A close-up photograph of several hands of different skin tones gently holding small green seedlings with dark brown soil. The hands are arranged in a circular pattern, creating a sense of unity and care for the environment. The background is a soft-focus blue.

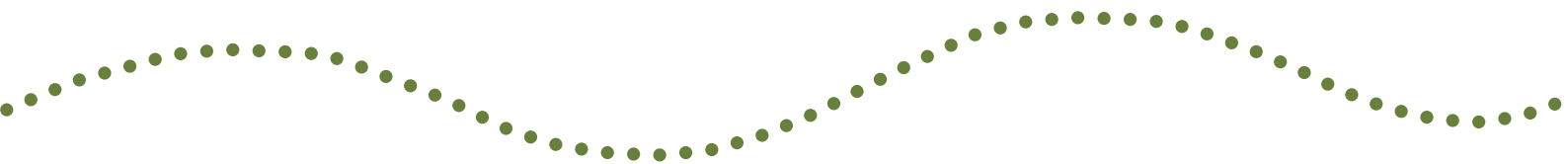
City of Ipswich **Urban Greening** Putting the Plan into Action 2022



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.

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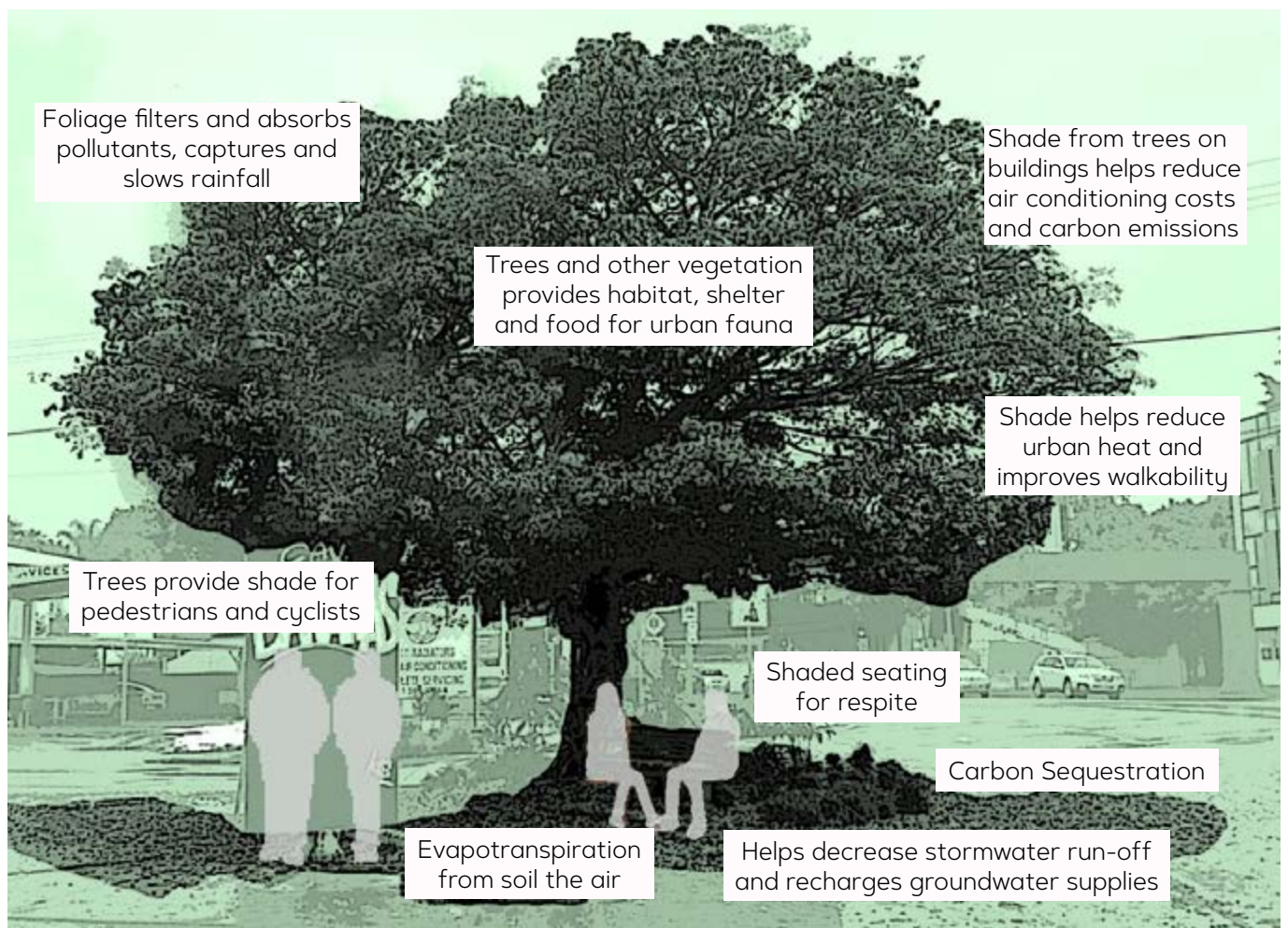
WHAT IS URBAN GREENING

