





### **CREATING A**SUSTAINABLE FUTURE.

At its heart, environmental sustainability is about taking care of the environment so that our environment can continue to take care of us.

The Rockhampton Region is a great place to live, work, play, learn and invest... but we know that our environment must be a key priority if we want it to remain that way both now and in the future.

In September 2018, Rockhampton Regional Council adopted the Environmental Sustainability Strategy 2018-2022 to provide a vision, shared objectives and pathways to advance sustainability across our Region.

Already Council has taken some significant steps towards a more sustainable future for our Region. We are very proud of the collaborative arrangements and community programs that we've established and the on-ground outcomes that we've achieved along the way. But we know there is still much work to be done.

This report outlines the actions that have been taken to begin implementing our Strategy, along with some of the key highlights from throughout the year. We hope that you will join with us in celebrating these achievements whilst continuing to explore innovative and collaborative approaches to the challenges we collectively face.

We look forward to continuing to work with you to protect, maintain and enhance our environment for current and future generations.

### **OVERVIEW**.

### CREATING A SUSTAINABLE FUTURE FOR OUR REGION.

Council is committed to putting sustainability into action through its corporate commitments and governance arrangements; its strategies and operations; and its community services, programs and partnerships. As part of Council's Sustainability Governance Framework, the Sustainability Strategy Executive Group meets quarterly to guide implementation of Council's

Environmental Sustainability Strategy. They also monitor and review progress against the supporting annual action plan, work together to identify further opportunities for improvement and collaboration across Council and report this progress back to Council. Key milestones delivered are as follows:

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- Environmental Sustainability Strategy adopted
- Sustainable Rockhampton Investment Fund announced
- Fraser Park bush regeneration works commenced
- Tropicana gardening and sustainability festival
- Bringing Nature Back program launched
- Energy action plan adopted
- Living Sustainably program launched
- Council ecoBiz assessments commenced
- Environment and Sustainability Scheme launched
- Clean Growth Choices 'making water work' workshop
- Bringing Nature Back community workshops
- Environmental improvements achieved through infrastructure upgrades

"You cannot get through a single day without having an impact on the world around you. What you do makes a difference and you have to decide what kind of difference you want to make."

— Dr. Jane Goodall



Photo: 'Walk the line', Zamia Trail, Mount Archer by Claire Van Moorsel



### NATURAL **ENVIRONMENT.**

#### **OBJECTIVE**

Let's work together to protect, maintain and enhance our natural environment.

#### **TARGETS**

- Programs in place to maintain and enhance our natural assets, waterways and green corridors
- Programs in place to protect remnant vegetation and support local biodiversity in urban areas
- Long term trending improvement in net waterway health

#### YEAR IN **REVIEW**



planted on project sites throughout the Region.

400 COMMUNITY MEMBERS

participated in Council-led natural resource management activities.





invested at on-ground project sites to increase canopy cover and support land management works.



The Rockhampton Region has its own unique natural assets that support the liveability and prosperity of our Region. Council has implemented a range of strategic actions to better understand our local natural environment, foster strong partnerships and also celebrate the contribution that our natural assets make to our Region.

Council continues to actively work with key stakeholders to pursue a variety of funding and collaborative opportunities and to deliver a number of on ground projects including:

#### BRINGING NATURE BACK PROGRAM

In October 2018, Council launched the 'Bringing Nature back' program with support from the Australian Government's Building Better Regions - Community Investments Stream. The program provides an overarching framework for a range of Council activities designed to connect our community with nature and to protect, maintain and enhance our natural environment.

Strong partnerships are critical to the success of the program and Council continues to develop further working arrangements with local organisations including CQ University, Fitzroy Basin Association, Capricornia Catchments, Multicultural Development Australia, Capricornia Correctional Centre, Birdlife Capricornia, Native Plants Capricornia, Darumbal Enterprises, Jolly Rogers Fishing Club, Greening Australia and more.

#### FISH HABITAT UNITS

A series of constructed wooden structures were installed at Yeppen and Crescent Lagoons to improve fish habitat in our local waterways. The structures replicate submerged woody debris that provide valuable shelter and enable algae and other food sources to grow. This project was delivered in collaboration with the Fitzroy Basin Association and Jobs Queensland as part of the Australia Government's Reef Programme.

