



Part D

Environmental
Sustainability
Action Plan

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Environmental Sustainability Action Plan

This action plan was updated during 2020 and lists remaining initiatives to be delivered under the Environmental Sustainability Strategy 2017-2025. Completed actions are summarised at the bottom of the document. Capital and operational funds required to deliver this action plan will be incorporated into individual program budgets or approved using council's Enterprise Project Management Framework.




As a member of the Reef Guardian Council Program, council is committed to addressing key threats to the Great Barrier Reef such as climate change, coastal development, land-based run-off and direct human use. Council's Reef Guardian Action Plan incorporates many actions from the Environmental Sustainability Strategy and is attached as appendix 1 to highlight the positive actions being taken to improve the health of the reef.

1. Sustainable Region (Our Vision)

| Target | Action | Reef Guardian Action | Responsible Program | Financial Year | |
|---|---|---|---|----------------|----------|
| | | | | 2022/ 23 | 2023/ 24 |
| 1. Embed guiding principles for environmental sustainability into council strategies, plans, policies and reporting frameworks. | 1.1 Review council's Enterprise Project Management Framework business case assessment criteria to strengthen alignment with Policy 064 (Corporate Environmental Sustainability Policy). | | Parks Environment & Sustainability Governance and Safety | X | X |
| | 1.2 Review Policy 084 - Corporate Strategies to strengthen alignment with the Environmental Sustainability Strategy and Policy 064 (Corporate Environmental Sustainability Policy). | | Parks Environment & Sustainability Governance and Safety | X | X |
| | 1.3 Develop corporate and community sustainability reporting frameworks. | | Parks Environment & Sustainability | X | X |
| | 1.4 Implement an internal Strategy Communication and Engagement Plan to embed environmental sustainability within council. | | Parks Environment & Sustainability Corporate Communications and Marketing | X | X |
| | 1.5 Develop a business case for implementing an ISO14001 Environmental Management System. |  | Parks Environment & Sustainability Governance and Safety | | X |
| | 1.6 Review council's Water and Waste Services Strategic Plans to strengthen alignment with Policy 064 (Corporate Environmental Sustainability Policy) and incorporate environmental sustainability performance reporting. |  | Parks Environment & Sustainability Waste Services Water Services | X | X |

| Target | Action | Reef Guardian Action | Responsible Program | Financial Year | |
|--------|---|----------------------|------------------------------------|----------------|----------|
| | | | | 2022/ 23 | 2023/ 24 |
| | 1.7 Develop a business case that considers merging council's Community Development, Economic Development and Environmental Sustainability strategies into a longer-term 'Sustainable Development Strategy'. | | Parks Environment & Sustainability | | x |










2. Low Carbon Region

| Target | Action | Reef Guardian Action | Responsible Program | Financial Year | |
|--|--|---|---|----------------|----------|
| | | | | 2022/ 23 | 2023/ 24 |
| 2. Embed energy management and net zero emissions as strategic priorities for council and the Mackay region. | 2.1 Develop a corporate Energy and Carbon Management Plan that establishes a responsible net zero emissions pathway. |  | Parks Environment & Sustainability | x | x |
| | 2.2 Develop a community Emissions Management Plan to support a responsible net zero emissions pathway for the Mackay region. |  | Parks Environment & Sustainability | | x |
| | 2.3 Consider membership to ICLEI's Global Covenant of Mayors for Climate and Energy program. |  | Parks Environment & Sustainability Sustainability & Environment Advisory Committee | | x |



