flying-fox roosts, and create Flying-fox roosts	Alternate roost habitat establishment	n/a	Year 1-2	High	Natural Environment Branch
■ Goodna Creek at Smith St, Redbank					
■ Tivoli sporting complex, Tivoli					
■ Sapling Pocket Reserve, Sapling Pocket					
■ Pan Pacific Peace Gardens					
■ Purga Nature Reserve					
<ul> <li>Any additional roost habitat embellishment sites identified</li> </ul>					
S16. Develop a management plan for ibis species ( <i>Plegadis falcinellus</i> , and <i>Threskiornis</i> spp.). This management plan is to increase understanding of how ibis in the region roost, preferred habitat and population variability. By increasing understanding of ibis, the interactions between ibis and Flying-foxes and the influence each species has on the other can be determined for future management actions.	Research	n/a	Year 2 – 4	Medium	Natural Environment Branch
S17. Investigate and promote grant opportunities for local wildlife carers to facilitate ongoing support for local community groups and individuals.	Education	n/a	Year 1-4	Medium	Natural Environment Branch

# 7.4.3 Medium to long-term actions

Table 6: Identified medium and long-term proactive flying-fox management program actions

Action	Category	Location	Timing	Priority	Responsibility
ML1. Investigate opportunities for proactive roost vegetation management activities to create managed buffers between sensitive receptors, commercial uses and residences and Flying-fox roosts	Conflict management	Regional	Year 1-4	Medium	Natural Environment Branch
ML2. If ML1 is deemed viable, implement a managed buffer establishment and maintenance program	Conflict management	Regional	Following completion of ML2	Medium	Natural Environment Branch
ML3. Investigate opportunities for installation of canopy sprinklers at high conflict roosts across the region	Conflict management	Regional	Years 1-4	Medium	Natural Environment Branch
ML4. If ML3 is deemed viable, implement a canopy sprinkler installation and maintenance program	Conflict management	Regional	Following completion of ML3	Medium	Natural Environment Branch
ML5. Investigate opportunities for roost habitat embellishment works at identified roost habitat embellishment sites	Alternate roost habitat establishment	Regional	Following completion of S13	Medium	Natural Environment Branch
ML6. If ML5 is deemed viable, prepare roost habitat embellishment plans for identified potential alternate roost habitat embellishment locations	Alternate roost habitat establishment	Regional	Following completion of ML5	Medium	Natural Environment Branch
ML7. If ML6 is deemed viable, undertake actions to deliver roost habitat embellishment works at identified potential alternate roost habitat embellishment locations	Alternate roost habitat establishment	Regional	Following completion of ML6	Medium	Natural Environment Branch
ML8. Investigate opportunities for increased heat stress resilience technologies/strategies to be incorporated into roosts with high risks of heat stress impacts, including but not limited to temperature and humidity sensors, water taps/tanks, sprinklers and embellished heat stress refuge areas	Heat stress resilience	Regional	Year 2-4	Medium	Natural Environment Branch
ML9. If ML8 is deemed viable, implement heat stress resilience technologies/strategies in roosts with high risks of heat stress impacts	Heat stress resilience	Regional	Year 2-5	Medium	Natural Environment Branch

ML10. Investigate opportunities for environmental education programs to incorporate Flying-fox related educational outcomes aimed at increasing community capacity to coexist with Flying-foxes.	Education	Regional	Year 2-5	Low	Natural Environment Branch
ML11. If ML10 is deemed viable, implement environmental education programs incorporating Flying-fox related educational outcomes	Education	Regional	Year 2-4	Low	Natural Environment Branch
ML12. The completion of further local refinement of foraging habitat mapping, including the identification of important seasonal food trees and vegetation communities across the Local Government Area, and potential opportunities for expansion of these areas (where suitable).	Research	Regional	Year 2-5	Low	Natural Environment Branch
ML13. The implementation of the findings of ML12, including the establishment of important foraging resources, where deemed viable.	Conservation threat management	Regional	Year 3-5	Low	Natural Environment Branch
ML14. The investigation and implementation of opportunities to include Flying-fox roosts as matters of local environmental significance under the Ipswich City Council local planning instrument (Planning Scheme), and reduce human-wildlife conflict by excluding new development within a buffer distance from roosts. Particularly in relation to the occurrence of Black flying-foxes and Little red flying-foxes.	Strategic Planning/Conflict management	Regional	Year 1-5	High	Natural Environment branch
ML15. Following the completion of ML12, the investigation and implementation of opportunities to include foraging habitats for Black flying-foxes and Little red flying-foxes as matters of local environmental significance under the Ipswich City Council local planning instrument (Planning Scheme), and incorporation of Performance Outcomes which ensure development which impacts important flying-fox foraging habitat areas is assessed	Strategic Planning	Regional	Year 1-5	High	Natural Environment branch

#### 7.4.4 Key recommendations

In preparing this regional FFRMP recommendations have been developed to assist in prioritising short-medium and long-term management actions. Council may undertake delivery of the identified actions where resources are available and will seek to facilitate cost sharing arrangements with the State, research partners and industry where possible to deliver the recommendations of the FFRMP.

Council will remain flexible in delivery of the identified recommendations as circumstances change and will seek to achieve a balance between management of impacts to the community and conservation of flying-foxes.

#### 7.4.4.1 Short to medium-term recommendations

Short to medium-term actions are actions identified as priority works for completion or scheduling within 1-3 years of endorsing this plan and include:

- 1. That council ensures adequate resourcing to facilitate the completion of recurring works identified in Table 4 and ongoing management of internal and external engagement on flying-fox management related matters.
- 2. That council maintain a high standard of written and verbal communication with impacted residents and community members and assess concerns regarding impacts of Flying-foxes and Flying-fox roosts in accordance with Sections 6.4 and 6.5 of this regional FFRMP.
- 3. That council deliver identified short-term actions (Section 7.4.2) in accordance with budget and resourcing allowances.
- 4. That council maintain an understanding of available State and Commonwealth grant funding opportunities to deliver identified priorities.
- 5. That council develop and implement a regional heat stress response procedure.

#### 7.4.4.2 Medium to long-term recommendations

Medium to long-term recommendations are actions identified to be undertaken over an extended period of time (1-5, or greater years) to provide long-term management outcomes. Where possible, identified long-term actions will be sought to be delivered in a manner aligning with regionwide conservation and operational programs. Medium to long-term recommendations have been identified as:

- 1. The review of this plan at a maximum of five (5) years from implementation by council.
- 2. That council deliver identified medium to long-term actions (Section 7.4.3) in accordance with budget and resourcing allowances.
- 3. That council engage with research programs delivered by State or Commonwealth governments and industry partners where opportunities are available.
- 4. That council maintain an up to date supporting document 'Flying-fox roosts of the Ipswich region'.

# 8 EVALUATION, REPORTING AND REVIEW

Managing Flying-foxes and their impacts on the community is an extremely complex and resource intensive field of wildlife management. Many of the more common actions historically used to manage Flying-foxes have low documented success rates and frequently lead to increased community conflict and subsequent management actions.

The overall success of this management plan will be evaluated against the goals and objectives established in Section 1.1. The level of community concern for impacts from Flying-foxes in Ipswich and community understanding of Flying-fox ecology are key evaluation criteria.

Based on community sentiment, including the findings of community engagement undertaken as part of the review of this FFRMP, it is recognised that while a portion of the community is negatively impacted by Flying-fox roosts, an additional portion of the community is indifferent to Flying-foxes or are strongly supportive of enhanced conservation outcomes of flying-fox populations.

Where council undertakes roost management actions, a Flying-fox roost management notification is to be made to DETSI a minimum of two business days prior to works. Following completion of roost management actions, a Flying-fox roost management evaluation form is to be completed, kept on file, and provided to DETSI within three months of the management actions being completed.

All management action evaluation reporting will be maintained in a database to allow council to review prior management approaches at the time of plan review.

#### 8.1.1 Review of roost management actions

Following completion of management actions council will review the success of the management action against the specific goals and intent of the action. Primarily, Flying-fox management actions will be assessed for their success in achieving one or more of the following outcomes:

- The effective management of long-term Flying-fox roost and Flying-fox population viability
- Improved roost and foraging vegetation community health and resilience
- A reduction in conflict between Flying-fox roosts and sensitive receptors, commercial uses, residences or public use places
- An increase in public amenity and usability of public lands
- A decrease in disease risk associated with exposure of people or horses to Flying-foxes
- The contribution of the action in maintaining species viability within the region.

#### 8.1.2 Costs

The costs associated with planning, implementing and monitoring Flying-fox management actions can be substantial. In general, costs increase relative to the level of intervention. That is, minimal intervention actions such as education are relatively low cost in comparison with significant vegetation modification or dispersal actions which may have substantial ongoing costs.

Review of management actions undertaken will include consideration of financial costs and other resources incurred by council. Any management actions and their associated costs (e.g. financial and staffing requirements) will be recorded in detail to maintain an ongoing record for review. Following review, findings will be utilised to guide resources available to council to perform Flying-fox roost management actions in accordance with the region's FFRMP.

#### 8.1.3 Review period

Council shall undertake regular review of regional Flying-fox management programs at least once every five years. In completing this evaluation and review council is to review and update the following components:

Relevant ecological, behavioural and social information provided within this plan

- o A review of significant research outcomes in relation to Flying-fox behaviour, ecology and management practices is recommended to be undertaken
- Roost location information, and updates to roost extent mapping
  - o Where additional roosts are identified, these are to be incorporated into this plan to ensure a whole-of-region approach to management is maintained
- A review of the management framework for Flying-fox roosts throughout the region. The review should ensure the following outcomes are being achieved:
  - o Flying-fox management is undertaken in a considered, well-planned, long-term approach
  - o Management intents are clearly identified for roosts across the region
  - o Management of roosts maintains a broad level of community and council support
  - o Management frameworks provide for maintenance and improvement of public safety, amenity and critical infrastructure
  - o Actions undertaken by council support the effective long-term conservation of Flying-foxes at a statewide level
  - o That the plan be consistent with guidance from the Department of Environment, Tourism, Science and Innovation Flying-fox Roost Management Guideline, and complies with relevant codes of practice.

# 9 FURTHER INFORMATION AND RESOURCES

#### Roost Management - codes of practice and guidelines

Department of Environment and Science 2020, Code of Practice Ecologically sustainable management of flying-fox roosts Nature Conservation Act 1992, Queensland Department of Environment and Science, Brisbane.

Department of Environment and Science 2020<sup>1</sup>, Code of Practice Ecologically sustainable management of flying-fox roosts Nature Conservation Act 1992, Queensland Department of Environment and Science, Brisbane.

Department of Environment and Science 2020<sup>2</sup>, Flying-fox Roost Management Guideline, Wildlife and Threatened Species Operations, Department of Environment and Science, Brisbane.

Department of Environment and Science, Queensland Parks and Wildlife Service and Partnerships 2021, Interim policy for determining when a flying-fox congregation is regarded as flying-fox roost under section 88C of the Nature Conservation Act 1992, Department of Environment and Science, Brisbane.

#### Education

Department of Environment and Science Frequently Asked Questions (FAQs), <a href="https://www.qld.gov.au/environment/plants-animals/animals/living-with/bats/flying-foxes/about-flying-foxes/questions-and-answers">https://www.qld.gov.au/environment/plants-animals/animals/living-with/bats/flying-foxes/about-flying-foxes/questions-and-answers</a>

Southern Queensland Flying-fox Education Kit 2022, Burnett Mary Regional Group, <a href="https://www.allaboutbats.org.au/education/flying-foxes/">https://www.allaboutbats.org.au/education/flying-foxes/</a>

Sunshine Coast Council 2022, BatPod podcast, <a href="https://www.sunshinecoast.qld.gov.au/Environment/Native-Animals/Flying-Foxes/Education-and-events/BatPod-Podcast">https://www.sunshinecoast.qld.gov.au/Environment/Native-Animals/Flying-Foxes/Education-and-events/BatPod-Podcast</a>

# **Heat Stress**

Flying-fox heat Stress Forecaster, <a href="https://www.animalecologylab.org/ff-heat-stress-forecaster.html">https://www.animalecologylab.org/ff-heat-stress-forecaster.html</a>

Department of Environment and Science 2022, Interim flying-fox heat stress guideline, Department of Environment and Science. Brisbane.

