

LOCAL RESILIENCE ACTION PLAN

POP | 59/4/2 | #7893760

RECOMMENDATION:

That Council:

1. Approves the draft Local Resilience Action Plan (LRAP) for submission to the Queensland Reconstruction Authority (QRA) to enable access to disaster risk reduction and resilience funding;
2. Endorses securing external grant funding to support the construction of the University 2 Reservoir as a High Advocacy Priority of Council; and
3. Delegates authority to the Chief Executive Officer pursuant to section 257 of the Local Government Act 2009, to approve future LRAP modifications endorsed by Cairns Region Local Disaster Recovery and Resilience Group (LDRRG).

INTERESTED PARTIES:

Nil

EXECUTIVE SUMMARY:

The Local Resilience Action Plan (LRAP) is a strategic tool, developed by the Queensland Reconstruction Agency (QRA) to support local government to prioritise their disaster risk reduction and disaster resilience projects.

QRA advise that an LRAP is a mandatory requirement for Councils seeking resilience funding.

An LRAP outlines priority projects designed to reduce disaster risk, strengthen recovery capacity, and build community resilience. It aligns local initiatives with state, national, and international frameworks. This strategic alignment ensures the council remains agile and "funding-ready" for emerging resilience and betterment grants.

Cairns Regional Council has updated its LRAP, in the new QRA format, through a consultation process grounded in the sub-committees of Local Disaster Recovery and Resilience Group (LDRRG), key work area stakeholders, and subsequently endorsed by ELT. The draft LRAP was endorsed by the Cairns Region Local Disaster Management Group (LDMG) for consideration and approval by Council.

On going and annual reviews by the LDRRG will ensure evolving risks are captured and considered in future resilience focused planning.

BACKGROUND:

The LRAP was previously developed through the Wet Tropics Regional Resilience Strategy in 2022 by Far North Queensland Regional Organisation of Councils. Cairns Regional Council (CRC) was one of six councils who participated in the review which included strategic observations from the initial assessment of exposure and vulnerability across the region.

In August 2025, the Chief Executive Officer of QRA wrote to CRC to advise of a new template and highlighted the need to review the CRC LRAP and submit by July 2026 to access disaster resilience funding.

In consultation with stakeholders from across Council work areas, a review was conducted, and a list of disaster risk reduction and disaster resilience projects identified, refined and prioritised (attachment 1).

The top ten proposed projects address disaster risks and build resilience in water security, critical infrastructure, improving accessibility, flood warning, mitigation and adaptation and fire risk, as outlined below:

- i. Design and construction of University 2 Reservoir: *construction of new reservoir*
- ii. Scope and upgrade Council's SCADA system: *installation and upgrades to critical sites*
- iii. Access roads to beaches improved: *improve roads to reduce community isolation in disasters*
- iv. Water Supply Intake Resilience Upgrade: *upgrade infrastructure to reduce risk (debris in intake structure)*
- v. Reservoir access roads: *improve road conditions for safer access*
- vi. Flash Flood Early Warning Network: *install network and height and rain gauges across the LGA*
- vii. Currunda Creek Bridge: *reduce risk of isolation and support safeguarding measures of vital water infrastructure*
- viii. Rainforest - fire risk: *clarify if this is required and if so; identify triggers and reduce risk of rainforest related fire*
- ix. Master Mitigation and Adaptation Plan (CBD & Central Cairns) Stage 1: *build community's resilience and reduce economic and environmental risks*
- x. Deadman's Gully Bridge: *Construction of a new, elevated bridge at Deadman's Gully*

The identified projects are not guaranteed funding; inclusion is an advantage to accessing resilience funding for Council to support our communities.

The draft LRAP was endorsed by the Executive Leadership Team on 3 June 2026, and the Local Disaster Management Group on 17 June 2026.

COMMENT:

The LRAP is beneficial to strengthening community resilience by identifying and prioritising key resilience projects and minimising risks. It enhances access to specific funding opportunities.

The LRAP will ensure local priorities are reflected through state and national resilience frameworks and will reflect and enables improved coordination across the different levels of government.

As indicated above, given the critical role the proposed new University 2 Reservoir will play in supporting the long term resilience of Cairns' water supply during and following disaster events, it has been ranked as the number one priority project in the LRAP. Construction of the new University 2 reservoir is expected to come at a significant cost and securing external funding to support project delivery will be crucial.

In light of these factors, it is also recommended that Council endorse securing external funding for this project as a High Advocacy Priority of Council in accordance with Council's endorsed Advocacy Policy.

OPTIONS:

Option 1 (recommended):

1. That Council approves the draft Local Resilience Action Plan (LRAP) for submission to the Queensland Reconstruction Authority (QRA) to enable access to disaster risk reduction and resilience funding;
2. Endorses securing external grant funding to support the construction of the University 2 Reservoir as a High Advocacy Priority of Council; and
3. Delegates authority to the Chief Executive Officer pursuant to section 257 of the Local Government Act 2009, to approve future LRAP modifications endorsed by Cairns Region Local Disaster Recovery and Resilience Group (LDRRG).

Option 2:

1. That Council **does not** approve the draft Local Resilience Action Plan (LRAP) for submission to the Queensland Reconstruction Authority (QRA) to enable access to disaster risk reduction and resilience funding.

CONSIDERATIONS:

Risk Management:

Whilst it's not a guarantee of funding, failure to submit a Council approved LRAP by July 2026 will significantly impact Council's opportunity to access disaster risk reduction and disaster resilience funding from State and Federal Government. This will reduce Cairns communities' opportunity to build their resilience.

Council Finance and the Local Economy:

The LRAP ensures there is opportunity for disaster resilience and disaster risk reduction funding to be accessible through State Government.