3. Resource-Efficient and Productive Region








| Target | Action | Reef Guardian Action | Responsible Program | Financial Year | |
|--|--|---|---|----------------|----------|
| | | | | 2022/ 23 | 2023/ 24 |
| 3. Council to lead by example and promote a circular regional economy for waste. | 3.1 Develop and implement a corporate Waste Management Plan. |  | Parks Environment & Sustainability Waste Services | x | x |
| 4. Embed corporate water management as a priority for council. | 4.1 Develop and implement a corporate Water Management Plan. | | Parks, Environment & Sustainability Water Services | | x |
| 5. Achieve and maintain NIASA and Eco-Hort accreditation at all council nurseries. | 5.1 Achieve Eco-Hort accreditation at the Mackay Natural Environment Centre nursery. | | Parks Environment & Sustainability | x | x |
| | 5.2 Achieve NIASA accreditation at the Botanic Gardens nursery. | | Parks Environment & Sustainability | x | x |
| | 5.3 Achieve Eco-Hort accreditation at Botanic Gardens nursery. | | Parks Environment & Sustainability | x | x |

4. Resilient Region

| Target | Action | Reef Guardian Action | Responsible Program | Financial Year | |
|--|---|---|--|----------------|---------|
| | | | | 2022/23 | 2023/24 |
| 6. Improve council's ability to manage climate risk and deliver adaptation projects as part of the Queensland Climate Resilient Council Program. | 6.1 Review council's strategic risk register to ensure environmental and climate risks (acute, chronic and transitional) are adequately assessed. |  | Parks, Environment & Sustainability Governance and Safety | x | x |
| | 6.2 Identify publicly available corporate documents requiring a statement about climate risk and update these during their next review cycle to improve public disclosure. |  | Parks, Environment & Sustainability Governance and Safety | x | x |
| | 6.3 Undertake a climate risk training needs analysis for council staff and develop a program to increase staff capacity to manage climate risk and deliver adaptation related projects. |  | Parks, Environment & Sustainability People and Culture | x | x |
| | 6.4 Embed climate risk management as a focus area in all program business plans until mainstreamed. |  | Parks, Environment & Sustainability Governance and Safety | x | x |
| | 6.5 Consider applying for LGAQ grant funding to develop a pilot Climate Risk Management Strategy. |  | Parks, Environment & Sustainability Governance and Safety | x | x |
| 7. Participate in the Queensland Coastal Council Adaptation Taskforce (CCAT). | 7.1 Consider participation in the CCAT Cooperative Research Centre for Thriving Coasts. |  | Parks, Environment & Sustainability Strategic Planning | | x |
| 8. Improve community resilience during/ after storm and flood events. | 8.1 Develop council's Storm Smart Strategy. |  | Strategic Planning | x | x |
| | 8.2 Implement council's Flood and Stormwater Management Strategy. |  | Strategic Planning | x | x |
| | 8.3 Develop a Regional Shoreline Erosion Management Plan. |  | Parks, Environment & Sustainability Strategic Planning | x | x |

5. A Sustainable Natural Environment


| Target | Action | Reef Guardian Action | Responsible Program | Financial Year | |
|--|---|---|---|----------------|---------|
| | | | | 2022/23 | 2023/24 |
| 9. Review council's Natural Environment Plan, incorporating strategic targets linked to the Natural Environment Network Blueprint metrics. | 9.1 Integrate the Natural Environment Network Blueprint overlays into council's geographical information system (MADI). | | Parks Environment & Sustainability Geographical Information Systems | x | x |
| | 9.2 Establish an internal working group to develop a 'Shared Roadmap' and guide the review of council's Natural Environment Plan. |  | Parks Environment & Sustainability Strategic Planning Health & Regulatory (Pest Management) | x | x |
| | 9.3 Develop/review and implement leading practice Local Coastal Plans for our region. |  | Parks, Environment & Sustainability | x | x |