Department of Environment and Science 2022<sup>1</sup>, Technical appendices – Interim flying-fox heat stress guideline, Department of Environment and Science, Brisbane.

#### Roost Vegetation Management and Revegetation

Management and Restoration of Flying-fox Camps 2012, SEQ Catchments, <a href="https://www.environment.nsw.gov.au/resources/animals/flying-fox-2014-subs/flyingfoxsub-jenny-beatson-part3.pdf">https://www.environment.nsw.gov.au/resources/animals/flying-fox-2014-subs/flyingfoxsub-jenny-beatson-part3.pdf</a>

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# APPENDIX A: COUNCIL'S STATEMENT OF MANAGEMENT INTENT



STATEMENT OF MANAGEMENT INTENT - FLYING-FOX ROOST MANAGEMENT IN IPSWICH CITY

Version: 2

Document No:

A3853164

#### 1.1 Objective:

To protect the health, wellbeing and livelihoods of the residents of Ipswich City while recognising the important ecological role performed by flying-fox populations.

#### **Human Rights Commitment**

Ipswich City Council (Council) has considered the human rights protected under the *Human Rights Act 2019 (Qld)* (the Act) when adopting and/or amending this policy. When applying this policy, Council will act and make decisions in a way that is compatible with human rights and give proper consideration to a human right relevant to the decision in accordance with the Act.

#### 1.2 Regulatory Authority:

Under the State *Nature Conservation Act 1992*, and associated regulations, Councils have a voluntary as-of-right authority allowing them, if they so choose, to implement additional management actions for flying-fox roosts in a defined urban area. Councils also have an option to create a management plan to extend their authority beyond defined urban areas. The as-of-right management actions are limited to non-lethal methods, and may only be undertaken in accordance with the statutory *Code of Practice – ecologically sustainable management of flying-fox roosts*.

In administering the as-of-right authority Councils must still abide with a range of other legislation and policy. Key among these are protections afforded to the Grey-headed flying-fox under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* which is not affected or diminished in any way by the State changes.

#### 1.3 Policy Scope:

This document establishes a policy framework for management of existing and new flying-fox roosts located within the city. The State provisions define areas within Council's planning scheme having a residential or commercial purpose, including a buffer of one (1) kilometre, as the Urban Flying Fox Management Area (UFFMA)\*. Council's policy will apply to roosts located both within and outside of the UFFMA through the adopted city-wide flying-fox roost management plan.

Council will manage flying-fox roosts located on Council owned or managed land. In addition, where a roost occupies both Council land and adjacent private property, Council will work with the respective land owner/s to develop management solutions, consistent with this policy, and the adopted flying-fox roost management plan. A hierarchical approach to flying-fox roost management will be employed favouring education and minimal intervention strategies developed on a case-by-case basis.

Council will support private property owners to manage flying-fox roosts on their land. The flying-fox roost management plan underpins the provision of a range of services for private land owners including:

- Provision of education materials
- Provision of technical support
- Provision of research data and support
- Referral to expert information sources

In exceptional circumstances Council may assist a private property owner to develop and implement a roost specific management action. These situations will be identified through risk assessment processes applied on a case by case basis as detailed in the adopted flying-fox roost management plan.

A number of flying-fox matters are outside the scope of this policy including any management of roosts or flying-foxes matters in association with:

- State owned or managed land
- > Commonwealth owned or managed land

Management of flying-foxes in these locations should be discussed with the respective land owner or manager. Further, this policy clarifies Council's role in relation to a number of additional matters of flying-fox management and human health.

#### 1.4 Policy Statement:

The following key policy statements will guide Council's management of flying-fox roosts and associated management issues and actions which is further articulated in the adopted flying-fox roost management plan:

- Human health and wellbeing will be given primary consideration over the health and wellbeing of flying foxes where significant conflict is found to exist between the two;
- Flying foxes perform an essential ecological role, pollinating and dispersing the seeds of native plants and maintaining forest health;
- Due to the highly mobile and dynamic nature of flying-fox roosts any management actions will be considered and developed on a case-by-case basis;
- Council will follow a hierarchical approach to flying-fox roost management favouring education and minimal intervention;
- A risk-based assessment process will be used to determine the requirement for any roost specific management actions;
- Management actions including dispersals and vegetation modification will only be considered after less intrusive actions have been tried and found to be unsuccessful. Dispersals have a low documented success rate in Australia with significant potential to exacerbate the existing situation.

#### 1.5 Roles and responsibilities

In addition to Council a number of agencies and organisations play an important role in the management of flying foxes.

# Flying-fox biology and management

Further information on flying foxes, their biology and management options for roosts located on private property are available from the Department of Environment, Tourism, Science and Innovation.

#### **Health and Safety**

For up-to-date information on flying-fox related human health matters residents are advised to contact the Queensland Health hotline.

#### Flying-fox rescue

Residents are advised never to touch or attempt to aid a sick or injured flying-fox. For assistance with sick or injured flying foxes contact Bat Conservation and Rescue Queensland. Residents are advised to visit Council's website for information on disposal of dead flying-foxes.

## 1.6 Definitions:

Urban Flying Fox Management Area (UFFMA) – those land parcels defined within a local government planning scheme as having a residential or commercial purpose with the addition of a one (1) kilometre buffer.

Management actions – non lethal actions intended to stop flying-foxes from making use of a site or part of a site

Policy Author: Planning Officer (Biodiversity)

Date of Council Resolution: 22 April 2014

Date of Review: 28 October 2016

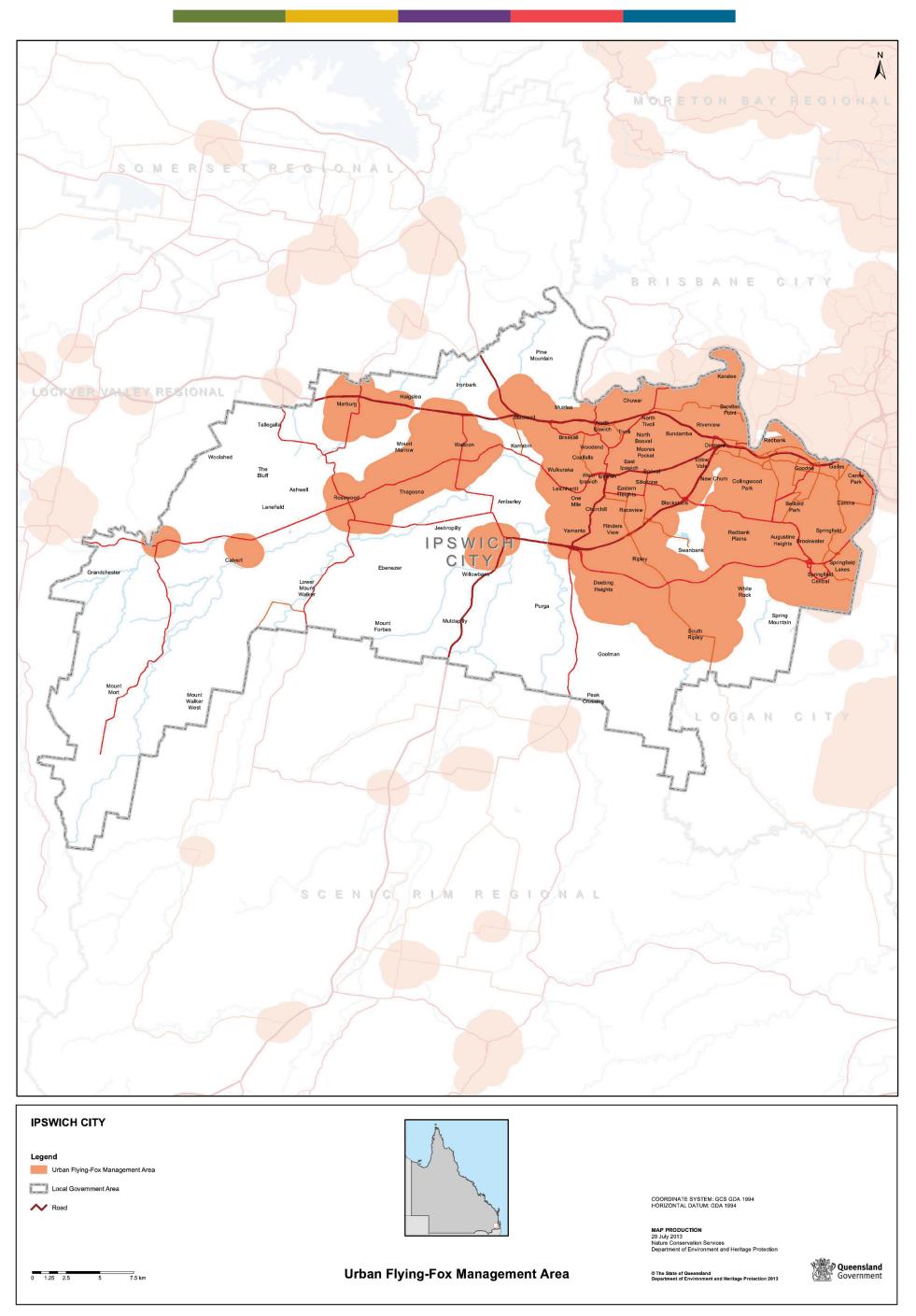
Committee Reference and Date: Policy and Administration Board No. 2014(03) of 1 April 2014 – City

Management and Finance Committee No. 2014(04) of 15 April 2014

No. of Resolution: 2

Date to be Reviewed: 28 October 2018

APPENDIX B: URBAN FLYING-FOX MANAGEMENT AREA (UFFMA) FOR IPSWICH CITY COUNCIL



# APPENDIX C: COMMUNITY CONSULTATION IN PREPARATION OF FLYING-FOX MANAGEMENT PLAN

#### C.1 METHODS

Ipswich City Council undertook the following community engagement actions:

- Review of historical customer requests received by council in relation to Flying-fox management between 2013 and 2023; and
- o An online survey regarding council management of Flying-fox roosts throughout the region. This survey was open to all residents of the region, via the 'Shape Your Ipswich', an online community engagement platform. The survey was also promoted through mailouts to residents near roost locations.

#### C.2 REVIEW OF HISTORIC CUSTOMER REQUESTS

Review of historical customer requests was undertaken from a period of 2013 to 2022 to inform consideration of the community's engagement with council in relation to Flying-foxes and their management across the region.

A review of these requests identified limited data capture resolution in association with historic requests.

#### C.3 Community survey (2023)

In preparation of the FFRMP the community were invited to provide feedback to Ipswich City Council regarding their views of Flying-fox camp management and Flying-fox impacts throughout the region. The survey was available online from 21 April 2023 to 25 May 2023. The survey was available for all residents to access via the 'Shape Your Ipswich', an online community engagement platform where local residents can have their say on council projects, initiatives, new ideas, etc.

Of the respondents, the following suburbs were categorised based on total engagement from the 47 total responses:

- Camira had 17% of total responses;
- Ipswich and Eastern Heights each had 15% of total responses;
- Bundamba had 11% of total responses;
- Raceview and Redbank Plains each had 6% of total responses;
- Newtown, Yamanto, and Booval each had 4% of total responses; and
- North Ipswich, Collingwood Park, East Ipswich, Springfield, Sadliers Crossing, Silkstone, Woodend, and Augustine Heights all had 2% of total responses.

Of the 47 total responses, 18 provided roosting data and 29 answered the provided survey. From those who completed the survey; a total of 82.76% lived near a Flying-fox roost, 13.79% worked near a Flying-fox roost, and 1 respondent (3.45%) was a wildlife veterinarian who frequently worked with Flying-foxes.

Residents living near a roost provided details regarding the proximity of their residence and the roost location. 12.5% of respondents reported roosts on private property, 29.17% lived next to a roost, 16.67% lived within 100m of a roost, and 33.33% lived between 100 to 500 metres from a roost. All respondents reported living near a roost from longer than 1 year, with 66.67% living near a roost for over 5 years.

