IPSWICH
CITY
COUNCIL

AGENDA

of the

ENVIRONMENT AND SUSTAINABILITY COMMITTEE

Held in the Council Chambers
8th floor – 1 Nicholas Street
IPSWICH QLD 4305

On Thursday, 11 August 2022
At 10 minutes after the conclusion of the Economic and Industry Development Committee

MEMBERS OF THE ENVIRONMENT AND SUSTAINABILITY COMMITTEE	
Councillor Russell Milligan**(Chairperson)** Councillor Andrew Fechner**(Deputy Chairperson)**	Mayor Teresa Harding Deputy Mayor Jacob Madsen Councillor Kate Kunzelmann

ENVIRONMENT AND SUSTAINABILITY COMMITTEE AGENDA

10 minutes after the conclusion of the Economic and Industry Development Committee on **Thursday,** 11 August 2022
Council Chambers

** Item includes confidential papers

ENVIRONMENT AND SUSTAINABILITY COMMITTEE NO. 7

11 AUGUST 2022

AGENDA

WELCOME TO COUNTRY OR ACKNOWLEDGEMENT OF COUNTRY

DECLARATIONS OF INTEREST IN MATTERS ON THE AGENDA

BUSINESS OUTSTANDING

CONFIRMATION OF MINUTES

1. CONFIRMATION OF MINUTES OF THE ENVIRONMENT AND SUSTAINABILITY COMMITTEE NO. 2022(06) OF 14 JULY 2022

RECOMMENDATION

That the Minutes of the Meeting held on 14 July 2022 be confirmed.

OFFICERS' REPORTS

2. URBAN GREENING PLAN

This is a report concerning the final submission of the City of Ipswich Urban Greening Plan 2021-2026 (Attachment 1) to Council for adoption. The intention of this Urban Greening Plan is to set an informed and evidence-based direction in achieving increased vegetation cover in priority areas within the urban footprint of Ipswich to best achieve the multiple benefits associated with increasing urban green space and canopy.

RECOMMENDATION

That the Urban Greening Plan as presented in Attachment 1 be adopted as a key deliverable for iFuture 2021-2026 under the Theme: Natural and Sustainable.

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3. RESULTS OF 2021-2022 PLATYPUS MONITORING PROGRAM

This is a report concerning the results of Ipswich City Council's 2021-2022 platypus monitoring program. This sampling represents the sixth platypus monitoring event Council has undertaken across the city's waterways in the last seven (7) years. The on-going program aims to inform our understanding of the distribution of platypus

in the city's waterways, and to detect any changes or impacts to their populations. This year's results indicated a severe decline in local platypus populations, which is concerning and emphasises some key threats to the health of our waterways, and the importance of Council's on-going monitoring and waterway improvement programs.

RECOMMENDATION

A. That Council investigate and support programs for reducing sediment-laden runoff entering our natural waterways and adversely impacting platypus habitat.

B. That Council continue to deliver the on-going annual platypus monitoring program, as well as waterway health projects to improve water quality and habitat condition to protect the city's remaining few platypus populations.

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4. RESOLUTION TO CLOSE PUBLIC LAND - 2022-2023 FIRE SEASON FUEL REDUCTION PROGRAM

This is a report concerning the management of public access and closure of White Rock - Spring Mountain Conservation Estate, Flinders – Goolman Conservation Estate, Mount Grandchester Conservation Estate and Hillview Drive Reserve for reasons of public safety during controlled burning fuel reduction activities and the enactment of powers under Section 10 (1) of Local Law 7.

RECOMMENDATION

That Council resolve to exercise the power under section 10(1) of Local Law 7 to close public access to areas of Council's Natural Area Estates to enable a planned schedule of hazard reduction burns occurring between 26 August 2022 and 30 June 2023 within three (3) Council conservation estates, being White Rock - Spring Mountain Conservation Estate, Flinders – Goolman Conservation Estate, and Mount Grandchester Conservation Estate plus one (1) reserve being Hillview Drive Reserve.

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5. PROPOSAL FOR RENEWING RESILIENT RIVERS BREMER RIVER CATCHMENT OFFICER HOSTED AS A PARTNERSHIP BETWEEN SCENIC RIM AND IPSWICH CITY COUNCIL

This is a report concerning the renewal of the existing partnership with Scenic Rim Regional Council and the South East Queensland Council of Mayors (CoMSEQ) through the Resilient Rivers Initiative (RRI), to financially support the continuation of the *Bremer River Catchment Management Officer* role.

RECOMMENDATION

A. That Ipswich City Council provide financial support of $30,000 for the continuation of the Bremer River Catchment Management Officer role in partnership with Scenic Rim Regional Council.

B. That Council renew the partnership agreement with Scenic Rim Regional Council and South East Queensland Council of Mayors (CoMSEQ), outlining the terms and desired outcomes of the funding arrangement.

NOTICES OF MOTION

MATTERS ARISING

ENVIRONMENT AND SUSTAINABILITY COMMITTEE NO. 2022(06)

14 JULY 2022

MINUTES

COUNCILLORS' ATTENDANCE: Councillor Russell Milligan (Chairperson); Councillors Andrew Fechner (Deputy Chairperson), Mayor Teresa Harding, Kate Kunzelmann and Marnie Doyle (Observer)

COUNCILLOR'S APOLOGIES: Deputy Mayor Jacob Madsen

OFFICERS' ATTENDANCE: Chief Executive Officer (Sonia Cooper), General Manager Community, Cultural and Economic Development (Ben Pole), Manager Environment and Sustainability (Kaye Cavanagh), Executive Services Manager (Wade Wilson), Sustainability Coordinator (Samantha Smith), Acting Natural Environment and Land Manager (John Young), Chief of Staff – Office of the Mayor (Melissa Fitzgerald), Senior Policy and Communications Officer (David Shaw), Senior Digital Media and Content Officer (Jodie Richter), Manager Economic and Community Development (Cat Matson) and Theatre Technician (Trent Gray)

LEAVE OF ABSENCE – DEPUTY MAYOR JACOB MADSEN

Deputy Mayor Jacob Madsen requested a leave of absence from the meeting.

RECOMMENDATION

Moved by Councillor Russell Milligan:
Seconded by Councillor Kate Kunzelmann:

That a Leave of Absence be granted for Deputy Mayor Jacob Madsen.

AFFIRMATIVE Councillors:	NEGATIVE Councillors:
Milligan	Nil
Fechner	
Harding	
Kunzelmann	

The motion was put and carried.

WELCOME TO COUNTRY/ACKNOWLEDGEMENT OF COUNTRY

Councillor Russell Milligan (Chairperson) delivered the Acknowledgement of Country.

DECLARATIONS OF INTEREST IN MATTERS ON THE AGENDA

Nil

BUSINESS OUTSTANDING

Nil

CONFIRMATION OF MINUTES

1. CONFIRMATION OF MINUTES OF THE ENVIRONMENT AND SUSTAINABILITY COMMITTEE NO. 2022(05) OF 16 JUNE 2022

RECOMMENDATION

Moved by Councillor Andrew Fechner:
Seconded by Councillor Kate Kunzelmann:

That the minutes of the Environment and Sustainability Committee held on 16 June 2022 be confirmed.

AFFIRMATIVE Councillors:	NEGATIVE Councillors:
Milligan	Nil
Fechner	
Harding	
Kunzelmann	

The motion was put and carried.

OFFICERS' REPORTS

2. UPDATE OF THE NATURAL AREA ESTATE FIRE MANAGEMENT POLICY

This is a report concerning the repealing of the current policy and adoption of the updated Natural Area Estate Fire Management Policy that has been reviewed, updated and placed onto the new corporate template as part of the regular policy and procedure review process, and as per recommendation 1 from Audit A2021-02-Bushfire Risk Management.

The objective of this policy remains the same as the original version, to provide a framework for the desired aims and outcomes of fire management in response to

the regulatory requirements, community and biodiversity needs of Council's Natural Area Estate

RECOMMENDATION

Moved by Councillor Andrew Fechner:
Seconded by Councillor Kate Kunzelmann:

A. That the policy titled 'Natural Area Estate Fire Management Policy', as detailed in Attachment 1, as per resolution No. 3 of the Policy and Administration Board No. 2015(07) of 14 July 2015 – City Management and Finance Committee No. 2015(07) of 21 July 2015, be repealed.

B. That the policy titled 'Natural Area Estate Fire Management Policy', as detailed in Attachment 3, be adopted.

AFFIRMATIVE	NEGATIVE
Councillors:	Councillors:
Milligan	Nil
Fechner	
Harding	
Kunzelmann	

The motion was put and carried.

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3. COUNCIL ROOFTOP SOLAR AND BATTERY STORAGE PLANNING

This report concerns Council's planned investment in rooftop solar and battery storage. It includes projects with future potential for implementation but requires further investigation into the feasibility and financial sustainability of the projects.

RECOMMENDATION

Moved by Councillor Andrew Fechner:
Seconded by Councillor Kate Kunzelmann:

That the report be received and the contents noted.

AFFIRMATIVE	NEGATIVE
Councillors:	Councillors:
Milligan	Nil
Fechner	
Harding	
Kunzelmann	

The motion was put and carried.

NOTICES OF MOTION

Nil

MATTERS ARISING

Nil

COMMENCEMENT OF THE IPSWICH CENTRAL REDEVELOPMENT COMMITTEE

Mayor Teresa Harding moved that the Ipswich Central Redevelopment Committee meeting commence at 12.45 pm.

AFFIRMATIVE	NEGATIVE
Councillors:	Councillors:
Milligan	Nil
Fechner	
Harding	
Kunzelmann	

The motion was put and carried.

PROCEDURAL MOTIONS AND FORMAL MATTERS

The meeting commenced at 11.55 am.

The meeting closed at 12.03 pm.

Doc ID No: A8137028

ITEM: 2

SUBJECT: URBAN GREENING PLAN

AUTHOR: PROJECT OFFICER (NATURAL ENVIRONMENT)

DATE: 23 JUNE 2022

EXECUTIVE SUMMARY

This is a report concerning the final submission of the City of Ipswich Urban Greening Plan 2021-2026 (Attachment 1) to Council for adoption. The intention of this Urban Greening Plan is to set an informed and evidence-based direction in achieving increased vegetation cover in priority areas within the urban footprint of Ipswich to best achieve the multiple benefits associated with increasing urban green space and canopy.

RECOMMENDATION

That the Urban Greening Plan as presented in Attachment 1 be adopted as a key deliverable for iFuture 2021-2026 under the Theme: Natural and Sustainable.

RELATED PARTIES

There was no declaration of conflicts of interest.

IFUTURE THEME

Natural and Sustainable

PURPOSE OF REPORT/BACKGROUND

The purpose of this report is to provide Council with the final draft of the Urban Greening Plan, an iFuture 2021-2026 Catalyst Project.

The objective of this Plan is to provide a road map to improve urban conservation and biodiversity while increasing greening benefits. Urban greening benefits include mitigation of the impacts and effects of climate change, reduction of urban heat island effect, provision of shade and cooling, carbon sequestration, absorption of air pollutants, filtration and attenuation of stormwater, provision of mental and physical health benefits, and provision of habitat for urban flora and fauna, increased aesthetic amenity and character values.

The Plan aims to strategically increase the quality and quantity of beneficial vegetation on a variety of land types within the urban footprint. The key drivers for the Plan include iFuture 2021-2026, specifically Theme 3 Natural and Sustainable, as well as various Ipswich City Council policies and strategies pertaining to vegetation and the environment. Targets and key

actions have been developed through key stakeholder workshops and will be implemented through council programs.

iFuture 2021-2026, Theme 3 Natural and Sustainable, outlines the development and implementation of an Urban Greening Plan to protect vegetation and wildlife living alongside our urban environment.

In addition to protection of vegetation and wildlife, there is an opportunity to strategically mitigate climate change impacts and the urban heat island effect and achieve a diverse range of benefits that encompass biophysical, economic, and social attributes.

An evidence-based approach to urban corridor identification and prioritisation will deliver multi-benefit outcomes for the environment and our community. This approach will analyse data, such as canopy mapping, heat mapping, biodiversity mapping, land use and land type, and Australian Bureau of Statistics data on socially vulnerable groups, etc. to identify priority areas.

Further to the development of the full plan, a 'community friendly' version of the Plan will be drafted. This document will provide important information from the Plan, as well a useful guide to greening in a succinct and simple format.

CONFLICT OF INTEREST

Nil known

PROPOSAL

Ipswich City Council adopts a strategic plan to guide the prioritised and considered greening program of the urban areas. In doing so Council acknowledges the key role that urban greening plays in the region's overall liveability and wellbeing. The Urban Greening plan will set an informed direction in achieving increased vegetation cover within the urban footprint of Ipswich.

Initial studies to inform the plan have identified an immediate need to plan and consider the strategic increase in greening within the urban footprint. As such current on ground delivery of greening is being undertaken through the Urban Greening Program (previously Beautiful Ipswich Program) guided by the initial findings of the Plan. In parallel, a review of state and local government policies and strategies have been undertaken to inform the direction of the Plan.

Adoption of the Urban Greening Plan will drive the following:

- Develop Implementation Plans and Measure and Reporting Mechanism
- Implementation plans will be coordinated with capital and operational expenditure programs for immediate greening opportunities
- Targets and actions will be implemented over short, medium, and long-term project planning
- Measure success of greening projects through existing reporting mechanisms. This includes trees taken through Mother's Day planting, Free Tree Program, Council Nursery, Urban Greening Program

- Measure and monitor greening projects and report outcomes through annual reporting. This will track urban greening progress and provide additional information for informed decision making into the future
- Launch the Urban Greening Plan
  - Community launch day in key street with relevant Councillors
  - Planting of street trees with neighbourhood involvement
  - Provision of information for education, awareness, and stewardship of planted street trees.

LEGAL/POLICY BASIS

This report and its recommendations are consistent with the following legislative provisions:
Planning Act 2016
Local Government Act 2009

RISK MANAGEMENT IMPLICATIONS

Environmental, economic and reputational risk – adoption of the Urban Greening Plan will contribute to reducing the urban heat island effect; reduce temperatures in urban areas resulting in less health risks to the community and environment and decreased costs of living.

Reputational risk – as the Urban Greening Plan is a catalyst project, there is reputational risk in not achieving the outcomes of iFuture, if the Plan is not endorsed and implemented.

HUMAN RIGHTS IMPLICATIONS

HUMAN RIGHTS IMPACTS	
OTHER DECISION	
(a) What is the Act/Decision being made?	**That Council adopts the Urban Greening Plan.**
(b) What human rights are affected?	No human rights are affected by these recommendations.
(c) How are the human rights limited?	Not applicable
(d) Is there a good reason for limiting the relevant rights? Is the limitation fair and reasonable?	Not applicable
(e) Conclusion	The decision is consistent with human rights.

FINANCIAL/RESOURCE IMPLICATIONS

The adoption of the Urban Greening Plan will require ongoing capital and operational budgets and resourcing allocations to deliver the plan. However, there are present investment streams for the delivery of street trees and street scape improvements. As part

of ongoing programs that can be used to deliver the initial on ground component of the plantings associated with the Plan.

It is also envisaged that the plan can guide more efficient and effective investment through existing capital and operation programs where opportunities for planting exist within those projects.

There is approximately $80,000 budgeted in 2022-2023 program for further data collection around urban heat mapping including thermal imaging drone data collection to augment and develop the prioritisation further.

Implementing the plan now will increase the city's resilience, liveability and affordability into the future. Failure to implement the Plan will result in greater expenditure in the future to mitigate the effects of climate change, urban heat island effect and reduced ecosystem services.

External funding opportunities will be sought as they become available.

COMMUNITY AND OTHER CONSULTATION

Key Internal Stakeholder consultation has been undertaken during the development of the Plan. Workshops have been held with the following teams and they were invited to provide feedback on the draft documents. Key Internal Stakeholders include:

- Transport Planning (Transport and Traffic)
- Planning and Regulatory Services (Strategic)
- Open Space Planning (Open Space and Facility)
- Public Open Space (Open Space and Facility)
- Field Services (Works and Field Services)
- Arboriculture (Works and Field Services)
- Nursery and Streetscape (Works and Field Services)
- Sustainability (Emergency Management and Sustainability)
- Environment and Sustainability, Education and Awareness (Natural Environment and Land Management)
- Waterway Health and Environmental Management (Natural Environment and Land Management) and
- Community, Cultural and Economic Development (Economic and Community Development)

The results of recent community consultation from on-line surveys for various Council strategies and plans have been noted and included in the development of the plan to date. The strategies and plans associated with the on-line surveys include:

- Natural Environment Policy community engagement report
- Sustainability Policy community engagement information
- Sustainability Strategy Urban Heat on-line survey
- Recreation Cycling and Walking Action Plan community engagement report

- Comments from Share Your Green Ideas, Ti Tree Bioenergy Payment Program on Ipswich City Council Facebook page

- Ipswich Central Revitalisation Plan

Several responses in each report relate to the community's interest in increased greening, improved waterway health and acknowledge climate change which aligns with the purpose and goals of the Urban Greening Plan.

As the plan continues to develop further and specific community engagement will be undertaken in the next steps of the Urban Greening Plan.

CONCLUSION

This is a catalyst project from iFuture Corporate Plan 2021-2026, Theme 3, Natural and Sustainable. This plan outlines the development and implementation of the Urban Greening Plan to protect vegetation and wildlife living alongside our urban environment as well as providing greening benefits for the Ipswich community.

ATTACHMENTS AND CONFIDENTIAL BACKGROUND PAPERS

1.	City of Ipswich Urban Greening Plan - 2022-2042 ⇩

Carmel O'Neill
PROJECT OFFICER (NATURAL ENVIRONMENT)

I concur with the recommendations contained in this report.

Phil A. Smith
NATURAL ENVIRONMENT AND LAND MANAGER

I concur with the recommendations contained in this report.

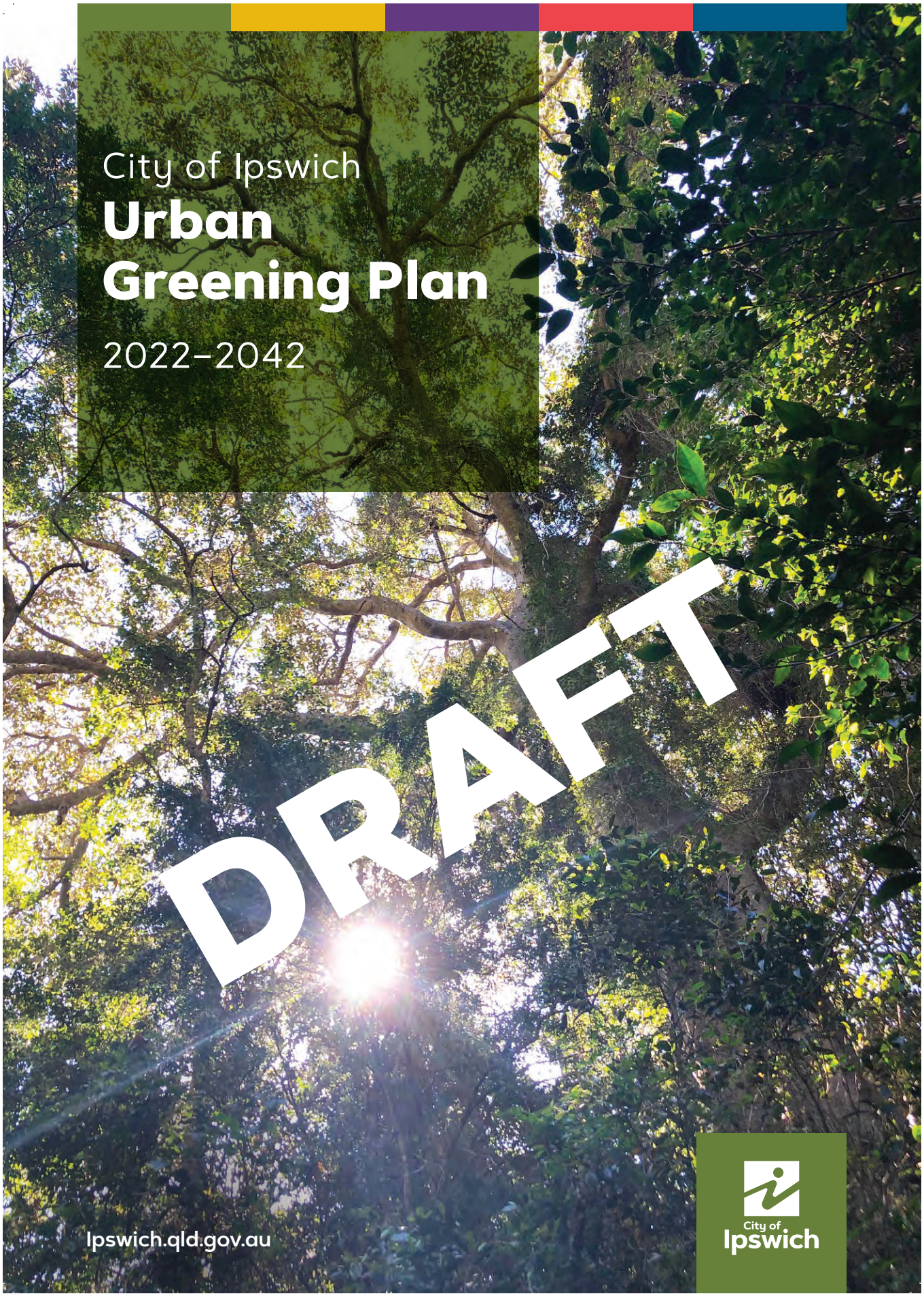
Kaye Cavanagh
MANAGER, ENVIRONMENT AND SUSTAINABILITY

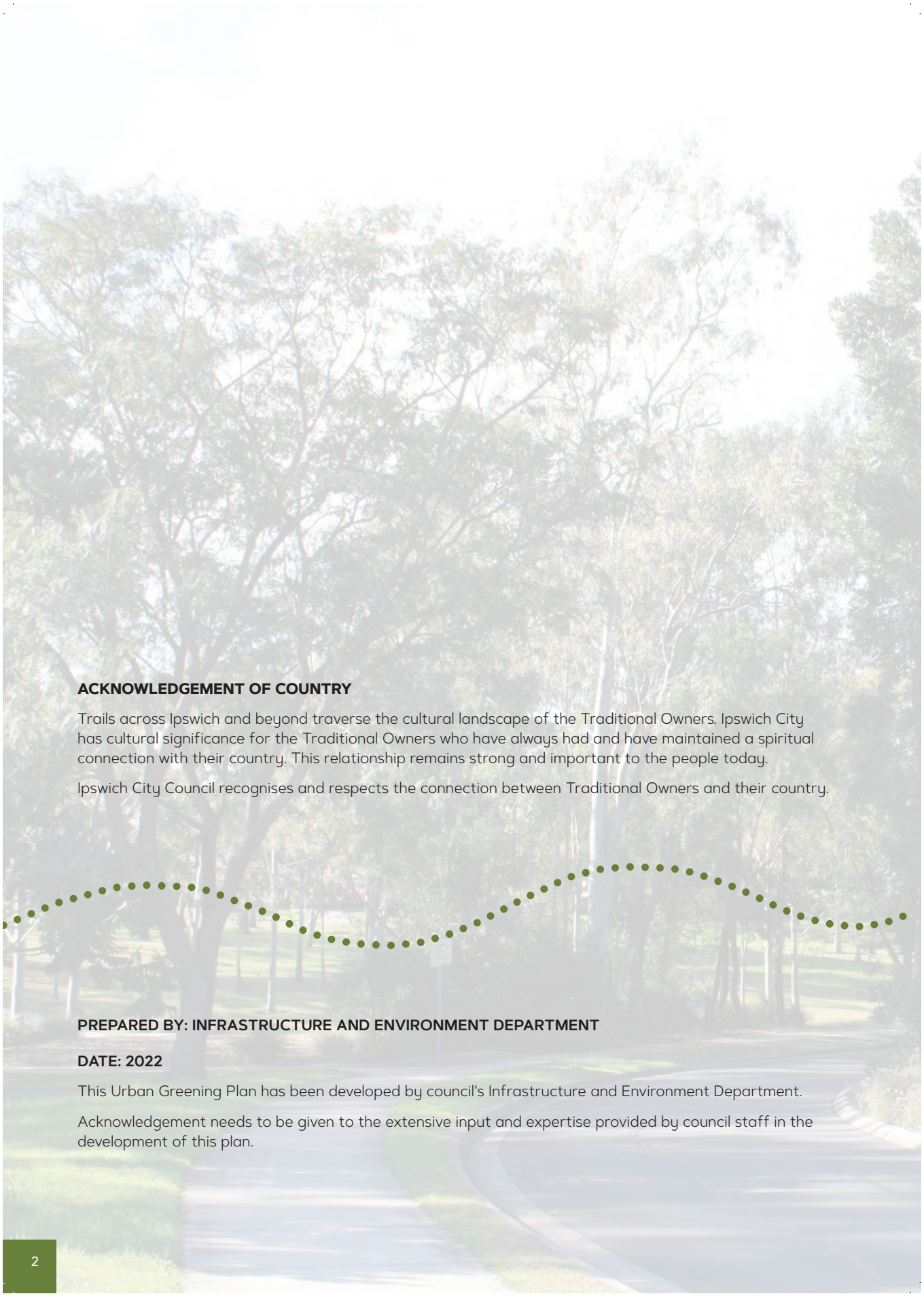
I concur with the recommendations contained in this report.

Sean Madigan
GENERAL MANAGER - INFRASTRUCTURE AND ENVIRONMENT

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

Item 2 / Attachment 1.





ACKNOWLEDGEMENT OF COUNTRY

Trails across Ipswich and beyond traverse the cultural landscape of the Traditional Owners. Ipswich City has cultural significance for the Traditional Owners who have always had and have maintained a spiritual connection with their country. This relationship remains strong and important to the people today.

Ipswich City Council recognises and respects the connection between Traditional Owners and their country.

PREPARED BY: INFRASTRUCTURE AND ENVIRONMENT DEPARTMENT

DATE: 2022

This Urban Greening Plan has been developed by council's Infrastructure and Environment Department.

Acknowledgement needs to be given to the extensive input and expertise provided by council staff in the development of this plan.

TABLE OF CONTENTS

1. EXECUTIVE SUMMARY

Urban greening is an important part of making a resilient and liveable city which protects vegetation and wildlife. The urban forest, urban corridors, and greening within public and private realms make up what we refer to as 'urban greening'. The intention of this Urban Greening Plan (the Plan) is to set an informed and evidence-based direction in achieving increased vegetation cover in priority areas within the urban footprint of Ipswich to best achieve the multiple benefits it can provide.

The outcome of the Plan is to provide a road map to improve urban conservation and urban biodiversity while increasing greening benefits. Urban greening benefits include mitigation of the impacts and effects of climate change, reduction of urban heat island effect, provision of shade and cooling, carbon sequestration, absorption of air pollutants, filtration of stormwater, provision of mental and physical health benefits, provision of habitat for urban flora and fauna, and increased aesthetic amenity and character values.

This Plan aims to strategically increase the quality and quantity of beneficial vegetation on a variety of land types within the urban footprint. This includes assessing and improving current conditions (canopy cover and connectivity of existing green space) as well as guiding future greening requirements through the implementation of greening projects which will be planned and delivered in collaboration with key stakeholders.

The key drivers for the plan include iFuture 2021–2026, specifically Theme 3 Natural and Sustainable, as well as various Ipswich City Council (ICC) policies and strategies.

The four focus areas of this Plan are:

- **Focus Area 1** – Green the urban footprint of Ipswich
- **Focus Area 2** – Manage the interface between greening and infrastructure
- **Focus Area 3** – Enhance biodiversity and waterway health
- **Focus Area 4** – Strengthen community education, awareness, and stewardship of urban greening.

Targets and key actions in relation to these focus areas have been developed through key stakeholder workshops and will be implemented through council programs.

The outcomes of the Plan will be achieved through validation of current spatial canopy cover information in conjunction with context and site analysis to identify and prioritise available sites to increase vegetation cover. In order to develop this, Ipswich City Council will:

Review Current Conditions

- Analyse canopy cover which has been derived from 2019 LiDAR information
- Allocate % canopy cover per suburb to identify priority suburbs with low % canopy cover
- Identify Australian Bureau of Statistics information on the location of socially vulnerable groups
- Identify council programs that could include greening into immediate and future works.

Fill Knowledge Gaps

- Undertake thermal heat mapping within the urban footprint to provide evidence based information on the hottest areas in the city. Overlay heat mapping with canopy cover, biodiversity mapping and socially vulnerable areas for priority greening projects
- Identify how greening can be incorporated into capital and operational works.