#### **BIOCONTROL ACTIVITIES**

Biological control involves using living organisms such as insects to suppress a weed infestation. Council continues to deliver a range of biocontrol activities designed to combat water weeds such as water hyacinth, salvinia and water lettuce. In collaboration with Fitzroy Basin Association, Council's biocontrol activities have also been extended to provide private landholders with much-needed access to local biocontrols.

#### REVEGETATION ACTIVITIES

Council has been actively identifying opportunities to increase canopy cover across the Region and with assistance from its partners, has delivered a range of revegetation activities at sites such as Col Austin and Eichelberger Park. Council has also prioritised a streetscape planting and maintenance program that has delivered CBD tree protection works as well as tree plantings at Kerr Park, Mount Morgan, Gracemere and Glenmore Road.

#### NATIVE PLANT PROPAGATION

With the increased demand for local native plants to support Council's revegetation and restoration activities, Council's Nursery has been kept busy preparing additional plant stock. These efforts have been aided through a partnership with Multicultural Development Australia's job-skilling trainees who are working towards a Certificate in Conservation and Land Management as well as a range of committed volunteers who generously volunteer their time.

#### INTERPRETIVE SIGNAGE

In line with Council's new wayfinding strategy, natural areas such as Fraser Park and Springers Lagoon have received upgraded signage, highlighting the importance of our natural areas, as well as some of the significant species found in these locations. This will enable people who visit this area to appreciate the significance of local flora and fauna.

#### UNDERSTANDING OUR NATURAL ENVIRONMENT

A range of key studies are also helping to better inform and prioritise Council's management actions now and into the future. This includes renewing the natural environment study for the region, as well as undertaking a rapid urban canopy assessment and a riparian management study for Frenchmans and Thozets Creeks.

#### REEF GUARDIAN COUNCILS PROGRAM

Council continues to participate in the Great Barrier Reef Marine Park Authority's Reef Guardian Councils program including contributing to proposals for major integrated projects and also the annual highlights report. As a Reef Guardian Council, Council is also working with the Local Marine Advisory Committee and Fitzroy Basin Association to deliver a stormwater debris source reduction trial with funding support from the Great Barrier Reef Foundation and Council's



O'Shannesy Park National Tree Day community planting site July 2018

#### CASE STUDY:

#### FRASER PARK BUSH REGENERATION WORKS

Located at the summit of Mount Archer. Fraser Park is a unique natural asset and iconic destination for both locals and visitors. As part of the overarching Mount Archer Activation Plan, long-term maintenance and enhancement of this area is a priority.

In collaboration with Capricornia Catchments, Council has implemented bush regeneration works including targeted weed control, native and bush tucker plantings and other maintenance activities. To ensure the ongoing success of the project, on ground works have also been supported by a range of other local organisations including Multicultural Development Australia, Capricornia Correctional Centre and Jobs Queensland.

In March 2019 over 100 residents participated in educational workshops and hands on planting activities at Fraser Park. Council worked with a range of community organisations to bring this event to life including Capricornia Catchments, Native Plants Capricornia, Birdlife Capricornia and Darumbal Elders.

The workshops were part of Council's broader 'Bringing Nature Back' program, which is designed to support and encourage residents to take an active role in looking after our local environment.















### EMPOWERING COMMUNITY.

#### **OBJECTIVE**

Let's work together to strengthen our community capacity to live sustainably.

#### **TARGETS**

- Community sustainability engagement programs in place
- Community-based environment and sustainability initiatives encouraged and recognised
- Increased canopy cover within the urban footprint

#### YEAR IN **REVIEW**

260 LIVING SUSTAINABLY' community workshop participants.





sharing \$9000 funding via Environment and Sustainability Scheme. 2100
NATIVE PLANTS

provided to the community via the Native Plant Program.



As a community, there are a range of opportunities for us to work together to live more sustainably. Council has been working to progress initiatives that foster sustainable behaviour and encourage the wise-use of our resources. Key strategic actions include encouraging initiatives that increase urban

canopy cover to enhance the liveability of our Region, providing support for community-based environment and sustainability initiatives and recognising sustainability improvements achieved by local individuals, schools, businesses and community organisations.

