

# REEF GUARDIAN COUNCIL ACTION PLAN



Great Barrier Reef Marine Park Authority





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#### **Reef Guardian Council program**

The Reef Guardian Council program (RGC program) is a collaborative stewardship arrangement between local government in the Great Barrier Reef catchment and the Authority, which recognises that local and regional approaches are central to protecting and managing the Reef and the communities it supports.

The RGC program was first launched in 2007 and in 2020 has grown to include 18 member councils covering an area of 300 000 square kilometres and a population of more than one million people.

Whether Reef Guardian Councils and their communities are large or small, they are making continuous improvements to help the Reef.

#### **Action Plans**

This Action Plan records the diversity of council actions and projects that contribute to Reef health. It aligns with Queensland and Australian Government objectives to improve the long-term outlook for the Reef.

Actions are scalable reflecting each council's financial and technical capacities. To be a member, councils with a population of less than 50,000 residents must commit to at least one action for each item (climate change, coastal development, land-based run-off, direct use, heritage values), while councils with greater than 50,000 residents must commit to at least three actions per item. Examples of actions are provided in Table 1 of the Reef Guardian Council Program Terms of Reference, however the program empowers councils to drive change and deliver innovative solutions to help the Reef by identifying other actions beyond those provided.

#### **Endorsement**

The council recognises the importance of the Reef Guardian partnership and values the contributions made by staff and the community 'working together today for a healthier Reef tomorrow'.

Period of Action Plan: 30 June 2020 – 30 June 2024



### **Integrated Sustainability**

GBRMPA Identified Action	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible departments	Project Status
Sustainability	TCC Environmental Policy 2020	Provision of Core Service - Environment & Sustainability Services. Including:  City Energy Sustainable Solutions Environmental Data Environmental Systems Environmental Capacity Natural Environment Regeneration and Recovery Water Sensitive Cities (Sustainable Water)  Support environmental sustainability, natural hazard and resource management, and foster sustainable management of our environment. Increase natural landscape resilience of creeks, riverbanks, coastal shorelines, wetlands, forests, and tropical savannas through rehabilitation, stabilisation, and restoration.	Council	Lead - Sustainability & Environmental Services (S&ES) Section	Ongoing

GBRMPA Identified Action	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible departments	Project Status	
	Lansdown Eco-Industrial Precinct	The Lansdown Eco-Industrial Precinct is Northern Australia's first sustainable, advanced manufacturing, processing and technology estate powered by locally generated renewable energy.  Lansdown follows the United Nations Industrial Development Organisation (UNIDO) Framework for Eco-Industrial Parks V2.0.  Based on four key categories: park management, environmental, social, and economic performance. Which includes protecting the natural environment, employment generation, local business promotion and community outreach and dialogue.			Lead - Planning & Development Section	
	TCC – Environmental Grants & Partnerships	Provide community opportunity to apply for grants up to \$ 50k in order.  Create a sustainable future for Townsville through the protection, maintenance, and enhancement of our unique, natural, and built environment.	Council	Lead - Community & Lifestyle Section	Underway	
	Establish collaborative research models to accelerate industry growth TCC Corporate Plan 2021 – 2026 Goal 5.3.3	Create collaborative research models for sustainability and environmental practices.		All		

GBRMPA Identified Action	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible departments	Project Status
	Sustainable Destination TCC Corporate Plan 2021 – 2026 Goal 4	Global Top 100 Sustainable Destination 2020 & 2021.  Integrating and supporting city-wide eco- tourism business opportunities and environmental awareness into Council projects and processes e.g., RV strategy.  Eco-Destination Certification.  Advanced Ecotourism certification for Sustainability & Catchments.  City-wide Sustainability Learnscapes including:  Rowes Bay Sustainability Centre (house, garden, woodlands & wetlands)  EcoActive Riverway Ross River  Magnetic Island Solar Energy Park at Horseshoe Bay Interpretative environmental art at Nelly Bay  Oak Valley Nature Reserve	Council	S&ES	Underway