Our city's urban areas are made of hard surfaces such as roads, footpaths and buildings. Preserving or planting trees and other vegetation in these urban areas brings a multitude of benefits for people and the environment. Urban greening is an important part of creating a resilient and liveable city. The urban forest, urban corridors, and greening within public and private realms make up what we refer to as urban greening. Council has an Urban Greening Plan which includes parks and open space, waterways and wetlands, and urban corridors across Ipswich suburbs.

Benefits of Urban Greening

Urban greening benefits for neighbourhoods include:

- mitigating the impacts and effects of climate change
- reducing urban heat island effect
- providing shade and cooling
- carbon sequestration (storing carbon)
- absorbing air pollutants
- filtering stormwater
- mental and physical health benefits
- providing habitat for urban plants and animals
- increased aesthetic and character values.

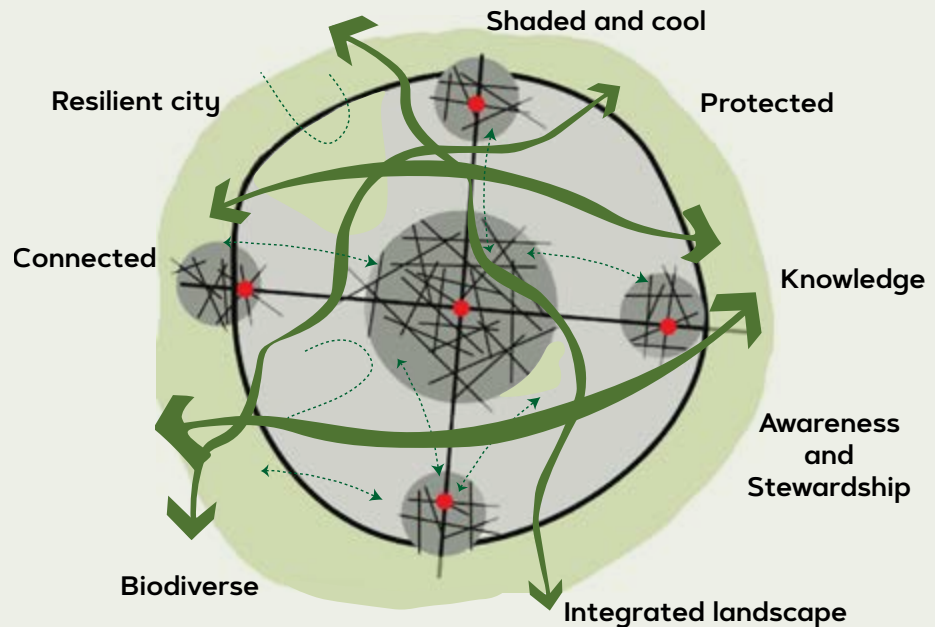


COUNCIL'S URBAN GREENING PLAN

THE URBAN GREENING PLAN

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.