The survey predominantly included 'radio button' answers, with options for further comments provided. Questions included the following broad topic groups:

- The locality of the respondent, and their proximity to a Flying-fox roost
- How long they had lived near a Flying-fox roost
- How often, what time of day, and what time of year they notice or are impacted by Flying-foxes
- How they personally feel towards Flying-foxes and why

- What impacts residents had experienced from Flying-foxes
- What actions they believe will help manage the impacts
- Details on whether they had ever contacted an authority about Flying-foxes
- · What actions they would support council undertaking in respect to management of Flying-fox roosts

Overall, 75.86% of respondents believed that Flying-foxes are an important native animal, playing a vital role of a pollinator of native plants, 13.79% were neutral, and 10.34% believe that flying-foxes are not important to the environment. 48.27% of respondents believed that the presence of Flying-foxes prevent them from participating in regular activities, and negatively impact their lifestyle.

Over half of the respondents stated that they were impacted by the noise, odour, droppings, and impacts to private property. Of the respondents, only 10.34% were not impacted in anyway by Flying-foxes.

Respondents answered what would help manage impacts in the Ipswich region, with the following responses ranked on respondent preferences:

- 1. Habitat enhancements in suitable roost locations away from urban areas (87.50%)
- 2. Regular monitoring of roosts to identify status, movements and issues (58.33%)
- 3. Routine maintenance of roost vegetation (e.g. mowing, trimming) (33.33%)
- 4. Education materials (29.17%)
- 5. Other (e.g. remove all Cocos palm, dispersal of roosts in urban areas) (29.17%)
- 6. Management options for my property (e.g. car covers, washing line covers) (25.00%)
- 7. Canopies on public pathways under roosts (20.83%)
- 8. Technical advice from a government expert (12.50%)
- 9. Technical advice from a non-government expert (8.33%)

Key comments regarding how council should manage flying-foxes included:

- Council maintaining a level of communication with adjacent impacted residents (i.e. education)
- Council maintaining an up-to-date register of Flying-fox roost locations and information, ensuring transparency for future prospective landowners
- The installation of covered walkways and areas in public areas where Flying-foxes roost
- Protection of habitats
- Provision of alternate habitat areas with suitable foraging, water and microclimate features



# APPENDIX A: COUNCIL'S STATEMENT OF MANAGEMENT INTENT



# STATEMENT OF MANAGEMENT INTENT - FLYING-FOX ROOST MANAGEMENT IN IPSWICH CITY

Version: 2

Document No:

A3853164

#### 1.1 Objective:

To protect the health, wellbeing and livelihoods of the residents of Ipswich City while recognising the important ecological role performed by flying-fox populations.

#### **Human Rights Commitment**

Ipswich City Council (Council) has considered the human rights protected under the *Human Rights Act 2019 (Qld)* (the Act) when adopting and/or amending this policy. When applying this policy, Council will act and make decisions in a way that is compatible with human rights and give proper consideration to a human right relevant to the decision in accordance with the Act.

#### 1.2 Regulatory Authority:

Under the State *Nature Conservation Act 1992*, and associated regulations, Councils have a voluntary as-of-right authority allowing them, if they so choose, to implement additional management actions for flying-fox roosts in a defined urban area. Councils also have an option to create a management plan to extend their authority beyond defined urban areas. The as-of-right management actions are limited to non-lethal methods, and may only be undertaken in accordance with the statutory *Code of Practice – ecologically sustainable management of flying-fox roosts*.

In administering the as-of-right authority Councils must still abide with a range of other legislation and policy. Key among these are protections afforded to the Grey-headed flying-fox under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* which is not affected or diminished in any way by the State changes.

#### 1.3 Policy Scope:

This document establishes a policy framework for management of existing and new flying-fox roosts located within the city. The State provisions define areas within Council's planning scheme having a residential or commercial purpose, including a buffer of one (1) kilometre, as the Urban Flying Fox Management Area (UFFMA)\*. Council's policy will apply to roosts located both within and outside of the UFFMA through the adopted city-wide flying-fox roost management plan.

Council will manage flying-fox roosts located on Council owned or managed land. In addition, where a roost occupies both Council land and adjacent private property, Council will work with the respective land owner/s to develop management solutions, consistent with this policy, and the adopted flying-fox roost management plan. A hierarchical approach to flying-fox roost management will be employed favouring education and minimal intervention strategies developed on a case-by-case basis.

Council will support private property owners to manage flying-fox roosts on their land. The flying-fox roost management plan underpins the provision of a range of services for private land owners including:

- Provision of education materials
- Provision of technical support

- Provision of research data and support
- > Referral to expert information sources

In exceptional circumstances Council may assist a private property owner to develop and implement a roost specific management action. These situations will be identified through risk assessment processes applied on a case by case basis as detailed in the adopted flying-fox roost management plan.

A number of flying-fox matters are outside the scope of this policy including any management of roosts or flying-foxes matters in association with:

- State owned or managed land
- > Commonwealth owned or managed land

Management of flying-foxes in these locations should be discussed with the respective land owner or manager. Further, this policy clarifies Council's role in relation to a number of additional matters of flying-fox management and human health.

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#### 1.5 Roles and responsibilities

In addition to Council a number of agencies and organisations play an important role in the management of flying foxes.

# Flying-fox biology and management

Further information on flying foxes, their biology and management options for roosts located on private property are available from the Department of Environment, Tourism, Science and Innovation.

#### Health and Safety

For up-to-date information on flying-fox related human health matters residents are advised to contact the Queensland Health hotline.

# Flying-fox rescue

Residents are advised never to touch or attempt to aid a sick or injured flying-fox. For assistance with sick or injured flying foxes contact Bat Conservation and Rescue Queensland. Residents are advised to visit Council's website for information on disposal of dead flying-foxes.

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Policy Author: Planning Officer (Biodiversity)

Date of Council Resolution: 22 April 2014

Date of Review: 28 October 2016

Committee Reference and Date: Policy and Administration Board No. 2014(03) of 1 April 2014 - City

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No. of Resolution: 2

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# APPENDIX A: COUNCIL'S STATEMENT OF MANAGEMENT INTENT



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Version: 2

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Ipswich City Council (Council) has considered the human rights protected under the *Human Rights Act 2019 (Qld)* (the Act) when adopting and/or amending this policy. When applying this policy, Council will act and make decisions in a way that is compatible with human rights and give proper consideration to a human right relevant to the decision in accordance with the Act.

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In administering the as-of-right authority Councils must still abide with a range of other legislation and policy. Key among these are protections afforded to the Grey-headed flying-fox under the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* which is not affected or diminished in any way by the State changes.

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This document establishes a policy framework for management of existing and new flying-fox roosts located within the city. The State provisions define areas within Council's planning scheme having a residential or commercial purpose, including a buffer of one (1) kilometre, as the Urban Flying Fox Management Area (UFFMA)\*. Council's policy will apply to roosts located both within and outside of the UFFMA through adoption of a city wide management plan, the adopted city-wide flying-fox roost management plan.

Council will manage flying-fox roosts located on Council owned or managed land. In addition, where a roost occupies both Council land and adjacent private property, Council will work with the respective land owner/s to develop management solutions, consistent with this policy, and the <u>adopted subsequent</u> flying-fox roost management plan. A hierarchical approach to flying-fox roost management will be employed favouring education and minimal intervention strategies developed on a <u>case by casecase-by-case</u> basis.

Council will support private property owners to manage flying-fox roosts on their land. A city wide flying-fox management plan will-The flying-fox roost management plan underpins the provision of a range of services for private land owners including:

Provision of education materials

- Provision of technical support
- Provision of research data and support
- > Referral to expert information sources

In exceptional circumstances Council may assist a private property owner to develop and implement a roost specific management action. These situations will be identified through risk assessment processes applied on a case by case basis as detailed in <a href="mailto:the adopted flying-fox roost management plan.">the section of this policy titled Management Plan.</a>

A number of flying-fox matters are outside the scope of this policy including any management of roosts or flying-foxes matters in association with:

- State owned or managed land
- > Commonwealth owned or managed land

Management of flying-foxes in these locations should be discussed with the respective land owner or manager. Further, this policy clarifies Council's role in relation to a number of additional matters of flying-fox management and human health.

#### 1.4 Policy Statement:

The following key policy statements will guide Council's management of flying-fox roosts and associated management issues and actions which is further articulated in the adopted flying-fox roost management plan:

- Human health and wellbeing will be given primary consideration over the health and wellbeing of flying foxes where significant conflict is found to exist between the two;
- Flying foxes perform an essential ecological role, pollinating and dispersing the seeds of native plants and maintaining forest health;
- Due to the highly mobile and dynamic nature of flying-fox roosts any management actions will be considered and developed on a <u>case by case\_case\_by-case</u> basis;
- Council will follow a hierarchical approach to flying-fox roost management favouring education and minimal intervention;
- A <u>risk basedrisk-based</u> assessment process will be used to determine the requirement for any roost specific management actions;
- Management actions including dispersals and vegetation modification will only be considered after less intrusive actions have been tried and found to be unsuccessful. Dispersals have a low documented success rate in Australia with significant potential to exacerbate the existing situation.

#### **Management Plan**

Council will develop a city-wide flying-fox management plan for existing and new roosts located within and outside the UFFMA. The plan will contain the necessary information required to guide and support well informed, balanced and consistent flying-fox management actions.

Key elements to be developed and implemented through the plan will include:

- Quarterly monitoring of roost locations, species and numbers on Council owned and managed land;
- → Risk based management zones and strategy development for roosts are defined as being:
- 'High risk' if located within 100 metres of sensitive sites such as schools, medical and formal
  equestrian facilities:
- e 'Medium conflict' if located within 50 metres of residential or commercial development and greater than 100 metres from a sensitive site;
- 'Low conflict' if located greater than 50 to 100 metres of residential or commercial development and greater than 100 metres from a sensitive site;

- 'Preferred roost locations' if located on protected areas declared under the Nature Conservation
   Act 1992, for which Council is trustee, or greater than 100 metres from residential or commercial
   development; and
- "New roosts' where a site is occupied for less than three (3) months with no previous roosting history.
- > Process for responding to heat stress and hypothermia in flying-fox roosts;
- Mapping of historical and current roost areas and management zones in association with Council owned and managed land;
- Roost histories incorporating locations, species composition, population numbers, major roost changes, actions, interventions and associated outcomes;
- A community consultation strategy based on Council's hierarchical approach to flying fox roost management;
- A package of support for private land owners with flying fox issues delivering educational and research materials and technical support;
- The legislative framework associated with flying-fox and associated habitat management; and
- —A risk and benefit framework for management actions.

#### 1.5 Roles and responsibilities

In addition to Council a number of agencies and organisations play an important role in the management of flying foxes.

## Flying-fox biology and management

Further information on flying foxes, their biology and management options for roosts located on private property are available from the Department of Environment and Heritage Protection: of Environment, Tourism, Science and Innovation.

#### **Health and Safety**

For <u>up to dateup-to-date</u> information on flying-fox related human health matters residents are advised to contact the Queensland Health hotline.

#### Flying-fox rescue

Residents are advised never to touch or attempt to aid a sick or injured flying-fox. For assistance with sick or injured flying foxes contact Bat Conservation and Rescue Queensland. Residents are advised to visit Council's website for information on disposal of dead flying-foxes.

## 1.6 Definitions:

Urban Flying Fox Management Area (UFFMA) – those land parcels defined within a local government planning scheme as having a residential or commercial purpose with the addition of a one (1) kilometre buffer.

Management actions – non lethal actions intended to stop flying-foxes from making use of a site or part of a site.