GBRMPA Identified Action	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible departments	Project Status
	Sustainable Procurement  TCC Corporate Plan 2021 – 2026 Goal 2.3  Procurement that encourages business innovation and circular economy principles	By 2026, 90% of Council procurement expenditure to local businesses.  By 2026, 65% of Council procurement expenditure to local small to medium businesses.  Increase procurement to Indigenous owned business by; 3% by 2024; 5% by 2026.	Council	TCC Procurement Section	Ongoing

	Description	Financial / Resource Requirements
Generating Ecosystem Scale Models for Appling Landscape Restoration	Develop integrated regenerative landscape scale restoration ecology approaches in catchments to improve soil, weeds, wildlife (e.g., Black Throated Finch), and water quality for reducing impact of soil erosion, pollutants, and restoring landscapes.	
	Require lands and expertise for developing living systems of soils, fire, direct seeding of grasslands, ecological surveys, water quality parameters, soil infiltration, jobs, and business development.	Local, State & Federal Government grants & community- based partnerships.
	Working with local Traditional Owners, First Nations, and unemployed youth.	

# **Climate change**

GBRMPA Identified Action	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible departments	Project Status
	TCC Environmental Policy 2020	Council Environmental Policy addresses Climate Change, Energy Efficiency and Greenhouse Gas Reduction.		All	Complete
	TCC Corporate Plan 2021 – 2026 Goal 2.2.1	Council energy transition to Carbon Neutral.			
Adopt a Climate Change Policy	TCC Operational Plan (Annual)	Participate in Queensland Climate Resilient Council (QCRC) program.  Staff trained for Climate Risk Management, Climate Governance and Climate Resilient Leadership.	Council	S&ES	Underway
	TCC Risk Management Framework ISO31000:2018	Change Mitigation and Adaptation is incorporated within our TCC Risk Assessment Framework.		All	Ongoing
Adopt an Emissions Reduction Target	A Carbon Neutral Council by 2040  TCC Corporate Plan 2021 – 2026  Goal 2.2	Annually deliver city energy initiatives to maintain energy costs and emissions profile at zero growth.	Council	S&ES	Underway
Landfill Management Emissions	Zero Landfill by 2030 TCC Corporate Plan 2021 – 2026)	Divert 60% of material from landfill by 2026.	Council	Townsville Water & Resource Recovery Section	Underway

GBRMPA Identified Action	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible departments	Project Status
Circular Economy Initiatives	Circular economy principles embedded in construction of all new assets. TCC Corporate Plan 2021 – 2026 Goal 2.2.2	Council Standards and documentation amended to enable circular economy principles and Sustainable Procurement ISO2400.  By 2026, use of recycled products in new Council assets to incorporate materials diverted from landfill.  City wide 'Weeds to Soil' project using Humification processes to reduce transport/waste costs and transport emissions.	Council	S&ES	Underway
Fleet Emissions Reduction	A Council fleet powered by renewable energy sources.  TCC Corporate Plan 2021 – 2026 Goal 2.2.3	By 2026, transition 70% of Council's light fleet to renewable energy sources.	Council	Infrastructure, Planning & Fleet (IP&F)	Underway
Corporate Emissions Profile / Reporting	TCC Sustainability Strategy	Maintain Council's energy costs and emissions profile at zero growth through energy efficiency, demand reduction, renewables, and tariff optimisation.  Research, collate and report Council's carbon emissions profile by June 2022.	Council	S&ES	Ongoing