(Ipswich City Council Urban Greening Plan 2022–2042)



Council's goal is to increase the quality and quantity of beneficial vegetation cover across Ipswich's urban footprint. The Urban Greening Plan sets an informed and evidence-based direction.

The Plan provides a strategic approach on prioritising areas to best achieve the multiple benefits to urban greening.

This includes:

- assessing and improving current conditions (such as canopy cover and connectivity)
- implementing greening projects to be planned and delivered in a collaboration with key stakeholders.

The Plan provides a road map for council and the community to improve urban conservation and biodiversity while increasing greening benefits.

Data-driven approach

Council will use data to determine urban greening initiatives for the city. This includes:

- using 2019 LiDAR (Light Detection and Radar) information to analyse canopy cover
- identifying priority suburbs with low percentage of canopy cover
- using Australian Bureau of Statistics information to understand socially vulnerable groups
- identifying council programs that could include greening into immediate and future works
- undertaking thermal heat mapping to identify hottest urban areas
- planning trial planting programs incorporating species adapted to future climate predictions
- measuring greening projects through existing reporting mechanisms such as council's nursery
- providing data to the annual environmental reporting.

In total, council aims to increase canopy cover in high priority suburbs by 10% by 2040–2042.

FOCUS AREAS

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 activities each year.

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



URBAN BIODIVERSITY

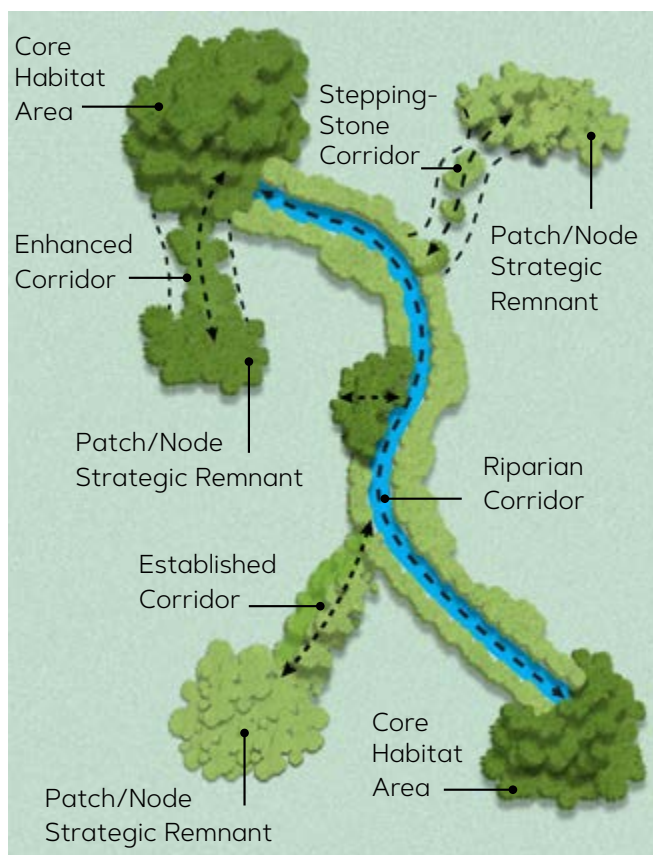
Biodiversity is the variety of all life forms on earth – the different plants, animals and micro-organisms and the ecosystems of which they are a part.

(Dept. Agriculture, Water and the Environment)

Biodiversity is not just found in pristine environments and conservation areas. Urban areas, where humans and nature co-exist, can also play an important ecosystem function. An effective habitat network has core habitat areas connected through the landscape by corridors and stepping stones of vegetation.

Native habitats in Ipswich are in a fragmented state, mainly due to human clearing activity for a variety of land uses.

Urban greening improves the health of these core habitat areas and corridors. This supports resilient and robust biodiversity values for our city and region.



Urban biodiversity corridor

What you can do – Free Plant Program

As an Ipswich resident you are entitled to free plants every financial year to support developing a greener and more beautiful Ipswich.