\* Mapping is available from the Department of Environment & Heritage website at http://ehp.qld.gov.au/wildlife/livingwith/flyingfoxes/maps/ipswich-city.pdf

4.7 Policy Author: Planning Officer (Biodiversity)

Date of Council Resolution: 22 April 2014

Date of Review: 28 October 2016

Committee Reference and Date: Policy and Administration Board No. 2014(03) of 1 April 2014 – City

Management and Finance Committee No. 2014(04) of 15 April 2014

No. of Resolution: 2

Date to be Reviewed: 28 October 2018



# Flying-fox roosts of the Ipswich Region

**IPSWICH CITY COUNCIL** 

SUPPORTING DOCUMENT TO THE FLYING-FOX ROOST MANAGEMENT PLAN

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#### Bundamba

#### Bundamba, Paice Street - Lorikeet Street Reserve

Lorikeet Street Reserve is a narrow reserve located in Bundamba which contains an unnamed tributary of Bundamba Creek. Council was first informed of this camp in 2011 and EHP commenced monitoring the site in 2012. Of note, initial colonisation of this site occurred around the same time that the Woodend camp was undergoing a sizeable population decrease.

The population at Lorikeet Street remained steady at around 400 flying-foxes, comprised of a mix of grey-headed and blacks, until the middle of 2013. Following the arrival of little red flying-foxes in December 2013 the population reached a high of around 1,500 comprising all three flying-fox species.

During this time hundreds of flying-foxes were also roosting in adjacent private properties along Oak, Paice and Thompson Streets. The proximity to people's homes resulted in elevated levels of community concern and some requests for Council to take action. However, other local property owners indicated they were aware of the flying-fox presence but had no concerns.

Things changed dramatically following an extreme heat event in early 2014. The camp suffered heavy mortalities and very few flying-foxes remained. On 13 January 2014 Lorikeet Street Reserve was noted as being empty. However monitoring conducted in August 2014 recorded a similar number and extent of roosting flying-foxes to August 2013- prior to the heat event.



Photograph 1 Vegetation within Lorikeet Street Reserve

Table 1 Roost assessment

Location and context	Lorikeet Street Reserve, Bundamba
DES camp ID number	196
CSIRO NFFMV ID number	574
Key features	Narrow reserve GHFF and BFF. LRFF have been present seasonally
Tenure	4 RP151909 Council owned land
Roost risk rating	Medium

Roost status	Continuous
History	Council first informed in 2011 of initial colonisation of this site occurred around the same time that the Woodend camp was undergoing a sizeable population decrease.
Population	Typical population of sub 1000. Can increase significantly during summer months in association with LRFF influxes, and in early winter with GHFF.
Canopy vegetation and condition	Vegetation at this roost consisted of a predominately native canopy containing Eucalyptus moluccana, Brachychiton populneus, Corymbia citriodora, E. melliodora, E. crebra, E. tereticornis, E. propinqua, C. tessellaris, Agathis robusta and introduced species Syragrus romanzoffiana. A range of Ficus sp. species occur within the roost footprint and provide potentially important heat street refuge areas.
Mid-storey vegetation and condition	The midstorey comprised of introduced (S. romanzoffiana, Solanum mauritianum, Cinnamomum camphora, Senna pendula, Leucaena leucocephala, Ficus lyrate) and native (Grevillea robusta, Allocasuarina torulosa, Ficus coronate, Ficus sp. Araucaria heterophylla, Bubbia queenslandiana subsp. australis, Callitris sp., A. bidwillii, A. cunninghamii, Macaranga tanarius, A. robusta, Jagera sp., Alphitonia excelsa, Acacia melanoxylon, Melia azedarach, Ficus benjamina, Castanospermum australe, Schefflera actinophylla) species.
Groundcover vegetation and condition	The groundcover consisted of <i>Panicum maximum</i> , Sphagneticola trilobata, Agave sp., Dolichandra unguis-cati, Solanum nigrum, Celosia sp., Anredera cordifolia, Asparagus africanus, Ipomoea sp., Malvaviscus arboreus, Bougainvillea sp., Solanum seaforthianum, Pueraria montana var. lobata and Nephrolepis cordifolia.  Portions of the site contain degraded understory areas (exotic vegetation) however this vegetation likely contributes to a suitable microclimate for flying foxes.
Regulated vegetation and habitat values	Category C vegetation Regional Ecosystems: 12.9-10.2/12.9-10.7/12.9- 10.19
Roost management approach and recommendations	Investigate the installation of water systems to assist with heat event response (tap/tank).     Investigate vegetation management works for removal of introduced week species     Ensure future infrastructure upgrades associated with stormwater management within the reserve are performed in accordance with Code of Practice - Low impact activities affecting flying-fox roosts

<ul> <li>Investigate opportunities for installation of sprinklers to contain roost within ICC reserve area, particularly along the northwestern extent.</li> </ul>
normwestern extent.



Figure 1 Bundamba (Paice Street – Lorikeet Street Reserve roost footprint

#### Camira

#### Camira (Pilny and Mill Reserve)

Pilny Reserve and other areas of Camira are believed to be a long-term historic roosting site for flying-foxes that may have also formed after the demise of the Sapling Pocket camp. However, an accurate history of flying-foxes in Pilny Reserve prior to the year 2000 is difficult to obtain.

The reserve is believed to have been used temporarily throughout recent history. The majority of flying-foxes present in Pilny Reserve prior to 2003 are believed to have moved to a roost along Woogaroo Creek in Goodna, around 3.5kms away. The Woogaroo Creek roosting site was eventually cleared of vegetation and in 2009 many flying-foxes returned to Pilny Reserve and other areas around Camira.

The Pilny reserve has a divide by a sealed road (Cochrane Street) between vegetation. This roost has ongoing conflict between neighbouring residents in relation to the noise and smell of the roost. Unauthorized disturbance of flying-foxes by private residents has been observed at this roost.

Vegetation at this roost consists of a high density of environmental weeds including cocos palm, asparagus weed, along with native vegetation.



Photograph 2 Vegetation located within Pilny Reserve roost

Table 2 Roost assessment

Location and context	Pilney and Mill Reserve
DES camp ID number	20
CSIRO NFFMV ID number	140
Key features	Narrow reserve adjacent to houses.  LRFF in southern extent, BFF in northern extent
Tenure	40 and 31 RP118848 30 RP105399

	6 SP218484
	Council owned land and private land
Roost risk rating	Medium
Roost status	Continuous/seasonal
History	Council first informed in 2011 Initial colonisation of this site occurred around the same time that the Woodend camp was undergoing a sizeable population decrease.
Population	Up to 10,000, particularly during influxes of LRFF
Canopy vegetation and condition	Canopy vegetation present included: <i>Grevillea</i> robusta, <i>Melaleuca quinquenervia</i> , <i>Angophora</i> floribunda, <i>Corymbia intermedia</i> , <i>Eucalyptus</i> tereticornis, <i>Pinus elliottii</i> , <i>Corymbia citriodora</i> subsp. <i>variegate</i> , <i>Araucaria bidwillii</i> , and <i>Eucalyptus</i> propinqua.
Mid-storey vegetation and condition	Midstory vegetation included: Monstera deliciosa, Alocasia sp., Brachychiton populneus, Syagrus romanzoffiana, Corymbia torelliana, Melaleuca sp., Celtis sinensis, Alphitonia excelsa,
Groundcover vegetation and condition	Panicum maximum, and Asparagus africanus. Aquatic plants. Highly modified.
Regulated vegetation and habitat values	Category B and X vegetation Regional Ecosystems: 12.3.6/12.3.11/12.5.3a
Roost management approach and recommendations	<ul> <li>The majority of the roost footprint is contained within Lot 31RP118848 and 6SP218484 which are contained on private land.</li> <li>Investigate the installation of water systems to assist with heat event response.</li> <li>Investigate vegetation management works for removal of introduced weed species on Council controlled land.</li> <li>Investigate further engagement and education of nearby residents to manage human-wildlife conflict.</li> </ul>



Figure 2 Camira (Pilny and Mill Reserve) roost extent

#### Camira (Stephen Cook Memorial Park)

Stephen Cook Memorial Park is known to Council as a historic pop-up camp. In 2023 this roost was confirmed to have been occupied by black flying-foxes with numbers of up to approximately 700 black flying-foxes recorded. These numbers were recorded as quickly reducing to approximately 75 black flying-foxes.

Vegetation within Stephen Cook Memorial Park is situated along a minor waterway with fringing *Melaleuca quinquinervia* and *Eucalyptus tereticornis* (blue gum). The roost is known to spill over onto adjacent private property with numerous exotic trees on these lands providing suitable habitat.



Photograph 3 Vegetation within Stephen Cook memorial park roost footprint

Table 3 Roost assessment

Location and context	Stephen Cook Memorial Park
DES camp ID number	436
CSIRO NFFMV ID number	Not assigned
Key features	Occurs in open park with scattered trees with a mown grass understorey
Tenure	3 RP119845 Council owned land
Roost risk rating	Medium
Roost status	Seasonal/irregular
History	Previously historic roost which has since been recolonised.
Population	Up to 700 have been recorded

Canopy vegetation and condition	situated along a minor waterway with fringing Melaleuca quinquinervia and Eucalyptus tereticornis (blue gum). The roost is known to spill over onto adjacent private property with numerous exotic trees
Mid-storey vegetation and condition	Archontophoenix cunninghamiana. Exotic vegetation on private property
Groundcover vegetation and condition	Parkland – mown grasses Waterway – mixed composition native/non-native
Regulated vegetation and habitat values	Category B and X vegetation Regional Ecosystems: 12.5.3a
Roost management approach and recommendations	<ul> <li>Investigate the opportunity to install a mains fed water tap, to assist with heat event response</li> <li>Investigate requirements for further engagement with nearby residents</li> <li>Continue to monitor roost to confirm status</li> <li>Where roost becomes permanent, consider opportunities for works along drainage easement to modify vegetation structure</li> </ul>



Figure 3 Camira (Stephen Cook Memorial Park) roost extent

# Langley Rd, Camira

The Langley Road, Camira roost is relatively new, and was first recorded in 2020 with approximately 100 black-headed flying-foxes. The Langley Road roost is located on an unmade road reserve between Langley Road and Mikkelsen Road.

Table 4 Roost assessment

Location and context	Ipswich Nature Centre
DES camp ID number	407
CSIRO NFFMV ID number	1152
Key features	Sited along waterway feature
Tenure	Council land and private property
Roost risk rating	Medium
Roost status	Undetermined
History	Roost first recorded in 2020. DES dataset records continue to 2021. No data available since this time
Population	Up to 300 flying-foxes were recorded in 2021
Canopy vegetation and condition	Unconfirmed
Mid-storey vegetation and condition	Unconfirmed
Groundcover vegetation and condition	Unconfirmed
Regulated vegetation and habitat values	Category X and B
Roost management approach and recommendations	Re-establish representative monitoring locations at the site to maximise probability of occurrences of flying-fox roosting being recorded during quarterly regional surveys



Figure 4 Langley Rd, Camira roost extent

#### Chuwar

#### Brodzig Rd, Chuwar

In 2011, Council was informed of several hundred flying-foxes roosting on private property at Brodzig Road, Chuwar. The camp was located on a small island located in the middle of a dam.

The camp size ranged from around 100-200 black flying-foxes until September 2012, after which the roost was empty. EHP records indicate the site remained empty until August 2013. Following an influx of little red flying-foxes in December 2013 the camp reached a population size of approximately 1,000 flying-foxes comprising both little reds and black flying-foxes. The camp remained relatively low-key with sporadic records of public complaints from adjoining property owners.

Following the heat related mortality event in early January 2014, all bar one black flying-fox perished on the site and contractors were hired to clear the property of dead flying-foxes (Appendix C). On the 23" of January 2014 the roost was recorded empty following the exodus of little red flying-foxes, potentially on their natural migration. Data collected by the former Department of Environment and Heritage indicates that flying-foxes recolonised the site in mid-2014.