GBRMPA Identified Action	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible departments	Project Status
	Transition Energy Use to Renewables  TCC Corporate Plan 2021 – 2026  Goal 3.2.3	By 2026, transition 60% of Council energy use to renewables.  1. Council delivers City Wide Energy Initiatives  2. Annually increase Council assets to be powered by renewables (10yr CAPEX)  3. Magnetic Island Decarbonisation Project		S&ES, IP&F	
Increased Renewable Energy Generation	Green Energy and Fuels TCC Corporate Plan 2021 – 2026 Goal 3.2.1	Generation of green energy and fuels for use within the region and export.  By 2026, businesses and residents to have a choice to purchase locally produced green energy – including via waste to energy – at a comparable or cheaper price than current energy options, including competitive network and demand charges.  By 2026, Townsville is a globally recognised green energy export hub.	Council	All	Underway

GBRMPA Identified Action	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible departments	Project Status
	Adapting to Coastal Change	Prepare a long-term strategy that understands the risks posed by coastal inundation and coastal erosion and identify ways to manage the ongoing long-term changes to our coastline.	Council & Queensland Government	Planning & Development Services	
Climate Change Adaptation & Resilience Planning	TCC Sustainability Strategy	Integrate climate/sustainability risk reduction and resilience building frameworks across council operations and community-business networks.	Council	All	Underway
	2019 Floods Recovery and Landscape Restoration	Natural Environment Recovery: Flood recovery and resilience building.	DRFA Environmental Recovery Program funding	S&ES	

GBRMPA Identified Action	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible departments	Project Status
Buildings / facilities emissions reduction AND offsets	A Carbon Neutral Council by 2040 TCC Corporate Plan 2021 – 2026 Goal 2.2	<ul> <li>TCC Admin Building 103 Walker St.</li> <li>100% Clean Energy purchase (Energy Qld)</li> <li>5+ star NABERS Rated Energy Efficiency/Demand (Energy Performance Contract).</li> <li>TCC Admin Building 143 Walker St.</li> <li>50% Renewable energy purchase (CS Energy).</li> <li>High Performance Chiller Plant retrofit, LED lighting &amp; BMS upgrade.</li> </ul>	Council	All	Budgeted Annually
	TCC Operational Plan (Annual)	Develop and Implement building strategies for energy efficiency, demand management, solar batteries, and behaviour change.		Property Management and S&ES	Underway

Project Name	Description	Financial / Resource Requirements
City-wide energy transformation with energy efficiency, demand managements, solar renewables, batteries	Implement a city-wide energy transformation between local, state & federal partners working with business, industry and utilities enabled to implement the Energy Strategy (via Townsville Smart Infrastructure and Sustainable Energy (SIES) Framework) to achieve:	
Townsville City Deal – Energy Strategy	100 Businesses	
	• 10,000 Homes	
	Government Infrastructure, and	
	Big Enterprise Industry	
Developing Blue Carbon Ecological Services	Applying Ecological & Coastal Restoration Techniques to tidal lands and riparian areas (supratidal forests) to:	Local, State & Federal Government grants &
	regenerate urban marine ecosystems	community- based partnerships.
	increase storage and capture	
	promote tidal circulation to avoid anaerobic methane emissions	
	managing weeds to soil, pollutants and restoring fish habitat	
	Mangrove Forests and Saltmarshes are known to sequester (remove carbon from atmosphere) 10x the rate of other tropical ecosystems and store 3-5x more carbon/ha than other ecosystems.	
Better fine scale modelling of future climate change impacts	Townsville specific modelling to inform planning and land use decisions.	

Project Name	Description	Financial / Resource Requirements
Climate change risk assessments for improving incorporation of risk into BAU (Capital works and Operational works)	Assistance with implementing LGAQ Climate Risk framework to make this type of risk assessment normal.	
Public awareness and behavior change education (thematic communications)	To help bring the community along on the journey using thematic communication methods.	