Strategically Plan for Future Climates

- Develop targeted actions that are driven by ICC policies and strategies
- Continue communication and planning with key stakeholders
- Plan trial planting programs incorporating species adapted to future climate predictions.

Develop Implementation Plans, Measure and Reporting Mechanisms

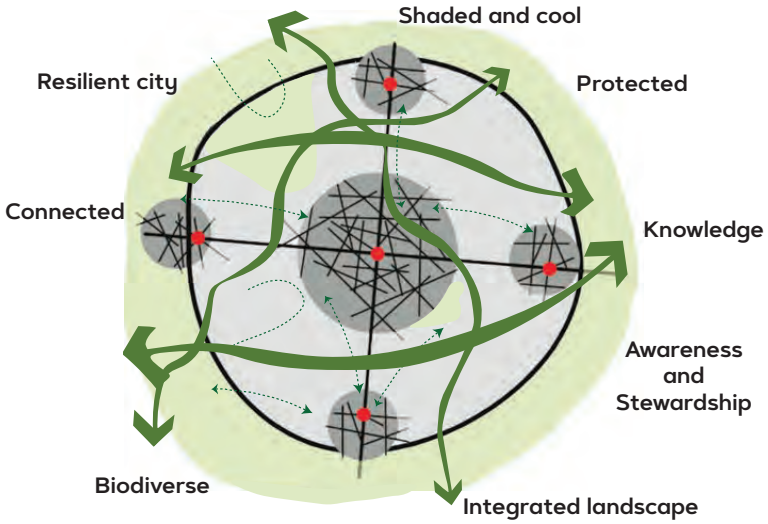
- Coordinate implementation plans with capital expenditure programs for immediate and future greening opportunities
- Measure greening projects through existing reporting mechanisms. This includes trees taken through the Free Tree Program, Council Nursery and Urban Greening Program.

2. INTRODUCTION

iFuture 2021–2026, Theme 3 Natural and Sustainable, outlines the development and implementation of an Urban Greening Plan to protect vegetation and wildlife living alongside our urban environment. The key drivers of the Urban Greening Plan include the city's current and emerging challenges along with the overarching goals set by the iFuture corporate plan, policies and strategies. These documents reflect the community's direction for the city in relation to urban greening.

2.1 Vision

Our vision is to have a connected, resilient, and valued greening of Ipswich that is protected, enhanced, and managed to provide benefits to the community and environment.



2.2 Guiding Principles

- **Promote greening** with species indigenous to the region and that contribute positively to the city's natural environment
- **Protect, maintain and enhance** existing vegetation
- **Maximise ecosystem services**, waterway health and biodiversity connectivity through implementation of greening plans, including the Habitat Garden program
- **Incorporate greening requirements** for climate adaptation and urban heat mitigation measures into council planning scheme policies, design guidelines, development approval process and capital expenditure programs
- **Promote active transport by increasing shade to parks and pedestrian walkways (shading of pathways program)** to encourage an active Ipswich where health benefits are realised and a reduction in carbon emissions is evident
- **Undertake evidence-based decision making** in relation to development of capital and operational works planting programs
- **Strengthen community knowledge**, awareness and stewardship of urban greening.

2.3 Opportunities

In addition to protection of vegetation and wildlife, there is an opportunity to strategically mitigate climate change and the urban heat island effect, and achieve a diverse range of benefits that encompass biophysical, economic, and social attributes. An evidence-based approach to greening identification and prioritisation will deliver multi-benefit outcomes for the environment and our community. This approach will use data such as canopy and biodiversity mapping, heat mapping, land use and land type, and Australian Bureau of Statistics data on socially vulnerable groups, etc. to identify priority areas. The identified opportunities have been divided into the three areas below:

Planning Opportunities:

- Incorporate greening requirements for urban heat mitigation measures into council planning scheme policies, design guidelines, development approval process, and capital and operational expenditure programs where suitable
- Undertake evidence-based decision making in relation to development of capital and operational works planting programs across the city
- Connect green corridors with public and private realms to develop a green city
- Develop and implement actions that increase habitat connectivity within the urban footprint
- Promote active transport through shading of pathways and bikeways, incorporate cool environments for resting. Align with iGO Active Transport Action Plan program
- Provide shade-ways in key streets which link residents to medical, educational, commercial areas as well as parks and open space
- Create shaded landscape areas that assist with improving mental and physical wellbeing
- Research and promote the installation of green walls and roofs across the city to reduce the urban heat island effect.

Delivery Opportunities:

- Maximise ecosystem services, waterway health and biodiversity connectivity through implementation of greening projects delivered via programs such as Habitat Gardens, Habitat Connections and Stormwater Quality Offsets Program
- Increase shade to parks and pedestrian walkways to encourage an active Ipswich where health benefits are realised and a reduction in carbon emissions is evident
- Increase carbon sequestration within vegetation and soil
- Implement water sensitive urban design solutions such as water smart street trees which use stormwater run-off for irrigation
- Manage the interface between trees and infrastructure through coordinated planning between departments
- Encourage developers and private land owners to value trees and green space as an asset
- Plant the right species in the right place, specified by suitably qualified and experienced advisor.

Communication Opportunities:

- Promote greening with species which are indigenous to the region and contribute positively to the city's environment
- Continue internal stakeholder collaboration in order to raise awareness and educate the importance and benefits of including greening as a design requirement in the project planning phase for long term benefits and cost-effective inclusion of greening
- Develop and implement a Community Engagement Plan for urban greening
- Develop a Greening Ipswich interactive map where the community can participate.

2.4 Challenges

- Successfully manage and maintain interface with infrastructure – sub surface utilities and vegetation
- Planting the right tree species in the right place. Reduction of removing and replacing incorrectly planted trees (costs can be redirected into evidence-based, planned greening)
- Availability of sufficient stormwater for irrigation purposes
- Climate change adaptation in a timely and cost effective way
- Reduction of urban heat island effect in a timely and cost effective way
- Urban intensification – further clearing of vegetation increase in impervious surfaces and accurately measuring and reporting on urban heat island effect
- Providing and maintaining soil volume and soil moisture availability for healthy tree growth within constricted locations
- Preventing vandalism to vegetation e.g. cutting trees to open up views; removing or damaging newly planted trees and associated planting.

2.5 Focus Areas

Four focus areas have been developed to deliver the guiding principles and opportunities and attempt to turn the challenges into opportunities. These areas have been investigated further to provide achievable and measurable targets and actions that will realise the Plan's vision.

- **Focus Area 1** – Green the urban footprint of Ipswich
- **Focus Area 2** – Manage the interface between greening and infrastructure
- **Focus Area 3** – Enhance biodiversity and waterway health
- **Focus Area 4** – Strengthen community education, awareness and stewardship of urban greening.

Artist's impression of greened walkway for active (and inclusive) transport.

2.6 How to Use this Document

The overarching purpose of this Plan is to set an informed direction in achieving increased vegetation cover, contributing to a resilient and liveable city, which protects vegetation and wildlife within the urban footprint of Ipswich. Increasing greening will work towards the mitigation of climate change and the urban heat island effect, improve shaded cycle and pedestrian ways, provide comfortable outdoor spaces for active travel, recreation, and improve mental and physical health. Additionally, increasing greening will enhance habitats and stengthen connectivity of urban corridors for fauna movement. The following sections illustrate the background information that underpins the Plan and associated targets and actions. The Plan has been organised into four sections.

DRIVERS AND BENEFITS OF URBAN GREENING

This section investigates the drivers for urban greening, such as state and local government policies and strategies that will inform the direction of the Plan. Additional drivers include enhancing biodiversity values, impacts of urban development, and greening as an asset. This section also outlines the benefits of greening which include climate change adaptation, reduction of heat island effect, storm water reuse, habitat connectivity and provision of health and well being opportunities.

SCOPE, FOCUS AREAS, TARGETS AND ACTIONS

This section describes the scope of the Plan which is contained within the urban footprint of Ipswich. The Guiding Principles, Opportunities, Challenges and Strategic Priorities inform the development of four Focus Areas. From the Focus Areas, targets have been developed to be measurable and achievable through actions, which will realise the Plan's vision.

CONTEXT AND SITE ANALYSIS

Context and site analysis outlines the approach that will be undertaken to investigate and quantify current greening levels within each suburb of the urban footprint. Additionally, this section describes the land use zones and movement network that will be investigated along with developed spatial layers. Furthermore, four greening categories have been identified and will be investigated in each suburb at a granular level. This is to identify and prioritise sites for greening within 400m walkable area from amenities.

RACEVIEW CASE STUDY AND NEXT STEPS

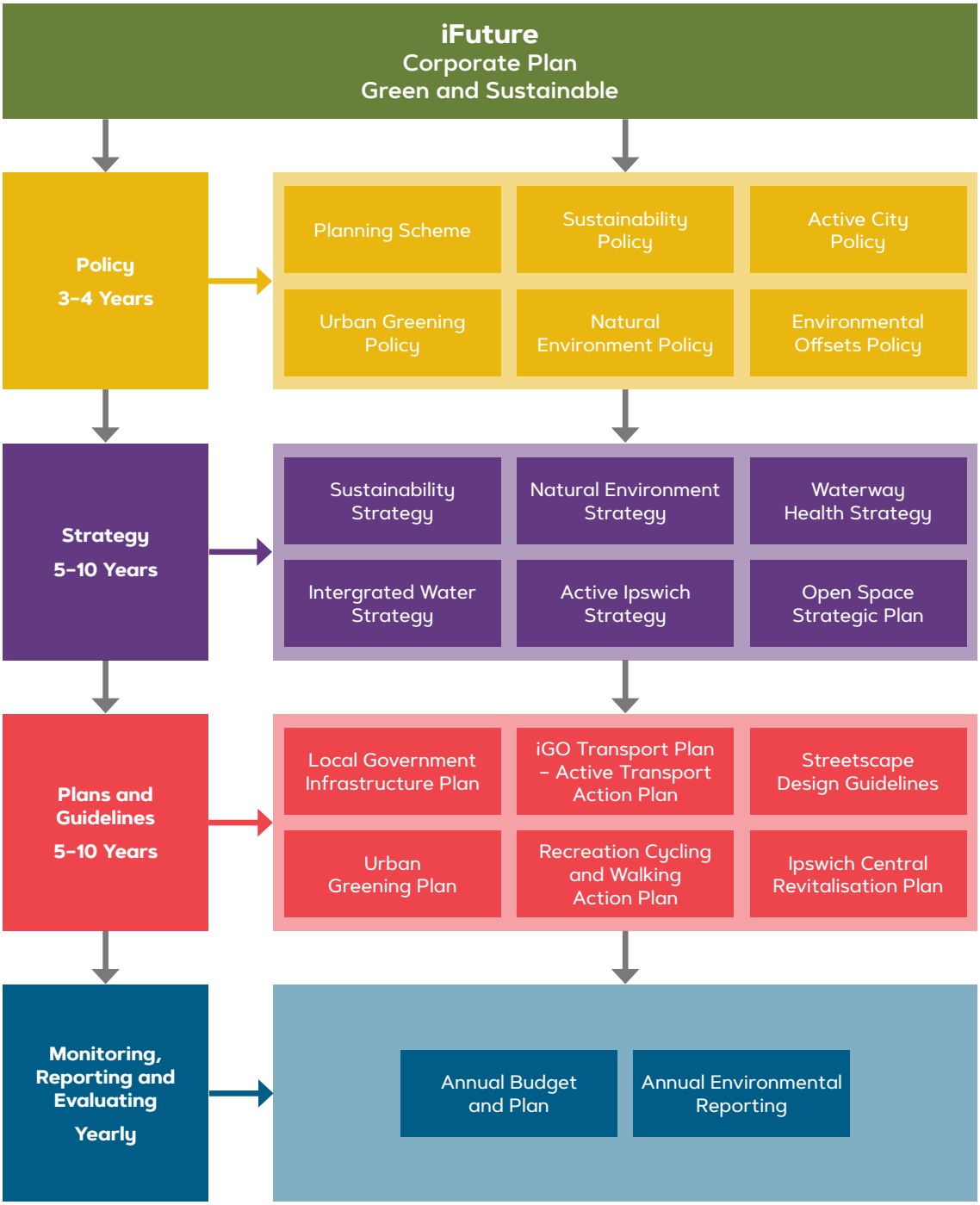
This looks at the suburb of Raceview as a case study for future investigation and evidence based planning of greening projects in other suburbs. It looks at the history of vegetation cover within a section of Raceview, canopy cover, land use and indicative 400m walkability areas to be investigated further. This section gives an example of current % canopy cover in streets within a 400m area of a medical centre, to highlight the need for greening and associated benefits to provide a comfortable environment for active transport etc.

DRIVERS AND BENEFITS OF URBAN GREENING

Image: New trees planted in Booval as part of the Urban Greening Program, 2021–2022. The trees will provide habitat value, shade, sequester carbon, improve visual amenity and increase property values.

3. DRIVERS AND BENFITS OF URBAN GREENING

3.1 Document Hierachy



3.2 Strategic Context

The key drivers for the development of the Urban Greening Plan include council's current and emerging challenges, along with the overarching goals identified by our community.

The following section outlines the information taken from various plans and strategies that contribute to the development of the Plan. It is intended that the Plan is a tool that will be used to realise strategic actions from drivers such as:

iFuture Corporate Plan 2021–2026

We are a city of centres, connected by a safe, reliable and sustainable transport system and a network of green spaces that connect us to the land where we can enjoy sport, creative pursuits, active recreation or relaxing time with our families and loved ones. (iFuture Corporate Plan, p.3).

iFuture outlines a road map to a healthy, liveable and sustainable Ipswich. Council hopes to achieve a city that delivers a clean and green environment for the community.

Planning Scheme

Ipswich City Council's Planning Scheme states tree species and planting requirements are to ensure the urban forest is healthy, diverse and provides shade, habitat, visual amenity, makes use of stormwater run-off and sequesters carbon.

Urban Greening Policy (current Urban Forest Policy)

The purpose of the Urban Greening Policy is to strengthen council's commitment, approach and strategic direction for the protection, enhancement, management, maintenance and promotion of greening on public land within the urban footprint of Ipswich.

It also provides a framework for decision-making, documentation and standardised processes to ensure consistency of the enhancement, management and maintenance of trees on public land within the urban footprint of Ipswich.

Sustainability Policy

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.

Natural Environment Policy

The purpose of the policy is to strengthen council's commitment to conserve, protect, enhance and restore the natural environment and its values, through the seven focus areas and associated principles.

- Biodiversity and Threatened Species Recovery
- Wetlands and Waterways Improvement
- Urban Biodiversity Enhancement
- Natural Area Restoration and Protection
- Experiencing Nature
- Community Awareness and Support
- Governance, Measuring and Reporting

Environmental Offsets Policy

This policy guides Council's assessment and decision making in relation to the use of environmental offsets.

Active City Policy

This policy provides a strategic framework for all sport, recreation, physical activity, active travel and outdoor/nature-based recreation undertakings conducted by Ipswich City Council.

Sustainability Strategy

The Sustainability Strategy and it's implementation will balance the protection of the environment and the pursuit of prosperity to ensure quality of life for the people of Ipswich from generation to generation.

The strategy includes information on Climate adaptation – Building our resilience to a changing climate will ensure we're able to continue to live comfortably and safely, and the impact to the environment is limited. The Sustainability Strategy contains Focus Area 2 Urban Heat and Urban Greening and associated implementation plans.

Natural Environment Strategy (current Nature Conservation Strategy)

The intent is to provide direction for Ipswich City Council to create a resilient natural environment and lessen the impact of processes such as climate change and increased population pressures. The Natural Environment Strategy deals largely with the terrestrial environment, with conservation activities within riparian and aquatic environments being directed through council's Waterway Health Strategy.

Waterway Health Strategy

The Waterway Health Strategy is council's overarching plan to connect the internal and external elements of waterway health management and provides a clear, coordinated framework for future improvement.

Integrated Water Strategy

Integrated water management seeks to cost effectively improve water management in a way that meets community expectations as well as maximising social and environmental benefits. It is about recognising all of the elements of the water cycle and considering the interactions between them when decisions are made.

Active Ipswich Strategy

The Active Ipswich Strategy and it's implementation plan aims to increase access and opportunity for participation in sport, recreation, physical activity and nature based recreation. The Active Ipswich Strategy includes the development of an urban design framework to guide our place making and liveability outcomes and that complements our new planning scheme, strategies, policies and plans. The framework will include urban greening.

Local Government Infrastructure Plan

The Local Government Infrastructure Plan (LGIP) is an opportunity to review and re-develop the parks desired standards of service and remove/ add/change the service standards, embellishment and infrastructure in public parks. This includes the opportunity to re-think quantity, type and location of canopy provision. LGIP will include financial modelling. This could provide a pathway to introduce greening priorities into the Open Space Strategic Plan.

iGO Transport Plan – Active Transport Action Plan

In order to meet the growing travel demands of Ipswich and achieve a better quality of life for the community, council recognise that greater emphasis must be given to promoting and realising the opportunities and benefits associated with more sustainable forms of travel such as active transport (e.g. walking and cycling).

As a result, council has developed an Active Transport Action Plan (ATAP). This is a key action of iGO, the City of Ipswich Transport Plan, to guide the planning, delivery and promotion of facilities and programs to encourage more people to walk and cycle for transport purposes in Ipswich. One of the objectives of the ATAP is to make active transport comfortable, enjoyable and attractive for the people of Ipswich. Shade, through the provision of non-deciduous trees, will achieve this objective.

Recreational Cycling and Walking Action Plan

As an outcome of the Active Ipswich Strategy, the aims of the Recreation Cycling and Walking Action Plan include building a connected, sustainable, and safe recreational cycling and walking network. Also creating a connected, sustainable, and integrated network which will be provided through comfortable and attractive walking routes.

Ipswich Central Revitalisation Plan

The Ipswich Central Revitalisation Plan, principle 3, states businesses, residents and visitors to Ipswich Central enjoy access to a connected network of shady green streets and public spaces that make it comfortable and easy to get around throughout the day and throughout the year.

The key objectives are:

- 3A. Create a city that is connected to nature
- 3B. Create shady streets that prioritise the comfort and safety of pedestrians and cyclists
- 3C. Establish a transport hub at the heart of Ipswich Central
- 3D. Make it easy for visitors and residents to find their way

Streetscape Design Guidelines

The Guidelines provide information in relation to internal and external legislative requirements, ICC processes and technical information in relation to planting out streetscapes and preferred species list.

Ipswich City Council Annual Plan and Budget

Capital expenditure programs include:

- Streetscape Improvement Program – Urban Greening Program
- Active Transport Action Plan
- Stormwater Quality Offsets Program
- Habitat Gardens Program
- Habitat Connections Program

Community Engagement

Community engagement, education and awareness is a major driver in the development of the Urban Greening Plan. The results of community engagements by way of online survey undertaken for updating existing or developing new strategies has been used to inform the Plan. Community engagement outcomes for the development of strategies include:

- Sustainability Strategy
- Active Ipswich Strategy
- Recreational Cycling and Walking Action Plan
- iGo Active Transport Action Plan
- Natural Environment Policy
- Natural Environment Strategy
- Share your Green Ideas, Ti Tree Bioenergy Payment Program
- Ipswich Central Revitalisation Plan

Several responses in each report relate to climate change, increasing greening, and waterway health which aligns with the purpose and goals of this Urban Greening Plan.

A Community Engagement Plan will be developed as an outcome of this Plan. This will identify and prioritise community engagement events, identify avenues to educate and promote awareness and stewardship in relation to urban greening at neighbourhood levels.

Scaly-breasted Lorikeet feeding in Melaleuca viminalis in an urban setting.

3.3 Urban Biodiversity

Biodiversity is the variety of all life forms on earth – the different plants, animals and micro-organisms and the ecosystems of which they are a part (Dept. Agriculture, Water and the Environment). The ecosystem of Ipswich includes habitat for its diverse flora and fauna as well as ecosystem services such as healthy soil, water and air, temperature, climate regulation and habitat. Key threats to urban biodiversity and ecosystem services include climate change, increased urbanisation, and pest plant and animals.

By incorporating urban biodiversity, including ecosystem services, as a driver for the Plan, it is intended that current values will not only be protected and enhanced but will be increased. This will result in stronger habitat connectivity, increased food sources, shelter and shade for urban flora and fauna and assist in mitigating key threats.

Ipswich Nature Conservation Strategy, 2015, states an effective habitat network comprises of a system of core habitat areas connected through the landscape by corridors. Native habitats in Ipswich are currently in a fairly fragmented state, mainly as a result of human impact such as clearing of vegetation to allow for alternative land uses. Strengthening the habitat network is a way to combat the impacts of this fragmentation by connecting several habitats.

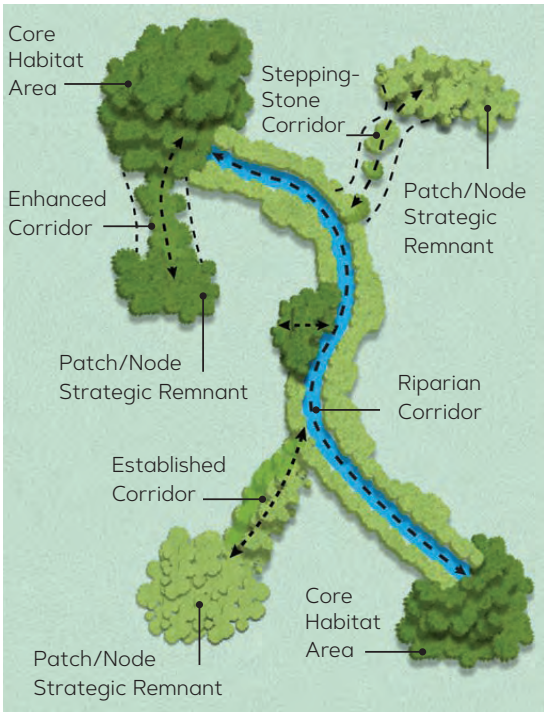
Urban corridors and habitats support local scale connectivity and ecosystem functioning, essential for the movement and long-term survival of urban populations of flora and fauna by connecting corridors, nodes and stepping stones of vegetation.

Blue Faced Honey Eater feeding in Melaleuca viminalis in an urban setting.

Corridors are areas that increase local connectivity and provide focal points for rehabilitation, aimed at battling fragmentation by encouraging an increase of the current vegetation cover. Some of these corridors also provide important external linkages out of the Local Government Area (LGA) and are a component of recognised terrestrial regional corridors such as the Flinders Karawatha Corridor.

The Flinders Karawatha Corridor is the largest remaining continuous stretch of open eucalypt bushland south of the Brisbane River in South East Queensland. This 60km corridor extends from Karawatha Forest in Brisbane's outer suburbs to south of Ipswich at Flinders Peak and on to the Wyaralong Dam near Boonah. (Ipswich Nature Conservation Strategy, 2015, p 80, 81).

Urban nodes are patches of remnant vegetation providing important wildlife habitat within the urban footprint. Urban biodiversity as a driver focuses on protecting, enhancing and connecting the current urban corridors, nodes and stepping stones in order to enhance resilient, robust biodiversity values.



This illustration shows an urban biodiversity corridor including core habitat, nodes and stepping-stones.

3.4 Greening as an Asset and Climate Change

In general, greening is a valued part of the urban environment, providing shade, visual amenity, health benefits and economic benefits such as increases to properties values. However, there is a perception that trees are dangerous and costly, having the potential to drop branches, damage adjacent infrastructure from root growth into underground services, and dropping seeds and leaf litter on to property such as cars, causing damage to paint work.

Council is committed to creating an awareness of the benefits and necessity of healthy urban greening which avoids impacts on people and infrastructure. Green assets provide value in relation to the changing climate, urban heat island effect, heat stress and flood mitigation.

The value of trees include environmental and economic benefits. Economic benefits are both direct and indirect. An example of direct benefit is an increase to property values that are in green, leafy suburbs. An indirect benefit is the shade from trees onto buildings which can cool, lowering the need and cost of air-conditioning.

To get the most out of trees and associated greening, regular maintenance is required. Understanding the costs associated with the procurement, installation and ongoing maintenance will inform budget and resource requirements needed to keep the asset healthy. Additionally, raising community awareness around the importance of trees as assets may reduce vandalism which also costs the city each year.

Furthermore, planting the correct species in the correct place will reduce budget outlay for replacement planting in cases where incorrect species are specified, planted incorrectly or not in the correct location. The cost of removing a tree can outweigh the cost of regular maintenance such as health checks, renewing mulch (which helps retain moisture, reduces weeds, slows rain run-off, insulates soil and adds nutrients) and pruning.

Climate Change

The Queensland Government has published Climate Change in Queensland, Version 1, which is a snapshot summarising key climate changes and projection for the state of Queensland in the future (Climate Change in Queensland, Version 1, Department of Environment and Science, 2019).

Climate changes predicted include:

- higher temperatures
- hotter and more frequent hot days
- harsher fire weather
- fewer frosts
- reduced rainfall in the south-east.
- more intense downpours

The ecosystems of Ipswich will continue to be impacted by a changing climate. These changes as described above are projected to intensify and are already causing a range of challenges including impacts on:

- environmental health
- public health and wellbeing
- flood emergencies and disaster recovery

Socially vulnerable communities will be impacted by climate change, especially through heat stress. This group, which includes the elderly, very young, people living with chronic illnesses and the homeless and are constrained in their physical and financial capacity to respond to the environmental extremes.

Urban greening has been proven to provide shade, cooling and visual amenity to streets. Therefore, the Plan will investigate the location of socially vulnerable communities and associated amenities to understand current levels of shade along active travel routes. This will reduce the impact of heat stress while providing health and well being opportunities.

Understanding how our climate is likely to change and the impacts we are likely to experience, will direct us towards how we plan and work towards implementing and maintaining a green environment suited to future conditions for the community and environment.

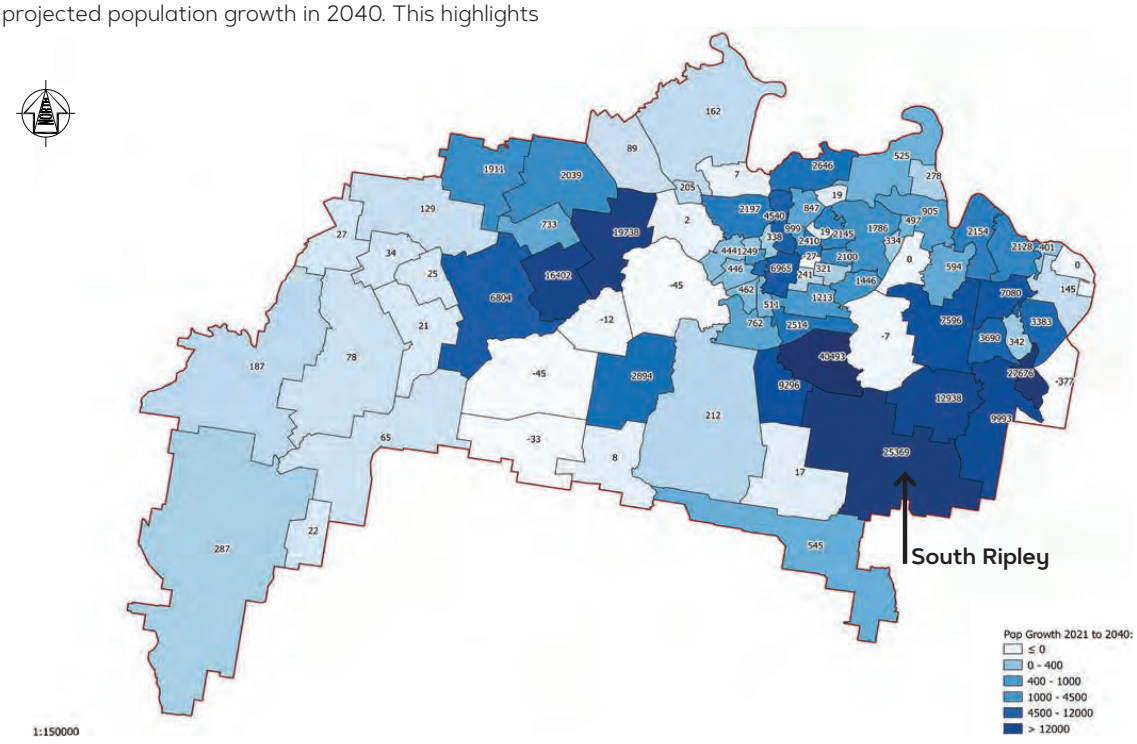
3.5 Urban Development

Ipswich is now the fastest growing city in Queensland and one of the top 10 nation wide. Today, the population of Ipswich has grown to over 231,000 and will more than double in the next two decades.(iFuture 2021–2026). Queensland State Government's Land Supply and Development Monitoring Report states that the capacity and realistic availability of planned dwelling supply in the Ipswich consolidation and expansion areas provide more than the minimum 15 years of supply sought by ShapingSEQ (South East Queensland Regional Plan).