Plants species are chosen to suit local climate and soil conditions and are proudly propagated and grown in council's production nursery.

Proof of residency, such as a current rates notice, needs to be presented to claim your free plants.

Plants can be claimed from the Queens Park Nursery or from the mobile nursery.

Find details at ipswich.qld.gov.au/freeplants

The benefits of native plant species:

- Once established, only minimal garden maintenance is required
- Native gardens require less water, are frost tolerant and resilient to our harsh climate
- Local birds, butterflies, frogs and other fauna are attracted to native gardens
- Native gardens provide a food source and habitat for local fauna
- A variety of garden styles can be created, e.g. formal, informal and native edible gardens
- Insecticides and fungicides are not required as native plants adapt to local condition.



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

What you can do – Habitat Gardens

Through the Enviroplan initiative council offers a Landholder Conservation Partnerships Program. These partnerships encourage and assist Ipswich's landholders to manage, enhance and protect ecosystems in order to conserve flora and fauna on their properties.

Habitat Gardens is a free urban partnership designed to help people with smaller blocks to still make a positive contribution to Ipswich's environmental outcomes.

The program provides incentives to help urban property owners achieve environmental goals, including:

- electronic quarterly updates
- workshops and other networking opportunities
- access to resources
- an additional 20 free plants per financial year through the Free Plant Program.

Habitat Gardens partnership is suitable to urban landholders who:

- intend to remove all environmental weeds and replace with native species
- would like to participate in neighbourhood meetings, workshops or online forum
- intend to improve sustainable practices
- can make a 5-year commitment (with option to renew)
- submit a report every 5 years.

Search 'Landholder Conservation Partnerships Program' at ipswich.qld.gov.au

Enviroplan

Through Ipswich Enviroplan, council protects more than 6,500 hectares of reserves and conservation estates in the Ipswich area, including some with a significant role in our urban landscape.

Ipswich Enviroplan supports the protection and maintenance of vital ecosystems and natural environment values.

Some of these urban conservation areas have been returned to a natural state by council, such as the former quarry that is now Haig Street Quarry Reserve and an important wildlife corridor link.

Others are parcels of remnant vegetation that council has acquired and preserved intact. White Rock – Spring Mountain Conservation Estate, surrounded by Ipswich's most rapidly growing new housing development areas, is one of the most significant.

This conservation estate provides enormous urban greening benefits and is referred to as the 'green lungs' of the region. It is important habitat for numerous native species of plants and animals, including some that are rare and threatened. It is also Ipswich's most popular estate for nature-based recreation such as bushwalking, mountain biking and horse riding.

Find out more about Enviroplan at ipswich.qld.gov.au/enviroplan





Buckinghamia celsissima

TREES AS AN ASSET

Trees are a valued asset within the urban environment, providing:

- shade
- visual amenity
- health benefits
- economic benefits such as increases to property values.

However, there are also perceptions that trees can be:

- dangerous, such as potential to drop branches
- costly, such as potential for roots and leaf litter to cause damage.

Like any asset, urban trees require maintenance. To get the most out of trees and urban greening, regular maintenance includes health checks, mulching and pruning.

It's also important to make sure the correct species is planted in the correct space, to avoid potentially costly issues down the track.

Council invests in root barrier restoration and tree protection zone improvements to ensure existing urban trees can co-exist with infrastructure.

Good trees for urban spaces

Many modern homes are being built without the 'big backyard' of previous eras. But there are a variety of native trees that can provide all the benefits of urban greening in a smaller space.

Ivory Curl (*Buckinghamia celsissima*)

Small to medium-sized native tree reaching heights of 6–8 metres and spread of 3–5 metres. Rounded growth habit with dark green leaves and bronze coloured new growth. Produces fragrant cream flowers summer through to autumn. Attracts birds and bees. Does well in full sun or partial shade and adapts to most soils.