# **Coastal development**

GBRMPA Identified Action	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible department/position	Project Status
	Water Sensitive Townsville (Sustainable Water)	Foster water sensitive Townsville outcomes including adopting the vision and implementing appropriate activities.	Council	S&ES	
Positive net environmental		<ul> <li>Waterway &amp; Drain Naturalisation Projects:</li> <li>Bushland Beach</li> <li>Mindham Parkway</li> <li>Macarthur Park Annandale</li> <li>Lakes Savanna Wetlands</li> <li>Louisa Creek</li> <li>Ross Creek</li> </ul>	Council & Queensland Government	CMO, IPAF (Assets) & S&ES	Underway
benefit	TCC Corporate Plan 2021 – 2026 Goal 4  4.4 World class live ability through excellent open spaces which promote, protect, and encourage utilization of our natural environment	Implement ecological water quality. systems solutions including floating wetlands, diatoms, beneficial microbes, solar pumps, and aerators.	Council	S&ES	
	and heritage	Develop & Implement Dry Tropics Planting policy.		All	
		Implement Tree policy.		СМО	

GBRMPA Identified Action	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible department/position	Project Status
		Reef Assist: Business Activation & Environmental Restoration.  Improving Water.  Supporting employment of environmental teams and first nations people to heal the landscape and waterways of the Townsville area.  Increasing flood resilience, erosion control and water infiltration through collaboration.	Council & Queensland Government	S&ES	Underway
	TCC Environmental policy	Council protects our natural environment, ensuring waterways, critical habitat and ecological corridors are managed and protected.		S&ES	Ongoing
No further loss of habitat connectivity	TCC City Plan	High value areas are extensively mapped and protected. Key instruments include:  Natural assets overlay wildlife corridors mapped  Waterways and wetland code	Council	Planning and Development	Underway
	Sustainability Strategy	Manage urban environmental systems in a dynamic natural environment setting.		S&ES	

GBRMPA Identified Action	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible department/position	Project Status
		Implement Water Quality Monitoring in Ross – Black Rivers Water Quality Improvement Plan.	Council budget, Queensland Government and Australian Government funding arrangement.	Townsville City Council, Queensland Government, Dry Tropics Partnership for Healthy Waters, and Port of Townsville Limited.	
Monitor water quality in urban waterways	TCC Operational Plan (Annual)	Support, implement and promote citizen science to increase community engagement for improved water quality, catchment health. E.g.:  Creekwatch Reef Check Phil's Bush Clean Ups and TIDY Up Townsville	Council & Community Groups S&ES		Underway
	Sustainability Strategy	Undertake environmental monitoring for environmental incident response.			

GBRMPA Identified Action	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible department/position	Project Status
Offer water / energy savings	Realtime Water Management (Sustainable Water)	Rolling out real-time or smart water meters will enable residents and businesses to monitor and manage their water consumption and alert them to usage spikes that are consistent with a water leak.  Distils complex engineering data to management & residential information through pattern-based data visualisation.  This will allow Council to respond faster to significant leaks and challenges.	Council and City Deal	Water & Resource Recovery Section	Underway
Install cycle / walkways to promote active transport options	TCC Corporate Plan 2021 – 2026 Goal 1.1	An active transport network linking the city.	Council	IP&F (Assets/PMO)	Underway
Adopt single use plastic free policy for all council events and activities	TCC Operational Plan (Annual)	Support plastic free Townsville initiative.	Council	Townsville Water and Resource Recovery Section	Underway

Project Name	Description	Financial / Resource Requirements
Remove artificial barriers to water flow	Investigating and Reinstating Environmental Flow pathways for a risk management of rapidly changing environments with increased flooding and sea level rise (Adapt Townsville).	Local, State & Federal Government grants & community- based partnerships.