To help empower our community, Council has delivered a range of initiatives including:

#### **ENVIRONMENT AND SUSTAINABILITY SCHEME**

Council has established a new Environment and Sustainability scheme under the Community Assistance Program (CAP). The first round of submissions closed in March 2019, with three organisations awarded grants to complete projects across the region including Birdlife Capricornia's yellow chat habitat restoration works; Fitzroy Basin Association's Drain Buddies (source reduction) project; and Multicultural Development Australia's Tucker Time (food rescue) project.

#### LIVING SUSTAINABLY WORKSHOPS

Council launched its 'Living Sustainably' program in January 2019. The program covers 12 key themes which aim to improve our community's capacity to live sustainably by encouraging a range of household sustainability behaviours and actions. Each month, the program delivers interactive educational workshops at Rockhampton Regional Libraries, as well as a monthly newsletter which provides practical tips that residents can implement at home to live more sustainably.

#### SUSTAINABILITY IN ACTION! CALENDAR

Schools are at the forefront of educating the next generation about environmental sustainability. The Sustainability in Action! Schools Calendar Competition was designed to recognise and celebrate sustainability action within the Region's schools. The 2019 community calendar showcased 12 local schools who were also awarded prizes at Tropicana. The Sustainability in Action! community calendar was distributed via local schools to demonstrate sustainability action to the community.

#### NATURE PLAY PASSPORT

The special local edition 'Rockhampton Regional Council Nature Play Passport' was launched in May 2019 in conjunction with Under 8s week and Romp in the Park. Already more than 6,000 local kids have accepted the challenge to get outside to run, jump, climb, splash, invent, imagine and play. The Passport has 10 localised 'mission' pages, stickers, and suggestions on great places to go and things to do outdoors in our Region.

#### NATIVE PLANT PROGRAM

To promote urban canopy cover, Council's free Native Plant Program was rolled out in conjunction with National Tree Day in July 2018. The program increases residents awareness of the benefits of native vegetation and the importance of planting the right plant, in the right place for the right reasons. Free native plants were available at Emergency Services Day, Tropicana and Small Landholders Day 2018.

#### NATURE PHOTOGRAPHY COMPETITION

Council's Nature Photography Competition is designed to capture the Rockhampton's Region's amazing natural environment. In 2019, winners were selected from across five categories and shortlisted entries displayed to celebrate World Environment Day throughout June at the Rockhampton Regional Library and the Rockhampton Show.

#### PORTABLE WATER REFILL STATIONS

Council commissioned two portable water refill stations to reduce the use of single use plastic and encourage the community to bring their own water bottle to events. These stations are available for hire from Council's Customer Service Centres.

#### **ACTION LEARNING KITS FOR SCHOOLS**

To support local education, Council has also begun developing Action Learning Kits for schools. The first kits focus on the importance of caring for our catchments and have been made possible through a small grant from the Reef Guardian Stewardship Program.



Council's Living Sustainably community workshop in February 2019 presented by Great Barrier Reef Marine Park Authority and Fitzroy Basin Association.

## CASE **STUDY:** TROPICANA 2018

In October 2018, Council launched its new Bringing Nature Back program at the Rockhampton Botanic Gardens as part of the Region's annual Tropicana event. The fun, family-friendly festival brought together community members, local organisation, schools, businesses and industry-leaders to be inspired, get hands-on and celebrate our local natural environment.

Over 3,000 people participated in Tropicana 2018, enjoying a range of interactive workshops. Activities varied from nature photography and creating your own bug hotel, to finding eco-efficiencies, learning about compost and growing native plants.





attended Tropicana 2018 at the Rockhampton Botanic Gardens.



43 WORKSHOPS

19 LOCAL GROUPS

participated in the event.



Community members attending Tropicana 2018 and posing in the upcycled entryway created by local artist Amber Countryman.



### INDUSTRY & INFRASTRUCTURE.

#### **OBJECTIVE**

Let's work together to create a liveable region that encourages sustainable industry and infrastructure.