Future development to accommodate the population expansion will require land to be cleared. This will remove areas of vegetation, loss of habitat and increase the urban heat island effect if not appropriately planned for and managed. Mitigation of the urban heat island effect and provision of open space within 400m of dwellings is outlined in the Planning (Walkable Neighbourhoods) Amendment Regulation 2020. This provides direction for street tree planting along footpaths. Also, parks and other areas of open space are to be within 400m of new housing blocks. This will provide some reduction of the heat island effect in time as the trees mature if planted and maintained correctly. The maps below and on the opposite page have been included in the Plan to draw attention to the 2019 canopy cover and the projected population growth in 2040. This highlights the importance of retaining as much vegetation as possible in order to mitigate climate change and urban heat island effect while retaining biodiversity value, habitat and connectivity.

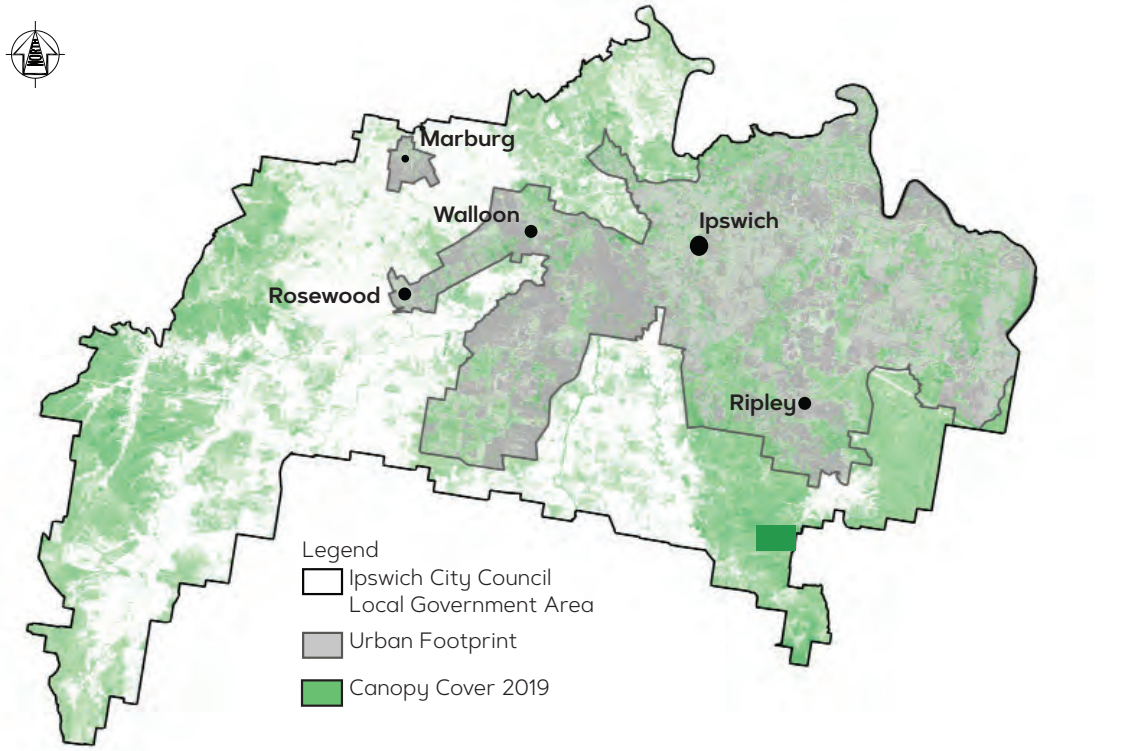
The map below illustrates the projected population growth for Ipswich 2021 to 2040 (taken from City of Ipswich, Recreational Cycling and Walking Action Plan, 2021). Areas such as South Ripley are estimated to have an increase of 25,369 residents. 3.6 map shows canopy cover from 2019 LiDAR information and 3.7 map shows the % canopy cover per suburb. As an example, South Ripley is shown as 24.9% canopy cover which will reduce when land is cleared to accommodate the estimated 25,369 new residents by 2040.

Through considered strategic planning and actioning of green infrastructure projects, vegetation should be retained, minimising the impacts of development on vegetation and wildlife. Additionally, this will reduce the impact of urban heat island effect. Furthermore, by retaining vegetation, many greening benefits are provided. as well as economic values such as increase to property values; encourage more dwell time in places which can result in greater support to local businesses.

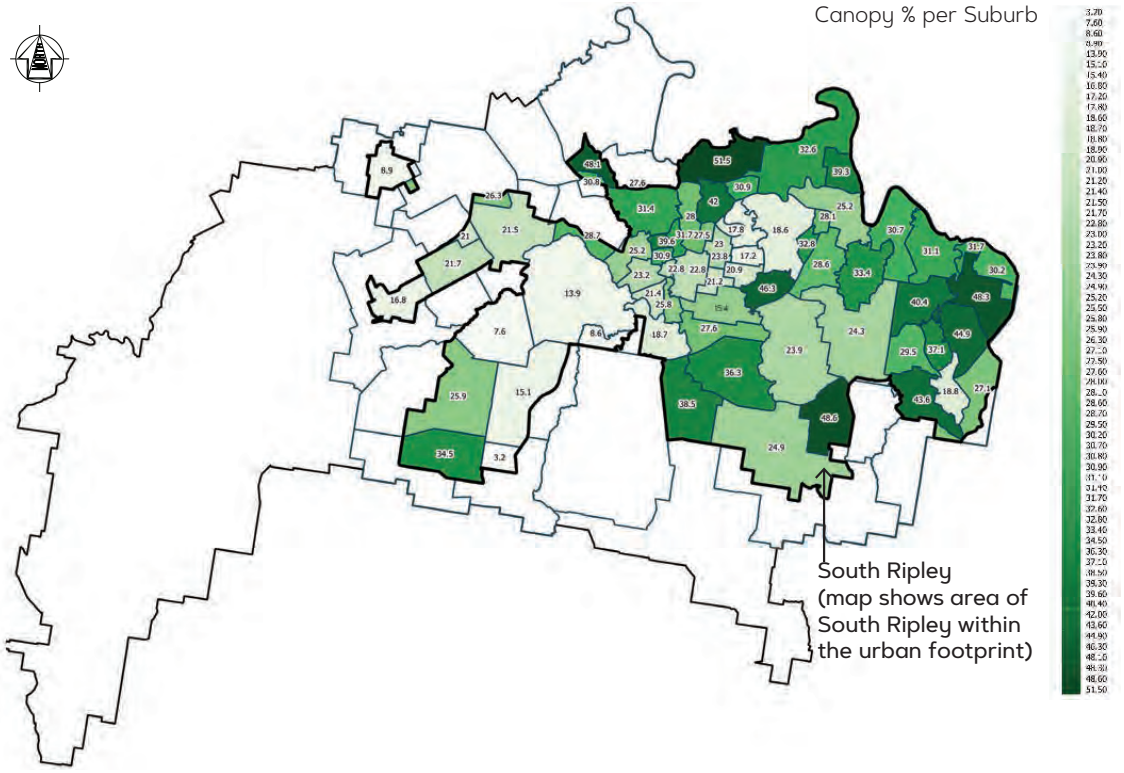


Population growth 2021 to 2040. Taken from the Ipswich Recreation Cycling and Walking Action Plan, 2021

Canopy Cover from 2019 LiDAR



Canopy Cover % per Suburb



3.6 Benefits of Urban Greening

The following section outlines the benefits of urban greening. Greening in urban landscapes is known to provide many benefits that include biophysical, economic and social attributes. Trees are one of the most cost effective mechanisms for reducing the urban heat island effect if maintained to a healthy standard.

Urban greening benefits include ecosystem services. These services provide benefits including air purification, water filtration and soil health including carbon sequestration. Other benefits include the provision of shade, habitat, oxygen, nutrient cycling, and cooling through transpiration.

Transpiration is the release of water as vapour through leaves and assist with cooling. For enough transpiration to provide cooling, the trees need to be healthy and receive adequate water to maintain health. This also applies to the health of the soil which provides evapotranspiration.

Water Sensitive Urban Design solutions, such as Water Smart Street Trees, can be irrigated through passive irrigation via directing stormwater run-off from roads into tree pits. There is specific soil medium which has little to no organic matter, increasing infiltration rates that allows the run-off to filter down to under drainage. The under drainage is connected to the storm water system. During the infiltration time, the tree is able to uptake water, nutrients and pollutants. This has multiple benefits including:

- irrigation to trees, shrubs, ground covers
- cooling through transpiration and evapotranspiration
- uptake of nutrients/pollutants present in the stormwater run-off
- reduction of nutrients/pollutants into receiving waterways
- trees can regulate stormwater. This reduces localised flooding and pressure on existing drainage systems
- reduction in erosion.

Images on page 17 illustrate the growth of a Water Smart Street Tree in Pine Mountain, from planting in 2021, to more recently in May 2022.

Additionally, trees and vegetation provide habitat for urban fauna. Identifying and enhancing existing corridors strengthens habitats, connectivity and movement for urban fauna.

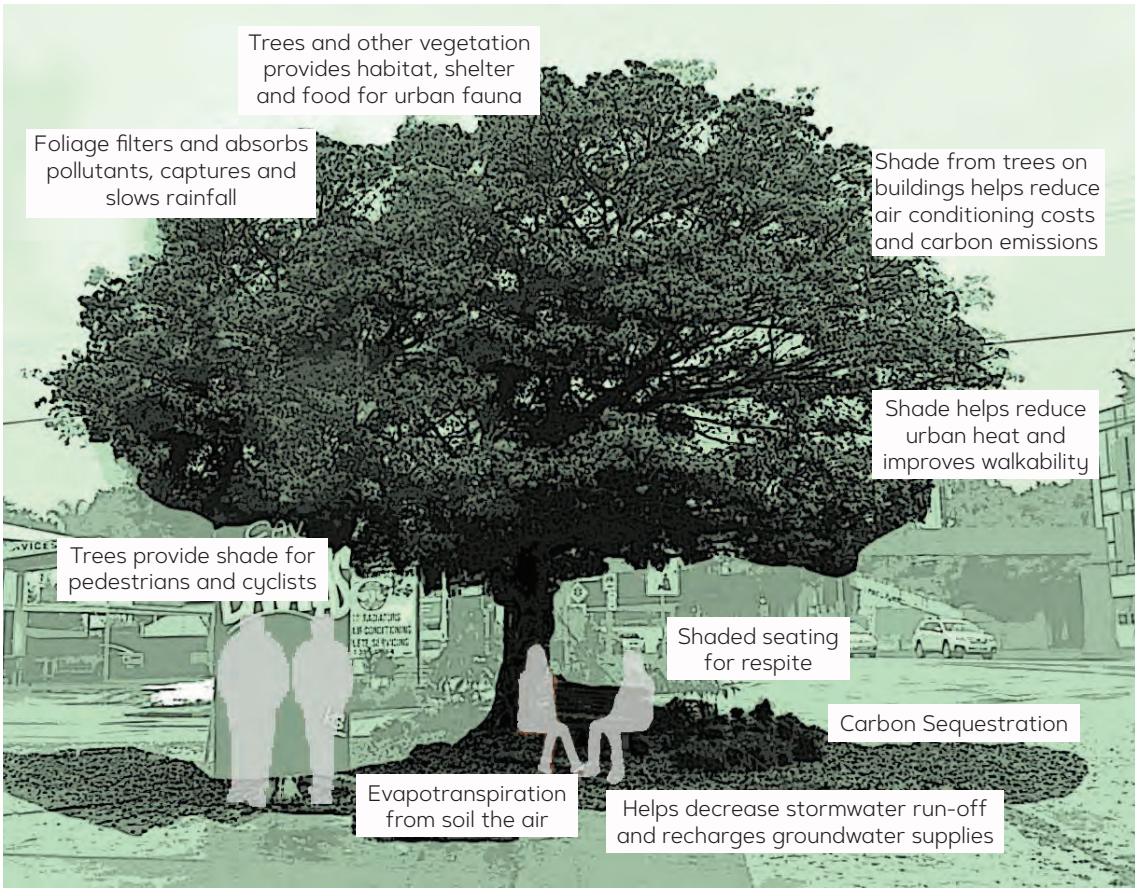
Urban greening also provides a connection to nature that is beneficial for mental and physical health. Ipswich has over 550 parks and reserves providing different recreational needs as well as walking paths and bikeways.

Furthermore, another benefit of urban greening is the sequestering of carbon in the plants and soil. The ecosystems act as a natural weapon against climate change by absorbing carbon from the atmosphere. (CSIRO).

Through the provision of natural shade, dense canopy trees can reduce the exposure to UV rays from the summer sun. Shading is also beneficial to improving the life span of council assets such as concrete footpaths and paint on buildings.

The above sketch illustrates a water smart street tree which utilises stormwater run-off from the road to irrigate the tree and ground cover planting.

Excess water filtrates into the under drainage which is connected to the stormwater system and flows into receiving waters.



This illustration outlines the many benefits of greening.

Water Smart Street Tree and sedges Pine Mountain. Planted June 2021.

Same tree and sedges irrigated by stormwater run-off in May 2022.

The images show alternative greening solutions such as green walls, trellis with climbers where space for tree canopy is limited. Additionally, planting to utilise areas beneath infrastructure such as elevated railway lines or roads provide benefits such as visual amenity, habitat value, shaded walk ways and evapotranpiration.

Image: Landscaping to walkway underneath railway line at South Brisbane.

Image: Greening treatment to building wall in Townsville. Stainless steel trellis with climber.

Image: Green wall in Bell Street, Ipswich.

Image: Green wall to single story building in Townsville.

Image: Green wall , Redbank Library, Ipswich

Image: Hanging plants, Ipswich Central.

SCOPE, FOCUS AREAS, TARGETS AND ACTIONS

4. SCOPE

4.1 Scope

South East Queensland's natural environment sustains a diverse ecosystem, holds cultural value and performs a variety of functions unable to be replicated by humans. It provides habitat for fauna, and clean air and drinking water, as well as other social and economic benefits. The region's natural systems provide the foundation for SEQ's future sustainability, prosperity and liveability. (Source: Taken from ShapingSEQ, page 22).

The adjacent map illustrates the South East Queensland Local Government Areas and the location of Ipswich in relation to them. Ipswich Local Government Area (LGA) is bordered by Brisbane and Logan to the east with Somerset to the north. Lockyer Valley and Toowoomba are to the west of Ipswich with Scenic Rim adjoining the southern boarder.

The project extent for this plan is the urban footprint of Ipswich. The urban footprint is an area defined by the South East Queensland Regional Plan, as land within which the region's urban development needs to 2041, and can be accommodated in a way consistent with the goals, elements and strategies of ShapingSEQ.

ShapingSEQ relies on local government planning schemes to determine the most suitable zone for each land parcel within the urban footprint. The development assessment process determines the extent and suitability of development on each site. (Source: Taken from ShapingSEQ, page 101).

By increasing and maintaining healthy, diverse greening, Ipswich will also be contributing to the broader health of South East Queensland's (SEQ) natural systems and connecting corridors.

Ipswich City Council acknowledges the key role that urban greening plays in the regions overall resilience, liveability and wellbeing. The intended outcome of this plan is to immediately increase greening where possible and have an informed and considered approach in planning, maintaining and monitoring of medium and long term greening programs within the urban footprint. Additionally, this will establish an environment in support of inclusive liveability by providing green, shaded, walkable neighbourhoods.

This Plan will be undertaken in a staged approach to deliver immediate greening in identified vacant tree sites, as well as evidence-based planning for increasing greening to high, medium and low priority suburbs. Suburbs will be categorised in relation to % canopy cover from 2019 LiDAR information. Further investigation and analysis of data is required in order to prioritise suburbs.

Additionally, information gathering such as literature review, canopy cover and heat mapping data, biodiversity mapping, land use, land type, location of active transport and pedestrian will be used to inform the strategic prioritisation of greening projects.

Map: South East Queensland Local Government Areas (Source: Taken from ShapingSEQ, p.19)

4.2 Strategic Priorities

The Strategic Priorities for the Plan include:

- climate change adaptation (due to increase in storm events, fires, temperature change) and reduction of urban heat island effect
- increase shade and cooling to encourage comfortable outdoor experiences
- increase green infrastructure as a key approach to managing the interface between the built and natural environment within the scope of the Plan
- stormwater management in relation to passive irrigation and reduction of pollutants entering receiving waters
- ecosystem services such as soil and water health
- storing and sequestering carbon
- reduced sun exposure to the community and infrastructure
- physical and mental health benefits
- reconnecting people with nature
- increased shaded active transport routes
- habitat value maintaining and improving biodiversity and connectivity
- reduced energy costs and carbon emissions through shading to buildings
- increased property values
- increased visual amenity
- increased sense of local identity and stewardship.

The Guiding Principles, Objective, Challenges and Strategic Priorities will be addressed through Four Focus areas.

- **Focus Area 1** – Green the urban footprint of Ipswich
- **Focus Area 2** – Manage the interface between greening and infrastructure
- **Focus Area 3** – Enhance biodiversity and waterway health
- **Focus Area 4** – Strengthen community education, awareness and stewardship of urban greening

Analysis of canopy cover taken from 2019 LiDAR information will be undertaken in conjunction with heat mapping to understand the priority locations for greening. Four greening categories will be investigated further and in more detail:

- streetscape and road reserves
- urban corridors
- parks and open space (excluding conservation estates and bushland reserves)
- active transport routes.

As there is an immediate need to increase greening to the urban footprint due to the changing climate and urban heat island effect, on ground investigations are continuing. Greening sites have been identified and trees installed in these areas. This immediate greening is being delivered in parallel with the strategic development of this Plan as trees take time to reach maturity where multiple benefits are provided.

5. FOCUS AREAS, TARGETS AND ACTIONS

5.1 Focus Areas, Targets and Actions

The goal of the Urban Greening Plan is to focus, in parallel, on a strategic level and a delivery level to achieve increased greening across the urban footprint. It is intended that the Plan be a tool to deliver urban greening, outlined in council strategies programs and plans such as:

- Natural Environment Strategy
- Sustainability Strategy
- Active Ipswich Strategy
- iGO Transport Plan
- Active Transport Action Plan
- Recreational Cycling and Walking Action Plan
- Ipswich Central Revitalisation Plan
- Urban Greening Program
- Sustainable Transport sub Program
- Stormwater Quality Offsets Program
- Habitat Gardens Programs

In order to be prepared for the future challenges of a changing climate, council will plan and deliver realistic greening and canopy cover targets within the urban footprint. Additionally, it is intended that this will have a positive effect on community cohesion, strengthening the sense of place, environmental connectivity, and provide mental health and well being outcomes. Furthermore, the plan will have a positive influence on activation of outdoor spaces, active transport and exercise opportunity.

To achieve this, four focus areas have been developed from the Guiding Principles, Opportunities and Challenges and Strategic Priorities. Associated targets and actions have been set. This will ensure that a planned, evidence-based approach is able to be measured, evaluated and adjusted if needed, in order to realise the vision of the Plan.

Page 25 outlines the Plan, Vision, Focus Areas and associated Targets. Pages 24–31 outline the actions, and timing. It also includes how performance associated with the actions is measured and the reporting responsibility within council.

Prioritisation and timing of actions are indicative only. Further planning, budgeting and resourcing is required within the relevant council sections.

5.2 Monitoring, Evaluating and Reporting

The protection, enhancement and management of resilient and robust urban greening requires on-going monitoring, evaluation and reporting of its health, values and benefits (including economic benefits) to ensure the outcomes of the Plan are achieved.

Periodic monitoring and evaluation of net changes of urban greening will be undertaken within the urban footprint including canopy cover in public and private realms as LiDAR information becomes available. The results will be included in an annual environmental report and will inform further relevant council budgets and resourcing for future greening projects.

THE URBAN GREENING PLAN

VISION
Our vision is to have a connected, resilient, and valued greening of Ipswich that is protected, enhanced, and managed to provide benefits to the community and environment.

FOCUS AREA 1
Green the urban footprint of Ipswich

TARGET
Increase canopy cover in high priority suburbs by a minimum of 10% by 2042.

FOCUS AREA 2
Manage the interface between greening and infrastructure.

TARGET
90% of urban greening planting are successful and reach healthy maturity.

TARGET
Minimum 50% of new landscape plantings to be local native species suited to local conditions.

FOCUS AREA 3
Enhance biodiversity and waterway health

TARGET
All greening projects to incorporate additional opportunities for habitat for feeding and nesting e.g. installation of nesting boxes; connections to existing habitat; structured vegetation planting.

TARGET
All projects to incorporate opportunities to improve waterway health e.g. vegetation management; integrated stormwater management; soil health and erosion and sediment control.

FOCUS AREA 4
Strengthen community education, awareness and stewardship of urban greening.

TARGET
Deliver minimum of 4 Planting Day activity's each year.

TARGET
Promote the Urban Greening Program including information and options for residents, at council events and through council web page.

FOCUS AREA 1 AND TARGET	ACTIONS
Focus Area 1: Green the Urban Footprint of Ipswich. **Target:** Increase canopy cover in high priority suburbs by a minimum of 10% by 2042.	**1a.** Identify and quantify current canopy cover in each greening category. Develop a multi criteria analysis to identify high, medium and low priority suburbs in relation to % canopy cover from 2019 LiDAR information. Prioritise projects within the greening categories according to the outcome of the multi criteria analysis. Greening categories: ▪ Streetscape/road reserves ▪ Urban Corridors ▪ Riparian zones ▪ Open Space (excluding old landfill sites, sports fields) ▪ Active transport routes.
	1b. Develop and implement a project prioritisation framework to plan the order of implementing identified projects across the city.
	1c. Develop a process framework for measuring the increase to greening in each category.
	1d. Undertake thermal heat mapping of the urban footprint of Ipswich. Undertake analysis of thermal heat mapping data to assist with project identification and prioritisation.
	1e. Understand strategic transport planning in order to identify vegetation that may be removed as a result of future transport infrastructure including active transport routes. This would highlight areas not to plant out.
	1f. Develop a preferred species list suitable for urban greening. E.g. species that will provide shade, safety considerations and non invasive in relation to interface with infrastructure. (Updated Streetscape Design Guidelines).
	1g. Undertake historical vegetation cover analysis in relation to past developments to determine the change in canopy cover over time, and what impacts future developments will have on current vegetation and how these impacts can be mitigated.
	1h. Develop and implement a Succession Planting Strategy
	1i. Develop framework for appropriate resourcing for the establishment period and ongoing maintenance of all new trees planted within council land. Maintenance requirements to be achieved include: establishment of 3 month period; a twice yearly maintenance visitation up to and including 5 years. The tree at 5 year of age is passed onto the Arboriculture Team for ongoing maintenance.
	1j. Update current street tree layer in council's spatial system; Develop and implement a plan for regular ongoing monitoring of all street tree species. To include information on species type, age, size, health, the need to replace tree etc.
	1k. Update Urban Forest Policy, 2019, to Management of Trees on Council Land Procedure
	1l. Identify and promote benefits to protect, enhance and maintain greening to private land. Investigate mechanisms to incentivise private land holders for maintaining and protecting existing vegetation.
	1m. Develop and implement a pilot planting program to identify street tree species suitable for the changing climate.

IMPLEMENTING AND REPORTING RESPONSIBILITY	TIMING	PRIORITY	PERFORMANCE MEASURE
Strategic Catchment and Conservation Planning	1–3 year	High	Installation of greening to suburbs across the city.
Strategic Catchment and Conservation Planning	1–3 year	High	List of priority projects.
Strategic Catchment and Conservation Planning	1–3 year	Medium	Framework delivered and measuring underway.
Strategic Catchment and Conservation Planning	1–2 year	High	Analysis of thermal heat mapping.
Strategic Catchment and Conservation Planning	1–2 year Ongoing	High	Planning and implementation documents to note areas for future transport infrastructure
Infrastructure and Strategic Planning	1–2 year	High	Urban Greening species list endorsed by Council and implemented in council projects.
Strategic Catchment and Conservation Planning	1–3 year	Medium	Research used in suburb analysis.
Strategic Catchment and Conservation Planning	1–3 year	High	Council endorsement of the Succession Planting Strategy
Strategic Catchment and Conservation Planning Works and Field Services	1–4 year	Medium	Framework delivered and measuring underway.
Strategic Catchment and Conservation Planning Spatial, Asset Services	Ongoing	Medium	Information updated and available in council's spatial system.
Strategic Catchment and Conservation Planning	1–3 year	Medium	Policy is endorsed by council
Environment and Sustainability Education and Awareness	Ongoing	Low	Increase to Habitat Gardens memberships. Increase in canopy cover over time.
Fields Services and Strategic Catchment and Conservation Planning	1–2 years	Medium	Program is delivered and implemented with trees in ground and monitoring program underway

FOCUS AREA 2 AND TARGET	ACTIONS	
Focus Area 2: Manage the interface between greening and infrastructure. **Target:** 90% of new urban greening planting are successful and reach healthy maturity. **Target:** Minimum 50% of new landscape plantings to be local native species suited to local conditions.	**2a.** Develop an Urban Greening Implementation Process fact sheet for internal use, that explains the process of including greening in the planning, delivery and maintenance phase of a project, and which internal stakeholders should be informed and at what stage. (E.g. Engage Arborist from the beginning of the project through to maintenance phase.)	
	2b. Deliver the Urban Greening Implementation Process fact sheet to relevant ICC teams and have regular meetings (minimum 1 every quarter) to keep updated.	
	2c. Update ICC standard drawings to include greening requirements such as adequate space for tree planting, soil volumes and soil health requirements.	
	2d. Develop and implement a procedure for project managers to include greening requirements in consultants and contractors briefs (reference council documents such as Planning Scheme, ICC Streetscape Design Guidelines).	
	2e. Investigate mechanism for including greening requirements into all relevant council policies, and in all planning, design, construction and maintenance phase of projects.	
	2e. Develop and implement test plots for green roofs and walls using native species.	
	2g. Develop internal procedure/strategy to ensure the correct species is planted in the correct place to mitigate potential conflict at interface of planting and infrastructure. This will reduce long term costs at replacing trees in the wrong place.	
	2h. Investigate use of alternative design solutions such as structural cells where space and soil are limited. (E.g. alongside footpaths and services) and trial in council projects.	
	2i. Protect and enhance existing vegetation in areas marked for future development (E.g. Ripley).	
	2j. Investigate vacant tree sites on commercial and industrial land and develop a framework for working with the land owner to plant suitable shade trees to car parks and interface of public land and active transport routes, to reduce heat island effect and contribute shade to active transport routes. Investigate incentives.	
	2k. Develop framework for appropriate resourcing for the establishment period and then ongoing maintenance of all new trees planted within council land.	

IMPLEMENTING AND REPORTING RESPONSIBILITY	TIMING	PRIORITY	PERFORMANCE MEASURE
Strategic Catchment and Conservation Planning	1–2 years	High	Implementation of greening to suburbs within each Division.
Strategic Catchment and Conservation Planning	1–2 years	Medium	Urban greening included and delivered in council projects. Minuted meetings.
Infrastructure Strategy and Planning	1–2 years	High	Endorsed updated ICC standard drawings.
Strategic Catchment and Conservation Planning	1–2 years	High	Briefing template including greening requirements. Specification for tenders to include greening requirement.
Strategic Catchment and Conservation Planning	1–2 years	High	Published outcome of greening requirements.
Strategic Catchment and Conservation Planning Field Services	1–2 years	Low	Published outcome of test plots.
Strategic Catchment and Conservation Planning Field Services Planning and Regulatory Services	1–2 years	High	Reduction in costs outlaid for tree removal and replacement.
Relevant teams in Infrastructure and Environment	Ongoing	Medium	Completed projects that included alternative design solutions and published outcome.
Strategic Catchment and Conservation Planning Planning and Regulatory Services	Ongoing	High	No net loss. Maintained or increased canopy cover.
Strategic Catchment and Conservation Planning	1–3 years	Medium	Published outcomes.