Table 5 Roost assessment

Location and context	Ipswich Nature Centre
DES camp ID number	207
CSIRO NFFMV ID number	577
Key features	Situated around waterbody
Tenure	Private property
Roost risk rating	Medium
Roost status	Unconfirmed
History	First recorded in DES detests in 2012
Population	Up to 3,900 flying-foxes have been recorded at this site
Canopy vegetation and condition	Unconfirmed
Mid-storey vegetation and condition	Unconfirmed
Groundcover vegetation and condition	Unconfirmed
Regulated vegetation and habitat values	Category X
Roost management approach and recommendations	Re-establish representative monitoring locations at the site to maximise probability of occurrences of flying-fox roosting being recorded during quarterly regional surveys



Figure 5 Brodzig Rd, Chuwar roost extent

#### Goodna

#### Woogaroo Creek, Goodna

The historic, Goonda roost previously was located along the boundary of the Wolston Park Golf Club. The roost was frequently occupied by all three species of flying-foxes during monitoring periods (2007 to 2010). There is limited data regarding this roost, however based on aerial imagery, significant vegetation clearing occurred in late 2013. This vegetation removal resulted in the dispersal of flying-foxes within this roost. Significant erosion and slippage of the banks along the Woogaroo Creek has occurred since 2013.

Table 6 Roost assessment

Location and context	Ipswich Nature Centre
DES camp ID number	54
CSIRO NFFMV ID number	189
Key features	Sited along waterway feature
Tenure	Multiple private property
Roost risk rating	N/A
Roost status	Destroyed
History	First recorded in 2007. Destroyed in 2013
Population	Up to 110,000 flying-foxes were recorded in 2009
Canopy vegetation and condition	Delonix regia, Araucaria cunninghamii, Eucalyptus sp., Syagrus romanzoffiana, Ficus sp., Livistona australis, Spathodea campanulate, Mangifera indica, Araucaria heterophylla, Archontophoenix cunninghamiana, Jacaranda mimosifolia, and Acacia podalyriifolia.
Mid-storey vegetation and condition	Unknown
Groundcover vegetation and condition	Unknwon
Regulated vegetation and habitat values	Unknown
Roost management approach and recommendations	- No management actions identified



Figure 6 Woogaroo Creek, Goodna roost extent

#### **Ipswich**

#### Ipswich Nature Centre, Queens Park, Ipswich

Ipswich Nature Centre is a major tourist attraction for the city of Ipswich displaying a large variety of Ipswich's native wildlife and some domestic animals. In 2012 several hundred flying-foxes began roosting in trees above the Nature Centre's water feature. Due to high levels of public visitation the presence of flying-foxes drew local media coverage and sparked a mixed community reaction.

Like Lorikeet Street Reserve roost, the colonization of flying-foxes in Queens Park is believed to be linked with the decrease in flying-fox numbers at the Woodend Flying-fox Precinct in 2011 and 2012. Woodend is around 2.5 km west of Queens Park.

For the majority of 2013 the Queens Park roost comprised a total of 250 black flying-foxes, however this number began to rise in August and reached over 1,000 flying-foxes by December. This increase comprised a mass arrival of little red flying-foxes in addition to a steady increase in black flying-foxes and arrival of several grey-headed.

In January 2014 Ipswich Nature Centre was hit hard by a heat mortality event that killed the majority of the flying-foxes. To the astonishment of Council staff the Nature Centre was quickly recolonized. Within a week a new population record was set with more than 2,000 black flying-foxes present.

Concerns for the health of visitors, staff and animals at the Nature Centre continued to grow until an influx of around 7,000 little red flying-foxes swelled the roost in March 2014. At this time Council decided to take intervention in the form of roost vegetation removal and active dispersal of flying-foxes.

The proposed management actions were not considered to represent a significant impact under the EPBC Act and all works were undertaken in accordance with the Code of Practice: Ecologically sustainable management of flying-fox roosts. Following limited removal of roost vegetation, dispersal activities were conducted as flying-foxes returned to roost over three consecutive mornings in early April. A combination of flood lighting (road-works type), noise deterrence and people presence were employed.

Over half the colony was dispersed on the first morning with the balance dispersed by the completion of the third morning. While the destination of the flying-foxes was not actively tracked both the Box Street, Yamanto and Woodend colonies (the only other active local roosts) recorded increased numbers around this time.

Between 2014 to 2017, flying-foxes have returned to the Nature Centre however with flying-foxes permanently recolonising this site.

This roost has created some public concerns regarding the noise, smell and safety of the public, especially as it is located in public amenities and is located quite closely to a day-care and school. However, it seems that majority of the public have few issues with the presence of flying-foxes in this area, with some members of the public unaware they were walking directly underneath an occupied roost.



Photograph 4 Vegetation located at Ipswich Nature Centre

Table 7 Roost assessment

Location and context	Ipswich Nature Centre
DES camp ID number	215
CSIRO NFFMV ID number	595
Key features	Occurs in open park with scattered trees with a mown grass understorey
Tenure	3 RP119845 Council owned land
Roost risk rating	High
Roost status	Continuous
History	In 2012 several hundred flying-foxes began roosting in trees above the Nature Centre's water feature
Population	Due to historic data collection in concurrence with Nerima Gardens, Queens Park the maximum population recorded specifically within the Ipswich Nature Centre is not know.
Canopy vegetation and condition	Syagrus romanzoffiana, Araucaria cunninghamii, Ficus benjamina, Eucalyptus tereticornis, Eucalyptus biturbinata, Allocasuarina sp. Midstory species comprise of: Acacia spp., Melaleuca viminalis, Syzygium sp., Melaleuca sp., Jacaranda mimosifolia, Brachychiton acerifolius, Alocasia sp., Cordyline fruticosa 'rubra', Cordyline sp., Philodendron selloum and planted gardens.
Mid-storey vegetation and condition	Planted natives

Groundcover vegetation and condition	Mulch cover, water features and natives
Regulated vegetation and habitat values	Category X
Roost management approach and recommendations	<ul> <li>Investigate opportunities for covered walkways or covered node areas within the nature centre extent</li> <li>Install updated educational and 'no touch' signage</li> <li>Ensure adequate site-specific planning for heat stress events and site shut down procedures</li> </ul>



Figure 7 Ipswich Nature Centre, Queens Park, Ipswich roost extent

#### Nerima Gardens, Queens Park, Ipswich

Nerima Gardens is located within Queens Park, Ipswich. This roost occurs within a large planted garden containing a mix of native and non-native species. Permanent water sources are present throughout the garden in the form of small, artificial streams and large ponds. The Nerima Gardens are partially open to the public, with some sections being closed during high density, or high stress, periods of flying-foxes. By reducing access to the public, stress induced to flying-foxes is minimised (particularly during heat stress events). The Nerima Gardens is located adjacent to the Ipswich Central State School and nearby Milford Street Kindy. The site has historically been grouped under the same roost as the Ipswich Nature Centre, Queens Park, Ipswich.

The Nerima Gardens has been occupied by all three species of flying-foxes, and creates human-wildlife conflict most of the year, particularly during Christmas when gardens are opened to the public for light displays nearby the roost. Previously dispersal attempts have been made, including 2.5 weeks intensive labour, which has had limited success. As the gardens are culturally significant and include rare vegetation, any vegetation works to disperse flying-foxes is not viable.

A wide range of vegetation is present within the gardens in association with its cultural values, key flying-fox roost trees recorded within the gardens include Eucalyptus tereticornis, Araucaria cunninghamii, Corymbia intermedia, Brachychiton rupestris, Bamboo, Jacaranda mimosifolia, Melaleuca sp., Ficus sp., Syzygium australe, Brachychiton acerifolius, Cynodon dactylon, Xanthorrhoea sp.



Photograph 5 Vegetation with the Nerima Gardens Roost

Table 8 Roost assessment

Location and context	Ipswich Nature Centre
DES camp ID number	215
CSIRO NFFMV ID number	595
Key features	Occurs in high priority maintained park with dedicated maintenance staff. Park is of high

	cultural and local significance. A significant water feature is located centrally within this roost.
Tenure	3 RP119845
	Council owned land
Roost risk rating	High
Roost status	Continuous
History	Undertsood to have first roosted in 2012
Population	Due to historic data collection in concurrence with Ipswich Nature Centre, Queens Park the maximum population recorded specifically within the Nerima Gardens section is not known. Populations of up to 20,000 LRFF are likely to have occurred in this section
Canopy vegetation and condition	Syagrus romanzoffiana, Araucaria cunninghamii, Ficus benjamina, Eucalyptus tereticornis, Eucalyptus biturbinata, Allocasuarina sp. Midstory species comprise of: Acacia spp., Melaleuca viminalis, Syzygium sp., Melaleuca sp., Jacaranda mimosifolia, Brachychiton acerifolius, Alocasia sp., Cordyline fruticosa 'rubra', Cordyline sp., Philodendron selloum and planted gardens.
Mid-storey vegetation and condition	Planted mixed composition species
Groundcover vegetation and condition	Mulch cover, water features and natives
Regulated vegetation and habitat values	Category X
Roost management approach and recommendations	Preparation of a roost specific management plan     Investigate opportunities for covered walkways or covered node areas within the Garden     Install updated educational and 'no touch' signage     Ensure adequate site-specific planning for heat stress events and site shut down procedures



Figure 8 Nerima Gardens, Queens Park, Ipswich roost extent

#### Marburg

#### Kennedy St, Marburg

The presence of several hundred flying-foxes roosting on private property at Marburg was brought to Councils attention in January 2014. However, there is anecdotal evidence the camp may have been established for at least a couple of years prior to this.

A number of black flying-foxes were visible from Kennedy Street. However, it is not possible to determine whether other species are present or gain an accurate estimate of population size due to private property access requirements. To date Council is not aware of any community concerns associated with this camp.

As of 2023, The Marburg roost is located on private, rural residential properties within the township of Marburg. From previous complaints made by residents, it is understood that this roost shifts location throughout the town. However, it is noted that roost locations have occurred in areas with patches of dense vegetation and nearby water sources. No detail has been recorded regarding the species of flying-fox (except an incidental sighting of some black flying-foxes from the road) present, size of the population, or how long the congregation was present at previous sites.



Photograph 6 View of scattered vegetation along drainage line, Marburg roost

Table 9 Roost assessment

Location and context	Ipswich Nature Centre
DES camp ID number	None recorded
CSIRO NFFMV ID number	None recorded
Key features	Sited along waterway feature
Tenure	Multiple private property
Roost risk rating	Medium / undetermined
Roost status	Seasonal / undetermined

History	First recorded in 2014
Population	Unknown
Canopy vegetation and condition	Delonix regia, Araucaria cunninghamii, Eucalyptus sp., Syagrus romanzoffiana, Ficus sp., Livistona australis, Spathodea campanulate, Mangifera indica, Araucaria heterophylla, Archontophoenix cunninghamiana, Jacaranda mimosifolia, and Acacia podalyriifolia.
Mid-storey vegetation and condition	Mixed composition
Groundcover vegetation and condition	Predominately slashed lawn/pasture
Regulated vegetation and habitat values	Category X vegetation
Roost management approach and recommendations	- No management actions identified



Figure 9 Kennedy St, Marburg roost extent

#### Pine Mountain

#### Camerons Scrub/Sapling Pocket, Pine Mountain

Sapling Pocket is a large area of dry vine scrub located in the suburb of Pine Mountain on the Brisbane River, around 14kms from the Ipswich CBD. The area was subject to significant vegetation clearing in the 1970s and 80s in association with the establishment and operation of a quarry but has remained relatively undisturbed in recent decades. This roost is believed to have house a camp containing hundreds of thousands of flying-foxes.

In 1984 large scale human disturbance and alleged shooting raids performed by members of the public resulted in the majority of the camp dispersing to other locations around the city. At the time a gravel extraction company had been active at the site for a number of years and land clearing from their operations may also have resulted in significant disturbance. In recent history, Sapling Pocket is considered to be the initial 'mega-roost' of all camps in Ipswich and its demise is likely responsible for subsequent development of many of the smaller camps in Ipswich and, potentially, surrounding local government areas.

It is presumed that some flying-foxes continued using the site after the 1984 events, although this poorly understood. The last recorded survey of the site conducted by the Department of Environment and Heritage Protection (EHP) (now Department of Environment and Science (DES)) in 2010. This survey estimated around 2100 black and 4900 grey-headed flying-foxes. Ipswich City Council has not actively monitored Sapling Pocket in recent times as its isolation has meant there were no community concerns, whether flying-foxes have been permanently located at the site or not.