Tulipwood (*Harpullia pendula*)

Medium-sized native tree reaching heights of 7–9 metres and canopy spread of 2–4 metres. Fast growing with a dense crown and pale grey bark, greenish yellow flowers in summer followed by orange seed cases that open in winter to reveal the seed inside. Tolerates dry conditions, adapts to most soils and prefers full sun.

Tuckeroo (*Cupaniopsis anacardioides*)

Medium-sized native tree reaching heights of 8–9 metres and spread of 6–8 metres. Excellent shade tree due to wide canopy. Glossy green leaves, produces yellow flowers followed by orange seeds. Suitable tree for most conditions and adapts to most soils, prefers part shade.

Dawson River Weeper (*Callistemon viminalis*)

Large shrub to small tree reaching heights of 5–7 metres and spreads of 3–4 metres. Green/grey foliage and weeping branches. Red bottle brush flowers appear through most of the year. Attracts birds and bees. Full sun or part shade, tolerates dry periods.

Planting tips

- Dig a hole at least twice as wide and slightly deeper than the pot size
- Loosen the soil at the sides, fill the hole with water and allow it to drain away
- Gently remove the plant and place it in the hole (ensuring the top of the root ball is level with the surrounding ground) and backfill with the remaining soil
- Press the backfill down with your hands and make a saucer-shaped depression to hold water
- Sprinkle a small amount of organic fertiliser around the drip zone of the plant, water in well
- Mulch with at least 75mm coarse organic material, e.g. cane mulch, dry grass clippings, keeping the mulch away from the stem of the plant
- Water weekly for the first two months and prune as required to encourage bushier growth.

What you can do – Street Tree Program

Ipswich residents can request free street trees for council to plant outside their property.

You must commit to watering the trees each week, within water use rules (such as restrictions).

- Log into **MyIpswich.com**
- Enter 'Footpath Tree' into the search bar and click on 'search'
- Click on 'Footpath Tree Requests' and follow the prompts.

What you can do – Nature strip landscaping

Council allows residential property owners to establish landscaping on nature strips adjacent to their property boundary.

Standard conditions have been developed to protect the safety of footpath and road users by allowing clear vision for vehicles accessing driveways and minimising trip hazards.

One of the conditions is that vegetation cannot be higher than 75cm. While trees are not included, a list of recommended shrubs and groundcovers has been compiled to guide property owners. These plants can also support urban greening objectives.

Find the nature strip landscaping standard conditions at lpswich.qld.gov.au



A CHANGING CLIMATE

The ecosystem of Ipswich will continue to be impacted by a changing climate. The Queensland Government's Climate Change in Queensland summarises the key changes as including:

- Hotter and more frequent hot days
- Harsher fire weather
- Fewer frosts
- Reduced rainfall in South-East Queensland
- More intense downpours.

These changes are already causing challenges to areas such as environmental health, public health and wellbeing, and disaster management.

Heat stress is a particular danger to socially vulnerable communities, including the elderly, very young, people with chronic illnesses and the homeless.

Urban greening has been proven to provide urban cooling benefits and mitigate some of the impacts from our changing climate.

By understanding the location of socially vulnerable communities, and the likely impacts climate change, council can plan and work towards implementing a green environment suited to future conditions.

How do trees help fight climate change?

Tree planting is a simple and effective way of taking action climate change caused by greenhouse gases.

As trees grow they absorb carbon dioxide (CO₂) – a major greenhouse gas in the atmosphere – store carbon in the trees and soils, and release oxygen.

According to the CSIRO, the absorption of carbon from the atmosphere by sequestering carbon in the plants and soil acts as a natural weapon against climate change.

Planting trees is a relatively inexpensive action and something that everyone can be involved in, at home or in the community.



Case study – Raceview

Raceview has an estimated population of 16,000. Most of the suburb is low-density residential.

Raceview has a tree canopy cover of 15.4 per cent – one of the lowest within Ipswich's urban footprint.

The suburb has Bundamba Creek as its eastern boundary, and Deebing Creek to the west, with small parks distributed throughout which provide opportunity for active transport connections.