FOCUS AREA 3 AND TARGET	ACTIONS
Focus Area 3: Enhance Biodiversity and Waterway Health. **Target:** All relevant council projects to incorporate additional opportunities for habitat for feeding and nesting e.g. installation of nesting boxes; connections to existing habitat; structured vegetation planting. **Target:** All council projects to incorporate opportunities to improve waterway health e.g. vegetation management; integrated stormwater management; soil health and erosion and sediment control.	**3a.** Identify and prioritise projects that have connectivity opportunities within the urban corridor to provide movement for a range of fauna. Ensure connection is prioritised in project identification and planning phase.
	3b. Develop and promote procedure for installation of nesting boxes within ICC parks (where suitable).
	3c. Promote water sensitive urban design solutions for implementation in areas to be upgraded (E.g. kerb and drainage projects; footpath upgrades).
	3d. Promote water sensitive urban design solutions for implementation in new developments.
	3e. Protect existing vegetation in areas of increased development.
	3f. Identify and pursue opportunities to improve biodiversity, fauna habitat and wildlife corridors through civil and landscape design including species selection.
	3g. Promote the importance of biodiversity values and waterway health through council social media platforms.
	3h. Ensure water sensitive urban design solutions are maintained so that trees/vegetation reach maturity in order to deliver greening benefits.

IMPLEMENTING AND REPORTING RESPONSIBILITY	TIMING	PRIORITY	PERFORMANCE MEASURE
Strategic Catchment and Conservation Planning	Ongoing	High	Implementation of greening to suburbs within each Division.
Strategic Catchment and Conservation Planning	1–2 Years	High	Delivered project that includes installed nesting boxes
Strategic Catchment and Conservation Planning and Infrastructure Strategy	Ongoing	High	Delivered projects that have water sensitive urban design solutions installed.
Strategic Catchment and Conservation Planning	3 Years	Medium	Delivered projects that have water sensitive urban design solutions installed.
Strategic Planning, Infrastructure Planning and Environment and Sustainability	Ongoing	High	Comparison of LiDAR information to identify loss of vegetation.
Strategic Catchment and Conservation Planning	Ongoing	High	Evidence that civil and landscape projects have been delivered including measures to protect existing vegetation and evidence of measures that enhancing biodiversity, vegetation and wildlife corridors.
Strategic Catchment and Conservation Planning	Ongoing	Medium	Published project outcome on council social media platforms.
Strategic Catchment and Conservation Planning	Ongoing	Medium	Delivered project that includes water sensitive urban design sollutions.

FOCUS AREA 4 AND TARGET	ACTIONS
Focus Area 4: Strengthen education, awareness and stewardship of urban greening. **Target:** Deliver 1 Planting Day activity in each Division each year. **Target:** All Natural Environment and Land Management events to distribute information to promote the Urban Greening Program including information and options for residents.	**4a.** Develop and implement a Community Engagement Plan for urban greening. This plan is to include the launch of the Urban Greening Plan.
	4b. Develop and implement an interactive web page that illustrates the city's street trees, significant trees, parks etc. Also include information on the life span of trees, importance of diversity and succession planting.
	4c. Promote information on social media platforms in relation to council's updated knowledge on native species suitable for residential lots; weed species and what native species can be used in it's place.
	4d. Plan and deliver community planting days in priority project areas. Provide information on tree care and benefits maintaining a healthy tree in relation to climate adaptation and heat island effect.
	4e. Develop and implement education program for schools on the benefits of urban greening.
	4f. Promote the value of shade from trees and trees as a valued asset.
	4g. Review current environmental education programs to include urban greening guiding principles.
	4h. Investigate mechanism for incentivising urban greening outcomes on private land.
	4i. Investigate mechanisms for incentivising private land holders to integrate greening with natural areas and riparian zones that adjoin their properties.
	4j. Develop and implement an online 'Greening Ipswich' web page where the community can drop a pin to identify locations for trees within the urban footprint.

IMPLEMENTING AND REPORTING RESPONSIBILITY	TIMING	PRIORITY	PERFORMANCE MEASURE
Strategic Catchment and Conservation Planning Environment Sustainability Education and Awareness	0–1 Year	High	Delivered community engagement event and implementation of greening to suburbs within each Division.
Strategic Catchment and Conservation Planning	1–2 Years	Low	Delivery of endorsed live web page and is functional.
Strategic Catchment and Conservation Planning Environment Sustainability Education and Awareness	Ongoing	Medium	Uploaded information on council's social media platforms.
Strategic Catchment and Conservation Planning Environment Sustainability Education and Awareness	Ongoing	High	Approved program.
Environment Sustainability Education and Awareness	Ongoing	High	Approved program.
Strategic Catchment and Conservation Planning	Ongoing	High	Information uploaded to council web site; Internal communication.
Environment Sustainability Education and Awareness	Ongoing	High	Updated environmental education program including urban greening guiding principles.
Strategic Catchment and Conservation Planning Environment Sustainability Education and Awareness	0–1 Year	Medium	Document outlining investigated mechanisms and next steps.
Strategic Catchment and Conservation Planning	2–3 Years	Medium	Document outlining investigated mechanisms and next steps.
Strategic Catchment and Conservation Planning	2–3 Years	Low	Endorsed and functional web page on council's web site.

Small Creek Redevelopment, Raceview, Ipswich

CONTEXT AND SITE ANALYSIS

6. CONTEXT AND SITE ANALYSIS

The following section demonstrates the research undertaken to understand the extent of canopy cover within the land use zones and movement networks noted below. (Movement network includes fauna movement).

Land Use Zones

- Public Parks and Open Space
- Residential
- Industrial/Commercial
- Road Hierarchy

Movement Networks

- Active Transport
- Urban Corridors
- Streets and Road Reserves

In order to understand the current level of greening within Ipswich urban footprint, 2019 LiDAR information has been used to create various spatial canopy layers. The overall canopy layer shows vegetation height from a minimum 1m up to 60m (verification of this is required) over Ipswich LGA. From this, further information on canopy % per suburb has been developed and will be analysed further.

Spatial layers developed are:

- Canopy Cover
- Waterways and Wetlands
- Parks and Open Space
- Urban Corridors

A percentage of canopy cover has been applied to each suburb and suburbs with the least amount of canopy cover will be investigated as a priority for project identification. Other vegetated areas such as urban corridors, public open space, riparian and wetlands were identified and mapped in order to understand all vegetated areas within the urban footprint. Further investigation will be undertaken to identify possible linkages between corridors, nodes and stepping stones to strengthen corridors for fauna movement.

The proposed process for project identification is to investigate four greening categories within each suburb. The greening categories are:

- Street and road reserve
- Urban corridor
- Council parks and open space
- Active travel routes (Bikeways and walkways)

The total area of the urban footprint, taken from 2019 LiDAR information, is 40 962 HA, with the total canopy cover being 11 172 HA giving a percentage of 27.2% canopy cover for the urban footprint.

It is proposed that the Plan will work towards achieving a 10% increase to canopy cover within high priority suburbs on public land by 2042. This will be across the four greening categories. Further investigation and validation of achieving the increase is required.

Literature review of greening targets for other Australian cities found:

Urban Forest Strategy, City of Melbourne

Increasing canopy cover from 22 per cent to 40 per cent by 2040. Increasing forest diversity with no more than five per cent of one tree species, no more than ten per cent of one genus and no more than 20 per cent of any one family, improving vegetation health.

Greening Sydney Strategy, City of Sydney

Our target is to increase overall green cover to 40% across our area, including a minimum of 27% tree canopy by 2050.

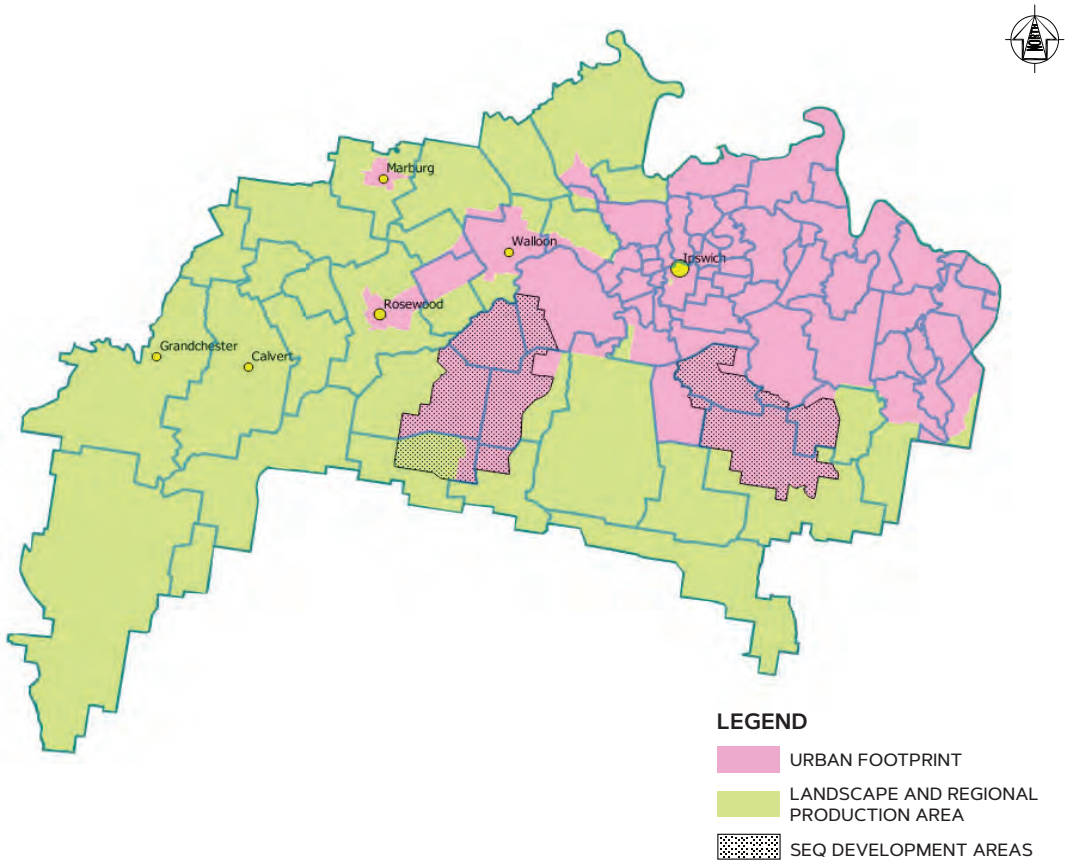
Brisbane's Urban Forest – Brisbane City Council

Increase tree shade cover to 50% for footpaths and bikeways in residential areas by 2031

Greening Our City – City of Gold Coast

We have an urban tree canopy cover target of 50% by 2031.

6.1 Ipswich Local Government Area



The map above shows the Ipswich Local Government Area which is made up of the Urban Footprint (Pink area) and Landscape and Regional Production Area (Green area). The hatched areas represent the South East Queensland Development Areas.

6.2 Spatial Layers

A number of council spatial layers will be used to provide base information in the identification of greening sites. The spatial layers include:

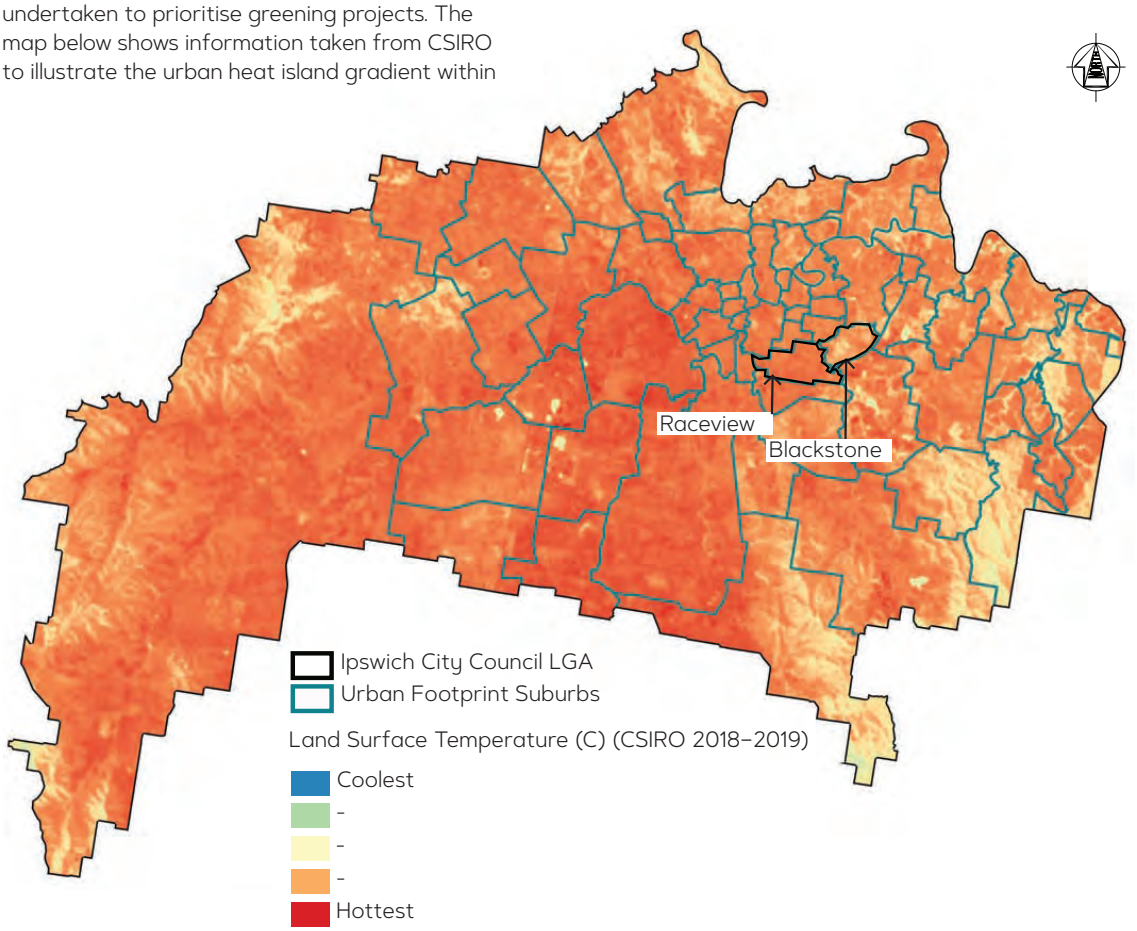
- Administrative boundaries
- Cadastral information
- Land use
- Topographic overlays
- Canopy Cover (from 2019 LiDAR information)
- Waterways and Wetlands (within the urban footprint)
- Parks and Open Space (within the urban footprint)
- Urban Corridors (within the urban footprint).

Additionally, heat mapping along with maps provided by the Australian Bureau of Statistics to show areas where socially vulnerable groups are located, will be included in the base information. The collation of this information will inform a multi criteria assessment undertaken to prioritise greening projects. The map below shows information taken from CSIRO to illustrate the urban heat island gradient within Ipswich LGA and more specifically, the urban footprint. This information is from 2018–2019 Land Surface Temperature.

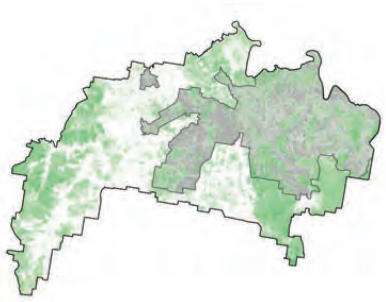
The suburbs of Raceview and Blackstone have been noted on the map below for comparison between highly urbanised areas (Raceview) and adjacent less urbanised area (Blackstone). The lighter coloured (vegetated) area within Blackstone is Castle Hill Blackstone Reserve. Development is not suitable in this area due to the history of underground mining.

To give a further comparison, the percentage of canopy cover over Raceview is 15.4% with a population of 15,581 (2016 ABS information) where as Blackstone has 46.3% canopy cover with a population of 1,024 (2016 ABS information).

Further investigation into land uses within the urban footprint will be undertaken to understand where the hotter areas are and why, and what mitigation measures, such as shade trees along active travel routes and connection of urban corridors etc can be implemented.

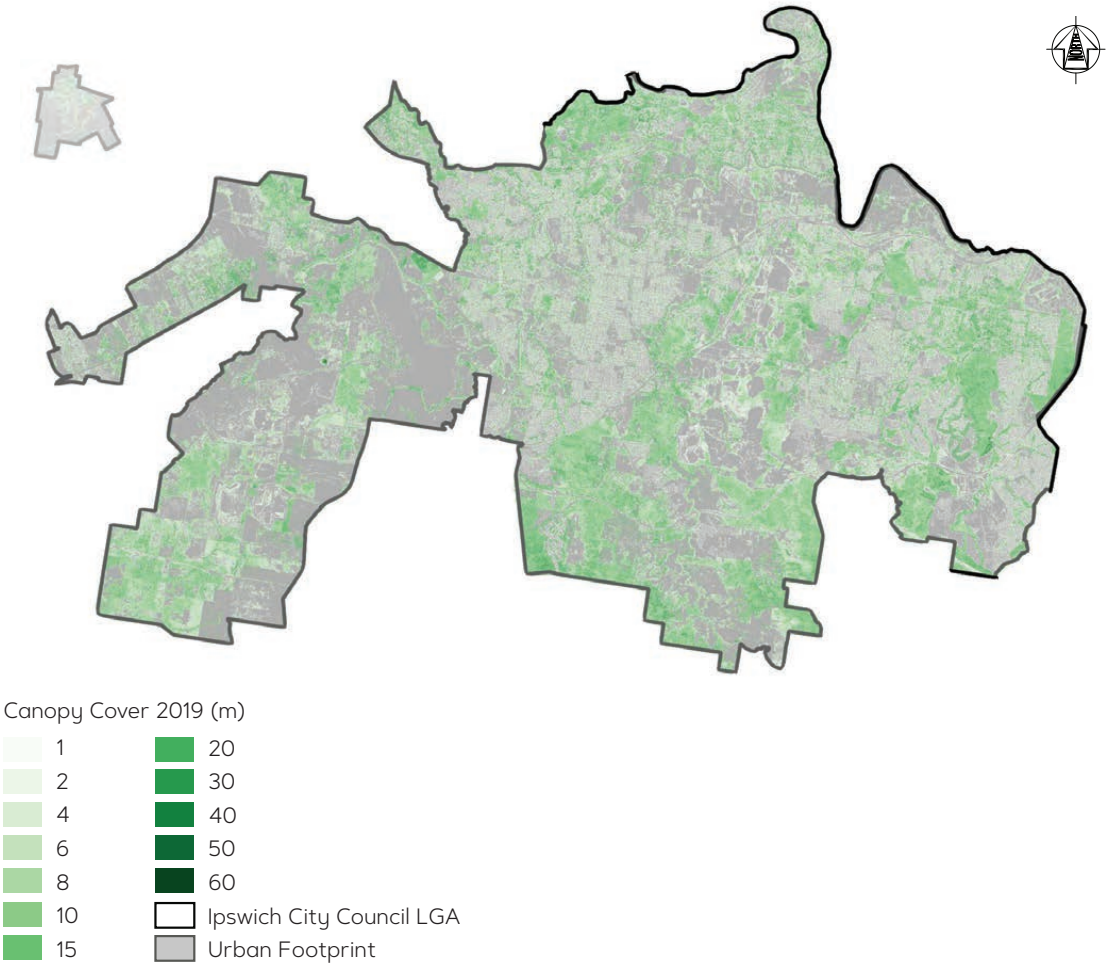


6.3 Ipswich Urban Footprint with Canopy Cover



The map below shows the urban footprint with canopy cover, taken from 2019 LiDAR information. This information will be used in conjunction with heat mapping, land use and land type, as well as ground truthing, to identify and prioritise opportunities for greening.

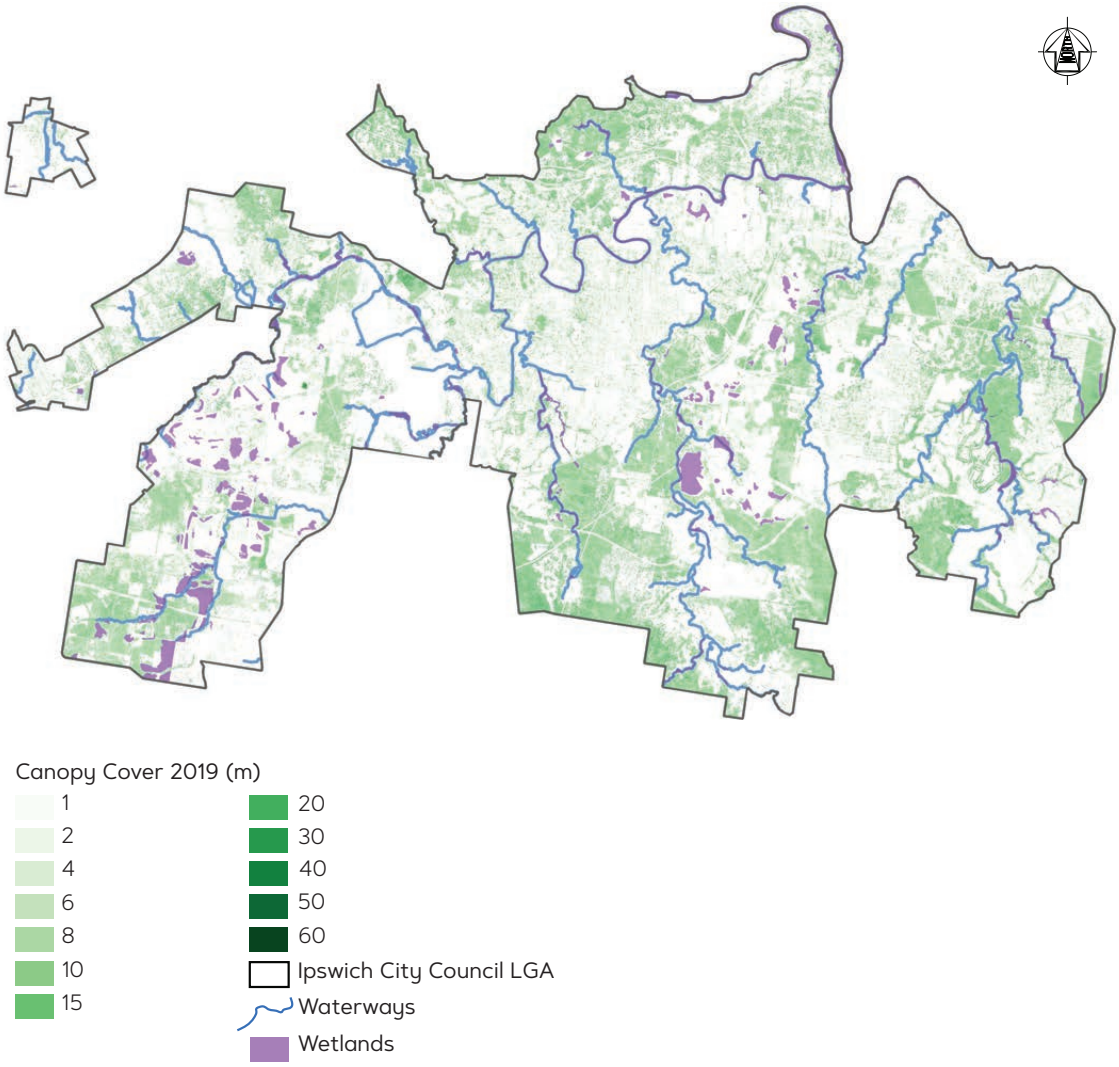
Also, further manipulation of this LiDAR, will be undertaken to provide a % canopy cover for the four greening categories, providing a baseline to work towards the greening targets.



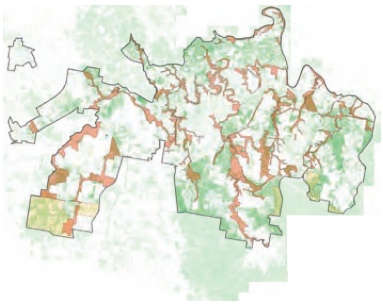
6.4 Waterways and Wetlands

The map below shows the urban footprint with canopy cover taken from 2019 LiDAR information and the location of waterways and wetlands.

This will be used to in conjunction with heat mapping, land use and land type information to identify opportunities for increasing greening as well as improving the health of waterways and wetlands through implementation of green infrastructure such as water sensitive urban design solutions.



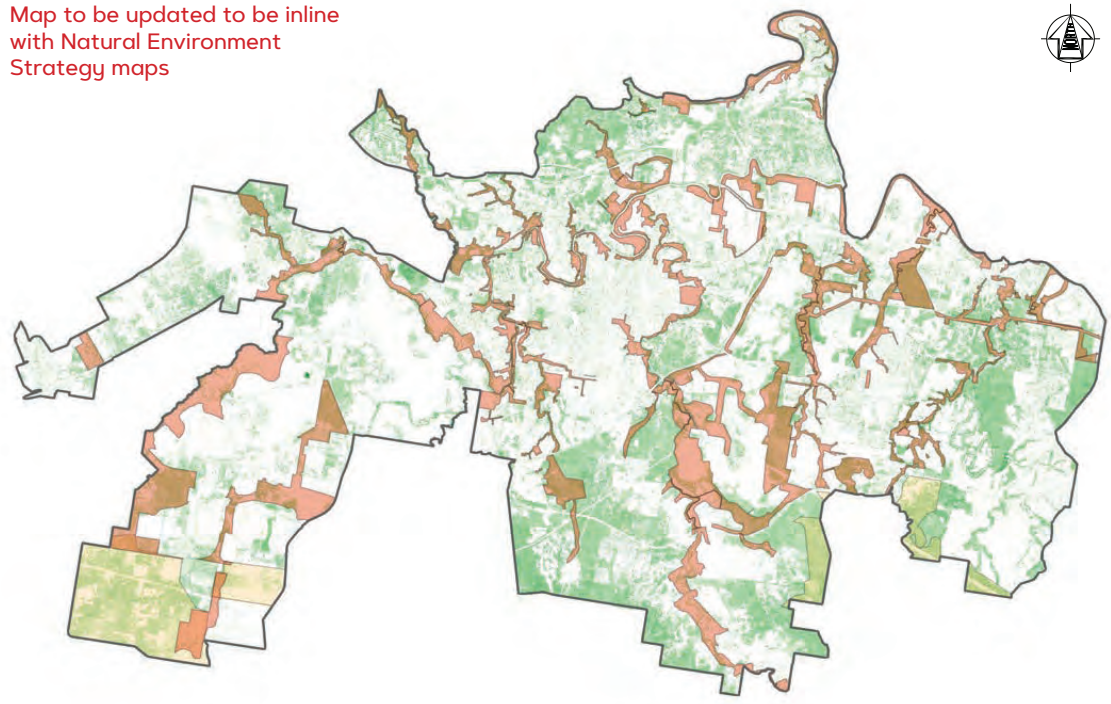
6.5 Urban Corridors



The map below shows the urban footprint with canopy cover taken from 2019 LiDAR information and the location of urban corridors.

This will be used in conjunction with heat mapping, land use and land type information to identify opportunities for increasing connectivity with the urban corridors to improve biodiversity and movement for fauna within the urban footprint.