Photograph 7 View of previously cleared riverine area



Photograph 8 Vine forest on upper slopes of site

Table 10 Roost assessment

Location and context	Ipswich Nature Centre
DES camp ID number	116
CSIRO NFFMV ID number	423
Key features	Sited along major waterway feature
Tenure	Council land and private nature refuge (Edward Corbould Reserve and Retreat Nature Refuge
Roost risk rating	Preferred roost location
Roost status	Undetermined
History	Monitoring ceased in 2010. Undertsood to be present prior to 1970
Population	Up to 110,000 flying-foxes were recorded in 2009
Canopy vegetation and condition	Multiple vegetation communities present including notophyll to microphyll vine forest, and riverine <i>Eucalyptus tereticornis</i> regrowth
Mid-storey vegetation and condition	Varied
Groundcover vegetation and condition	Varied
Regulated vegetation and habitat values	Category X, C and B
Roost management approach and recommendations	Establish representative monitoring locations at the site to maximise probability of occurrences of flying-fox roosting being recorded during quarterly regional surveys

	Review site masterplan to ensure strategic planning is consistent with ongoing occupation by flying-foxes     Consider opportunities for roost habitat embellishment works in previously cleared areas
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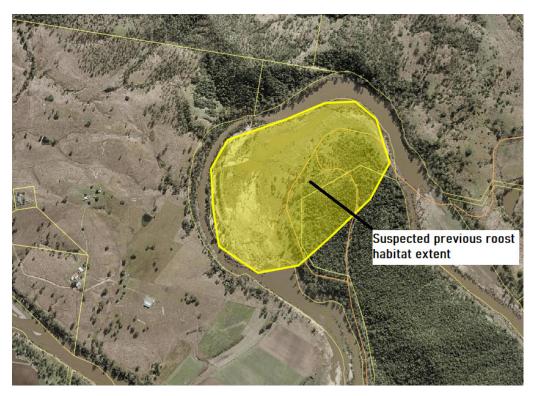


Figure 10 Camerons Scrub/Sapling Pocket, Pine Mountain roost extent

#### Redbank

#### Pan Pacific Peace Garden, Redbank

Pan Pacific Peace Gardens, located in Redbank, was a relatively new roost in 2014, around 12kms east of the Ipswich CBD. The park is largely used as a recreation and picnic destination and was constructed to commemorate soldiers of World War II as well as representing Ipswich's history through other memorial plantings.

It may be inferred from historical records that Pan Pacific was colonised by flying-foxes following the clearance of vegetation at the nearby Woogaroo Creek roost in Goodna circa 2009. The camp grew steadily in size until an influx of little red flying-foxes in late 2013 caused it to swell drastically.

On 23 December 2013, the camp was estimated to have 11,000-12,000 flying-foxes with around 80% of these being little reds. The population reached its maximum recorded size and extent at that time. Despite the large numbers of flying-foxes present in a high visitor area, no history of community complaints was recorded from this park.

Monitoring conducted in January 2014 noted that the camp had decreased substantially in size following a heat related mortality event and was only occupying the most southerly section of the park adjacent to the Ipswich motorway. This declining trend continued until the site was eventually recorded as empty on the 28" of January 2014. However, flying-foxes have regularly been recorded at the Pan Pacific Peace Gardens since August 2020.

This roost consists of sparse canopy trees with maintained lawn and gardens with artificial lakes and other permanent water sources. This roost is low-conflict due to sufficient separation from residential areas (>100 metres). The Pan Pacific Peace Garden is quiet and infrequently visited by the public. Its separation from residential dwellings allows this roost to remain low conflict.



Photograph 9 Vegetation on central island within Pan Pacific Peace Gardens roost footprint

Table 11 Roost assessment

Location and context	Ipswich Nature Centre
DES camp ID number	121
CSIRO NFFMV ID number	428
Key features	Occurs in maintained park well separated from sensitive receptors. Numerous water features traverse the site providing suitable adjacent habitat for flying-foxes.
Tenure	526 SL8206 Council owned land
Roost risk rating	Low/Preferred roost location
	While public use facilities such as toilets are located within 150m of the roost footprint the use of roost area has minor impacts on visiting members of the public.
Roost status	Continuous
History	First recorded in DES records in 2010
Population	Typically sub 1000 BFF and GHFF. LRFF influxes have been recorded up to 50,000.
Canopy vegetation and condition	Araucaria bidwillii, Ficus sp., Araucaria cunninghamii, Eucalyptus melliodora, Melaleuca quinquenervia, Melaleuca sp., Melaleuca viminalis, Celtis sinensis, Acacia sp., Melia azedarach, Castanospermum austral, Flindersia sp., Syagrus romanzoffiana, Archontophoenix cunninghamiana, Syzygium australe, Malvaviscus penduliforus, Allocasuarina torrelosa, Melaleuca linariifolia, Senna pendula var. glabrata, Lophostemon confertus, Eucalyptus tereticornis, Ficus virens, a mostly maintained lawn contained some Panicum maximum, Solanum mauritianum, Sphagneticola trilobata.
Mid-storey vegetation and condition	Planted mixed composition species
Groundcover vegetation and condition	Mulch cover, water features and mixed composition
Regulated vegetation and habitat values	Category X
Roost management approach and recommendations	<ul> <li>Install updated educational and 'no touch' signage</li> <li>Ensure adequate site-specific planning for heat stress events</li> <li>Review of site masterplan to ensure future uses are consistent with ongoing occupation of roost</li> <li>Consider and implement (if deemed viable) roost habitat enhancement and embellishment works</li> </ul>



Figure 11 Pan Pacific Peace Garden, Redbank roost extent

# Redbank Plains

#### Philip Street, Redbank Plains

The Philip Street roost is located on private property in Redbank Plains, where a dense patch of vegetation sits adjacent to a drainage line which acts as a permanent source of water. This roost was first recorded in 2016, and is occupied by both black and grey-headed flying-foxes. Historically, there was a dam present onsite, however this has since been filled in.



Photograph 10 View of Phillip Street roost

Table 12 Roost assessment

Location and context	Ipswich Nature Centre
DES camp ID number	359
CSIRO NFFMV ID number	878
Key features	Large cluster of bamboo Along drainage line
Tenure	129, 130 and 131 RP122479 - Private property 111 RP123981 - Private property
Roost risk rating	Medium
Roost status	Continuous
History	First recorded on DES systems in 2016
Population	Up to approximately 1000 flying-foxes have been recorded at the site
Canopy vegetation and condition	Delonix regia, Eucalyptus tereticornis, Ficus sp., Melaleuca sp., Bamboo, Grevillea robusta, Araucaria bidwillii, Syagrus romanzoffiana, Tipuana tipu, Ficus elastica, Melaleuca viminalis,

	Jacaranda mimosifolia, Celtis sinensis and Schinus terebinthifolius
Mid-storey vegetation and condition	Mixed composition of juvenile canopy species
Groundcover vegetation and condition	Mown lawn and leaf litter cover
Regulated vegetation and habitat values	Category X
Roost management approach and recommendations	No management actions required     Provide ongoing information and support for landholders.



Figure 12 Philip Street, Redbank Plains roost extent

# Rosewood

### Masons Gully, Rosewood

In 2019 both black and grey-headed flying-foxes were recorded (approximately 300 individuals in total). No further information is known and the roost footprint is not well documented.



Photograph 11 View of vegetation within Masons Gully, Rosewood

Table 13 Roost assessment

Location and context	Ipswich Nature Centre
DES camp ID number	394
CSIRO NFFMV ID number	1035
Key features	Along gulley/drainage feature
Tenure	560 CC1556 – Council owned
Roost risk rating	Medium (where occupied)
Roost status	Undetermined (irregular?)
History	Limited knowledge
Population	Up to 300 (recorded in November 2019)
Canopy vegetation and condition	Acacia harpophylla, Araucaria cunninghamii, Alchornea ilicifolia, Asparagus africanus, Solanum seaforthianum, Melia azedarach, Celtis sinensis, Ficus virens, Brachychiton acerifolius, Acacia sp., Alphitonia excelsa, Acacia fasciculifera, Flindersia australis, Tipuana tipu and Callitris baileyi.
Mid-storey vegetation and condition	Juvenile canopy species
Groundcover vegetation and condition	Grass cover - unmaintained
Regulated vegetation and habitat values	Category X vegetation

Roost management approach and	- No actions required
recommendations	



Figure 13 Masons Gulley, Rosewood roost footprint

# Tallegella

### Humphreys Rd, Tallegalla

The Tallegalla Roost is located on a rural property south of Minden. Little is known regarding this roost, other than previous notification to Ipswich City Council staff regarding the existence of this roost. From an account of the roost extent historically provided, the nearest building is located approximately 250 metres away.

Table 14 Roost assessment

Location and context	Ipswich Nature Centre
DES camp ID number	None assigned
CSIRO NFFMV ID number	None assigned
Key features	Situated along water feature
Tenure	Private property
Roost risk rating	Low / preferred roosting location
Roost status	Unconfirmed
History	Limited knowledge
Population	Limited knowledge
Canopy vegetation and condition	Unconfirmed
Mid-storey vegetation and condition	Unconfirmed
Groundcover vegetation and condition	Unconfirmed
Regulated vegetation and habitat values	Category X, B and C
Roost management approach and recommendations	No actions identified     Where reports of flying-fox roosting are received, the site is to be added to the quarterly monitoring cycle



Figure 14 Humphreys Rd, Tallegalla roost extent

### Walloon

### Poplar Street Reserve, Walloon

Poplar Street Reserve is located around 9kms west of Ipswich city along Guilfoyles Gully in the suburb of Walloon. Flying-foxes were first noted roosting in the reserve after a routine Council inspection in 2010. This colonisation date also aligns closely with the 2010 population collapse at the Woodend Precinct.

In late 2013, Council estimated that there were 350-400 flying-foxes roosting in the reserve. This camp is generally dominated by grey-headed flying-foxes with smaller numbers of blacks and periodic influxes of little red flying-foxes. Following a heatwave in January 2014, 51 flying-fox mortalities were recorded - mostly black.

On the 29" of January 2014 the reserve was recorded as empty however by May, after 4 months with no flying-foxes, the site was active again comprising around 1,000 bats (60% grey-headed; 40% black). A similar number and species balance was recorded during the August 2014 monitoring run.

In general the area used by roosting flying-foxes has a sizeable buffer to adjoining residences. However, the proximity of horses to the flying-fox camp has generated concerns for potential transmission of the Hendra virus. A grazing lease over the reserve was terminated in 2010 by agreement between Council and the lessee. In addition, a number of surrounding properties also contain horses. To date there have been no community concerns raised in relation to this camp.

The Walloon roost has been occupied by all three species but is currently overrun with weeds, lacks shade and many canopy trees are stripped, reducing habitat value within the roost. The largest population sizes at this roost have been 500 black-headed, 2000 grey-headed, and 7000 little red flying-foxes.



Photograph 12 View of vegetation with Walloon Roost

Table 15 Roost assessment

Location and context	Ipswich Nature Centre
DES camp ID number	267

CSIRO NFFMV ID number	805
Key features	Sited along waterway feature
Tenure	20 RP125600 and 53 RP125627 – Council owned
Roost risk rating	Medium / preferred roost location While the roost meets the definition to be a medium risk roost good separation between sensitive uses and roost vegetation is present.
Roost status	Seasonal
History	First recorded in 2010
Population	Up to 7,000 LRFF have been recorded at the site
Canopy vegetation and condition	Corymbia tessellaris, Eucalyptus tereticornis, Leucaena leucocephala, Corymbia torelliana, Allocasuarina torrelosa, Schinus terebinthifolius, Lantana camara, Acacia spp., Casuarina sp., Celtis sinensis, Asparagus africanus
Mid-storey vegetation and condition	Juvenile canopy species
Groundcover vegetation and condition	Melinis repens, Chloris gayana, Panicum maximum, Verbena bonariensis, Chrysocephalum apiculatum, Enteropogon ramosus, and Sarga leiocladum.
Regulated vegetation and habitat values	Category C vegetation
Roost management approach and recommendations	Ensure adequate water supply for heat stress response (tap or tank)     Continue ongoing maintenance (slashing) of firebreaks between vegetation and adjacent private properties



Figure 15 Poplar Street Reserve, Walloon roost extent

# Willowbank

# Dolben St, Willowbank

The Willowbank roost is historic, last being recorded as active in 2013. Between 2010 to 2013, this roost was recorded as containing approximately 10-30 black-headed flying-foxes.