#### **TARGETS**

- Council's planning instruments actively encourage sustainable development
- Major Council projects incorporate sustainable design and procurement considerations
- Eco-tourism ratings achieved for key local destinations
- Roadmap in place to support clean growth choices

#### YEAR IN **REVIEW**



**ORGANISATIONS** 

participated in local ecoBiz coaching sessions.



**BIO SOLIDS DIVERTED** 

from landfill and beneficially reused in local activities.





Council has been actively working with its stakeholders to support sustainable development and local industry. This has seen a range of new collaborative opportunities progressed across the Region.

From state-wide planning initiatives to local sustainability projects and circular economy solutions, these approaches have the potential to deliver a range of benefits for our local economy and the liveability of our community.

To embed environment and sustainability considerations within local projects, Council is working to progress a range of initatives including:

#### **CLEAN GROWTH CHOICES**

Council is actively participating in the Queensland Government's Clean Growth Choices trial. The program is designed to assist communities to become more resilient by acquiring new skills and technologies, mastering the transition to a low carbon technology and adapting to a changing climate, all whilst encouraging and supporting the employment sector. In conjunction with key community stakeholders, Council has elected to focus on a roadmap and business cases for 'making water work', which focuses on farm sustainability and the use of circular economies to maximise the benefits of water within the Region.

#### **DEVELOPMENT INITIATIVES**

Council has been working with the Reef Urban Stormwater Management Group (RUSMG) on potential projects that could be implemented within the Region. Council has also been contributing to the review of the Capricorn Municipal Design Guidelines which are the reference standard for all local developments.

#### SUPPORTING BIOSECURITY

Council continues to implement a Biosecurity Strategy via a range of targeted mechanisms. Water weeds present a number of challenges for our local waterways. Council's biocontrol farm maintains a breeding population of biocontrols designed to combat aquatic weeds such as water hyacinth, salvinia and water lettuce. In collaboration with Fitzroy Basin Association, Council has expanded the program and made it available to local landholders. This enables interested stakeholders to share knowledge, control techniques and samples, whilst working together to better manage these pest plants within our Region.

#### LOCAL DISASTER RESILIENCE

In conjunction with Queensland Fire and Emergency Services, the Local Disaster Management Group is actively considering readiness and resilience for threats such as extreme weather events, climate change and heat-related events.

#### TOURISM AND RECREATION

Council's Recreational Fishing Strategy and Mount Archer Activation Plan have increased awareness of nature-based tourism opportunities across the Region. This renewed focus has supported a range of initiatives such as the establishment of new fishing infrastructure on the Fitzroy River, improved mountain bike and walking trails at First Turkey and the Fraser Park redevelopment including Nurim Circuit and a new nature play area.

#### **BUSINESS ECO-EFFICIENCIES**

Local businesses have also been taking advantage of the Queensland Government's ecoBiz program. This program provides businesses with free advice, training and workshops on ways to improve their environmental sustainability, recognise energy, water, waste efficiencies and lower their operating costs.

#### PLANNING SCHEME AMENDMENTS

Council has been working on a number of amendments to the Rockhampton Region Planning Scheme to ensure that it remains up to date and operating effectively. The amendments propose that new water sensitive urban design (WSUD) principles are introduced into development codes and planning scheme policies, along with updated flood mapping and zoning. Work has also commenced on further opportunities to improve the Region's biodiversity overlays and protection for Matters of Local Environmental Significance.



Rockhampton Regional Waste and Recycling has used crushed glass in place of sand in projects at the Lakes Creek Road Landfill.

#### CASE **STUDY**:

#### WATER SENSITIVE URBAN DESIGN

Streams in their natural state are dynamic ecosystems that perform many beneficial functions. Natural streams and their floodplains convey water and sediment, temporarily store excess flood water, filter and trap sediment, recharge and discharge groundwater and provide supportive habitat for a diverse range of plant and animal species.

Council has been working with developers to incorporate 'natural stream processes' into the design and construction of local development projects. The approach is designed to improve water quality, waterway connectivity and amenity, whilst also reducing long-term maintenance requirements.

In conjunction with local industry, Council officers have also been working to integrate water sensitive urban design into new developments.