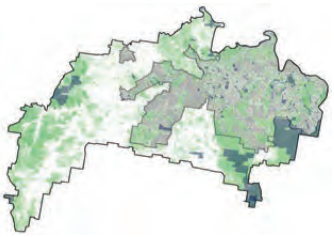
Map to be updated to be inline with Natural Environment Strategy maps



Canopy Cover 2019 (m)

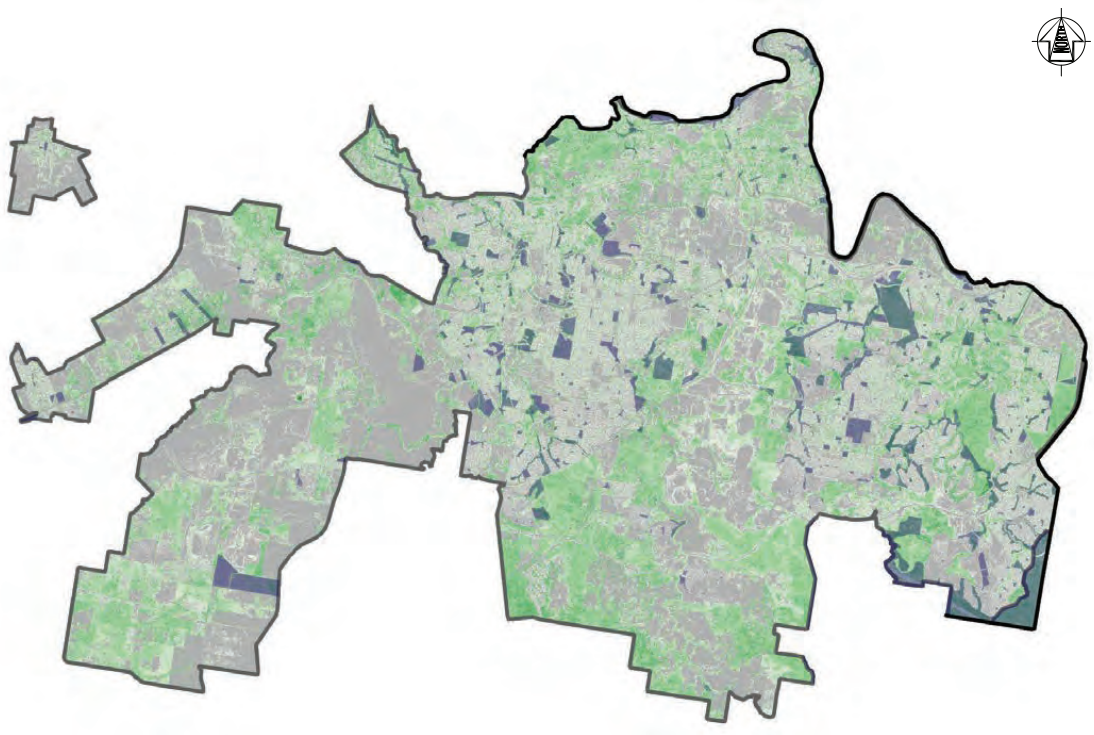
1	20
2	30
4	40
6	50
8	60
10	Ipswich City Council LGA
15	Urban Corridor (Nature Conservation Strategy 2015)

6.6 Parks and Open Space



The map below shows the urban footprint with canopy cover taken from 2019 LiDAR information and the location of parks and open space.

This information will be used in conjunction with heat mapping, land use and land type information to identify opportunities for increasing greening benefits such as shade, habitat and visual amenity, within parks and open space.



Canopy Cover 2019 (m)

- 1
- 2
- 4
- 6
- 8
- 10
- 15
- 20
- 30
- 40
- 50
- 60
- Ipswich City Council LGA
- Open Space

RACEVIEW CASE STUDY AND NEXT STEPS

7. RACEVIEW CASE STUDY

This case study of Raceview is intended to give an overview of the information required to understand the current greening situation for each suburb within the urban footprint. Raceview has been selected for the case study as it has a canopy cover of 15.4%, one of the lowest within the urban footprint. Further investigation of greening sites will be undertaken.

Information reviewed will include:

- vegetation changes over time
- land use and land type
- canopy cover %
- parks and open space
- urban corridors
- waterways and wetlands
- biodiversity mapping

Heat mapping will be included once the data is available.

It is intended that this information will be analysed further to identify priority areas for greening.

7.1 Vegetation Changes Over Time

This section looks at the changes of vegetation cover over time within a section of Raceview.

The aerial imagery on pages 43 and 44, provide a tool to compare land uses and changes in vegetation over a 76 year period in Raceview. The aerial images are dated 1955, 1971, 2002 and 2022. Significant changes are illustrated in Small Creek and Deebing Creek, which are highlighted in each image to compare the changes over time.

- Image 1, taken in 1955, page 43, shows Small Creek and Deebing Creek as cleared within farming land
- Image 2, taken in 1971, page 43, shows Small Creek and Deebing Creek slightly more vegetated than shown in 1955. There is more development to the north of the creeks.
- Image 3, taken in 2002, page 44, shows Small Creek remaining as a realigned concrete channel as in 1971.Deebing Creek show a thickly vegetated along the creek line
- Image 4, taken in 2022, page 44, shows the efforts of council and community working together, towards the same goals to improve and enhance waterway health of Small Creek and the natural areas surrounding it. Deebing Creek is thickly vegetated.

Images on page 45 show Small Creek as a concrete channel and as it is today, a healthy, vegetated, naturalised waterway providing benefits to the community and environment.

1955 Ipswich including Small Creek and part of Deebing Creek, Raceview. Cleared of vegetation for farming. (Source: QImagery)

Aerial view of part of Ipswich in 1971. This image shows Small Creek and part of Deebing Creek, Raceview. Increase in development to the north of Small Creek. (Source: QImagery)

Small Creek, Raceview in 2002. Concrete swale within mown grassed area. (Source: QImagery)

Small Creek, Raceview in 2022. Naturalised water way and shared pathway. (Source: Nearmap)

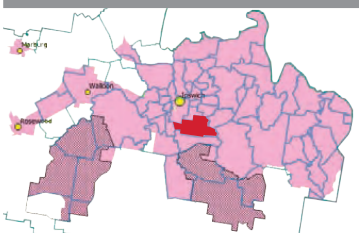
Small Creek Pre 2016 – Concrete swale within a maintained grass drainage corridor. (Source: Ipswich City Council)

Small Creek Stage 3 – Shared Path from Briggs Road to Poplar Street, Raceview.

Small Creek Stage 3 – Naturalised creek 2022

Small Creek Stage 3 – Blue Gum contains hollows which provides shelter and nesting locations for local wildlife.

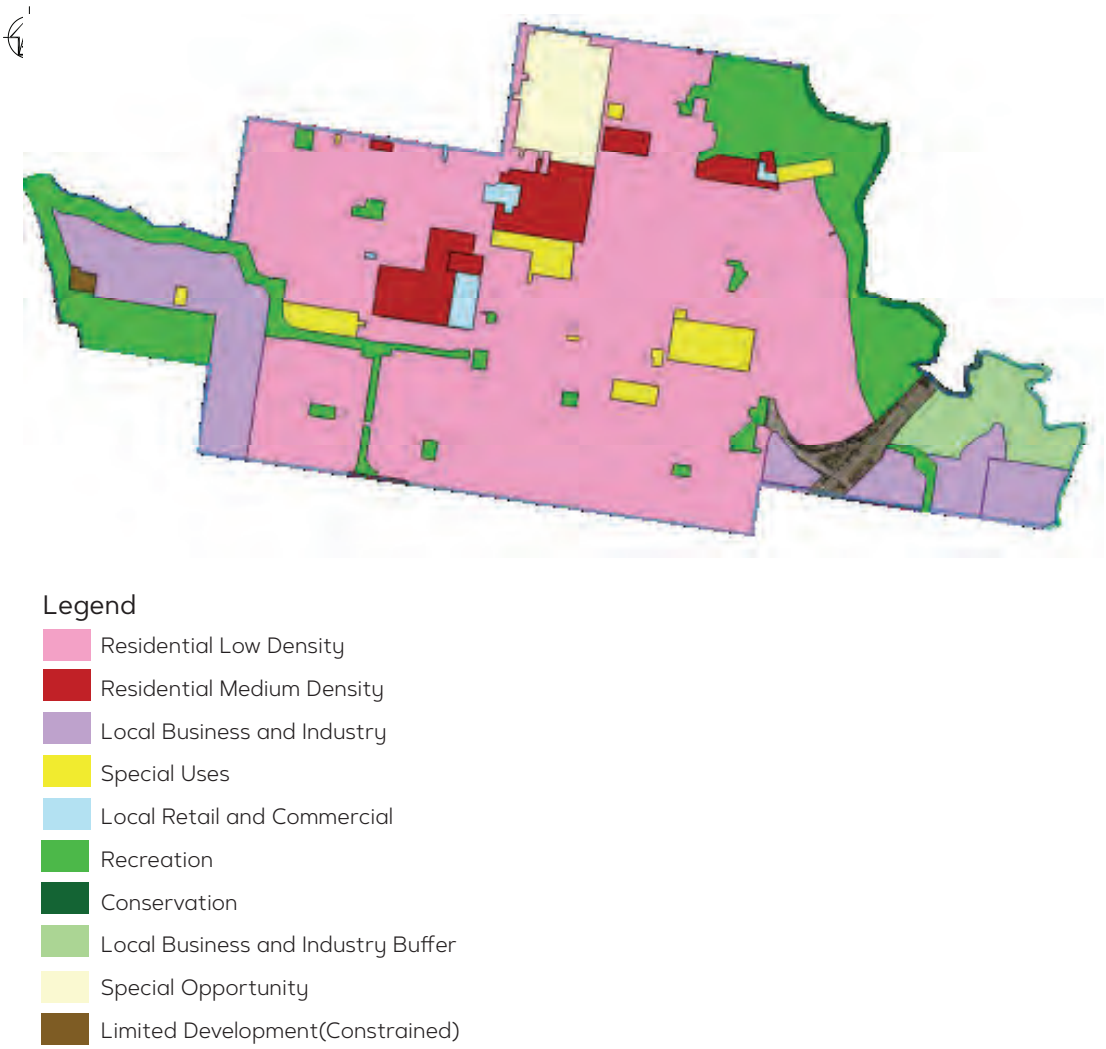
7.2 Raceview – Land Use



Key Map

The Raceview Land Use Map, below, shows Residential Low Density makes up the majority of land use. Raceview is bounded by Briggs Road, Cemetery Road, Raceview Street and Robertson Road in the north, Bundamba Creek in the east, the Cunningham Highway in the south, and Deebing Creek in the west. The 2021 Estimated Resident Population for Raceview is 16,013, with a population density of 1,748 persons per square km. (Source: **https://profile.id.com.au/ipswich/locality-snapshots?WebID=32405300**).

Raceview Land Use Map



7.3 Canopy Cover Overlay on Open Space, Waterways and Building Footprint

The canopy cover for Raceview has been reviewed in conjunction with the land use and transport networks to understand the location of current cover. This provides base information which will assist in identifying greening opportunities and working towards an increased canopy cover. Raceview canopy cover % taken from 2019 LiDAR information is 15.4%.

Additionally, the suburb boundaries to the east is Bundamba and to the west is Deebing Creeks, with small parks distributed throughout the Residential Low Density area. This provides opportunity to investigate the connection of greening to provide shaded active travel routes between parks.

Raceview Canopy Cover and Land Use

Building Footprint
- Cascade Gardens
- Mulberry Tree Chile Care
- Raceview Congregational Kinder
- Raceview Pre School
- Raceview State School
- Raceview Tavern
- Thornton Court
- Bethany Lutheran Primary School
- Carinity Elim Estate Retirement Living
- Karen's Kindy
- Southern Cross Care – St Mary's
- Medical Services
- Translink Stops
- Road Network
- Criterion Track
- Bikeway
- Small Creek Bikeway
- Pedestrian Network
- Translink Routes
- Ipswich Railway
- Water Course
- Urban Suburb
- Parks and Reserves

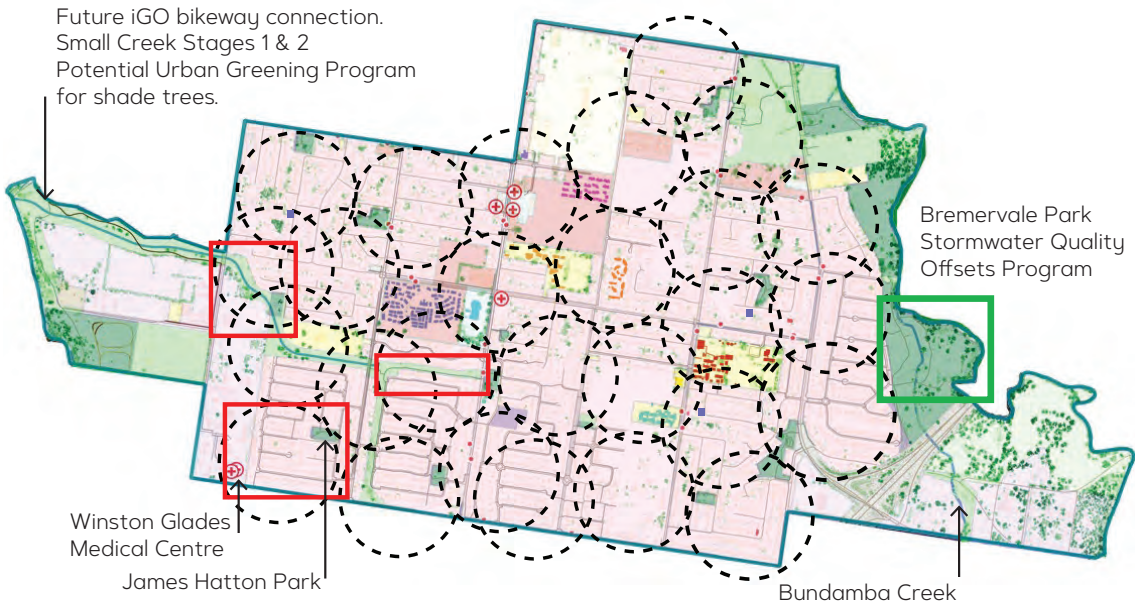
Canopy Cover Height 2019 (m)
- 1
- 4.35
- 7.71
- 11.1
- 14.4
- 17.8
- 21.1
- 24.2
- 26.8

7.4 Raceview – Indicative Greening Investigation Areas

Greening project identification selection criteria includes:

- 400m walkability to medical, transport, schools, shops
- Identification of socially vulnerable areas within the 400m radius of utilities
- Availability of space for trees/greening
- Suitability and safety within road/speed environment

Raceview Land Use Map with indicative 400m radius



Legend

- Residential Low Density
- Residential Medium Density
- Local Business and Industry
- Special Uses
- Local Retail and Commercial
- Recreation
- Conservation
- Local Business and Industry Buffer
- Special Opportunity
- Limited Development (Constrained)
- Indicative 400m radius areas to be investigated for greening sites
- Current sites identified for greening
- Program within and adjacent to urban corridors
- Medical Centres
- Translink Bus Stops
- Indicative location of Habitat Gardens members
- Creek

7.5 Raceview – Indicative Investigation of 400m Radius from Winston Glades Medical Centre

This section of map illustrates Winston Glades Medical Centre within 400m walkable distance from James Hatton Park. The map also shows overlay of the canopy cover, taken from 2019 LiDAR information.

Street names have been added to correlate to the table below which has the % canopy cover for each street. The streets will be investigated further to identify vacant greening sites.

STREET NAME (Within 400m walking distance to Winston Glades Medical Centre)	CURRENT % CANOPY COVER (Baseline survey taken from 2019 LIDAR information)
Aimie Place	3.4%
Anna Drive	3.2%
Brittany Crescent	1.9%
Katie Way	2.7%
Katrina Way	4.8%
Kristie Court	3.0%
Sarah Place	2.6%

7.6 Next Steps

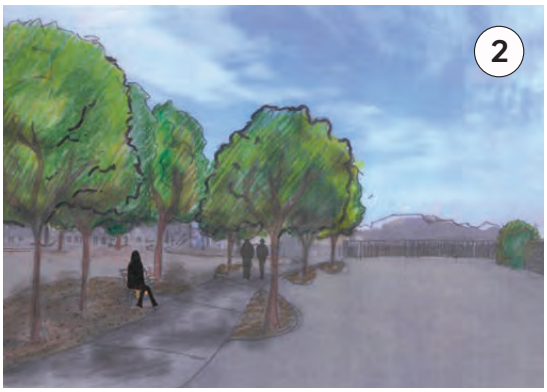
The next steps for the Urban Greening Plan will be to focus on analysing base information in the form of canopy % and thermal heat mapping, per greening category, to identify and high priority areas within the city's urban footprint. Additionally, on going site investigation, identification and planting of vacant tree site.

The below images are an example of the process undertaken. Image 1 below, show James Hatton Park in 2021, identified through local knowledge as a potential park pathway in need of shade. Image 2 shows an artists impression of how the seat and path would look with shade trees. The canopy of the trees provide shade, cooling, habitat, sequester carbon and visual amenity.

Image 3 shows a concept plan developed to provide shade to the park path as well as adjoining streets, Katie and Katrina Way. The trees on these streets will improve conditions for residents to walk comfortably to Winston Glades Medical Centre.

The shaded streets and path are an example of how the Urban Greening Plan vision will be realised, providing a connected, resilient, and valued green Ipswich.

1. James Hatton Park, Raceview, 2021.



2. Artist impression of shaded seating and walkway in James Hatton Park.

3. Concept plan for shading to James Hatton Park walkway, Katie Way and Katrina Way. This contributes to increasing the % canopy cover within the 400m walkable neighbourhood to Winston Glades Medical Centre.

8. GLOSSARY

Active Transport	Physical activity undertaken as a means of transport, such as walking or cycling.
Urban Biodiversity	Refers to the diversity of plants and animals and their inter-relationships with the land, air, water, people and other infrastructure within an urban environment.
Canopy Cover	The above-ground portion of a vegetation type, formed by plant crowns. In a woodland or forest, the canopy is formed by the crowns of trees and sometimes large shrubs. The canopy can be further divided into upper, mid and lower canopy layers. The tallest plants of a vegetation type form the upper canopy layer. A measure of how much the plant canopy covers the ground.
Carbon Sequestration	A natural or artificial process by which carbon dioxide is removed from the atmosphere.
Carbon Storage	The amount of carbon held within a trees tissue, mainly the roots, stem and branches.
Climate Adaptation	The process of adjustment to actual or expected climate and its effects.
Climate Change	The observed increases in global temperatures due to human activities, such as the burning of fossil fuels (coal, oil and natural gas), agriculture and land clearing. Changes in the climate include increases in global average air and ocean temperature; widespread melting of snow and ice, and subsequent rising global sea level; and increases in concentration of atmospheric carbon dioxide causing ocean acidification (Australian Government Department of Environment and Energy).
Core Habitat	Core habitat areas are larger vegetated areas which provide habitat for a variety of the city's biodiversity and shelters the majority of matters of environmental significance. Due to their size and generally good condition, these areas assist in ensuring conservation of a diverse range of native species and ecosystems as well as providing a variety of functions resulting in the services fundamental for human well-being. These, therefore, provide the most critical areas for nature conservation measures across the local government area.
Corridor	Corridors are connections across the landscape that link up areas of habitat. They support natural processes that occur in a healthy environment, including the movement of species to find resources, such as food and water.
Ecosystem	A system formed by the interaction of a community of organisms with their environment.
Ecosystem Services	Ecosystem services refer to transformation of natural assets (soil, plants and animals, air and water) into things that we value through natural or enhanced ecological processes; i.e. those organisms and processes which clean our air and water, pollinate plants, filter and recycle nutrients, modify our climate, control floods and improve soil fertility, and enhance the aesthetic and cultural benefits that derive from nature.
Evapotranspiration	Evapotranspiration is the term used to describe the part of the water cycle which removes liquid water from an area with vegetation and into the atmosphere by the processes of both transpiration and evaporation.

Green Infrastructure	The network of natural landscape assets, which underpin and provide for the economic, socio-cultural and environmental functionality of our cities and towns. Examples of green infrastructure includes urban parks and reserves, wetlands and stream corridors, street trees and roadside verges, gardens and vegetable patches, bikeways and pedestrian trails, wall and rooftop gardens, orchards and farms, cemeteries and derelict land (CSIRO).
LiDAR (Light detection and ranging)	LiDAR is a remote sensing method that uses light in the form of a pulsed laser to measure ranges (variable distances) to the earth.
Strategic Remnant	Strategic remnants are patches of remnant vegetation or high-value regrowth strategically located within the habitat network to facilitate the movement of biodiversity across the landscape by providing stepping stones within identified wildlife movement corridors. These stepping stones are located close enough to each other for some species to be able to move from one patch to the next. They are mostly suitable for highly mobile animals.
Stepping-stone	Patches of smaller scale and isolated vegetation scattered through the landscape that provide habitat or refuge.
Stepping-stone Corridor	Patchwork or series of isolated vegetation providing some potential connection for the movement of wildlife species to larger nodes or core habitat areas i.e., birds. For the purpose of landscape planning, they are typically 100m wide.
Urban Corridor	Urban corridors are connections across the landscape that link up areas of habitat. They support natural processes that occur in a healthy environment, including the movement of species to find resources, such as food and water. Corridors can contribute to the resilience of the landscape in a changing climate and help to reduce future greenhouse gas emissions by storing carbon in native vegetation.
Urban Footprint	The Urban Footprint identifies the extent of land needed to accommodate the region's urban growth to the projected year. (ShapingSEQ)
Urban Greening	The network of natural and semi-natural areas that deliver a range of environmental,economic and social values and benefits to urban places, including protection from flooding or excessive heat, or improving air and water quality, whilst also protecting biodiversity. Examples of urban greening include urban tree canopies, parks and sport fields,nature reserves and wildlife corridors, waterways and wetlands, stormwater harvesting systems, green roofs and walls, and tree-lined streets and pathways.
Urban Heat Island Effect	Increased surface temperatures during summer months in urbanised areas resulting from paved surfaces such as asphalt and dark building surfaces which absorb and release more heat from the sun during the day and the night-time than the natural landscape, thereby increasing the ambient temperature and prolonging periods of higher air temperature.
Water Sensitive Urban Design	Water Sensitive Urban Design is a set of principles that can be applied to sustainably manage water, providing opportunities for the development industry, local government and their communities to achieve more liveable cities with vibrant and healthy waterways.

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Item 2 / Attachment 1.

Doc ID No: A8166293

ITEM: 3

SUBJECT: RESULTS OF 2021-2022 PLATYPUS MONITORING PROGRAM

AUTHOR: WATERWAY HEALTH OFFICER

DATE: 7 JULY 2022

EXECUTIVE SUMMARY

This is a report concerning the results of Ipswich City Council's 2021-2022 platypus monitoring program. This sampling represents the sixth platypus monitoring event Council has undertaken across the city's waterways in the last seven (7) years. The on-going program aims to inform our understanding of the distribution of platypus in the city's waterways, and to detect any changes or impacts to their populations. This year's results indicated a severe decline in local platypus populations, which is concerning and emphasises some key threats to the health of our waterways, and the importance of Council's on-going monitoring and waterway improvement programs.

RECOMMENDATION/S

A. That Council investigate and support programs for reducing sediment-laden runoff entering our natural waterways and adversely impacting platypus habitat.

B. That Council continue to deliver the on-going annual platypus monitoring program, as well as waterway health projects to improve water quality and habitat condition to protect the city's remaining few platypus populations.

RELATED PARTIES

There are no related party matters nor conflicts of interest associated with this report.

IFUTURE THEME

Natural and Sustainable

PURPOSE OF REPORT/BACKGROUND

Platypus eDNA monitoring involves passing a sample of water from a waterway through a fine-meshed filter and then analysing the filter media for the presence of platypus DNA. A 'Positive' result indicates platypus presence, a 'Negative' result indicates platypus absence, whilst an 'Equivocal' result indicates platypus *may* be present (through a small or partial DNA match).

The most recent monitoring program was undertaken in June 2022, at 22 sites across 10 of the city's major waterways. Monitoring this year was of particular importance, with many

questions being raised around how the flood events and continued land-use change may have impacted platypus habitat and distribution.

The results obtained this year were particularly concerning, with only a single 'Positive' result recorded from Sandy Creek site 2, near the Logan Motorway at Carole Park. An additional three (3) sites returned 'Equivocal' results, being Goodna Creek site 2, Sandy Creek site 2 and Woogaroo site 4. The remaining 18 sites all returned 'Negative' results. See Attachment 1 - Wildlife Queensland Platypus eDNA Report - 2022 Ipswich City Council.

Of particular note, is that seven (7) of the sites that returned a 'Negative' result, have been confirmed as 'Positive' sites at some point over the past seven (7) years. This is especially evident in the Opossum and Woogaroo catchments which throughout the program have been recognised as the city's primary strongholds, regularly returning 'Positive' results in the past. However, across six (6) sampling sites in these catchments this year, no 'Positive' results were recorded. See Attachment 2 – Platypus Monitoring Program Results Summary.

This is an alarming outcome, given last year's report from Wildlife Queensland identified the declining water quality and habitat condition in Woogaroo and Opossum creeks as the greatest threat to the city's primary platypus populations. It was reported last year that water turbidity was significantly worse than previous years and resultant from sediment entering these systems. This trend continued this year, with extremely high turbidity noted at all sites in the Woogaroo and Opossum catchments.

It is likely this contributed to the concerning results received, as excessive turbidity and sedimentation of waterways impact all of the critical factors required for high quality platypus habitat, including;

- pool depth and water permanency,
- habitat complexity (i.e. in-stream habitat features),
- water clarity and quality, and
- food availability.

The primary source of sediment and turbidity entering waterways is rainfall runoff from areas of exposed soil associated with vegetation clearing, development and construction. These types of activities continued to intensify in the past 12 months throughout the Woogaroo and Opossum catchments and given the amount of runoff experienced in this period, has had considerable impact on waterway condition.

This issue can be managed through appropriately implemented erosion and sediment controls however these results, coupled with the declining condition of these systems, indicate this may not be occurring. The foremost recommendation from the monitoring program results is that Council ensures best practice erosion and sediment controls are implemented on areas of cleared land with exposed soil, such as active development and construction sites. This will result in improved water quality and habitat conditions in our waterways, and reduce the significant investment required on Council's behalf to manage sediment once it has entered waterways.

Flood events of February and May 2022 may have also had some influence on the lack of detections this year. Major flood events can physically displace individuals, as well as force them to seek new habitats with more desirable conditions following changes to waterway form. Displaced individuals may return to their former habitats following flooding and a follow up monitoring event six (6) months post-flood (late 2022) will be carried out to detect whether populations return to their known former reaches.

Furthermore, to facilitate the recovery of our waterways following the flood events, it is critical that on-going waterway health initiatives to improve water quality, in-stream habitat and riparian condition are continued throughout the city's waterways. We have a number of projects planned this financial year such as the Woogaroo Creek streambank stabilisation, the Woogaroo Creek fishway along with a number of riparian revegetation sites which will all deliver improvements to waterway health.

On-going questions remain around the impacts that other issues such as in-stream barriers and low source population numbers may be having on the ability of platypus to access and populate new areas such as Bundamba Creek, Warrill Creek and the Bremer River. These questions will be best informed by the on-going annual monitoring program and the potential future detection of new populations in previously uninhabited sites.

LEGAL/POLICY BASIS

This report and its recommendations are consistent with the following legislative provisions:
Environmental Protection Act 1994
Local Government Act 2009

RISK MANAGEMENT IMPLICATIONS

The declining water quality and habitat conditions of Woogaroo and Opossum creeks presents a significant risk to platypus populations, and the broader aquatic ecology of these systems. Whilst generally disappointing across all sites this year, the results for these two (2) catchments in particular are of particular concern given these systems have been recognised as being the city's primary strongholds for platypus since 2016.

Whilst the flood events of February and May 2022 have likely influenced this year's results, of greater concern is the continued impacts to key waterways from erosion and sediment. The Queensland State Government sets Water Quality Objectives for all waterways, which are based on maintaining environmental and ecological values. These water quality objectives set out targets that should be met for key parameters that can influence aquatic diversity.

These water quality objectives set a target of less than 6mg/L of total suspended solids (i.e.- sediment) for the Woogaroo catchment, including Opossum and Mountain Creeks'. Water quality monitoring results taken in the lower reaches of Woogaroo Creek in early February, prior to the major flooding event, returned results of 2,753mg/L, whilst Opossum Creek returned results of 1,358.7mg/L. These results are magnitudes higher than the environmental guideline of 6mg/L and highlight just how serious of an issue sediment loads in the catchment are.

Council is in the fortunate position in being able to play a critical role in managing sediment entering waterways and can do so through ensuring compliance with best practice erosion and sediment controls on areas of exposed soil such as cleared development land.

If this issue of extreme sediment loads entering our waterways is not appropriately dealt with, there is a high risk that platypus, along with other aquatic life, will not return to the city's waterways.

The continuation of on-going waterway health initiatives to improve the condition of the city's waterways will also contribute to managing risk. Programs delivering riparian revegetation, streambank stabilisation and water quality improvement will be critical to improving the condition of our waterways and supporting our remaining platypus populations.

HUMAN RIGHTS IMPLICATIONS

HUMAN RIGHTS IMPACTS	
OTHER DECISION	
(a) What is the Act/Decision being made?	This report has two key recommendations. Recommendation A proposes that Council investigates and supports programs for reducing sediment-laden runoff entering our natural waterways and adversely impacting platypus habitat. Recommendation B proposes that Council continue to deliver the on-going annual monitoring program, as well as waterway health projects to improve water quality and habitat condition to protect the city's remaining few platypus populations.
(b) What human rights are affected?	No human rights are affected by these recommendations.
(c) How are the human rights limited?	Not applicable.
(d) Is there a good reason for limiting the relevant rights? Is the limitation fair and reasonable?	Not applicable.
(e) Conclusion	The decision is consistent with human rights.