| Target | Action | Reef Guardian Action | Responsible Program | Financial Year | |
|--|---|---|---|----------------|---------|
| | | | | 2022/23 | 2023/24 |
| 10. Update council's Biosecurity Plan. | 10.1 Review council's Biosecurity Plan, improving alignment with council's Natural Environment Plan. | | Health & Regulatory (Pest Management) Parks Environment & Sustainability | x | x |
| 11. Progressively increase the number of local native plants established by council and property owners in our region. | 11.1 Continue the Free Native Plant Giveaway program with the aim to distribute 12,000 plants per year and educate residents on the benefits of local native plants. | | Parks, Environment & Sustainability | x | x |
| | 11.2 Develop a marketing plan for the Mackay Natural Environment Centre nursery to raise awareness of the availability of local native plants for projects within the region. | | Parks, Environment & Sustainability | x | x |
| | 11.3 Develop a local native plant policy for council parks, gardens and non-recreational areas. | | Parks, Environment & Sustainability | | x |
| 12. Reduce council herbicide use by adopting alternative weed control methods. | 12.1 Investigate increasing the use of steam weed control and/or other non-chemical weed control techniques at council-managed sites. |  | Parks, Environment & Sustainability | x | x |
| | 12.2 Develop a herbicide / insecticide application policy for sensitive public/ environmental areas. |  | Parks, Environment & Sustainability | x | x |
| 13. Contribute to achieving regional ecosystem condition and water quality targets (refer Mackay, Whitsunday, Isaac Water Quality Improvement Plan). | 13.1 Review the Urban Stormwater Quality Management Plan. |  | Parks Environment & Sustainability Strategic Planning Development Engineering Development Assessment | x | x |
| | 13.2 Construct and maintain priority fishways. |  | Parks, Environment & Sustainability | x | x |
| | 13.3 Design and install a minimum of one gross pollutant trap every two years within the urban footprint. |  | Parks Environment & Sustainability Civil Operations | x | x |
| 14. Participate in the Healthy Rivers to Reef Partnership Mackay-Whitsunday. | 14.1 Provide technical and financial support to the Healthy Rivers to Reef Partnership Mackay-Whitsunday. |  | Parks, Environment & Sustainability | x | x |
| 15. Participate in the Reef Guardian Council Program. | 15.1 Take action to address key threats to the reef through implementation of the Reef Guardian Council Action Plan (appendix 1). |  | Parks, Environment & Sustainability | x | x |

6. Smart Region

| Target | Action | Reef Guardian Action | Responsible Program | Financial Year | |
|---|--|----------------------|--|----------------|----------|
| | | | | 2022/ 23 | 2023/ 24 |
| 16. Integrate smart city technology into council operations to improve efficiency, service quality and environmental sustainability outcomes. | 16.1 Establish a working group to consolidate council's approach to trialling and integrating smart city technology across the organisation. | | Organisational Services (ICT) Strategic Planning Parks, Environment & Sustainability | x | x |

7. Sustainable Transport

| Target | Action | Reef Guardian Action | Responsible Program | Financial Year | |
|--|---|--|---------------------|----------------|----------|
| | | | | 2022/ 23 | 2023/ 24 |
| 17. Increase in the use of sustainable transport modes by council employees and the community. | 17.1 Implement the Mackay Region Integrated Transport Strategy. |  | Strategic Planning | x | x |

8. Sustainable Procurement and Local Economy

| Target | Action | Reef Guardian Action | Responsible Program | Financial Year | |
|---|---|----------------------|---|----------------|----------|
| | | | | 2022/ 23 | 2023/ 24 |
| 18. Integrate sustainable procurement principles into council's procurement policy and contracts. | 18.1 Update relevant procurement policies, and contract templates to improve sustainable procurement outcomes (align with corporate Waste, Energy and Emissions targets). | | Parks Environment & Sustainability Procurement & Plant | x | x |

9. Regional and Community Partnerships

| Target | Action | Reef Guardian Action | Responsible Program | Financial Year | |
|---|--|----------------------|--|----------------|----------|
| | | | | 2022/ 23 | 2023/ 24 |
| 19. Implement an external Strategy Communication and Engagement Plan. | 19.1 Implement an external Strategy Communication and Engagement Plan to advance environmental sustainability across the region. | | Parks Environment & Sustainability Corporate Communications & Marketing | x | x |