Going forward, council will use base information such as canopy cover percentage, as well as thermal heat mapping, to prioritise hot areas in the urban footprint.

Council will then investigate potential urban greening sites that are most beneficial to the community and practical to implement.

An example, identified through local knowledge, is James Hatton Park which currently has an unshaded footpath and bench.

Providing a tree canopy cover will create shade, cooling, habitat, sequester carbon and improve visual amenity.

A greening project in this park, as well as adjoining streets, could improve conditions for residents to walk comfortably to Winston Glades Medical Centre. This is an example of how the Urban Greening Plan vision can be realised.

Small Creek

From aerial images of Small Creek in Raceview we can see significant changes in the urban landscape over time. This demonstrates how it is possible for council and the community to create positive urban greening changes.

- **1955** – Small Creek and Deebing Creek were cleared farmland
- **1971** – Small Creek was still cleared. Deebing Creek had some vegetation
- **2002** – Small Creek was realigned as a concrete channel. Deebing Creek had thick vegetation
- **2022** – Small Creek has been changed back into a naturalised vegetated waterway incorporating active travel connection for the community. Deebing Creek is thickly vegetated. This provides the neighbourhood with the full benefits of urban greening.

You can find out more about the Small Creek journey at ipswich.qld.gov.au/smallcreek



BALANCING GREEN AND GROWTH

Ipswich is one of the fastest growing cities in Queensland, and Australia. Our population – currently more than 231,000 – is projected to be more than double in the next 20 years.

Future development to accommodate all these new residents will require land to be cleared. This will remove areas of vegetation. If not planned for and managed, this will cause loss of habitat and increase urban heat island effect.

A Planning (Walkable Neighbourhoods) Amendment Regulation 2020 aims to mitigate these impacts.

It includes:

- direction for street tree planting along footpaths
- parks and other open space areas within 400m of new housing blocks.

It is important to retain as much vegetation as possible in order to mitigate climate change and urban heat island effect while retaining biodiversity value, habitat and connectivity.

For example, South Ripley currently has about 25 per cent canopy cover. This will reduce when land is cleared to accommodate the estimated 25,000 new residents by 2040.

Active travel and urban greening

Council has a masterplan for Ipswich's transport future called the iGO Transport Plan. It's a long-term strategy to shape sustainable transport to accommodate a future population of 435,000 people.

To meet the growing travel demands of Ipswich and achieve a better quality of life for the community, council recognises greater emphasis must be giving to active transport such as walking and cycling.

- Almost 50 per cent of car trips are less than 5km. Changing to more active modes of travel for these trips can result in a more liveable community with less traffic congestion.

- Walking and cycling also contributes to daily physical activity requirements, which brings a range of health benefits.

Urban greening increases the appeal and benefits of active travel by creating a more enjoyable environment for people to participate.

Increasing shade to parks and pedestrian walkways protects from sun and heat. Trees increase the visual amenity and make active transport more comfortable, enjoyable and attractive. Trees also further boost the carbon emission reduction achieved by active travel.

As a result, the Urban Greening Plan puts strong emphasis on active travel routes when considering urban greening projects.

Urban Greening projects

Ipswich has more than 550 parks and reserves, with more being created each year as new housing developments take shape.

These urban parks and reserves provide different recreational needs as well as walking paths and bikeways.

Council is committed to urban greening projects that deliver improvements to parks, nature strips and streetscapes.

Many of these projects are targeted to older, more established suburbs that have parks and thoroughfares most in need of 'beautification' through urban greening.

These projects bring not only the holistic benefits of urban greening, but also create new community pride in refreshed and appealing public areas.

Council has invested in delivering urban greening projects in priority areas. Goodna and John Street, Rosewood will be among the first sites delivered under the Urban Greening Plan.

Council also responds to customer service requests for urban greening projects.



HEALTHY URBAN ECOSYSTEMS

Urban greening benefits include a range of ecosystem services, including:

- air purification and providing oxygen
- water filtration
- soil health, including carbon sequestration
- providing shade and habitat
- nutrient cycling
- cooling through transpiration.