FINANCIAL/RESOURCE IMPLICATIONS

Recommendation A of this report proposes that Council investigates and supports programs for reducing sediment-laden runoff entering our natural waterways and adversely impacting platypus habitat. A priority program of focus would be ensuring best practice erosion and sediment controls are correctly implemented on areas of cleared land, such as active development sites.

Through discussions with Council's Planning and Regulatory Services team, ensuring compliance with appropriate erosion and sediment controls may be best achieved through a proactive compliance program in addition to reactive compliance.

By doing this, Council can take a proactive approach of ensuring sediment remains on the land and is not transported in runoff to waterways. This is significantly more cost-effective than Council funding restoration works after the sediment has reached the waterways.

The broader recommendations for on-going monitoring and habitat improvement works will be delivered through the existing operational and capital programs associated with the Waterway Health Strategy. These include the Waterway Recovery Program, the Natural Environment and Stormwater Program and the Habitat Connections Program. These programs are critical in allowing Council to deliver projects that improve waterway health.

COMMUNITY AND OTHER CONSULTATION

No internal or external consultation has been undertaken as part of this report. Some distribution of these results has occurred throughout Council's Natural Environment and Land Management team, as well as to private landholders who allowed Council to access waterways for sampling through their property. All private landholders contacted for access were extremely supportive of this monitoring program and hope that platypus become established once again throughout our waterways.

CONCLUSION

The 2021-2022 platypus monitoring program has been the most concerning since the program's commencement, with only a single positive result recorded. On-going threats associated with urban development such as declining water quality, erosion, sedimentation of waterways and habitat degradation threaten their long-term sustainability. Flood events of February and May 2022 have also likely contributed to this year's results, and a follow up monitoring event to detect signs of population recovery later this year will be carried out.

It is expected through Council playing a key role in ensuring erosion and sediment controls are implemented in areas of cleared vegetation, as well as the continued delivery of waterway rehabilitation programs, the city's platypus populations can continue to persist throughout our waterways.

ATTACHMENTS AND CONFIDENTIAL BACKGROUND PAPERS

1	Wildlife Queensland - Platypus eDNA Report - 2022 Ipswich City Council ⇩
2	Platypus Monitoring Program Results Summary ⇩

Jack McCann
WATERWAY HEALTH OFFICER

I concur with the recommendations contained in this report.

Belinda Whelband
TEAM LEADER (STRATEGIC CATCHMENT AND CONSERVATION PLANNING)

I concur with the recommendations contained in this report.

Kaye Cavanagh
MANAGER, ENVIRONMENT AND SUSTAINABILITY

I concur with the recommendations contained in this report.

Sean Madigan
GENERAL MANAGER - INFRASTRUCTURE AND ENVIRONMENT

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

Environmental DNA (eDNA) Survey for Platypus Across Ipswich

2022

Prepared for:

Jack McCann
Waterway Health Officer (Infrastructure and Environment Department)
Ipswich City Council
(07) 3810 6975

Prepared by:

Tamielle Brunt
University of Queensland
Gatton, QLD 4343

On behalf of:

The Wildlife Preservation Society of Queensland
1/30 Gladstone Road
Highgate Hill, QLD 4101
Australia

Review Table

Version Number	*Reviewed By*	*Date*	*Status*
V1	Tamielle Brunt	24/06/2022	Draft
V2	Matt Cecil	29/06/2022	Revised
Final	Tamielle Brunt & Matt Cecil	30/06/2022	Published

Contents

Summary

The Wildlife Preservation Society of Queensland (Wildlife Queensland) is a not-for-profit, non-Government wildlife advocacy organisation. Wildlife Queensland manage the PlatypusWatch Network, a focus group for community engagement, conservation, education and research on the platypus in Queensland.

To better understand platypus distribution in the Ipswich region, Wildlife Queensland has partnered with the Ipswich City Council who have provided funding for an environmental DNA (eDNA) project. This project is in its seventh year, collating important distribution data on local platypus populations.

Since the 2021 eDNA sampling period South East Queensland has experienced substantial flooding events (November 2021 and February/March 2022), which impact platypus distribution and habitat. Therefore, this year's sampling was important to determine any impact these events may have caused on populations.

This year (2022), 22 sites were sampled across 10 waterways, one site was included within the Brisbane LGA. Platypus DNA was not identified in any samples collected within the Ipswich region. There were three equivocal sites, meaning there were traces of DNA found but not enough to confidently confirm presence of platypuses. Two of these three waterways have had positive DNA in previous years of sampling. One site was sampled in a lower section of Sandy Creek in the Brisbane City Council LGA, and was positive.

Habitat quality index varied across the sample locations and all sites were visibly impacted by flood waters. Erosion was prominent and vegetation disturbed, some sites would favour priority rehabilitation. There is also pipeline infrastructure extending along Opossum Creek which may impact the surrounding riparian zone and disturb the platypus population in the creek.

This year's results present some concern with regards to the density and viability of the platypus populations inhabiting waterways in Ipswich. This may be due to potential flood displacement of animals or the water conditions the samples were collected from. A second round of sampling later during this year's (2022) breeding season should be considered and continuing annual eDNA surveys will remain essential for monitoring this cryptic species to help determine persistence and changes in populations across the Ipswich region.

The on-going implementation of habitat protection and rehabilitation around the catchments in eastern Ipswich will aid the long-term viability of the local platypus population. Platypus preferred habitat features should be protected or rehabilitated in these catchments to better conserve platypus populations.

Introduction

Platypus are listed as 'near threatened' on the International Union for Conservation of Nature Red List (IUCN) (Woinarski and Burbidge 2016). Continued monitoring of platypus populations across their range is vital to understand their future conservation requirements. The species is found in freshwater habitats of varying quality. However, they require key habitat requirements including deep pools, high consolidated sloping banks and cobbled stony substrates to carry out their life history events (Grant 2007).

The platypus' elusive behaviour, making species distribution and abundance difficult to confirm through observation surveys; they may not be observed in an area but may still be present (Grant 2012). Environmental DNA (eDNA) analysis is a powerful tool to detect platypus DNA within waterways without the time and labour constraints of using traditional techniques. This method of detecting a species is cost effective, accurate and has an absolute minimal environmental disturbance (Goldberg et al. 2011). The Wildlife Preservation Society of Queensland in partnership with the Melbourne based consultancy EnviroDNA have developed this sampling program over the last seven years for the purpose of defining the current distribution of platypus across the south east Queensland region.

In 2016 an environmental DNA project targeting platypus was developed within the Ipswich City Council region. This survey has occurred once annually for seven years, providing Wildlife Queensland with a clear indication on the distribution of platypus across the region.

In Ipswich, 50 sites across 12 waterways have been sampled (Appendix 2) over seven consecutive years. This year, 22 sites across ten waterways were sampled for platypus eDNA with three new sites being included in the survey. This year only one positive was detected in the lower section of Sandy Creek in Wacol, Brisbane City Council LGA.

This year's eDNA sampling is of great importance due to the occurrence of two major flood events within south-east Queensland. Floods impact platypus populations by destroying habitat and impacting food resources. It can also directly impact the animal by inundating burrows and flushing individuals downstream, away from their territories. However, with the increased amount of water entering the catchment it can also help with connectivity of smaller tributaries, especially during breeding season.

This project important is for identifying platypus population persistence and distribution. The ongoing monitoring of platypuses within the Ipswich region may help facilitate the detection of any decline in current populations and potential displacement due to the flooding events. The project also helps to identify key habitat characteristics associated with platypus inhabitation and detect any deterioration of that habitat over time of after major weather events, such as this year's flooding. These results will enable a better

understanding of platypus habitat and may help drive future conservation strategies to protect platypuses and their habitat.

Aim

1. To accurately identify platypus presence in selected waterways within the Ipswich City Council local government area (LGA) using the eDNA method;
2. Establish and contribute to a longitudinal platypus survey in key locations across Ipswich;
3. Ability to identify platypus distribution changes over time; and
4. Determine habitat quality in association with platypus presence.

Methods

Observation data

Queensland State Government Wildnet database, Atlas of Living Australia and Platypus Watch Network records were used to source recent platypus sightings records within Queensland and specifically the Ipswich LGA.

Site selection for environmental DNA sample collection sites

Wildlife Queensland in conjunction with Jack McCann (Waterway Health Officer, Ipswich City Council) selected sites to be sampled based on their history of platypus sightings data. The sample location details are provided in Table 1 and Figure 1. Three new samples sites were added, Bundamba Creek (BUND10), upon a recoded sighting in May 2022, Ironpot Creek (IRPOT01) and Purga Creek (PURG02).

Table 1: Water sample locations in eight waterways.

Site Code	Location	Latitude	Longitude
BREM01	Bremer River	-27.6179	152.7413
BREM03	Bremer River	-27.6367	152.7461
BREM07	Bremer River	-27.6355	152.7316
BUND08	Bundamba Creek	-27.6359	152.7908
BUND04	Bundamba Creek	-27.6186	152.8077
BUND10	Bundamba Creek	-27.6942	152.8043
GOOD02	Goodna Creek	-27.6074	152.872
IP01	Iron Pot Creek	-27.6015	152.7326
OPOSS01	Opossum Creek	-27.6562	152.9002
OPOSS02	Opossum Creek	-27.6453	152.8942
PUR02	Purga Creek	-27.6828	152.7284
SAND01	Sandy Creek	-27.6253	152.9209
SAND02	Sandy Creek ***BCC***	-27.6061	152.9279
SAND04	Sandy Creek	-27.6347	152.9264
SIXM03	Six Mile Creek	-27.6067	152.8588
SIXM04	Six Mile Creek	-27.6558	152.8401
SIXM06	Six Mile Creek	-27.6394	152.8463
WARR01	Warrill Creek	-27.6575	152.699
WOOG02	Woogaroo Creek	-27.618	152.9065
WOOG03	Woogaroo Creek	-27.6322	152.9038
WOOG04	Woogaroo Creek	-27.6473	152.8881
WOOG01	Woogaroo Creek	-27.6152	152.9087

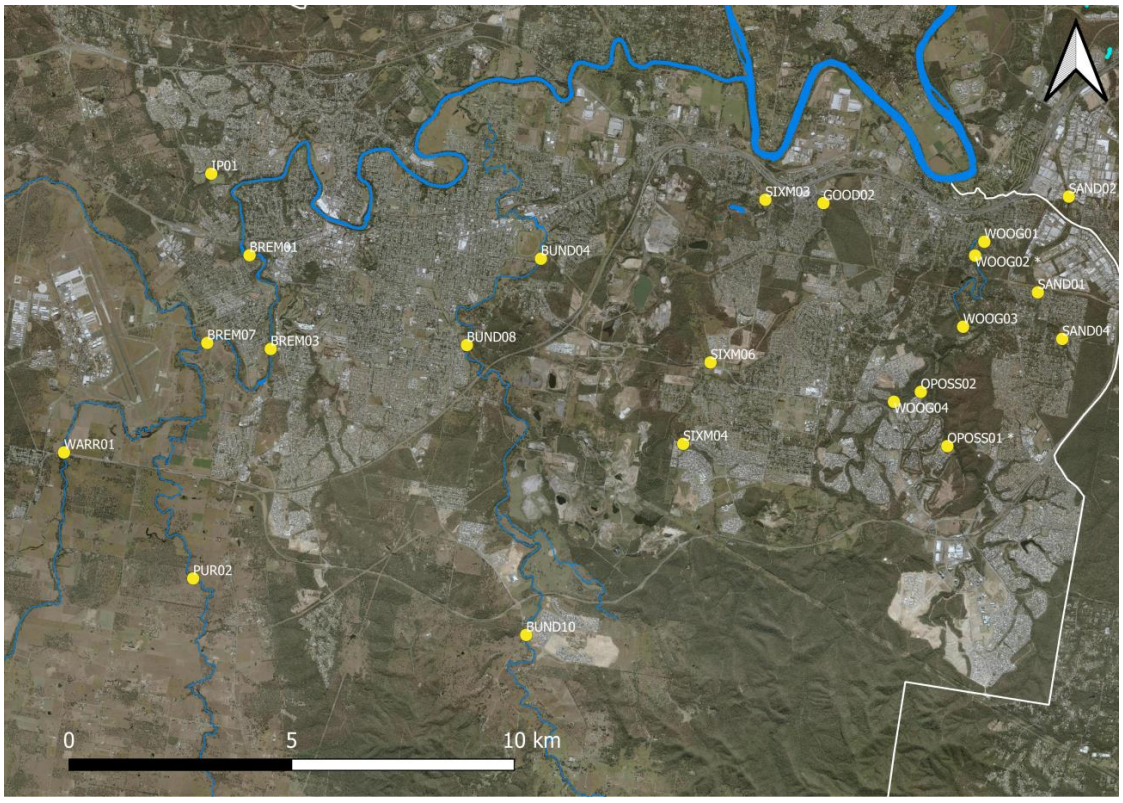

Figure 1: Locations of chosen waterways within Ipswich City Council Region, Bremer River, Bundamba Creek, Iron Pot Creek, Goodna Creek, Purga Creek, Opossum Creek, Sandy Creek, Six Mile Creek, Warrill Creek and Woogaroo Creek.

Environmental DNA Sampling to determine platypus distribution

Environmental DNA method as per EnviroDNA method (Griffiths et al. 2015). Water samples were collected in duplicate at one or more independent sites in each identified waterway (i.e., upper, mid and lower sections). Water sample volumes between 100 ml and 500 ml were collected and filtered through a 1.2µm filter (Sterivex) using a 50 ml sterile syringe. Filters containing collected filtrate material were preserved using 100% ethanol and transported overnight to the EnviroDNA laboratory (Melbourne) for analysis. Care was taken to avoid contamination between sites following prescribed methods.

DNA was extracted from the filters using DNA extraction kit (Qiagen DNeasy Blood and Tissue kit). Species-specific primers were developed by EnviroDNA to target a small section (57 bp) of the platypus mitochondrial gene *cytochrome b* (CytB) (Life Technologies). Amplification of the target DNA will be completed through the use of real time polymerase chain reaction (PCR) assays. Each sample is prepared in triplicate and all assays contained positive and negative controls.

Water samples were collected 2nd and 3rd of June 2022. The sample period was chosen to take advantage of an expected increase in platypus activity associated with platypus breeding behaviours.

Habitat Quality Index

A selection of habitat characteristics known to be associated and beneficial for platypus requirements was collated into a habitat quality index (Grant 2014), allowing for a quick assessment of the habitat quality of each sample site. Each Ipswich eDNA sample location was assessed using the habitat quality index (Table 2).

Table 2: Habitat Quality Index table with known or potential benefit to platypuses (Adapted from Grant 2014).

Habitat variable	**Known or potential benefit to platypuses**	**SCORE**
Bank variables (Score 0 = none, 1 = <25%, 2 = 25-49%, 3 = 50-74%, 4 = >75%)		
Consolidated banks	Maintenance of burrows, reduced in-stream sedimentation	
Large-medium sized trees on banks	Consolidation of banks, organic input to aquatic ecosystem	
Overhanging vegetation <2m above water	Consolidation of banks, organic input to aquatic ecosystem, lower predation risk due to shelter while foraging and entering/leaving burrows	
Earthen banks	Allows construction and maintenance of burrows	
Bank height >1m	Preferred bank morphology for burrows construction and maintenance	
Concave or near vertical banks	Secure access to burrow, hide entrance, lower predation risk	
Absence of erosion	Maintenance of burrows, maintenance of riparian vegetation, reduced in-stream sedimentation	
In-stream variables (Score 0 = none, 1 = <25%, 2 = 25-49%, 3 = 50-74%, 4 = >75%)		
Pool depth (>1m but<5m)	Preferred foraging depth for platypuses, lower risk of predation	
Large woody debris (LWD, >10cm diameter)	Habitat and food for benthic invertebrate prey	
Complex benthic substrate (cobbled, gravel)	Favourable habitat for benthic invertebrate prey	
Coarse organic matter – if visible	Favourable habitat for benthic invertebrate prey	
Total		\44

Results

Environmental DNA (platypus)

Ten waterways (21 sites) were sampled in the Ipswich LGA during the 2022 eDNA survey (2/3 June 2022). No platypus DNA was able to be strongly detected at any survey sites this year.

One site was sampled outside the ICC region at SAND02, Wacol Brisbane and platypus DNA was detected, downstream of the Ipswich site SAND01 (Figure 2, Appendix 1).
Equivocal results were recorded at WOOG04, GOOD02 and SAND01.

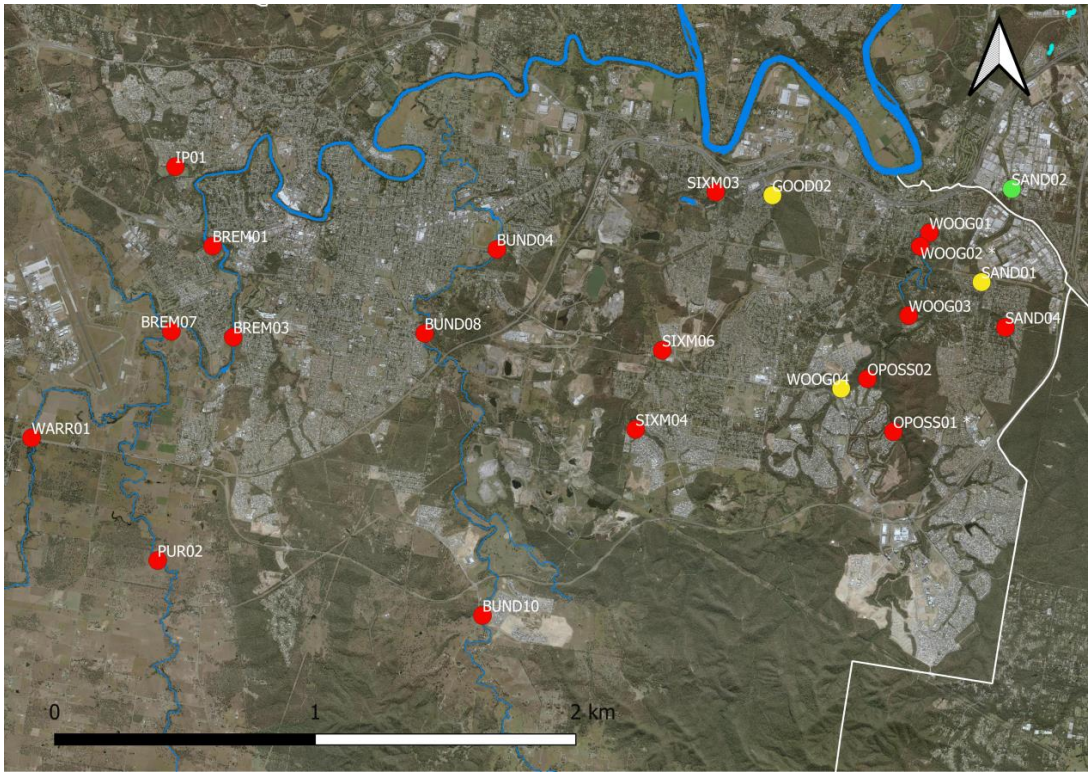

Figure 2: Environmental DNA results for Ipswich City Council sites 2022. Positive samples (green circles), negative samples (red circles), equivocal samples (yellow circles).

Habitat Quality Index

The habitat quality scores (Table 3) ranged from 39% to 86%. Opossum Creek site 3 scored low (39%) due to a lack of deep pools, minimal high stable banks, vegetated by invasive species, including in-stream and had a muddy/sandy substrate. Woogaroo Creek site 2 recorded the highest habitat score quality (86%) and had dense vegetation cover, stable consolidated banks and complex gravel and cobbled substrate. All sites had noticeable levels of flood damage, some had more sever levels of damage than others.

Table 3: Habitat quality index score and percent for each sample location.

Waterway	Site	HQI score	Percentage (%) (HQI/44)
Bremer River	BREM01	35	80
Bremer River	BREM03	34	77
Bremer River	BREM07	36	81
Bundamba Creek	BUND04	30	68
Bundamba Creek	BUND08	25	57
Bundamba Creek	BUND10	27	61
Iron Pot Creek	IRPOT01	21	48
Opossum Creek	OPOSS01	26	59
Opossum Creek	OPOSS02	20	45
Purga Creek	PURGA02	27	61
Sandy Creek	SAND01	22	50
Sandy Creek	SAND02	23	52
Sandy Creek	SAND04	32	72
Six Mile Creek	SIXM03	33	75
Six Mile Creek	SIXM04	21	48
Six Mile Creek	SIXM06	24	55
Warrill Creek	WARR01	29	65
Woogaroo Creek	WOOG02	38	86
Woogaroo Creek	WOOG03	26	59
Woogaroo Creek	WOOG04	34	55

Discussion and Recommendations

The presence of platypus DNA at sample sites within the Ipswich region has been found to be intermittent over the past seven consecutive years of eDNA sampling (Appendix 2).
These data suggests that the eastern catchments of the Ipswich Region sustain a small platypus population. However, this year the lack of strong sample detections for platypus DNA is a concern.

Habitat quality across the region was noted to be variable between all sites (45 - 86%), and there was visible damage due to flooding. Sedimentation continues to be an issue in Woogaroo and Opossum Creek. This is a major concern for the longevity of platypuses inhabiting the Woogaroo catchment. Sedimentation will cause deep pools to become shallow as a result of a build-up of silt, in conjunction with the smothering of their food source as silt settles out of the water column (Boulton et al. 2014). Platypuses rely on pools between one and five meters deep to forage effectively and successfully mate (Grant 2007). They forage for up to 12 hours a night/day ingesting 30% of their body weight (Grant 2007), therefore need areas of high food abundance and diversity.

Platypuses rely on waterways for migration (Furlan et al. 2013) consequently, decreased habitat quality and connectivity between catchments will contribute to isolate populations (Furlan et al. 2013; Griffths et al. 2014; Weeks 2014). They are also better protected in deeper water from terrestrial predators (moving through shallower waters risks predation (Grant 2007)). Therefore, water quality and the connectivity between waterways is highly important within the region and may be conserved by maintaining and rehabilitating preferred habitat features in which platypuses depend upon and to reduce further degradation to water quality and riparian habitat.

A number of sample sites were noted to have significant damage resulting from for the two flood events (Table 4). These include sites where platypuses have and have not been detected. Where feasible, Ipswich Council could prioritise restoration activities that target improving platypus habitat.

Table 4. Sites for rehabilitation assessment, photos Appendix 3.

Platypus detected site	**Feature**	**Assess**
BUND04 & BUND08	Banks – sandy Overhanging vegetation	Erosion
Opossum Creek all sites OPOSS01 – Creekside Park	Banks and connectivity under causeway	Erosion and disturbance due to pipeline upgrade
WOOD01 & WOOG02	Banks - sandy	Erosion
WOOG03	Eugene Street reserve pool	Pool depth
Platypus not detected		
BREM01	Banks and native vegetation	Erosion
PURGA02	Banks – sandy Overhanging vegetation	Erosion

A particular site in Woogaroo Creek, at Eugene St Reserve contains a pool of water that has shown to be important for platypuses' inhabitation in the catchment. Wildlife Queensland recommends further inspection of this pool to determine what impact the two floods have had on the size and depth of the pool. Possible restoration actions include bank stabilisation and revegetation and dredging/excavation of the poo if necessary (note, such an activity would require guidance by subject matter professionals). Mapping, measuring and monitoring other pools/waterholes in the catchments would also benefit the knowledge base around refuge pools for platypus populations in the region.

The seven years of platypus occurrence data collected during this project indicate that Woogaroo, Opossum and Sandy Creeks require increased protection and rehabilitation to protect the platypus population. The other waterways should still be considered for rehabilitation including the identification of barriers to platypus dispersal/movement within catchments. Water volume and flow is an important contributor to platypus movement and should be considered for mitigation where activities that reduce water volume/flow occur (excessive irrigation allocation, barriers and stormwater management - especially during the wet season where rapid water flow impacts juvenile platypus when they emerge from the den).

The results obtained during the 2022 eDNA survey represent the least number of positive samples in seven years. There is the evidence to suggest that platypuses are persisting in the Ipswich region, however, these individuals and populations are highly vulnerable. The outcome may relate to possible impacts on eDNA detection resulting from unusually high water volume, flow rate and turbidity; there a reasonable case for a second eDNA survey to resample later in the 2022 breeding season (once the catchments have settled down after the rainfall events). It is also recommend continuing the annual eDNA sampling (May/June) within the Ipswich LGA to continue to monitor extant populations (Woogaroo Creek and Opossum Creek) but also track transient animals moving in and out of systems, as possibly seen in Bundamba and Six Mile Creek. The longitudinal data collected by this project is important not only to track platypus populations over time but to develop and support

catchment management programs to rehabilitate areas. It is also recommended that detailed habitat assessments including aquatic macroinvertebrate surveys be implemented, to identify in-stream pool areas, barriers that may inhibit platypus movement within the connected waterways and associated food abundance and diversity.

Preservation of platypuses will be a conservation benefit within the Ipswich region, as they encourage habitat protection and increase the overall quality of the waterways in which they live.

Acknowledgements

We respectfully acknowledge the Traditional Owners upon the lands in which this research was conducted and deeply respect their connection to Country. We pay our respects to their Elders past and present.

The Wildlife Preservation Society of Queensland would like to thank senior ecologist Josh Griffiths from EnviroDNA Australia who has generously given us his time to guide and advise on implementing the eDNA project. We are also grateful to the Ipswich City Council officers, Jack McCann, Tim Shields and Phil Smith for helping develop the project for the Ipswich region over the last seven years.

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Appendix 1. Environmental DNA results 2022

Site	Waterway	Latitude	Longitude	Volume *default set to 1 if na	eDNAresult LabID	Cycle number	Result (copies/L) for sample	Scoring (out of 3 technical reps)	Conclusion (for SITE)	Total score (for SITE)	copies DNA per litre for SITE (averaged)
BUND10	Bundamba Creek	-27.6942	152.8043	500	12.1	NA	0.00E+00	0	Negative	0	0.00E+00
				500	12.2	NA	0.00E+00	0			
IP01	Iron Pot Creek	-27.6015	152.7326	500	13.1	NA	0.00E+00	0	Negative	0	0.00E+00
				500	13.2	NA	0.00E+00	0			
GOOD02	Goodna Creek	-27.6074	152.872	490	14.1	37.69	4.90E+05	1	Equivocal	1	2.45E+05
				410	14.2	NA	0.00E+00	0			
SAND01	Sandy Creek	-27.6253	152.9209	500	15.1	NA	0.00E+00	0	Equivocal	1	1.92E+05
				500	15.2	38.10	3.84E+05	1			
SAND04	Sandy Creek	-27.6347	152.9264	500	16.1	NA	0.00E+00	0	Negative	0	0.00E+00
				430	16.2	NA	0.00E+00	0			
WOOG03	Woogaroo Creek	-27.6322	152.9038	500	17.1	NA	0.00E+00	0	Negative	0	0.00E+00
				500	17.2	NA	0.00E+00	0			
OPOSS02	Opossum Creek	-27.6453	152.8942	100	18.1	NA	0.00E+00	0	Negative	0	0.00E+00
				150	18.2	NA	0.00E+00	0			
WARR01	Warrill Creek	-27.6575	152.699	270	19.1	NA	0.00E+00	0	Negative	0	0.00E+00
				500	19.2	NA	0.00E+00	0			
BUND04	Bundamba Creek	-27.6186	152.8077	450	20.1	NA	0.00E+00	0	Negative	0	0.00E+00
				150	20.2	NA	0.00E+00	0			
BREM01	Bremer River	-27.6179	152.7413	200	21.1	NA	0.00E+00	0	Negative	0	0.00E+00
				225	21.2	NA	0.00E+00	0			
SIXM04	Six Mile Creek	-27.6558	152.8401	450	22.1	NA	0.00E+00	0	Negative	0	0.00E+00

				300	22.2	NA	0.00E+00	0			
SIXM03	Six Mile Creek	-27.6067	152.8588	500	23.1	NA	0.00E+00	0	Negative	0	0.00E+00
				500	23.2	NA	0.00E+00	0			
SAND02	Sandy Creek	-27.6061	152.9279	500	24.1	37.49	5.51E+05	2	Positive	4	4.23E+05
				500	24.2	38.66	2.95E+05	2			
PUR02	Purga Creek	-27.6828	152.7284	500	25.1	NA	0.00E+00	0	Negative	0	0.00E+00
				500	25.2	NA	0.00E+00	0			
OPOSS01	Opossum Creek	-27.6562	152.9002	290	26.1	NA	0.00E+00	0	Negative	0	0.00E+00
				500	26.2	NA	0.00E+00	0			
WOOG04	Woogaroo Creek	-27.6473	152.8881	500	27.1	37.69	4.80E+05	1	Equivocal	1	2.40E+05
				500	27.2	NA	0.00E+00	0			
BREM07	Bremer River	-27.6355	152.7316	150	28.1	NA	0.00E+00	0	Negative	0	0.00E+00
				250	28.2	NA	0.00E+00	0			
SIXM06	Six Mile Creek	-27.6394	152.8463	300	29.1	NA	0.00E+00	0	Negative	0	0.00E+00
				300	29.2	NA	0.00E+00	0			
BUND08	Bundamba Creek	-27.6359	152.7908	500	30.1	NA	0.00E+00	0	Negative	0	0.00E+00
				500	30.2	NA	0.00E+00	0			
BREM03	Bremer River	-27.6367	152.7461	500	31.1	NA	0.00E+00	0	Negative	0	0.00E+00
				425	31.2	NA	0.00E+00	0			
WOOG01	Woogaroo Creek	-27.6152	152.9087	250	32.1	NA	0.00E+00	0	Negative	0	0.00E+00
				250	32.2	NA	0.00E+00	0			
WOOG02	Woogaroo Creek	-27.618	152.9065	500	33.1	NA	0.00E+00	0	Negative	0	0.00E+00
				230	33.2	NA	0.00E+00	0			

Appendix 2. Ipswich region eDNA site results 2016 - 2022.