Completed Actions 2017-2020

| Strategic outcome | Action | Date completed |
|---------------------------------|---|-----------------------|
| Sustainable Region | Developed council's corporate Environmental Sustainability Policy. | 2018 |
| | Reviewed council's Climate Adaptation Policy. | 2018 |
| | Reviewed the EPMF concept criteria to incorporate Environmental Sustainability principles*. | 2020 |
| Low Carbon | Implemented an energy management system (Azility). | 2018 |
| | Developed a corporate carbon emission inventory (Climate Active Standard)**. | 2017/18, 2018/19 |
| | Developed a community carbon emission profile (GPC Compliant)***. | 2017/18 |
| | Joined the Cities Power Partnership. | 2018 |
| Sustainable Natural Environment | Conducted NIASA audits of council nurseries****. | 2018 |
| | Achieved NIASA accreditation at the Mackay Natural Environment Centre nursery. | 2018 |
| | Completed the Natural Environment Network Blueprint report. | 2019, revised 2020 |
| | Commenced the Free Native Plant Giveaway Program. | 2019 |
| | Established a baseline for reducing council chemical herbicide use. | 2019 |
| Resilient Region | Joined the Queensland Climate Resilient Council program. | 2017 |
| | Council briefed by LGAQ climate experts. | 2017 |
| | Completed a climate adaptation governance assessment. | 2018 |
| Sustainable Transport | Established a baseline for staff use of sustainable transport modes. | 2017/18 |

* Mackay Regional Council Enterprise Project Management Framework

** The Australian Government's carbon neutral certification standard (formerly the National Carbon Offset Standard)

*** Global Protocol for Community-Scale Greenhouse Gas Emission Inventories

**** Nursery Industry Accreditation Scheme

Appendix 1

Mackay Regional Council Reef Guardian Action Plan



REEF GUARDIAN COUNCIL VISION: Reduce land-based impacts on the Great Barrier Reef through collaboration, education and targeted action.

1. Key Threat: Climate Change

| Action | MRC Reference* | Description | Resource Commitment | Partnerships | Lead Program | Project Status |
|---|----------------|--|---------------------|-----------------------------------|-------------------------------------|----------------|
| 1. Develop a corporate Energy and Carbon Management Plan. | ESS 2.1 | Develop a corporate Energy and Carbon Management Plan that establishes a responsible net zero emissions pathway for council. | Council Budget | All council programs | Parks, Environment & Sustainability | Planned |
| 2. Develop a community Emissions Management Plan. | ESS 2.2 | Work with external stakeholders to explore a responsible net zero emission pathway for the Mackay region. | Council Budget | Industry & Community Stakeholders | Parks, Environment & Sustainability | Planned |
| 3. Consider membership to ICLEI's Global Covenant of Mayors for Climate and Energy Program. | ESS 2.3 | Council to ensure community emission reduction initiatives align with global science-based targets. | Council Budget | Industry & Community Stakeholders | Parks, Environment & Sustainability | Planned |
| 4. Review council's strategic risk register to improve climate risk management. | ESS 6.1 | Improve assessment of acute, chronic and transitional climate risks. | Council Budget | Governance & Safety Program | Parks, Environment & Sustainability | Planned |
| 5. Identify and update corporate documents requiring a statement about climate change. | ESS 6.2 | Improve disclosure of acute, chronic and transitional climate risks. | Council Budget | Governance & Safety Program | Parks, Environment & Sustainability | Planned |
| 6. Undertake a climate risk training needs analysis for council staff. | ESS 6.3 | Improve staff capacity to manage climate risk and deliver adaptation projects. | Council Budget | People & Culture | Parks, Environment & Sustainability | Planned |
| 7. Establish climate risk as a focus area in program business plans. | ESS 6.4 | Improve program capacity to manage climate risk and deliver adaptation projects. | Council Budget | All council programs | Parks, Environment & Sustainability | Planned |
| 8. Consider applying for LGAQ grant funding to develop a pilot Climate Risk Management Strategy. | ESS 6.5 | Improve council's ability to manage climate risk and deliver adaptation projects. | Council Budget | LGAQ | Parks, Environment & Sustainability | Planned |
| 9. Consider participation in the CCAT's proposed Cooperative Research Centre for Thriving Coasts. | ESS 7.1 | Explore opportunities for climate change research programs and partnerships. | Council Budget | CCAT Members | Parks, Environment & Sustainability | Planned |
| 10. Develop council's Storm Smart Strategy. | ESS 8.1 | Improve community resilience during/after storm events. | Council Budget | Industry & Community Stakeholders | Strategic Planning | In progress |
| 11. Implement council's Flood and Stormwater Management Strategy. | ESS 8.2 | Improve community resilience during/after flood events. | Council Budget | Industry & Community Stakeholders | Strategic Planning | In progress |
| 12. Develop a Regional Shoreline Erosion Management Plan. | ESS 8.3 | Improve community resilience during/after storm and flood events. | Council Budget | Industry & Community Stakeholders | Parks, Environment & Sustainability | Planned |