A 'passive street tree watering' trial aims to establish trees using stormwater during a rainfall event, decreasing long term maintenance and watering requirements and assisting to make for a healthy and strong street tree.



# CASE **STUDY:**BUILDING A CIRCULAR ECONOMY

To help ensure we're using our resources wisely, Council's business units continue to pursue opportunities to beneficially reuse local waste products. This includes the beneficial reuse of biosolids from Fitzroy River Water's sewage treatment plants for soil amelioration on agricultural land in the Region and Rockhampton Regional Waste and Recycling arrangements that ensure 100% of local green waste is beneficially reused as mulch.

Construction of the first 'piggy back' cell at the Lakes Creek Road Landfill has also seen some creative reuse of local waste materials.

The final stage of construction required a fine layer of sand to form a protective lining around the edge of the new cell. Instead of sand taken from the natural environment, Council has been able to use a 100% recycled product made from glass from our local recycling facility, crushed into tiny particles similar to sand.

Council is also exploring options to utilise crushed glass in lieu of sand within other construction projects such as footpaths. Using crushed glass instead of sand is a solution that has captured the attention of other Councils who are now visiting Rockhampton's Lakes Creek Road Landfill site to see the outcomes firsthand.



### COUNCIL OPERATIONS.

#### **OBJECTIVE**

Let's work together to continually improve Council's environment and sustainability performance.

#### **TARGETS**

- Internal sustainability engagement program in place
- Environmental management systems operating for nominated units
- Majority of Council's operational electricity needs sourced from renewable energy

#### YEAR IN **REVIEW**



#### **ACTIONS PROGRESSED**

via Council's Environmental Sustainability Strategy.

40% 🗸

#### LESS NITROGEN DISCHARGE

from Rockhampton's Sewage Treatment Plants.



#### **SEED FUND INITIATIVES**

implemented by Council's internal sustainability working group.



#### RENEWABLE ENERGY

used to support Council's operational electricity needs.



Council has established the 'Second Nature Program' to advance sustainability awareness and action within its operations.

Internally, Council's Sustainability Governance Framework sees Managers come together quarterly as part of the Sustainability Strategy Executive Group to review the progress and achievements relating to the Strategy and explore opportunities to further embed sustainability principles within key policies, plans and procedures.

This is further supported by an Internal Sustainability Working Group (ISWG) that champions sustainability initiatives and helps to relay information that will support sustainability across the organisation.

The Group meets quarterly to explore aspects of Council's operations and to further opportunities to improve Council's management of energy, water, waste and biodiversity.

As part of Council's commitment to improved environmental performance, Council has progressed a range of sustainability initiatives including:

#### SUSTAINABLE ROCKHAMPTON INVESTMENT FUND

Council established the Sustainable Rockhampton Investment Fund to reduce Council's environmental footprint, whilst delivering real financial savings. Introduced within Council's 2018-19 budget, the \$5 million fund aims to encourage innovative project opportunities, eco-efficeinces and environmentally sustainable work practices. To be eligible for funding, each project must have a strong business case that delivers a clear return on investment for Council. Works are underway to progress a number of projects including a significant solar installation at the Glenmore Water Treatment Plant.

#### ENERGY MONITORING AND MANAGEMENT TRIAL

Council delivers a wide range of services across an extended footprint and Council facilities consume a significant amount of electricity. Council has developed an Energy Action Plan to guide our approach to investment in innovative initiatives that address our operational electricity needs. The Plan aims to identify key opportunities to achieve cost savings, improve environmental sustainability and recognise wider economic and social benefits.

Council currently purchases a small amount of 'green energy' and has a solar installation at the Gracemere Customer Service Centre and Library. Council has also commenced an energy monitoring and management trial in conjunction with the Local Government Association of Queensland. The 'LG Sherlock' project is designed to improve visibility of overall energy performance and identify potential opportunities for improved efficiency.

#### COUNCIL'S ECOBIZ OPPORTUNITIES

The State Government's ecoBiz program provides free eco-efficiency assessments for organisations in Queensland. Council has signed up to participate in the program, with 7 units investigating a range of potential water, waste and energy efficiency opportunities within their operations.