### Land-based run-off

GBRMPA Identified Actions	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible department/position	Project Status
	TCC Environmental Policy 2020	Integrated Environmental Management System (IEMS)  Compliance with regulatory requirements, service standards and environmental license requirements		All (S&ES lead)	
	Plan & Design Retrofit of Lake Council			CMO, IP&F (Assets), S&ES	
Minimize the impact of discharge from Council infrastructure			Underway		
		Erosion Management Plans (SEMP) to manage stormwater for:  Horseshoe Bay Nelly Bay Rowes Bay Cungulla		S&ES	
Reduce land-based contribution to marine debris	TCC Operational Plan (Annual)	Deliver the drain and stormwater network cleaning program.	Council	СМО	Ongoing

GBRMPA Identified Actions	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible department/position	Project Status
Council regulatory services investigate water pollution incidents and enforce soil erosion & sediment controls.	TCC City Plan & EPP Water	Protect the health of Townsville by providing environmental and regulatory services.	Council	Environmental Health & Regulatory Services	Ongoing
Development		Planning approvals and permits do not authorise pollutant discharge to aquatic ecosystems.			
approvals, operational works permits do not authorize increased sediment runoff, nutrient, and	TCC City Plan	Delivering requirements of planning approvals and planning conditions. E.g., Planning Field Officer inspections.	Council	Planning & Development Services	Ongoing
pesticide runoff		6 Day Soil Erosion & Sediment Control Training.		S&ES	

GBRMPA Identified Actions	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible department/position	Project Status
Public education program for water conservation and catchment awareness	A Sustainable Destination  TCC Corporate Plan 2021 – 2026 Goal 4  4.4 World class live ability through excellent open spaces which promote, protect, and encourage utilization of our natural environment and heritage	Increase in place experience performance rating for Protection of the natural environment: Townsville Livability Study.	Council	S&ES	Underway
	TCC Operational Plan (Annual)	Deliver education and awareness activities for schools and the wider community across the total water cycle.			
Water Sensitive	A Sustainable Destination  TCC Corporate Plan 2021 – 2026  Goal 4	Foster Water Sensitive Townsville outcomes including adopting the vision and implementing appropriate activities.	0	All	
Urban Design	4.4 World class live ability through excellent open spaces which promote, protect, and encourage utilization of our natural environment and heritage	Bohle Offsets Catchment Roadmap.	Council	S&ES	Underway

Project Name	Description	Financial / Resource Requirements
Capacity and Resilience Building for Townsville Wetlands and Treatment trains – using a systems-based approach	In order of priority  • Keyatta lake  • Curralea lake  • Mindham Park  • Fairfield wetland  • Fairfield lakes 1,2 & 3  • Louisa creek  • Ross River Flow Paths	
Amplifying 'Weeds to Soils' in Local Government	Developing and amplifying the Townsville City demonstrations and 'Weeds to Soils' project using Humification as a National Job Environmental Restoration project for Urban and Peri-urban environments. 10 teams, 100 sites, 1,000 jobs, 40 businesses.	Local, State & Federal Government grants & community- based partnerships with Capital Markets
Marrying CAPEX & OPEX for Sustainability	Integrating ecological infrastructure management within the City Plan, Development Manual with Asset Management & Maintenance including financing.	
	Development Manual incorporating Environment & Sustainability considerations and challenges with innovative financing models – Building the Climate Ready Business models for the future.	

### **Direct use**

Project Name	Townsville City Council Initiative	Description	Financial / Resource Commitment	Responsible department/position	Project Status
Identify, protect, and promote important	comote important Council		Council S&ES		Underway
fish habitats	Blue Carbon Funding Opportunities	Developing Blue Carbon project funding submissions for tidal lands under TCC control currently not able to be resourced and managed.			
Support / develop programs to promote sustainable recreational fishing activities in schools and the broader community	Ecological Review of Ross TCC Corporate Plan 2021 – 2026 Goal 4	Ecological review of Ross River and dam catchment for ecological restocking of dam and the weirs with local native fish to provide stock for catch and release fishing.	Council	S&ES	Ongoing
Support fish surveys and community monitoring	Fish Survey Citizen Science TCC Corporate Plan 2021 – 2026 Goal 4	Support / develop programs that promote citizens science to increase community engagement for improved water quality, catchment, and Reef health.	Council	S&ES	Ongoing