Table 16 Roost assessment

Location and context	Ipswich Nature Centre
DES camp ID number	169
CSIRO NFFMV ID number	573
Key features	Situated along urban vegetation buffer at rear of lots
Tenure	Private property
Roost risk rating	Medium
Roost status	Unconfirmed
History	First recorded in DES detests in 2010. Data until 2013 is avaliable
Population	10-30 flying-foxes have been recorded at the site
Canopy vegetation and condition	Unconfirmed
Mid-storey vegetation and condition	Unconfirmed
Groundcover vegetation and condition	Unconfirmed
Regulated vegetation and habitat values	Category X
Roost management approach and recommendations	No actions identified     Where reports of flying-fox roosting are received, the site is to be added to the quarterly monitoring cycle



Figure 16 Dolben St, Willowbank roost extent

### Woodend

### Woodend Nature Centre, Woodend

Following the exodus from Sapling Pocket circa 1984, thousands of black and grey-headed flying-foxes colonised areas of Woodend and Coalfalls around 12km to the South and less than 2km from the Ipswich CBD. By 1988, following an influx of around 200,000 little red flying-foxes, community concern regarding the camp became a pressing issue. After several failed attempts at dispersing the camp in 1989, and a successful injunction taken out by a member of the public, Ipswich City Council sought to manage the area for the purposes of flying-fox conservation.

This was the start of a concerted effort by Council and the State Government to manage flying-foxes at the site. A property was purchased and gazetted as the Ipswich Pteropus Conservation Park with Council as trustee on behalf of the State. A residence on site was modified to provide visitor interpretive facilities on the outside with meeting rooms inside. A range of community consultation initiatives and on ground rehabilitation activities followed.

In 2005 a Memorandum of Understanding was signed between Council, the State Government and community conservation group Noah's Ark. This aimed to achieve co-ordinated management of flying-foxes within the Woodend Flying-Fox Precinct comprising a range of public and private properties located between Macrae Street and the Bremer River. Further works to improve habitat condition and engage with the community were undertaken on both the conservation park and Noah's Ark properties.

The number, species composition and distribution of flying-foxes have varied dramatically since the 1980's when the camp first established. As of the year 2000, an estimated 500,000 flying-foxes were using all parts of the precinct. Since the early 2000's numbers have steadily decreased, being particularly low between 2003 and 2009. This decrease was attributed to the stripping of vegetation - caused by enormous numbers of flying-foxes present coupled with the little reds tendency to cluster together in tight groups.

However numbers spiked again during the period of 2009 and 2011 but noticeably never reached the 500,000 seen in the year 2000. Following substantial declines at Woodend in 2008, 2010 and 2011, several other smaller camps began appearing throughout the city.

The precinct was also heavily impacted by the flying-fox heat mortality event in January 2014. Over 2000 individuals were killed, the majority being black flying-foxes. The total extent of roost has occupied, at various times since circa 1984.

The presence of flying-foxes within close proximity to places of residence has resulted in ongoing conflict with some residents. The southern parts of the precinct, including parts of Macrae and Harlin Road Reserves, are subject to regular requests for Council action. Most recently, Council works undertaken in Harlin Road Reserve have created a tree free buffer between roosting flying-foxes and an adjacent residence.

Despite this history it should be noted that the majority of residents in this area have lived peacefully with the flying-fox presence for several decades. The area has attracted community conservation interest through Noah's Ark and some residents foster orphaned flying-foxes through the Orphan Native Animal Rear and Release Association. The site has also featured in Sir David Attenborough's 'Life on Earth' series of documentaries.



Photograph 13 View of vegetation within Woodend Roost, looking across Bremer River

Table 17 Roost assessment

Location and context	Ipswich Nature Centre
DES camp ID number	172
CSIRO NFFMV ID number	191
Key features	Woodend nature centre Adjacent to major waterway Large <i>Eucalyptus tereticornis</i> provide excellent roost habitat
Tenure	2 CP885800 - Council owned land
Roost risk rating	Medium/preferred roost site  The site has been subject to previous conservation planning actions at the site which identified the site fr conservation purposes.
Roost status	Permanent (historically) / infrequent (current)
History	See summary paragraphs
Population	Up to 500,000 histroically
Canopy vegetation and condition	Species present include: Eucalyptus tereticornis, Tipuana tipu, Grevillea robusta, Acacia harpophylla, Delonix regia, Melaleuca sp., Alphitonia excelsa, Ficus sp., Ricinus communis, Lophostemon confertus, Araucaria cunninghamii, Hymenosporum flavum, Melaleuca viminalis, Solanum mauritianum, Leucaena leucocephala, Syagrus romanzoffiana and Casuarina cunninghamiana.
Mid-storey vegetation and condition	Juvenile canopy species

Groundcover vegetation and condition	Exotic - Panicum maximum dominant
Regulated vegetation and habitat values	Majority category x vegetation Some areas of category c to the east and south
Roost management approach and recommendations	<ul> <li>Maintenance of site as a preferred roost location</li> <li>The completion of roost understory rehabilitation works (weed management)</li> <li>The completion of roost tree replacement planting works</li> </ul>



Figure 17 Woodend Nature Centre, Woodend roost extent

# Yamanto Box St, Yamanto

periodically vacating the Woodend Precinct.

Yamanto is home to a camp of flying-foxes located predominantly on private property just south of the Ipswich CBD. Some confusion surrounds the history of this small camp as it was only brought to Councils attention in 2011, whereas DEHP (former) had been monitoring the site since at least 2008. Although it is again presumed that this camp may have formed in the aftermath of flying-foxes

Former Department of Environment and Heritage Protection estimates that at its height this camp contained 2,000 flying-foxes with 75% of these being grey-headed. Justin Welbergen (James Cook University) visited the camp in January 2014 following a heat wave and estimated a population of some 5000 flying-foxes. He noted that around 550 flying-foxes were killed at the site, 98% of which were black flying-foxes.

The Yamanto roost is located along Deebing Creek, which is located between residential dwellings, with limited complaints or concerns. Vegetation at the site has become overgrown with introduced weed species, potentially a result of previous earthworks or lack of maintenance. Yamanto is typically occupied primarily by black-headed flying-foxes with some grey-headed flying-foxes. Detailed inspections by Council officers have not been undertaken as the roost is largely on private property.

Canopy vegetation includes: Casuarina cunninghamiana, Eucalyptus tereticornis, Eucalyptus moluccana, and Corymbia tessellaris. Regrowth canopy consists of: Schinus terebinthifolius, Solanum mauritianum, Ricinus communis, Celtis sinensis, Leucaena leucocephala, Syagrus romanzoffiana, Morus nigra, Anredera cordifolia with a ground cover of Panicum maximum, Sphagneticola trilobata, Ageratum houstonianum, and Clerodendrum sp.



Photograph 14 vegetation composition of Yamanto roost

Table 18 Roost assessment

Location and context	Ipswich Nature Centre	
DES camp ID number	177	
CSIRO NFFMV ID number	479	
Key features	Situated east of Deebing creek	
Tenure	Private property	
Roost risk rating	Medium	
Roost status	Unconfirmed	
History	First recorded in DES detests in 2008. Data until 2020 is avaliable	
Population	Up to 3,000 flying-foxes have been recorded at this site	
Canopy vegetation and condition	Canopy dominated by Casuarina cunninghamiana and Eucalyptus tereticornis vegetation	
Mid-storey vegetation and condition	Dominated by Schinus terebinthifolius	
Groundcover vegetation and condition	Suppressed	
Regulated vegetation and habitat values	Category C	
Roost management approach and recommendations	Continue ongoing maintenance (slashing) of Council lands between roost location and residential dwellings to the west	



Figure 18 15 Box St, Yamanto roost extent

### **Shape Your Ipswich**

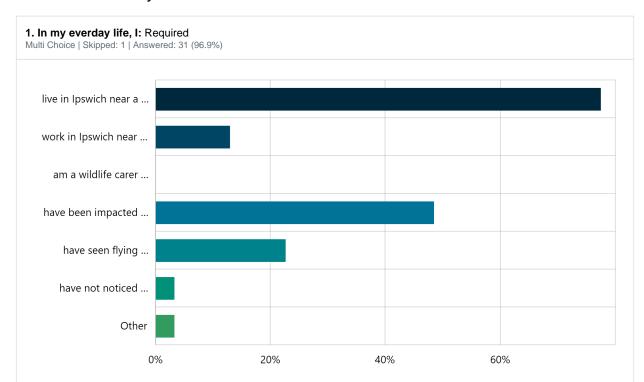
Report Type: Form Results Summary Date Range: 11-04-2023 - 21-05-2023 Exported: 23-05-2023 08:01:03

Open

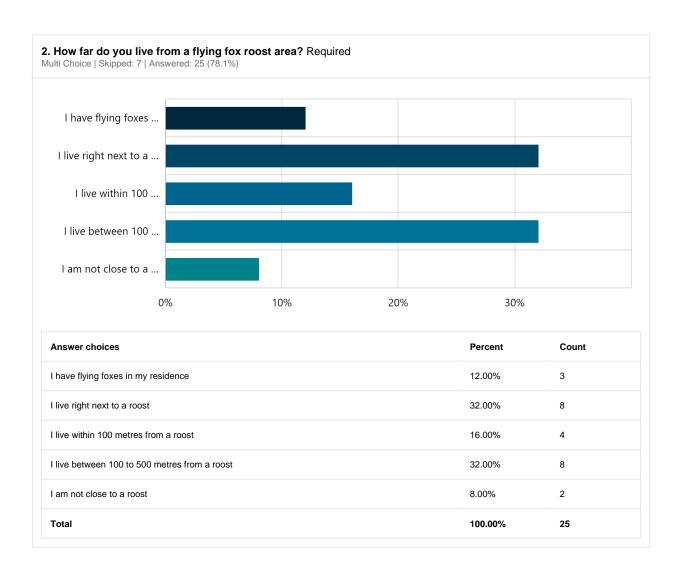
Share your thoughts
Flying Foxes in the City of Ipswich