Waterway	Site	Latitude	Longitude	2016	2017	2018	2019	2020	2021	2022
Bremer River	BREM01	-27.61788	152.7413	Negative	Negative	Negative				Negative
	BREM02	-27.62259	152.7429	Negative	Negative	Negative				
	BREM03	-27.63672	152.7461	Negative	Negative	Negative				Negative
	BREM04	-27.64281	152.7437	Negative	Negative	Negative				
	BREM05	-27.6488	152.6354	Negative	Negative	Negative				
	BREM06	-27.60257	152.7562						Negative	
	BREM07	-27.63428	152.734609						Negative	Negative
	BREM08	-27.62708	152.66868						Negative	
	BREM09	-27.59151	152.78093						Negative	
	BREM10	-27.60263	152.7443						Negative	
Bundamba Creek	BUND01	-27.62493	152.7971	Negative	Negative	Positive	Negative	Negative		
	BUND02	-27.60978	152.8	Negative	Negative	Negative	Negative			
	BUND03	-27.60458	152.8011	Negative	Negative	Negative	Negative			
	BUND04	-27.61858	152.8077				Positive	Negative		Negative
	BUND05	-27.63623	152.79086				Negative			
	BUND06	-27.69946	152.8036				Negative			
	BUND07	-27.591295	152.795659						Negative	
	BUND08	-27.635791	152.790683						Negative	Negative
	BUND09	-27.600108	152.798394						Negative	
	BUND10	-27.69416	152.8043							Negative
Goodna Creek	GOOD01	-27.6008	152.8804				Negative			
	GOOD02	-27.60741	152.872				Negative			Equivocal
	GOOD03	-27.61475	152.8692				Negative			
Iron Pot Creek	IP01	-27.6015	152.73256							Negative
Opossum Creek	OPOSS01	-27.6564	152.8997		Negative	Positive	Negative	Positive	Equivocal	Negative

	OPOSS02	-27.6453	152.894				Positive		Positive	Negative
	OPOSS03	-27.664777	152.907268						Negative	
	OPOSS04	-27.67459	152.9083				Negative			
Purga Creek	PURGA01	-27.71238	152.7333	Negative		Negative				
	PURGA02	-27.68282	152.7284							Negative
Sandy Creek	SAND01	-27.62534	152.9209		Negative	Positive	Negative		Positive	Equivocal
	SAND02	-27.6061	152.9279			Positive		Positive	Positive	Positive
	SAND03	-27.5706	152.93			Negative		Positive		
	SAND04	-27.6347	152.9264			Negative	Negative			Negative
	SAND05	-27.63868	152.9278				Negative			
Six Mile Creek	SIXM01	-27.64161	152.8449	Negative	Negative	Negative	Negative			
	SIXM02	-27.6177	152.847			Positive	Negative			
	SIXM03	-27.6068	152.8592			Positive	Negative		Negative	Negative
	SIXM04	-27.65569	152.84				Positive		Negative	Negative
	SIXM05	-27.63737	152.8454				Negative			
	SIXM06	-27.639423	152.846278						Equivocal	Negative
Warrill Creek	WARR01	-27.6575	152.699		Negative	Negative				Negative
	WARR02	-27.7494	152.6858		Negative					
Woogaroo Creek	WOOG01	-27.61517	152.9087	Negative	Equivocal	Positive	Negative			Negative
	WOOG02	-27.61783	152.9065	Positive	Negative	Equivocal	Negative		Negative	Negative
	WOOG03	-27.63219	152.9038	Positive	Negative	Equivocal	Positive	Negative	Positive	
	WOOG04	-27.64733	152.8881				Negative			Equivocal
	WOOG05	-27.65879	152.8808				Negative			
	WOOG06	-27.60948	152.906017						Equivocal	
Black Snake	BSC01	-27.552270	152.597829						NA	
Deebing Creek	DEEB01	-27.62507	152.75136						Negative	
	DEEB02	-27.63432	152.75426						Negative	
Franklin Vale Creek	FV01	-27.73232	152.4718						Negative	
	FV02	-27.72107	152.47568						Negative	

Appendix 3: Site assessments

Platypus detected site	**Feature**	**Assess**		
BUND04 & BUND08	Banks – sandy Overhanging vegetation	Erosion		
Opossum Creek all sites OPOSS01 – Creekside Park	Banks and connectivity under causeway	Erosion and disturbance due to pipeline upgrade		

WOOG01 & WOOG02	Banks - sandy	Erosion		
WOOG03	Eugene Street reserve pool	Pool depth		
Platypus not detected				
BREM01	Banks	Erosion		

PURGA02	Banks – sandy Overhanging vegetation	Erosion		

Appendix 4: Urban impacts to platypuses.

Threat	**Details**	**Causing**	**Impact to platypus**	**Reference**
Habitat destruction from land use	Removal of native vegetation	Erosion of banks	Fewer burrowing sites	Grant (2007)
		Sedimentation	Pool depth become shallower	Grant and Temple-Smith (2003); Grant (2007)
			Smother's food source	Boulton et al. (2014)
	Water pollution – chemicals and littering	Stormwater runoff from roads	Pollutants impact food sources Pharmaceuticals ingested from food source	Serena and Pettigrove (2005); Richmond et al. (2018)
		Rubbish	Entanglement	Serena and Williams (2021)
	Modification of waterways	Weirs, dams, irrigation	Unfavourable water levels and flow Altered follow regimes	Grant and Temple-Smith (2003); Kolomyjec (2010); Hawke (2020)
		Stormwater runoff from roads	Change in habitat productivity and female reproductive success	Australian Platypus Conservancy (n.a.); Martin et al. (2014)
			Channel morphology – erosion	Walsh et al. (2005); Martin et al. (2014)
			Diving energetics – hard and fast flows reduce foraging efficiency	Griffiths et al. (2014b)

Table 1. Summary of results from 2016- 2022 of ICC's platypus monitoring program

Catchment	Site ID	2016	2017	2018	2019	2020	2021	2022
Bremer	BREM01	×	×	×				×
	BREM02	×	×	×				
	BREM03	×	×	×				×
	BREM04	×	×	×				
	BREM05	×	×	×				
	BREM06						×	
	BREM07						×	×
	BREM08						×	
	BREM09						×	
	BREM10						×	
Bundamba	BUND01	×	×	✓	×	×		
	BUND02	×	×	×	×			
	BUND03	×	×	×	×			
	BUND04				✓	×	×	×
	BUND05				×			
	BUND06				×			
	BUND07						×	
	BUND08						×	×
	BUND09						×	
	BUND10							×
Woogaroo	WOOG01	×	≈	✓	×			×
	WOOG02	✓	×	≈	×		×	×
	WOOG03	✓	×	≈	✓	×	✓	×
	WOOG04				×			≈
	WOOG05				×			
	WOOG06						≈	
Opossum	OPOSS01		×	✓	×	✓	≈	×
	OPOSS02				✓		✓	×
	OPOSS03						×	
	OPOSS04				×			
Sandy (Camira)	SAND01		×	✓	×		✓	≈
	SAND02			✓		✓	✓	✓
	SAND03			×		✓		
	SAND04			×	×			×
	SAND05				×			
Six Mile	SIXM01	×	×	×	×			
	SIXM02			✓	×			
	SIXM03			✓	×		×	×
	SIXM04				✓		×	×
	SIXM05				×			
	SIXM06						≈	×
Goodna	GOOD01				×			
	GOOD02				×			≈
	GOOD03				×			
Purga	PUR01	×		×				
	PUR02							×
Warrill	WARR01		×	×				×
	WARR02		×					
Deebing	DEEB01						×	
	DEEB02						×	
Franklin Vale	FV01						×	
	FV02						×	
Iron Pot	IP01							×

✓ = Positive record

× = Negative record

≈ = Equivocal record

Doc ID No: A8188941

ITEM: 4

SUBJECT: RESOLUTION TO CLOSE PUBLIC LAND - 2022-2023 FIRE SEASON FUEL REDUCTION PROGRAM

AUTHOR: TEAM LEADER (LAND MANAGEMENT AND NATURAL AREA PLANNING)

DATE: 20 JULY 2022

EXECUTIVE SUMMARY

This is a report concerning the management of public access and closure of White Rock - Spring Mountain Conservation Estate, Flinders – Goolman Conservation Estate, Mount Grandchester Conservation Estate and Hillview Drive Reserve for reasons of public safety during controlled burning fuel reduction activities and the enactment of powers under Section 10 (1) of Local Law 7.

RECOMMENDATION/S

That Council resolve to exercise the power under section 10(1) of Local Law 7 to close public access to areas of Council's Natural Area Estates to enable a planned schedule of hazard reduction burns occurring between 26 August 2022 and 30 June 2023 within three (3) Council conservation estates, being White Rock - Spring Mountain Conservation Estate, Flinders – Goolman Conservation Estate, and Mount Grandchester Conservation Estate plus one (1) reserve being Hillview Drive Reserve.

RELATED PARTIES

There are no identified conflicts of interest for this report.

IFUTURE THEME

Natural and Sustainable

PURPOSE OF REPORT/BACKGROUND

Council is seeking to properly and lawfully close public access to (areas of) the Natural Area Estates during planned fuel reduction burning in order to be able to take all reasonable measures to mitigate risks, real or potential, to conservation estate/ reserve visitors, staff and the organisation.

Council has adopted a Temporary Closure of Park Estate or Reserve Procedure (Attachment 1) which is followed in times of fire risk or other emergencies which outlines the process and local laws required. However, in order to properly and lawfully enact and regulate a closure, a temporary and specific resolution covering the location and period is required to exercise

powers under section 10 (1) of Local Law No.7 (local law) (Government Controlled Areas and Roads) 2013 (Attachment 2).

LEGAL/POLICY BASIS

This report and its recommendations are consistent with the following legislative provisions: *Local Law 7 (Local Government Controlled Areas and Roads)*

RISK MANAGEMENT IMPLICATIONS

The fuel reduction program including controlled burns is a fundamental part of the risk and general management planning within the Natural Area Estates. In 2019-2020, there was an unprecedented fire season for many parts of Australia and South East Queensland, following prolonged periods of conditions in the "Catastrophic" risk classification. In response, Council reviewed its fuel management program with an emphasis on the urban/bushland interface areas, primarily within the Springfield Lakes area being identified as a priority.

The 2022-2023 fuel reduction program has six (6) planned burns scheduled for the season (i.e. August 22 –June 2023), totalling approximately 325.54Ha within the White Rock – Spring Mountain Conservation Estate (1 site – 45.46Ha), Flinders – Goolman Conservation Estate (1 site – 70.85Ha), Mount Grandchester Conservation Estate (3 sites – 199.55Ha) and Hillview Drive Reserve (1 site – 9.68Ha).

It is proposed that in exercising the powers under Local Law 7, Council can take a multi-layered approach to ensuring visitor exclusion of the area whilst fuel reduction burns are taking place. This includes Council staff to be on-site to provide warning information, and the installation of closure signs and barrier fencing. Compliance staff from the Planning and Regulatory Services Department may also be required to take enforcement measures under the recommended Local Laws, and to ensure no members of the public are entering the site against advice and putting themselves or others at risk.

HUMAN RIGHTS IMPLICATIONS

HUMAN RIGHTS IMPACTS	
OTHER DECISION	
(a) What is the Act/Decision being made?	Resolution to close public land – 2022-2023 fire season Fuel Reduction Program
(b) What human rights are affected?	Human rights are not affected by these decisions.
(c) How are the human rights limited?	Not applicable
(d) Is there a good reason for limiting the relevant rights? Is the limitation fair and reasonable?	Not applicable

(e) Conclusion	The decision is consistent with human rights.

FINANCIAL/RESOURCE IMPLICATIONS

The burn program for the current financial year has been fully budgeted within the Enviroplan budget.

COMMUNITY AND OTHER CONSULTATION

Internal stakeholder discussions have been ongoing with Planning and Regulatory Services Department and the Legal and Governance Branch of Corporate Services Department. Through this it has been concluded that this is the most appropriate course of action.

CONCLUSION

A Council resolution to exercise the powers under section 10 (1) of Local Law 7 to cover the required closure(s) of 'White Rock Spring Mountain Conservation Estate', 'Flinders – Goolman Conservation', 'Mount Grandchester Conservation Estate' and Hillview Drive Reserve during the planned burn season of the 2022-2023 financial year is deemed necessary and is therefore recommended to ensure proper lawful closure of the areas in order to properly manage public and staff safety.

ATTACHMENTS AND CONFIDENTIAL BACKGROUND PAPERS

1.	Temporary Closure Park, Estate or Reserve Procedure ⇩
2.	Local Law 7 Local Government Controlled areas and roads ⇩

John Young
TEAM LEADER (LAND MANAGEMENT AND NATURAL AREA PLANNING)

I concur with the recommendations contained in this report.

Kaye Cavanagh
MANAGER, ENVIRONMENT AND SUSTAINABILITY

I concur with the recommendations contained in this report.

Sean Madigan
GENERAL MANAGER - INFRASTRUCTURE AND ENVIRONMENT

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

Temporary Closure of a Park, Estate or Reserve
Procedure

Our Values: Collaboration Communication Integrity Efficiency Leadership

TOGETHER WE PROUDLY ENHANCE THE QUALITY OF LIFE FOR OUR COMMUNITY

Version Control and Objective ID	Version No: 3	Objective ID: A5914057
Name of parent Policy / Directive	Conservation Estates and Reserves Management Policy – A4208485	
Procedure Owner	Manager, Environment and Sustainability.	
Approved by GM on	16 April 2020	
Date of Review	16 April 2024	

1. Purpose

This procedure outlines the process for the temporary closure and subsequent re-opening of a Park, Estate or Reserve, or part thereof, to public access:

(a) to carry out construction, maintenance, repair or restoration work;

(b) to protect the health and safety of a person or the security of a person's property;

(c) because of a fire or significant weather event;

(d) to conserve or protect the cultural or natural resources of the area or native wildlife; or

(e) to secure exclusive access for the purposes of a permit granted under section 11 (Use of a park, reserve or facility for ceremony, celebration, recreational or other activity) or under this local law.

2. Regulatory Authority

Local Government Act 2009

Local Law 7 (Local Government Controlled Areas and Roads) 2013

3. Roles and Responsibilities

This is a list indicating the internal roles and responsibilities relevant to the implementation of the procedure.

- General Manager (Infrastructure and Environment) – Delegation Local Law No. 7
- Manager (Environment and Sustainability) - Delegation Local Law No. 7

- Manager (Works and Field Services) - Delegation Local Law No. 7
- Manager (City Maintenance) - Delegation Local Law No. 7
- Manager (Natural Environment and Land Management)
- Manager (Business Services and Support)
- Principal Officer (Natural Areas and Urban Forest)
- Co-ordinator (Natural Areas)
- Planning Officer (Natural Environment)
- Conservation Visitor Management Officer

4. Key Stakeholders

The following will be consulted during the review process:

- Manager (Environment & Sustainability)
- Manager (Natural Environment and Land)
- Manager (Works and Field Services)
- Principal Officer (Sport and Recreation Programs)
- Principal Officer (Natural Areas & Urban Forest)
- Coordinator (Natural Areas)
- Supervisor (Natural Area)
- Conservation Visitor Management Officer
- Planning Officer (Natural Environment)
- Nature-Based Recreation Officer
- Security Services Officer
- Contracted Security Company

5. Education and Training Requirements

N/A

6. Procedure

Part A - ROUTINE NON-URGENT CLOSURE	
Step 1.0	1.1 The General Manager (Infrastructure and Environment), Manager (Environment and Sustainability), Manager (Works and Field Services), Manager (Natural Environment and Land Management) or Manager (City Maintenance) will determine when it is considered necessary and appropriate to temporarily close a park, estate or reserve or part thereof.
Step 2.0	2.1 Prior to any action being taken to further implement this procedure the Pathway Booking Module must be checked to ascertain if any bookings or permits for use of the park, estate or reserve in the period proposed to be temporarily closed,

	have been issued. An appropriate entry should be made in the Pathway Booking Module relevant to the proposed period the park, estate or reserve will be closed. 2.2 If a booking or permit is in place, then the party who has the booking should be advised the park, estate or reserve, or part thereof is to be closed and alternative arrangements discussed.
Step 3.0	3.1 The General Manager (Infrastructure and Environment), Manager (Environment and Sustainability), Manager (Works and Field Services), Manager (Natural Environment and Land Management) or Manager (City Maintenance) will advise, at least two (2) weeks prior to any closure being implemented, any specific site users, lessee and community groups of the intention to temporarily close the park, estate or reserve, or part thereof.
Step 4.0	4.1 Prior to or at the time of closing the park, estate or reserve in whole or in part a Marketing Request form is to be completed through 'My Council' internal services allowing for an advertisement to be placed in the local newspaper, or any other paper as considered relevant to the park, estate or reserve catchment. This advertisement must include the following information as a minimum: • Park, estate or reserve to be closed • section of park, estate or reserve if not the whole • date of closure • expected duration of closure • reasons/requirements for closing the site
Step 5.0	5.1 An e-mail must be forwarded to the Business Services and Support Requests with a CC: to the Business Services and Support Manager detailing the information as outlined in Step 4 above for the customer call centre's information.
Step 6.0	6.1 The General Manager (Infrastructure and Environment), Manager (Environment and Sustainability), Manager (Works and Field Services), Manager (Natural Environment and Land Management) or Manager (City Maintenance) will determine that the park, estate or reserve can be subsequently re-opened and as soon as possible advise any specific site users, lessee and any community group, of the date the park, estate or reserve is to be re-opened.
Step 7.0	7.1 Marketing Requests are to be notified to allow relevant advertising of the re-opening of the park, estate or reserve through appropriate media forums.
Part B – Urgent Closure	
Step 1.0	1.1 The General Manager (Infrastructure and Environment), Manager (Environment and Sustainability), Manager (Works and Field Services), Manager (Natural Environment and Land Management) or Manager (City Maintenance) will determine when it is considered necessary and appropriate to temporarily close a park, estate or reserve or part thereof in genuine urgent circumstances.

Step 2.0	2.1 In any situation that is of genuine urgent nature the powers may be exercised immediately. In this situation General Manager (Infrastructure and Environment), Business Services and Requests Manager and the Manager, Media and Stakeholder Relations must be notified via email at the time the urgent temporary closure is enacted. Where required the lessee is to be notified via telephone of the urgent closure.
Step 3.0	3.1 The Manager, Media and Stakeholder Relations and Marketing Requests (CC: Online Marketing Advisor) are to be notified via email and through 'My Council' internal services to allow relevant advertising and notification of the urgent closure of the park, estate or reserve through appropriate media forums: • Park, estate or reserve to be closed • section of park, estate or reserve if not the whole • date of closure • expected duration of closure • reasons/requirements for closing the site
Step 4.0	4.1 Following any action being taken implementing this procedure the Pathway Booking Module must be checked to ascertain if any bookings or permits for use of the park, estate or reserve, in the period the park, estate or reserve is proposed to be urgently closed, have been issued. An appropriate entry should be made in the Pathway Booking Module relevant to the proposed period the park, estate or reserve will be closed. 4.2 If a booking or permit is in place then the party who has the booking will be contacted and advised the park, estate or reserve, or part thereof is to be closed and alternative arrangements will be discussed.
Step 5.0	5.1 Following completion of the urgent closure the General Manager (Infrastructure and Environment), Manager (Environment and Sustainability), Manager (Works and Field Services), Manager (Natural Environment and Land Management) or Manager (City Maintenance) will determine that the park, estate or reserve can be subsequently reopened and as soon as possible advise the Chief Executive Officer, any specific site users, lessee and community groups of the date the park, estate or reserve is to be reopened.
Step 6.0	6.1 The Manager, Media and Stakeholder Relations and Marketing Requests through 'My Council' internal services are to be notified via email to allow relevant advertising and notification of the urgent closure of the park, estate or reserve through appropriate media forums.

1. Monitoring and review

Following each temporary closure of a Park, Estate or Reserve, an assessment of the procedural steps and their effectiveness will be undertaken, with corrective actions taken as required.

A two yearly review of the procedure will be undertaken to ensure it remains fit for purpose.

2. Definitions

Park, Estate or Reserve: refers to the Ipswich City Council managed natural area/s affected by the closure.

Ipswich

City Council

Local Law No. 7 (Local Government Controlled Areas and Roads) 2013

Contents

Part 1 Preliminary

1 Short title

This local law may be cited as *Local Law No. 7 (Local Government Controlled Areas and Roads) 2013*.

1A Commencement

This local law commences on 1 August 2013.

2 Object

The purpose of this local law is to—

(a) protect the health and safety of persons using local government controlled areas[1] and roads[2];

(b) preserve the features and amenity of the natural and built environment under the local government's control;

(c) prescribe appropriate standards of conduct on local government controlled areas and roads; and

(d) provide direction on use of and access to local government controlled areas and roads; and

(e) protect the assets of the local government.

3 Definitions—the dictionary

(1) The dictionary in the Schedule (Dictionary) defines particular words used in this local law.

(2) The dictionaries in *Local Law No.1 (Administration) 2013* and *Local Law No.4 (Permits) 2013* also define words used in this local law.

4 Relationship to other laws

(1) The powers given by this local law must be exercised in a way that is not inconsistent with all Acts (including subordinate legislation) including—

(a) the *Environmental Protection Act 1994*; and

(b) the *Sustainable Planning Act 2009*; and

[1] For the definition of *local government controlled area* see Schedule 1.
[2] For definition of *road* see Schedule 1.

(c) the *Criminal Code Act 1899*; and

(d) the *Forestry Act 1959*; and

(e) the *Mineral Resources Act 1989*; and

(f) the *Nature Conservation Act 1992*; and

(g) the *Recreation Areas Management Act 2006*; and

(h) the *Land Protection (Pest and Stock Route Management) Act 2002*; and

(i) the *Health Act 1937*; and

(j) the *Land Act 1994*; and

(k) the *Building Act 1975*; and

(l) the *Fisheries Act 1994*.

(m) the *Peaceful Assembly Act 1992*

(2) The local government may only exercise its powers under this local law over—

(a) trust land, if the proposed exercise of power is not inconsistent with—

(i) the terms and conditions of the trust; and

(ii) the *Land Act 1994*.

(b) a reserve, if the proposed exercise of power is not inconsistent with the legislation which has placed the reserve under the control of the local government; or

(c) a road, if the proposed exercise of power is—

(i) in the case of a State controlled road – approved in writing by the chief executive of the department which administers Chapter 6 (Road Transport Infrastructure) of the *Transport Infrastructure Act 1994*; and

(ii) in the case of a local government road – not inconsistent with the *Land Act 1994* and the *Local Government Act 2009*.

Part 2 Administration of Local Government controlled areas

5 Management authority

(1) The local government may by a subordinate local law—

(a) establish a management authority to manage a mall; and

(b) specify the pedestrian mall which the authority is to manage; and

(c) specify the membership and structure of a management authority;

(d) specify procedures governing the operation and use of the mall; and

(e) specify policies and guidelines governing the management of the mall by the management authority; and

(f) specify the powers given to the local government pursuant to this local law that may be exercised by a management authority on behalf of the local government.

(2) A management authority may exercise the powers of the local government pursuant to this local law that are specified in a subordinate local law.

Part 3 Use of local government controlled areas

Division 1 Permits

6 Requirement for a permit

(1) A person (other than a local government) must not undertake an activity which is a permit regulated activity[3] —

(a) unless authorised by a permit granted pursuant to this local law and *Local Law No.4 (Permits) 2013*[4]*;* or

(b) unless authorised by an official sign exhibited in the local government controlled area or on the road.

[3] For the definition of *permit regulated activity* see the Schedule 1.
[4] *Local Law No. 4 (Permits) 2013* sets out the procedures for the application, granting, conditioning and enforcement of permits

Maximum penalty for subsection (1) –

(a) for first offence – 20 penalty units.

(b) for second offence within a 2 year period – 30 penalty units.

c) for third or further offences within a 2 year period – 50 penalty units.

(2) A person must not—

(a) exhibit a sign which indicates that a permit regulated activity which does not comply with this local law does comply with this local law; or

(b) in any manner or by any means indicate that a permit regulated activity which does not comply with this local law does comply with this local law.

Maximum penalty for subsection (2)

(a) for first offence – 20 penalty units.

(b) for second offence within a 2 year period – 30 penalty units.

(c) for third or further offences within a 2 year period – 50 penalty units.

(3) Notwithstanding section 6(1) (Requirement for a permit) of this local law, a permit is not required if—

(a) a local law or subordinate local law specifies that a permit is not required in respect of the undertaking of the permit regulated activity; or

(b) a local law or subordinate local law specifies circumstances under which a permit is not required in respect of the undertaking of the permit regulated activity; or

(c) the undertaking of the permit regulated activity is authorised by a Local Government Act.

(4) Notwithstanding section 6(1) (Requirement for a permit) of this local law, the holder of the permit must not undertake the permit regulated activity until all approvals required under legislation in respect of the permit regulated activity have been obtained.

(5) For the purposes of section 6 (1) (Requirements for a permit) and the schedule (permit regulated activity) of the authorising law the activities specified in column 1 of schedule 2 are permit regulated activities.

(6) For the purposes of section 6(3)(b) (Requirements for a permit) of this local law a permit is not required for the permit regulated activities specified in column 1 of schedule 2 in the circumstances prescribed in column 2 of schedule 2

Division 2 Regulation of local government controlled area

7 Regulation of local government controlled area

(1) The local government may, by a subordinate local law, a resolution of the local government, or a sign exhibited on a local government controlled area—

(a) regulate the name of the local government controlled area; and

(b) regulate the exclusion or admission of persons or goods from the local government controlled area; and

(c) regulate the hours or days during which the local government controlled area or any part thereof is open; and

(d) prescribe a fee for the use or hire of local government controlled area; and

(e) regulate the ingress and egress to the local government controlled area to a designated access point; and

(f) regulate the driving, parking or use of a regulated vehicle on the local government controlled area; and

(g) regulate the bringing of an animal or a plant onto the local government controlled area; and

(h) regulate the bringing of a regulated object onto the local government controlled area; and

(i) regulate conduct on the local government controlled area; and

(j) regulate interference with the local government controlled area; and

(k) regulate the lighting and maintenance of fires and pyrotechnics on the local government controlled area; and

(i) regulate the carrying out of permit regulated activities; and

(m) regulate the use by the public of the local government controlled area to ensure the protection of—

(i) the local government controlled area (including the amenity of the local government controlled area); or

(ii) any person using the local government controlled area; and

(n) designate land under local government control as a park or reserve.

(2) A person (other than the local government) must not contravene a restriction imposed pursuant to section 7(1) (Regulation of local government controlled area) of this local law unless—

(a) authorised by a permit; or

(b) authorised by the prior written approval of the local government or;

(c) authorised by a direction of an authorised person; or

(d) that person is a police officer acting in the performance of their duties.

Maximum penalty for subsection (2) – 20 penalty units unless the activity is a prohibited activity[5] in which case the maximum penalty prescribed for offences in relation to such activities.

(3) A sign exhibited under section 7(1) (Regulation of local government controlled area) of this local law –

(a) must state –

(i) the regulation or fee imposed by the sign;

(ii) that the sign is an instrument under this local law; and

(iii) that the penalty under section 7(2) applies to contravention of the sign; and

(b) is effective only while the sign is conspicuously displayed on or at the entrance to the local government controlled area.