2. Key Threat: Coastal Development

| Action | MRC Reference* | Description | Resource Commitment | Partnerships | Lead Program | Project Status |
|--|----------------|---|---|-------------------------------------|---|----------------|
| 13. Review council's Water and Waste Services Strategic Plans. | ESS 1.6 | Strengthen alignment with the council's Environmental Sustainability Policy. | Council Budget | Industry & Community Stakeholders | Waste Services Water Services | Planned |
| 14. Develop a corporate Waste Management Plan. | ESS 3.1 | Council to lead by example and promote a circular economy for waste through its operations. | Council Budget | Waste Services Property Services | Parks, Environment & Sustainability | In Progress |
| 15. Review council's Natural Environment Plan. | ESS 9.2 | Incorporate strategic targets linked to the Natural Environment Network Blueprint metrics. | Council Budget | Strategic Planning | Parks, Environment & Sustainability | Planned |
| 16. Develop and implement Local Coastal Plans for our region. | ESS 9.3 | Establish a coordinated approach to coastal management across the region. | Council Budget | Community Stakeholders | Parks, Environment & Sustainability | In Progress |
| 17. Implement the Mackay Region Integrated Transport Strategy. | ESS 17.1 | Increase the use of sustainable transport modes. | Council Budget Queensland Government Funding | Industry & Community Stakeholders | Strategic Planning | In Progress |
| 18. Participate in the Mangrove Watch program. | N/A | Monitor the condition of mangrove ecosystems in the Mackay region. | Council Budget | Mangrove Watch | Parks, Environment & Sustainability | In Progress |



3. Key Threat: Land-based Runoff

| Action | MRC Reference* | Description | Resource Commitment | Partnerships | Lead Program | Project Status |
|---|----------------|---|--|--|-------------------------------------|----------------|
| 19. Participate in the Reef Council Wastewater Stewardship Strategic Assessment (Regional Nutrient Offset Program). | N/A | The main driver of this project is to offset the nutrient load for the Mackay North Water Recycling Facility. One co-benefit of the project is to improve resilience in raw water quality upstream of the Dumbleton weir. | Council Budget (in kind) Office of the Great Barrier Reef | Community Stakeholders Qldwater LGAQ | Water Services | Planned |
| 20. Develop a business case for implementing an ISO14001 Environmental Management System. | ESS 1.5 | Improve council's ability to manage environmental risk. | Council Budget | All council programs | Parks, Environment & Sustainability | Planned |
| 21. Review Council's Urban Stormwater Quality Management Plan. | ESS 13.1 | Improve urban stormwater quality. | Council Budget | Strategic Planning | Parks, Environment & Sustainability | Planned |
| 22. Trial alternative weed control techniques. | ESS 12.1 | Investigate alternative weed control methods. | Council Budget | Relevant Programs | Parks, Environment & Sustainability | In Progress |
| 23. Develop a herbicide application policy for sensitive public/environmental areas. | ESS 12.2 | Reduce chemical herbicide use in sensitive areas. | Council Budget | Relevant Programs | Parks, Environment & Sustainability | Planned |
| 24. Design, install and maintain priority gross pollutant traps. | ESS 13.3 | Improve urban stormwater quality. | Council Budget Queensland Government Funding | Civil Operations Strategic Planning | Parks, Environment & Sustainability | In Progress |