Project Name	Townsville City Council Initiative	Description	Financial / Resource Commitment	Responsible department/position	Project Status
Support community and industry partnerships working to improve Reef Health	A leading centre of education, training, and research commercialization TCC Corporate Plan 2021 – 2026 Goal 5	By 2026 Townsville is the leading manufacturing centre for reef restoration products (Section 5.2.3).  Harness the leading marine sciences research being undertaken in Townsville to commercialise reef restoration products for commercial use.	Council	S&ES	Underway

Project Name	Project Name Description	
Recreational Fishing partnerships that promote Reef values.	Foster Recreational Fishing partnerships between stakeholders in Townsville LGA that promote Reef values.	
	Working with GBRMPA, LMAC, OzFish Unlimited, Traditional Owners, and Conservation organisations to create a common vision and actions.	
Fishing Community Infrastructure	Ensure recreational fishing infrastructure is appropriately planned, prioritised for development based on a needs analysis.	Local, State & Federal Government grants & community- based partnerships.
	Investigate opportunities to establish land-based fishing platforms.	

# Reef heritage and social values

GBRMPA Identified Action	Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible department/position	Project Status
Support Traditional Owner social and economic outcomes through programs and partnerships.	TCC Stretch Reconciliation Action Plan (RAP) 2021 – 2024	Build relationships and knowledge sharing arrangements with local Traditional Owners and First Nations people to advance work within environment connections.  Support the development of ecotourism products and services that incorporate First Nations knowledge, experience, expertise, and capacity.	Council	S&ES	Underway
		Foster STEM partnerships with James Cook University, CSIRO etc. to deliver STEM activities for Aboriginal and Torres Strait Islander youth in Townsville.			

Townsville City Council Initiative	Description	Financial/Resource Commitment	Responsible department/position	Project Status
Reef, Cultural Heritage and TO TCC Corporate Plan 2021-2026	Showcase and protect local heritage values including built, defence, Indigenous and local history.	Council	All	Underway
	Install interpretative materials to celebrate and share cultural heritage information.		Community & Lifestyle Section	
	Integrate Traditional Owner knowledge into Sea Country management.		All	
A Sustainable Destination  TCC Corporate Plan 2021 – 2026  Goal 4	Celebrating indigenous arts practice (Section 4.3.3).  Develop an annual program of indigenous exhibitions and performances.  Facilitate national and international tours of local	Council	Community & Lifestyle Section	Underway
	Reef, Cultural Heritage and TO TCC Corporate Plan 2021-2026  A Sustainable Destination TCC Corporate Plan 2021 – 2026	Reef, Cultural Heritage and TO TCC Corporate Plan 2021 - 2026  A Sustainable Destination TCC Corporate Plan 2021 - 2026  Goal 4  Showcase and protect local heritage values including built, defence, Indigenous and local history.  Install interpretative materials to celebrate and share cultural heritage information.  Integrate Traditional Owner knowledge into Sea Country management.  Celebrating indigenous arts practice (Section 4.3.3).  Develop an annual program of indigenous exhibitions and performances.  Facilitate national and	Reef, Cultural Heritage and TO TCC Corporate Plan 2021 - 2026  A Sustainable Destination TCC Corporate Plan 2021 - 2026 Goal 4  Commitment  Showcase and protect local heritage values including built, defence, Indigenous and local history.  Install interpretative materials to celebrate and share cultural heritage information.  Integrate Traditional Owner knowledge into Sea Country management.  Celebrating indigenous arts practice (Section 4.3.3).  Develop an annual program of indigenous exhibitions and performances.  Facilitate national and	Commitment   All

Project Name	Description	Financial / Resource Requirements	
Improving Traditional Owner involvement in Catchment & Reef Health	Develop a project to support Traditional Owner involvement in Catchment & Reef Health and Cultural Reef values.	Local, State & Federal Government grants &	
Recording of Cultural & Historic information of Islands and Reef areas of Townsville LGA	Develop a local register valuing and maintaining historic and cultural information about the Islands and Reef of the Townsville LGA with Interpretative Materials.	community- based partnerships.	