[5] *See section 8 (Prohibited activities)*

(4) An authorised person may make a direction in relation to a matter specified in section 7(1) (Regulation of local government controlled area) of this local law[6].

8 Prohibited activities

(1) The local government may declare an activity to be a prohibited in a local government controlled area or road (a **prohibited *activity***).

Example for paragraph (1)—
The local government may declare that the riding of trail bikes is a prohibited activity in all local government controlled areas, in a particular local government controlled area or in a part of a local government controlled area.

(2) A person must not engage in a prohibited activity without local government approval in a local government controlled area or road.

Maximum penalty for subsection (2)—40 penalty units

9 Local government to exhibit a sign

(1) The local government must exhibit a sign at the entrance of each local government controlled area or road specifying the subject matter of a prohibition or restriction pursuant to the following provisions of this local law—

(a) section 7 (Regulation of government controlled area); or

(b) section 8 (Prohibited activities)

(2) However, section 9(1) (Local government to exhibit a sign) of this local law does not apply if the local government determines that a sign should not be exhibited in accordance with section 9(1) (Local government to exhibit a sign) of this local law.

Example—

The local government may determine not to erect a sign if the local government is of the opinion that—

- the sign would cause a visual nuisance;
- the sign would encourage vandalism;
- the sign would be contrary to the purpose for which the park is to be used;
- the sign would not be cost effective; or

[6] *See section 14 (Direction to leave local government controlled area)*

- the park does not have a designated entrance.

10 Power of closure of local government controlled areas

(1) The local government may temporarily close a local government controlled area to public access—

(a) to carry out construction, maintenance, repair or restoration work;

(b) to protect the health and safety of a person or the security of a person's property;

(c) because of a fire or other natural disaster; or

(d) to conserve or protect the cultural or natural resources of the area or native wildlife; or

(e) to secure exclusive access for the purposes of a permit granted under section 11 (Use of a park, reserve or facility for ceremony, celebration, recreational or other activity) or under this local law.

(2) The local government may, by subordinate local law, permanently close a local government controlled area to public access for any of the following reasons—

(a) the conservation of the cultural or natural resources of the area, including, for example—

(i) to protect significant cultural or natural resources;

(ii) to enable the restoration or rehabilitation of the area; or

(iii) to protect a breeding area for native wildlife;

(b) protection of the health and safety of members of the public;

(c) protection of a facility or service in the area, including, for example, infrastructure, water supply facilities or power generating equipment;

(d) protection of the amenity of an area adjacent to the area;

(e) the orderly or proper management of the area.

(3) If the local government closes a local government controlled area under subsections (1) or (2), it must place at each public entrance to the area a notice of the closure, including a statement of the duration of the closure.

Example—
If the local government closes an area that is part of a wider local government controlled area, it must place notices at each public entrance to the closed area.

(4) A person must not enter or remain in a local government controlled area while it is closed to public access under this section, unless the person is authorised to do so by an authorised person.

Maximum penalty for subsection (4) —20 penalty units.

Division 4 Use of parks

11 Use of a park, reserve or facility for ceremony, celebration, recreational or other activity

(1) A person may apply to the local government pursuant to *Local Law No.4 (Permits) 2013* to—

(a) use a park, reserve or a facility or control a park, reserve or a facility for the purpose of a ceremony, celebration, recreational or other activity and have exclusive access to a specified area of a park, reserve or facility not exceeding that which may be reasonably necessary for that activity; or

(b) erect a facility or structure or install equipment in a specified area of a park or reserve.

Examples:

A permit might authorise a sporting association to:

- mark out a playing field in a specified location on the park or reserve;
- install specified equipment and facilities (such as goal posts and change rooms);
- exclude the public from the relevant part of the park or reserve either temporarily (e.g. during the playing of a game) or over the whole of the period of the licence.

(2) A person must not use a park or a facility contrary to a permit or the conditions of a permit issued pursuant to section 11(1) (Use of a park or reserve for recreational activity) of this local law.

Maximum penalty for subsection (2) – 50 penalty units.

(3) The local government may, notwithstanding the existence of a permit, limit the use of a facility to—
(a) ensure equal access by all sectors of the public; and

(b) protect a park or a facility from overuse or damage.

(4) A person must not, unless authorised by a permit, use a park or a facility contrary to a limitation made pursuant to section 11(3) (Use of a park or reserve for recreational activity)of this local law.

Maximum penalty for subsection (4) – 50 penalty units

12 Permit regulated use of parks and reserves

The local government may by subordinate law, prescribe the circumstances under which a permit is required for a ceremony, celebration, recreational or other activity in a park, reserve or facility.

Part 4 General powers of direction

13 Direction to leave a local government controlled area

(1) If an authorised person believes on reasonable grounds a person on a local government controlled area is contravening or has just contravened a provision of a local law, the authorised person may direct the person to—

(a) leave the a local government controlled area —

(i) within a stated reasonable time; or

(ii) immediately if the authorised person believes on reasonable grounds the contravention is serious; and

(b) not to re-enter the local government controlled area for a stated reasonable period of not more than 3 calendar days.

(2) The person must comply with a direction given to the person under section 13(1) (Direction to leave a local government controlled area) of this local law, unless the person has a reasonable excuse for not complying with it.

Maximum penalty for subsection (2) – 50 penalty units.

(3) An approval held by a person who is directed to leave the a local government area under section 13(1) (Direction to leave a local government controlled area) of this local law is cancelled by force of section 13(2) (Direction to leave a local government controlled area) of this local law when the person is required to have left the local government area.

(4) A person given a direction under section 13(1) (Direction to leave a local government controlled area) of this local law to leave a local government controlled area must not re-enter the local government controlled area unless the person has a reasonable excuse for the re-entry within the period stated in the direction.

Maximum penalty for subsection (4) – 20 penalty units.

Part 5 Roads

14 Power to require adjoining land owner to fence land or remove a fence

(1) The local government may, by written notice to the owner of land adjacent to a road, require the owner of that land to construct, maintain, repair or remove a fence between the road and that land (***fencing notice***) if, in the opinion of an authorised person—

(a) the construction of a fence is necessary to prevent animals escaping from the land onto the road;

(b) the fence is not adequate or effective for its intended purpose; or

(c) the fence constitutes an actual or potential safety hazard.

(2) A fencing notice must—

(a) fix the minimum standards with which the fence must comply; and

(b) state the time by which construction of the fence must be completed.

(3) An owner of land to whom a fencing notice is given must comply with the notice.

Maximum penalty – 50 penalty units.

15 Works notice

(1) The local government may give a works notice to the owner or occupier of premises adjoining or adjacent to a road to perform works on the premises where an authorised person is satisfied that the works should be performed to prevent a risk of—

(a) harm to human health or safety or personal injury; or

(b) property damage or a loss of amenity; or

(c) environmental harm or environmental nuisance; or

(d) a nuisance; or

(e) interference with the safe movement of traffic or the safe use of a road; or

(f) damage to a road.

(2) The works notice must specify—

(a) the basis on which the works notice is given; and

(b) the work to be performed or the action to be taken; and

(c) the time for compliance with the works notice.

(3) A person to whom a works notice is given must comply with the works notice.

Maximum penalty for subsection (3) – 50 penalty units.

16 Numbering of allotments adjoining a road

(1) An owner of land must not adopt or exhibit a number for a building or allotment which is inconsistent with the numbering system adopted by the local government.

Maximum penalty - 10 penalty units.

(2) An owner of land (other than vacant land) must display the number allocated by the local government for easy identification of the land from the adjoining road, being the road to which the allocated number relates, unless the local government exempts the owner from displaying the number.

Maximum penalty - 10 penalty units.

17 Prohibition on use of road

(1) A person must not wash or clean, paint, repair, alter or maintain a vehicle on a road.

Maximum penalty for subsection (1) – 10 penalty units

(2) Subsection (1) does not apply if a vehicle is temporarily disabled with a minor fault and the driver of the vehicle stops for no longer than is necessary for the performance of maintenance work limited to the minimum necessary to allow the vehicle to be moved from the road.

Part 6 Cost Recovery

18 Power to remove and cost recovery

(1) This section applies where—

(a) a structure or other material thing has been brought onto a local government controlled area or road in contravention of a local law, including a permit issued under a local law; or

(b) a structure has been erected or installed in, on, across, under or over a road in contravention of a local law, including a permit issued under a local law.

(2) An authorised person may seize (by dismantling if necessary) and impound the structure or thing if its immediate removal is necessary—

(a) in the interests of public health or safety; or

(b) to prevent environmental harm, property damage or loss of amenity.

(3) Where subsection (1) does not apply, an authorised person may seize (by dismantling if necessary) and impound the structure or thing if—

(a) the owner, or person in possession, of the structure or thing has not complied with a general compliance notice requiring the owner or person to remove it; and

(b) the time for making an application for review of the general compliance notice has expired.

(4) The local government may recover the cost of action taken under this section as a debt from the person responsible for the activity mentioned in subsection (1).

(5) In this section—

thing does not include an animal.

19 Damage cost recovery

(1) A person who, without the local government's authority, intentionally or negligently interferes with:

(a) a local government controlled area or road; or

(b) a chattel or goods owned by the local government in or on a local government controlled area or road; or

(c) any chattel or goods owned or controlled by the local government wherever situated.

is liable to the local government for the amount properly and reasonably incurred by the local government in repairing the damage caused by the interference or replacing the chattel or goods.

(2) The local government may recover the amount payable by the person under section 19(1) (Damage cost recovery) as a debt, together with interest on the amount, as if it were an amount of overdue rates payable, to the local government.

Part 7 Miscellaneous

20 Subordinate local laws

(1) The local government may make a subordinate local law with respect to—

(a) the establishment of a management authority and the membership, structure, procedures, policies, guidelines and powers of the management authority pursuant to section 5 (Management authority) of this local law; and

(b) when a permit is not required to undertake a permit regulated activity pursuant to section 6 (Requirement for a permit) of this local law; and

(c) the regulation or prescription of matters referred to in section 7 (Regulation of local government controlled area) of this local law; and

(d) an activity which is a prohibited activity pursuant to section 8 (Prohibited activities) of this local law; and; and

(e) the permanent closure of a local government controlled area pursuant to section 10 (Power of closure of local government controlled areas) of this local law; and

(f) the circumstances under which a permit is required for the holding of a celebration or ceremony in a park, reserve or facility pursuant to section 12 (Permit regulated use of parks and reserves); and

(g) a thing as a regulated object pursuant to the Schedule (Dictionary— definition of structure) of this local law; and

(h) activities that are permit regulated activities pursuant to the Schedule (Dictionary— definition of permit regulated activity) of this local law; and

(h) a thing as a vehicle pursuant to the Schedule (Dictionary— definition of vehicle)) of this local law; and

(2) Without in any way limiting the scope of the power to make subordinate local laws set out elsewhere in this local law, the local government may make a subordinate local law which is necessary or convenient to give effect to this local law and its objects.

Part 8 Transition, Savings and Repeals

21 Repeals

The following Local Laws are repealed —

- Local Law No. 12 (Roads) 1999, gazetted 18 June 1999
- Local Law 17 (Parks an Reserves) 1997, gazetted 14 February 1997
- Local Law No. 24 (Gates and Grids) 1999, gazetted 18 June 1999
- Local Law No. 32 (Pedestrian Malls) 2000, gazetted 24 March 2000
- Local Law 35 (Visibility of Road Intersections and Road Junctions) 1999, gazetted 18 June 1999
- Local Law No. 42 (Libraries) 1998, gazetted 8 January 1999

22 Existing Permits

Any person who immediately before the commencement of this local law held a permit under any local law to operate an activity which is now a licence regulated activity under this local law is deemed to be a holder of a permit under this local law and *Local Law No. 4 (Permits) 2013* to operated that activity.

23 Signs

Any sign erected by the local government before the commencement of this local law which regulates a matter of the sort specified in section 7 (Regulation of local government controlled area) or prohibits an activity in a local government controlled area or road is deemed to be a sign under this local law and in particular under section 9 (Local government to exhibit a sign) of this local law.

Schedule 1 Dictionary

Section 3

alteration or improvement to local government controlled areas or roads means—

(a) installing, changing, damaging or removing a structure in a local government controlled area or on a road; or

(b) planting, clearing or damaging of vegetation in a local government controlled area or on a road,

but does not include an alteration or improvement—

(c) that constitutes development under the *Sustainable Planning Act 2009;*[7]

(d) for which a tree clearing permit is required under the *Vegetation Management Act* 1999;

(e) that involves a network connection; or

(f) for which written approval of the local government is required under section 75 of the Act.

approval has the meaning given in *Local Law No. 1 (Administration) 2013* and includes all conditions of consent, permission, permit, licence, authorisation or approval.

assistance animal see *Guide, Hearing and Assistance Dogs Act 2009*, schedule 4 Dictionary.

authorised person means a person authorised by the local government under *Local Law No. 1 (Administration) 2013* to exercise the powers of an authorised person under this local law.

authorised vehicle means a vehicle engaged for or used in conjunction with local government purposes by or on behalf of the local government, or any other vehicle as authorised in writing by the local government.

bicycle see the *Transport Operations (Road Use Management) Act* 1995, schedule 4, definitions.

facility means any building, structure, carparking area, pedestrian access, vehicle access, fence, picnic shelter, toilet block, playground equipment, park bench, pond, waterfall, fountain, monument, amenities or grounds or any other fixture or fitting in or on a park or reserve.

[7] *See section 7,* Sustainable Planning Act 2009.

footpath see Transport Operations (Road Use Management) Act 1995, schedule 4, definitions.

goods does not include an animal.

guide dog means a dog trained to be an effective guide for a person with disability attributable to a vision impairment.

hearing dog means a dog trained to be used as an aid by a person with disability attributable to a hearing impairment.

interference or ***interferes*** includes damage, destruction, tampering, removal, alteration, defacement or change.

local government means Ipswich City Council.

local government controlled area—

(a) means land, facilities and other infrastructure owned, held in trust or otherwise controlled by the local government, other than a road; and

Examples of local government controlled areas—
- *parks, reserves and recreational areas*
- *conservation parks*
- *cemeteries*
- *local government operated library, including mobile libraries*
- *local government Chambers and local government offices*
- *jetties.*
- *a mall*

(b) includes part of a local government controlled area; and

(c) includes any other road or area approved under chapter 6 of the *Transport Infrastructure Act 1994.*

mall means a mall established in accordance with the Act.

official sign means a sign erected pursuant to this local law.

park has the same meaning as in the Planning Scheme

permit regulated activity means—

(a) an activity which is specified as a permit regulated activity inSchedule 2 of this local law; or

(b) an activity which would ordinarily be prohibited by this local law or subordinate

local law unless authorised by a permit, but for which a local law or subordinate local law specifies that a permit is not required.

planning scheme means the planning scheme for Ipswich City Council made pursuant to the superseded *Integrated Planning Act 1997*, as amended pursuant to the *Planning Act* from time to time.

power-assisted bicycle has the same meaning as in the TORUM Act

prohibited activity see section 8.

recreational activity includes sporting activity.

regulate includes the power to prohibit.

regulated object means a thing—

(a) which in the opinion of the authorised person is dangerous; or

(b) specified as a regulated object in a subordinate local law.

regulated vehicle means—

(a) a vehicle; and

(b) a wheeled recreational device; and

(c) a bicycle, cycle and a tricycle; and

(d) a power assisted cycle.

road means —

(a) a road as defined in the Act, section 59; and

(b) a State-controlled road in respect of which the chief executive has given written agreement under the TORUM Act, section 66(5)(b) where that act requires such agreement.

structure has the meaning given in the *Local Government Act 2009* and includes a structure as defined under the *Building Act 1975* and any other thing specified in a subordinate local law.

the Act means the *Local Government Act* 2009.

TORUM Act means the *Transport Operations (Road Use Management) Act* 1995

vehicle means—

(a) a vehicle as defined in the TORUM Act schedule 4, definitions; or

(b) any other thing specified as a vehicle in a subordinate local law.

wheeled recreational device has the same meaning as in the TORUM Act

Schedule 2 Permit regulated activities

Section 6

Column 1 **Permit regulated activities**	**Column 2** **Circumstances that do not require a permit under the Local Law**
Alteration or improvement to local government controlled areas or roads [8]	None.
Bringing or driving a motor vehicle onto a local government controlled area	Accessing a local government controlled area by an authorised contractor for the purpose of repairing or maintaining a local government facility. Where there is an official sign permitting the bringing or driving of a motor vehicle onto the area.
Bringing or riding a bicycle into a mall	Walking a bicycle from a road directly to a bicycle rack in a mall or from a bicycle rack in a mall directly to a road.
Bringing an animal into a pedestrian mall	Bringing a hearing dog, guide dog or assistance animal into an outdoor pedestrian mall. The police, military or a member of State Emergency Services bringing an animal into the outdoor pedestrian mall in the course of official duties. Where approved by a management authority appointed for the purpose of managing the pedestrian mall.
Entering or remaining in a local government controlled area outside of the opening hours.	None
Bringing an animal into a local government controlled cemetery.	None
Interfering with a grave, memorial or with flowers or tokens on a grave or memorial in a cemetery.	Where the grave, memorial flowers or tokens are being tended by a member of the deceased's family or persons authorised by the deceased's family or the operator of the

[8] See the definition of *alteration or improvement to local government controlled areas and roads* in Schedule 1.

Column 1 **Permit regulated activities**	**Column 2** **Circumstances that do not require a permit under the Local Law**
	cemetery.
Suffering, permitting or allowing any goods or materials or merchandise of any description to be placed in or upon a road.	Permitted only for such period as is necessary to house or remove the goods, materials or merchandise but in any event for not more than thirty (30) minutes.
Camping or residing on a local government controlled road or in a local government controlled area.	Where camping without a permit is permitted by signage
Bringing onto, being in possession of, or discharging a firearm in a local government controlled road or area	Permitted only where the firearm is being used as part of a performance in a theatre or where the firearm is in the possession of serving military personnel and being used in a memorial or military ceremony.
Seek or receive or indicate that a person wishes to receive a donation of money from any person	Permit is only required if the activity is to take place in a mall
Take part in any public assembly[9] or give any public address.	Permit is only required if the activity is to take place in a mall and in the case of a public assembly is not an authorised assembly under the *Peaceful Assembly Act 1992.*

[9] Note also the requirements of the *Peaceful Assembly Act 1992*

Endnotes

1 Index to Endnotes

2 Date to which amendments incorporated

This reprint includes all amendments that commenced operation on or before the

3 Key

Key to abbreviations in list of legislation and annotations

Key Explanation

amd = amended
ch = chapter
def = definition
div = division
hdg = heading
ins = inserted
om = omitted
p = page
pt = part
renum = renumbered
rep = repealed
s = section
sch = schedule
sdiv = subdivision

4 Table of reprints

A reprint is issued upon the commencement of an amending instrument. A reprint is given the date of commencement of the amending instrument.
Table of reprints of this local law – no amendments

5 List of legislation

Original Local Law
Local Law No.7 (Local Government Controlled Areas and Roads) 2013

date of gazettal 5 July 2013

6 List of annotations

Doc ID No: A8205465

ITEM: 5

SUBJECT: PROPOSAL FOR RENEWING RESILIENT RIVERS BREMER RIVER CATCHMENT OFFICER HOSTED AS A PARTNERSHIP BETWEEN SCENIC RIM AND IPSWICH CITY COUNCIL

AUTHOR: TEAM LEADER (STRATEGIC CATCHMENT AND CONSERVATION PLANNING)

DATE: 29 JULY 2022

EXECUTIVE SUMMARY

This is a report concerning the renewal of the existing partnership with Scenic Rim Regional Council and the South East Queensland Council of Mayors (CoMSEQ) through the Resilient Rivers Initiative (RRI), to financially support the continuation of the *Bremer River Catchment Management Officer* role.

RECOMMENDATION/S

A. That Ipswich City Council provide financial support of $30,000 for the continuation of the Bremer River Catchment Management Officer role in partnership with Scenic Rim Regional Council.

B. That Council renew the partnership agreement with Scenic Rim Regional Council and South East Queensland Council of Mayors (CoMSEQ), outlining the terms and desired outcomes of the funding arrangement.

RELATED PARTIES

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

IFUTURE THEME

Natural and Sustainable

PURPOSE OF REPORT/BACKGROUND

The ***Resilient Rivers Initiative (RRI)*** was developed by CoMSEQ in response to the large scale environmental and water quality impacts of the 2011, 2013 and 2015 flood events. These events saw extensive damage to local rivers and waterways, loss of productive agriculture land, and sediment impacts to the main water supply for Brisbane, Ipswich and surrounds.

Under the Resilient Rivers Initiative (RRI), a number of ***Catchment Action Plans (CAPs)*** were developed across South East Queensland, including the Bremer River CAP (Attachment 1).

The objective of the CAP is to facilitate whole of the catchment planning; collaborative working arrangements; list strategic projects and programs; and ultimately to protect and

improve waterway stability and resilience in the Bremer River Catchment. Many of the catchments in South East Queensland, including the Bremer River, cross multiple local authority boundaries and as such require whole of catchment management collaboration and partnerships.

A priority action within the Bremer River CAP is the establishment of a Bremer River Catchment Management Officer role.

This role was established in 2021 under a partnership agreement between Scenic Rim Regional and Ipswich City Councils. The Officer is currently employed through Scenic Rim Regional Council (SRRC) and operates as an Ipswich City Council officer for one (1) to two (2) days per week. The position is presently funded under the initial agreement until August 2022.

The Officer is responsible for delivering the Bremer River Rural Partnerships Program (the Program) and assisting with communications and networking. The Rural Partnerships Program is divided into two (2) phases:

- Phase 1 - Investigation and Community Liaison (September 2021 to August 2022)
- Phase 2 - Liaison, Integrated Engagement and On-ground Work (from September 2022)

This Program was confirmed as a priority for funding the from the Resilient Rivers Initiative Catchment Investment Program (CIP) as per the process identified in the Terms of Reference. The RRI Taskforce provided in-principle support of the Program at its meeting of 20 July 2018 and then approved release of $190,000 ex GST for Phase 1. This budget covered part the Officer role ($90,000 with one third (1/3) each contributed from the CIP, SRRC and ICC) and initial on-ground works.

The Officer has delivered Phase 1 of the Program, which has included landholder engagement, development and implementation of on-ground weed management, riparian revegetation and erosion stabilisation projects, as well as coordination of co-investment opportunities with landowners and other Natural Resource Management groups and stakeholders working in the Bremer River Catchment. Phase 1 focused on the research and investigation of new partnerships that could support and contribute towards the delivery of the Program.

It is intended that Phase 2 will continue landholder engagement as part of the Program and coordinate delivery of on-ground projects, at least six of which have been identified and scoped. The Project Management Plan for Phase 2 has been prepared and will be presented to the RRI Taskforce for approval on 9 September 2022. Similar to Phase 1, the Program budget includes funding for both the Officer and on-ground works.

EXTENSION OF FUNDING FOR THE CATCHMENT MANAGEMENT OFFICER

As with Phase 1 of the Program, it is proposed that funding for the Bremer River Catchment Management Officer for delivery Phase 2 of the Program be funded across the two (2) partner councils and through the Resilient Rivers Initiative.

The proposed contribution for Ipswich City Council is the same as last year:

- $30,000 to cover operational costs (approx. 30% of total FTE costs), and
- desk space and computer / ICT access for one (1) to two (2) days per week for the Officer

The position will in turn look to deliver a further $230,000 worth of improvements in Phase 2 of the Program. There is also opportunity for the officer to seek additional funding through external grants leveraged against the core RRI funding.

The officer will continue to play a part in strategically aligning communications, planning and projects within the catchment to allow for cooperative and effective collaboration and to encourage and facilitate knowledge sharing through a network of government and community organisations and stakeholders.

It is proposed that the existing arrangement between Scenic Rim Regional and Ipswich City Councils be extended for a further 12 months for delivery of Phase 2 of the Program.

The position description is provided in Attachment 2.

LEGAL/POLICY BASIS

This report and its recommendations are consistent with the following legislative provisions: *Local Government Regulation 2012*

RISK MANAGEMENT IMPLICATIONS

Council endorsed the Bremer River Catchment Action Plan in 2018 and actions within the document include the development of a catchment wide partnership and a project management role to manage project delivery.

Council's recently adopted Waterway Health Strategy looks at ways and means to protect and enhance its major catchments including the Bremer River as a strategic priority. The Ipswich local government area covers approximately one third (1/3) of the catchment area and as such in order to assist and improve the management of the majority of the catchment area strong partnerships and innovative working arrangements are required.

In not perusing this partnership Council will potential miss out on the management and implementation of $230,000 of improvement funds this year as well as the chance to foster and improve relationships across the catchment with landowners, SRRC and CoMSEQ.

HUMAN RIGHTS IMPLICATIONS

HUMAN RIGHTS IMPACTS	
OTHER DECISION	
(a) What is the Act/Decision being made?	Recommendation A states that Council provide financial support of $30,000 for the continuation of the Bremer River Catchment Management Officer role in partnership with Scenic Rim Regional Council. Recommendation B states that Council renew the partnership agreement with Scenic Rim Regional Council and South East Queensland Council of Mayors (CoMSEQ), outlining the terms and desired outcomes of the funding arrangement.
(b) What human rights are affected?	No human rights are affected by these decisions. This is because provision of funding to extend an existing position, under an agreement with another council, will not impact on the human rights of any third parties.
(c) How are the human rights limited?	***Not Applicable***
(d) Is there a good reason for limiting the relevant rights? Is the limitation fair and reasonable?	
(e) Conclusion	The decision is consistent with human rights.

FINANCIAL/RESOURCE IMPLICATIONS

$30,000 of budgeted funding (Waterway funding in the Natural Areas and Land Management budget) is proposed to be contributed to the partnership via Scenic Rim Regional Council to be used as a contribution towards the wages and on costs for the Catchment Management Officer role.

CoMSEQ committed a total of $190,000 for Phase 1 of the Program, which has been delivered. Funding for Phase 2, which builds on the outcomes of Phase 1, including identification of on-ground works to be delivered in Phase 2, will be confirmed on 9 September 2022 by the RRI Taskforce. Funding for Phase 2 will cover both the employment of the Catchment Management Officer ($90,000), and delivery of $230,000 of on-ground improvement works within the Bremer River Catchment.

COMMUNITY AND OTHER CONSULTATION

The development of the Bremer River Catchment Action Plan, which will guide this process and the projects to be delivered, was compiled collaboratively through a series of three (3) workshops where active input was received from Ipswich City Council, Scenic Rim Regional

Council, CoMSEQ, and multiple community stakeholders including the Bremer Catchment Association, the Bremer River Network, West Moreton Land Care, Boonah Land Care, and Native Plants Queensland.

State Government through the Department of Environment and Science also provided input through the workshop process and subsequently commenting on drafts of the plan.

The position description for the Catchment Management Officer was drafted jointly between officers from Scenic Rim Regional Council and Ipswich City Council and approved by Officers representing CoMSEQ.

CONCLUSION

An opportunity has been presented to Council to continue the partnership with Scenic Rim Regional Council in the delivery of the Bremer River Catchment Action Plan through the ongoing joint appointment of a Catchment Management Officer.

Council's proposed contribution to this partnership is $30,000 plus in-kind support through the provision of a desk and office space for up to two (2) days a week for 12 months from the extension of the existing agreement.

The contribution will go to Scenic Rim Regional Council who will administer the wages of Catchment Management Officer. The officer will work across the entire Bremer Catchment to implement, oversee and facilitate catchment and waterway improvement projects in line with the Bremer River Catchment Action Plan and the Council of Mayors Resilient Rivers Initiative.

The Resilient Rivers Initiative through the Council of Mayors has already committed $190,000 to the Bremer Catchment to support the development and recruitment into this role and the delivery of waterway and catchment improvement projects managed by that officer for 12 months. It is expected that a further $320,000 will be approved to support the continuation of the officer's position and Program for a further 12 months, including the $30,000 contribution from Council.

Belinda Whelband
TEAM LEADER (STRATEGIC CATCHMENT AND CONSERVATION PLANNING)

I concur with the recommendations contained in this report.

Phil A. Smith
NATURAL ENVIRONMENT AND LAND MANAGER

I concur with the recommendations contained in this report.

Kaye Cavanagh
MANAGER, ENVIRONMENT AND SUSTAINABILITY

I concur with the recommendations contained in this report.

Sean Madigan
GENERAL MANAGER - INFRASTRUCTURE AND ENVIRONMENT

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