Transpiration is the release of water as vapour through leaves to assist with cooling. However, to get the full benefit of this process trees need to be healthy and have enough water to maintain their health.

Water is a precious resource, and with our changing climate and hotter urban environments, it will only become more important to ensure water is not wasted.

Water sensitive urban design can provide solutions for greening projects so that urban trees can maintain healthy growth without the need for onerous maintenance such as manual watering.

Water Smart Street Trees

Council has trialled an innovative water sensitive urban design solution called 'water smart street trees'.


Stormwater run-off from roads is diverted into tree pits. These pits are filled with specific soil medium which allows water to filter down to under-drainage connected to the stormwater system.

While the water is filtering through, trees planted in the pits can take up water and nutrients and filter pollutants such as nitrogen and phosphorous.

These trees bring multiple benefits including:

- passive irrigation of trees – sustainable self-watering street trees
- cooling through evapotranspiration
- removal of stormwater pollutants from downstream waterways
- reduction in localised flooding and downstream erosion.

Water Smart Street Trees



This Water Smart Street Tree project is funded through council's Stormwater Quality Offsets Program.

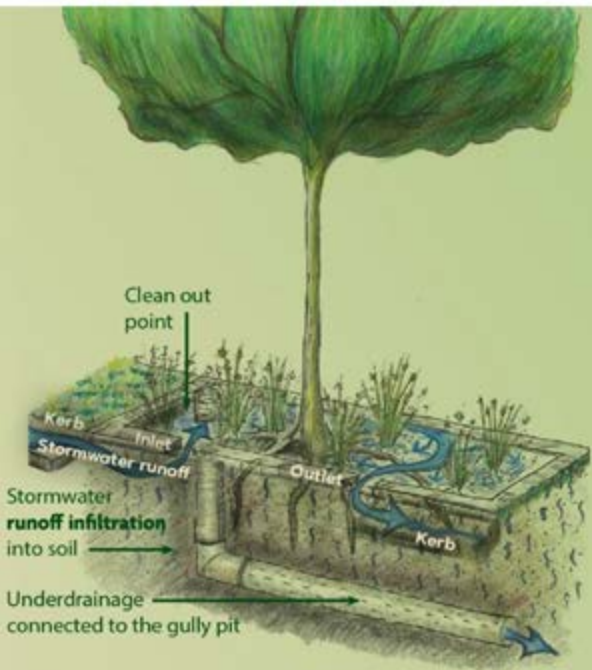
- ☐ Stormwater runoff is diverted from the kerb to the tree roots. This means stormwater is reused and trees are sustainable and self watering.
- ☐ The Water Smart Street Trees helps reduce pollutant loads such as nitrogen, phosphorus, suspended solids. These pollutants have significant negative impacts on our waterways.

How you can help

The best thing you can do for your Water Smart Street Tree is to do nothing at all.

It is vital you don't:

- ☐ Provide extra water, even during dry times
- ☐ Trim or remove the trees
- ☐ Replace the tree with a different species
- ☐ Use any fertilisers or add extra soil
- ☐ Litter or leave objects
- ☐ Modify the soil level or type



Clean out point

Kerb

Inlet


Stormwater runoff

Outlet

Kerb

Stormwater runoff infiltration into soil

Underdrainage connected to the gully pit



You can see an example of a water smart street tree at Shiloh Court in Pine Mountain and Peter Tullett Park in Springfield.



Habitat Connections

Waterways often provide natural corridors for urban greening. However, over time many urban creek systems have been cleared of vegetation or converted into concrete drains designed to move stormwater run-off as quickly as possible.

This fast-moving stormwater leads to a range of issues, such as:

- pollutants entering our waterways and causing issues such as algae bloom and fish death
- severe erosion of downstream creeks that destabilises banks and fills waterways with sediment
- increasing flood impacts on downstream environments and infrastructure.

Council's Habitat Connections program is designed to rehabilitate and restore degraded urban waterway corridors throughout Ipswich.