4. Key Threat: Direct Human Use

| Action | MRC Reference* | Description | Resource Commitment | Partnerships | Lead Program | Project Status |
|---|-----------------------|--|---|--|-------------------------------------|----------------|
| 25. Construct and maintain priority fishways across the region. | ESS 13.2 RFS 1.2.5 | Remove barriers to fish migration. | Council Budget Queensland Government Funding | Reef Catchments | Parks, Environment & Sustainability | In Progress |
| 26. Support to the Healthy Rivers to Reef Partnership Mackay-Whitsunday. | ESS 14.1 | Provide technical, management and financial support. | Council Budget | Reef Catchments Industry & Community Stakeholders | Parks, Environment & Sustainability | In Progress |
| 27. Educate recreational fishers about the voluntary code of conduct, compliance measures and good fishing practices. | RFS 1.1.2 | Educate recreational fishers about good fishing practices. | Council Budget Queensland Government Funding | Recreational Fishing Sector | Economic Development | In Progress |
| 28. Investigate opportunities with Sunwater to reinstate the Dumbleton Weir Fish Lock. | RFS 1.2.1 | Remove barriers to fish migration in the Pioneer River. | Council Budget Queensland Government Funding | Sunwater, Reef Catchments | Economic Development | Planned |
| 29. Seek funding for a project to re-oxygenate the Gooseponds – upstream to downstream. | RFS 2.3.3 | Promote responsible boating and fishing practices. | Council Budget Queensland Government Funding | Reef Catchments | Economic Development | Planned |

| Action | MRC Reference* | Description | Resource Commitment | Partnerships | Lead Program | Project Status |
|---|----------------|---|---------------------|-----------------------------|---|----------------|
| 30. Use planning instruments to support maintenance and enhancement of marine environments. | RFS 2.4.2 | Improve strategic management of the local marine environment. | Council Budget | Recreational Fishing Sector | Economic Development Strategic Planning | Planned |

5. Reef Heritage and Social Values

| Action | MRC Reference* | Description | Resource Commitment | Partnerships | Lead Program | Project Status |
|--|----------------|--|---------------------|------------------------|-------------------------------------|----------------|
| 31. Stretch Reconciliation Action Plan 2017-2022 Specific RAP actions. | SRAP | Strengthen cultural knowledge and understanding, initiate cultural projects and events and provide a framework across council to influence the development of reconciliation values and ideas. | Council Budget | Community Stakeholders | Community Lifestyle | In Progress |
| 32. Install interpretative materials to celebrate and share cultural heritage information. | N/A | Work with traditional owners to install interpretative signs at key sites across the region. | Council Budget | Community Stakeholders | Parks, Environment & Sustainability | Planned |
| 33. Undertake and support cultural heritage awareness / education / celebration programs – art, public appreciation, research in relation to the natural, social, economic and cultural systems. | N/A | Provide community grants to support delivery of public art and cultural education programs. | Council Budget | Community Stakeholders | Community Lifestyle | Planned |

*MRC References: ESS Environmental Sustainability Strategy 2017-2025
RFS - Recreational Fishing Strategy 2017-2022
SRAP - Stretch Reconciliation Action Plan 2019-2022