#### INTERNAL SUSTAINABILITY SEED FUND

The internal Sustainability Seed Fund provides an opportunity to trial staff-initiated sustainability projects that foster sustainable behavioural changes as well as the wise use of resources within Council. So far, trial initiatives have included composting, black soldier flies for organic waste management at Rockhampton Zoo, 100% Australian-made recycled paper, reusable coffee cups, enhanced public place recycling and standardised office recycling.

#### **ENVIRONMENTAL MANAGEMENT PRACTICES**

Council has been working to better understand and manage its environmental risks. This includes developing improved planning and procedures related to erosion and sediment control, protected plants and animals, riparian management and new information for residents on living with wildlife.



Rockhampton Zoo implemented a Sustainability Seed Fund Initiative trialling the use of a black soldier fly composting system to divert organic food waste from landfill

## CASE **STUDY**: REUSING RESOURCES

Council is responsible for some 840km of sealed urban roads and 1138km of rural unsealed roads. Maintaining such an extensive road network is a significant task that requires significant resources.

As part of Council's commitment to continuous improvement, the Civil Operations Team has identified an opportunity to repurpose old concrete, asphalt and dirty fill into useable construction materials.

A range of options are being investigated to process 'dirty' materials from road resurfacing works that would have otherwise been destined for landfill into clean products which Civil Operations can reuse on a daily basis.

The materials could then be stockpiled, crushed and graded ready for reuse. The approach would deliver significant savings – by reducing disposal costs and the need to purchase new materials.

By implementing this project, Council would move towards the leading edge of standard industry practice, potentially producing several grades of gravel profile as well as quality topsoil and asphalt.

# CASE **STUDY:**INNOVATION IN UPGRADES

A series of innovative upgrades to the South Rockhampton Sewage Treatment Plant (STP) over recent years are working to minimise treatment costs and contribute to a healthier environment. These upgrades have helped to achieve a 40% reduction in Total Nitrogen discharged to the Fitzroy River from Rockhampton's STPs of approximately 500kg per week compared to 2018 levels. This improves the health of our important fisheries and also contributes to higher quality water flowing to the Great Barrier Reef.

The fine bubble diffused aeration and efficient anoxic mixing processes not only improved nitrogen removal but they also reduced overall electricity usage at the South Rockhampton STP by approximately 30%.



The improvements to water quality, as well as the reduced carbon dioxide emissions, are significant environmental outcomes.

These upgrades to the South Rockhampton STP have also enabled the ageing and poorly performing West Rockhampton STP to be decommissioned, with all its sewage flows now diverted to the upgraded South Rockhampton STP where they are treated to a standard that is at least three times higher.

#### WHERE TO FROM HERE.

#### BUILDING AND MAINTAINING MOMENTUM.

Council has made some significant improvements throughout 2018-19, but to ensure a sustainable future for our region, we need to maintain this momentum.

Already Council has a range of plans for 2019-20 including:

- Commence installation of a significant solar facility at the Glenmore Water Treatment Plant.
- Develop a new Waste Reduction and Recycling Plan for the Region.
- Develop business cases as part of the Clean Growth Choices program and the 'making water work' pathway - preparing the ground for low impact agriculture within a more integrated regional economy.
- Extend the Bringing Nature Back program to include a range of on-ground works and an operational natural resource management trial.
- Continue to refine Council's Living Sustainably program to empower local residents to live

- Incorporate leading water management practices across a number of high-profile demonstration sites across the Region and intercept and capture foreign objects, debris and contamination that would otherwise be discharged to our waterways via stormwater.
- Develop a floodplain management plan and implement associated maintenance and enhancement works to improve flood resilience.
- Develop a sustainable events policy and guideline that applies to all Council coordinated events and all events held at Council facilities.
- Continue to implement improvements to the management of landfill gas, leachate and stormwater at Lakes Creek Road landfill.
- Continue to establish recycled water schemes in both North Rockhampton and South Rockhampton and continue to improve biosolids management.





### BE PART OF THE SOLUTION. GET INVOLVED!



rockhamptonregion.qld.gov.au/EnvironmentalSustainability



sustainability@rrc.qld.gov.au



1300 22 55 77



PO Box 1860 Rockhampton Qld 4700