This is achieved through tree planting, as well as ongoing maintenance to ensure long-lasting improvements.

The land next to a body of water is called the 'riparian' zone. Trees and other vegetation in the riparian zone act as a buffer for the aquatic ecosystem.

The trees provide benefit through:

- holding bank soil in place and reducing the risk of erosion
- filtering sediments and nutrients from surface run-off and groundwater
- regulating water temperature
- providing shade, shelter and organic matter needed for healthy habitat
- shading out invasive exotic weeds.

Community tree planting days are held at priority waterway sites each year. Stay tuned to **Facebook.com/ipswichcitycouncil** for information on future tree planting events.



COMMUNITY OWNERSHIP

Urban greening takes a long-term commitment by both council and the community to be successful.

Saplings planted today take time to establish and years to grow – during which the site needs maintenance such as weeding, mulching, pruning and more.

Vandalism is also a costly barrier to urban greening, such as people cutting down trees for views, or removing or damaging newly planting trees.

Community involvement is core to the Urban Greening Plan.

Strategic priorities focused on the community include increasing physical and mental health benefits, reconnecting people to nature and increasing a sense of local identity and stewardship.

What you can do – Bushcare

Across Ipswich there are numerous Bushcare sites where a volunteers do regular working bees to help improve the local environment.

The sites are as diverse as the suburbs they are based in, but one thing they all have in common is a

strong desire to enhance our city's parks, reserves and waterways.

Bushcare is strengthening community ownership of these urban greening projects and helping to realise all the benefits of planting and maintaining a public space.

It's easy to become a Bushcare volunteer:

- No skills or environmental knowledge needed – everything can be learned 'on the job'
- Meet new people with similar interests and a shared goal
- See if it is for you by participating in up to three trial days
- Do a short online induction to become a regular volunteer and get a FREE hat and gloves
- See the rewards of your hard work as you transform weeds into beautiful native habitat.

Find details of Bushcare groups and working bees at the Volunteer Portal ipswich.qld.gov.au/volunteering



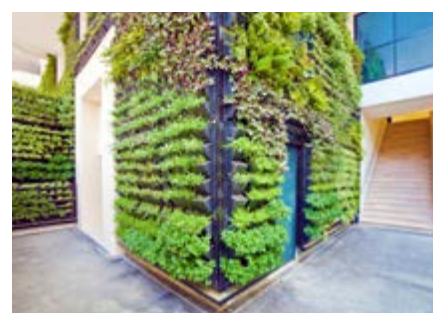


Green beyond trees

Urban greening can take many forms, especially where space for tree canopy is limited.

Some alternative solutions to trees include green walls or trellis with climbers on the outside of buildings.

Also, planting can make use of areas beneath infrastructure such as elevated railway lines or roads. Greening these often dis-used spaces can provide benefits such as visual amenity, habitat, shaded walkways and evapotranspiration.



TAKE ACTION TODAY

There are many things you can do right now to contribute to urban greening in Ipswich:



- ☐ Collect a native tree or shrub and plant it in your yard through the Free Plant Program. Go to ipswich.qld.gov.au/freeplants



- ☐ Join the Habitat Gardens program and boost your urban greening at home. Search 'Landholder Conservation Partnerships' at ipswich.qld.gov.au



- ☐ Stay on the tracks when you enjoy your local Enviroplan conservation area or reserve. Search 'Conservation estates' at ipswich.qld.gov.au



- ☐ Request a street tree outside your property if you don't have one already. Search 'Street tree' at ipswich.qld.gov.au



- ☐ Consider a nature strip landscaping project to boost biodiversity. Search 'Nature strip' at ipswich.qld.gov.au



- ☐ Take part in a Habitat Connections community tree planting. Upcoming events will be advertised on Facebook.com/ipswichcitycouncil



- ☐ Try out volunteering at one of Ipswich's many Bushcare groups. See the Volunteering Portal at ipswich.qld.gov.au/volunteering



- ☐ Get your friends, family and neighbours to take action too!





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Ipswich

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