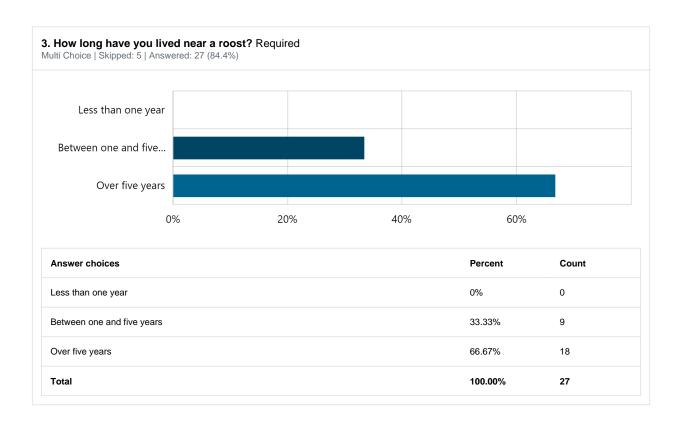
32 Contributors 32 Contributions

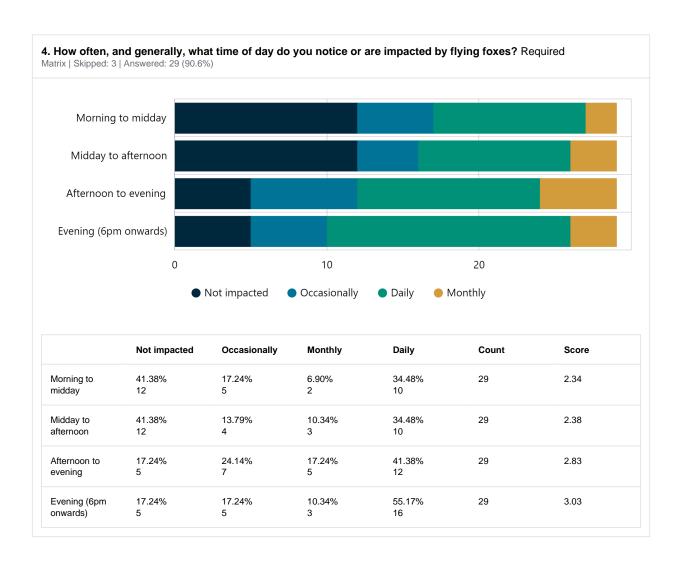
### **Contribution Summary**

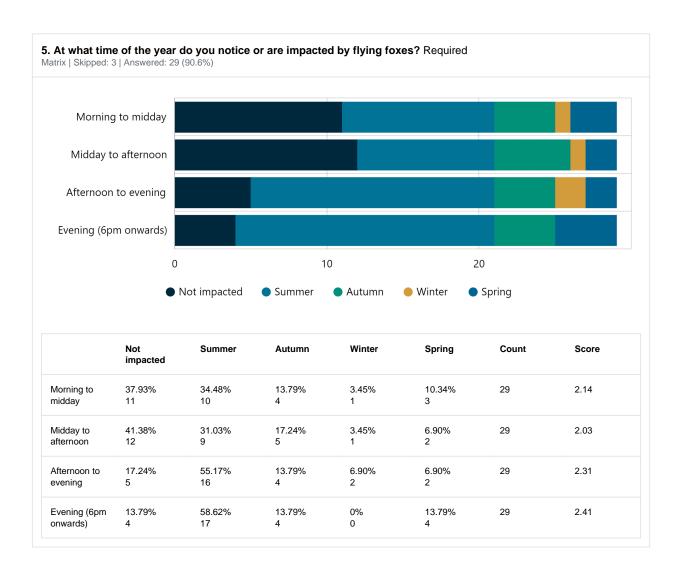


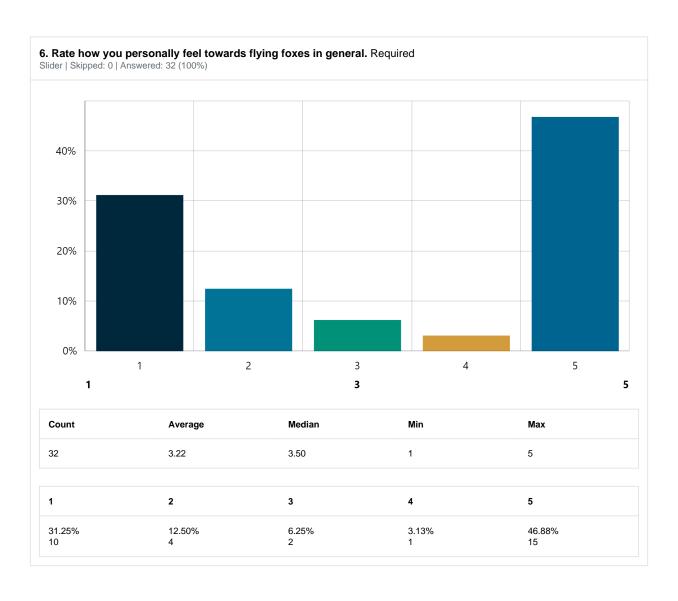
Answer choices	Percent	Count
live in Ipswich near a flying fox roost	77.42%	24
work in Ipswich near a flying fox roost	12.90%	4
am a wildlife carer and have looked after flying foxes	0%	0
have been impacted by flying foxes in Ipswich	48.39%	15
have seen flying foxes but am not impacted by them	22.58%	7
have not noticed flying foxes	3.23%	1
Other	3.23%	1





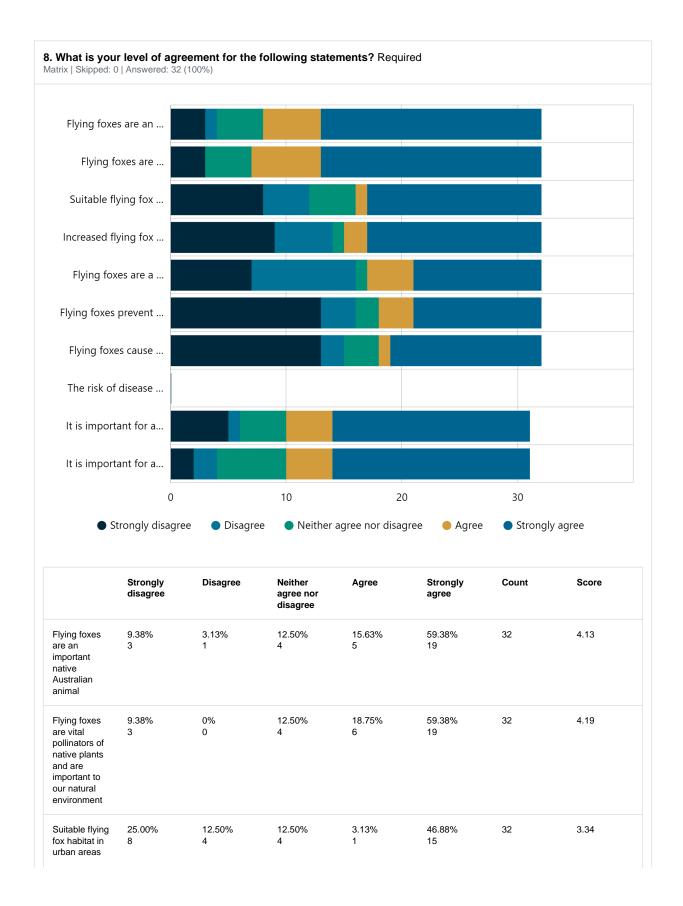






7. Please share why you gave that rating. Short Text   Skipped: 2   Answered: 30 (93.8%)
Sentiment
No sentiment data
Tags
No tag data
Featured Contributions
No featured contributions



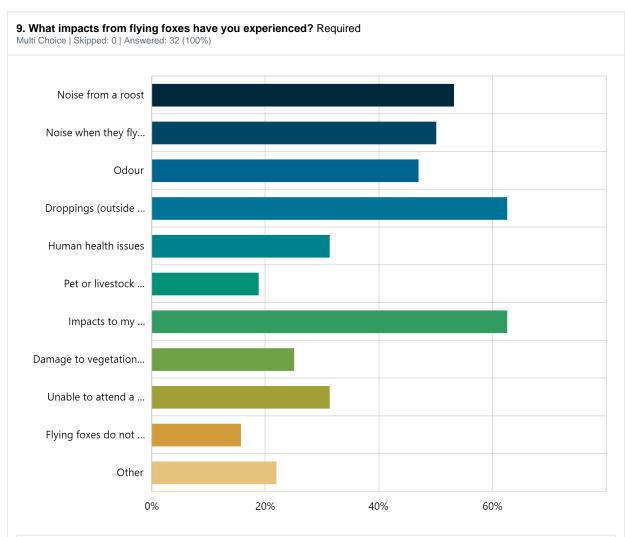




Shape Your Ipswich - Form Results Summary (11 Apr 2023 to 21 May 2023)

should be preserved and improved for greater environmenta I benefit							
Increased flying fox noise, odour and activity is a normal part of peak flying fox season and a temporary impact	28.13% 9	15.63% 5	3.13% 1	6.25% 2	46.88% 15	32	3.28
Flying foxes are a public health concern	21.88% 7	28.13% 9	3.13% 1	12.50% 4	34.38% 11	32	3.09
Flying foxes prevent me from participating in my regular activities and negatively impact my lifestyle	40.63% 13	9.38% 3	6.25% 2	9.38% 3	34.38% 11	32	2.88
Flying foxes cause damage and financial impact to my property and/or lifestyle	40.63% 13	6.25% 2	9.38% 3	3.13% 1	40.63% 13	32	2.97
The risk of disease from flying foxes is low	0% 0	0% 0	0% 0	0% 0	0% 0	0	0
It is important for a flying fox roost management plan to include actions to reduce impacts on nearby residents	16.13% 5	3.23% 1	12.90% 4	12.90% 4	54.84% 17	31	3.87
It is important for a flying fox roost management plan to protect flying foxes	6.45% 2	6.45% 2	19.35% 6	12.90% 4	54.84% 17	31	4.03





Answer choices	Percent	Count
Noise from a roost	53.13%	17
Noise when they fly overhead	50.00%	16
Odour	46.88%	15
Droppings (outside of my property ie. parks, walkways)	62.50%	20
Human health issues	31.25%	10
Pet or livestock health issues	18.75%	6
Impacts to my property (eg droppings on car or washing, eating fruit from trees, damage to vegetation)	62.50%	20
Damage to vegetation (outside of my property)	25.00%	8
Unable to attend a venue or event in Ipswich	31.25%	10

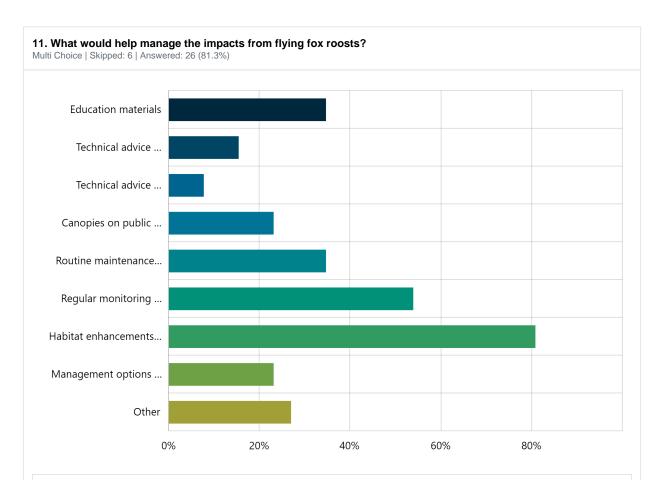


Flying foxes do not impact me	15.63%	5
Other	21.88%	7



10. What specific impacts to your property have you experienced?  Short Text   Skipped: 14   Answered: 18 (56.3%)
Sentiment
No sentiment data
Tags
No tag data
Featured Contributions
No featured contributions



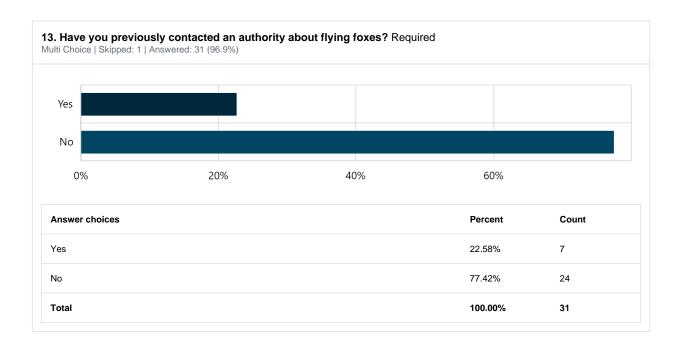


Answer choices	Percent	Count
Education materials	34.62%	9
Technical advice from a government expert	15.38%	4
Technical advice from a non-government expert	7.69%	2
Canopies on public pathways under roosts	23.08%	6
Routine maintenance of roost vegetation (eg mowing, trimming)	34.62%	9
Regular monitoring of roosts to identify status, movements and issues	53.85%	14
Habitat enhancements in suitable roost locations away from urban areas	80.77%	21
Management options for my property (eg car covers, washing line covers)	23.08%	6
Other	26.92%	7



12. What management options would help you at your property (ie. car covers, pressure cleaner)? Short Text   Skipped: 32   Answered: 0 (0%)
Sentiment
No sentiment data
Tags
No tag data
Featured Contributions
No featured contributions





14. Please specify which authority you have contacted (eg Council/Councillor, Queensland Government/State Member, Australian Government/Federal Member, wildlife carer, other)  Short Text   Skipped: 25   Answered: 7 (21.9%)
Sentiment
No sentiment data
Tags
No tag data
Featured Contributions
No featured contributions

15. Please share any other ideas to reduce the impacts of flying foxes on nearby residents or general lifestyle activities.  Long Text   Skipped: 7   Answered: 25 (78.1%)
Sentiment
No sentiment data
Tags
No tag data
Featured Contributions
No featured contributions