Corporate and Operational Plans:

The LRAP highlights Council's value of resilience, adapting, enduring and growing stronger as a region more susceptible to disasters.

Policy:

Council's Advocacy Policy has been applied in determining the recommended endorsement of securing external grant funding for the University 2 Reservoir as a High Advocacy Priority of Council.

CONSULTATION:

A comprehensive consultation was conducted with the Cairns Local Disaster Recovery Sub-committee and key stakeholders across Council, for the review and identification of projects. Briefing also occurred with the Executive Leadership Team, a Councillor Workshop, and endorsement sought from the LDMG.

ATTACHMENTS:

Attachment 1 - *draft* Local Resilience Action Plan (PDF version DM#7897281)



Rhys Newton
Local Disaster Coordinator



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Director, People and Organisational Performance

Line of Resilience	Resilience Project Funding Status	Resilience Project Title	Resilience Project Description/Scope	Resilience Project Outcomes	Current Project Phase	Project Focus Area	Hazard Addressed	Primary QSDR Objective linkage	Priority
Select from the five lines. Must be a single selection.	Current status of the project.	Title of project	High level description and outline of the proposed project and scope (1-2 paragraphs for each project)	List potential resilience outcomes and benefits if the project was supported	Select from the options. Must be a single selection.	Select most relevant option. Must be a single selection.	Select from the options. Must be a single selection - If project would address multiple hazards, select hazard that most closely aligns with the project.	Select from the five lines. Must be a single selection.	Number Council priorities from 1 (highest) onwards
Built	Proposed	Design and construction of University 2 Reservoir	<p>Proposed Project: Construction of a replacement concrete reservoir on an elevated earthworks pad adjacent to the existing reservoir.</p> <p>Project Scope: The project will involve acquiring the proposed land for the reservoir works from DETSI and construction of a new reinforced concrete reservoir, booster pump station to fill the reservoir, access road works, inlet and outlet mains and appurtenances and rechlorination infrastructure.</p>	<ol style="list-style-type: none"> 1. improved water security systems and access 2. minimise risk of access to clean drinking water, esp in a cyclone 3.enhance uninterrupted Drinking Water Security <p>By ensuring reliable, all-weather access to reservoirs, water treatment and maintenance crews can rapidly reach the sites following severe tropical weather events or cyclones. This prevents prolonged operational downtime and ensures a continuous, safe drinking water supply for Cairns residents during broader systemic crises.</p>	Design	Water Network	Tropical Cyclone	4 - We continually improve how we prepare for, respond to and recover from disasters	1
Built	Proposed	Continue the program of work to scope and upgrade Council's SCADA system	<p>Proposed Project: An effective SCADA system is critical during a disaster. Council is establish a program of works to upgrade the system, in order to address cyber security, resilience and supply chain issues.</p> <p>Proposed Scope: Installation of network improvements and upgrades to critical sites. This is integral to minimising the risk of network failure or loss of network hardware / operability - across CRC and Cairns LGA</p>	<ol style="list-style-type: none"> 1. Improves internal knowledge and understanding of assets 2. Improves decision making ability 3. Improves ability to apply for and accurately describe infrastructure upgrade requirements 4. Improves access to funding opportunities 	Design	Other - Built	Cybersecurity	2 - We work together to better manage disaster risk	2
Roads and Transport	Proposed	Access roads to beaches improved (increased height to improve accessibility)	<p>Proposed Project: Improve the roads to the beach communities north of Cairns, as these communities are continuously impacted in bad weather. Improving their resilience by building roads that have height to minimise the risk of isolation in an event and to alleviate the travel concern in floods, allowing for more time to get to safer higher areas outside of the community</p> <p>Proposed Scope: targeted communities that are cut off and isolated in severe wet weather by improving the road conditions and improving safer access not only for the community to exit but also for emergency services to have the capacity to enter the community regardless of the conditions.</p>	<p>Enhanced capacity to access safer higher areas and reduce the risk of remaining in a high risk zone in the event of a cyclone or storm tide for communities at increased risk of isolation.</p> <ol style="list-style-type: none"> 1. provide an opportunity to remain accessible and move family and friends to areas of lesser flooding risk, 2. enables better informed decisions and capacity to plan, 3. protect family and friends and potentially save themselves. 	Pre-concept/Feasibility study	Other - Roads and Transport	Flooding	3 - We seek new opportunities to reduce disaster risk	3
Built	Proposed	Water Supply Intake Resilience Upgrade	<p>Proposed Project: This project is aimed at improving the resilience of the Crystal Cascade Intake structure by reducing the opportunity for debris egress into the belt screen at the Intake structure, and may include construction of additional barriers to improve water inundation and internal flooding during significant weather events.</p> <p>During peak flood events, debris (rocks, gravel, branches, timber) will bypass the primary screening and enter the belt screen, causing the belt screen to jamb and block, which in turn will restrict or prevent flows into the inlet chamber at the intake. As the blockage cannot be accessed during a flood event, there is a likelihood that the water supply to the treatment plant will be interrupted, resulting in suspension of water treatment process and interruption to water supply.</p> <p>Proposed Scope: Infrastructure upgrade options are available for further development and implementation to improve the resilience of the intake and to reduce the risk of water interruption.</p>	<ol style="list-style-type: none"> 1. Improve resilience of the major water supply intake to withstand impacts from flooding. 2. Reduce likelihood of supply shortages to Cairns' customers during flooding events in the catchment. 3. Improve safe work outcomes by reducing the frequency and effort by work crews to clear blockages. 		Flood Resilience Infrastructure	Flooding	4 - We continually improve how we prepare for, respond to and recover from disasters	4
Roads and Transport	Proposed	Reservoir access roads	<p>Proposed Project: Improve the access roads to the water reservoirs located on steep hillslopes around Cairns, as these tracks are in very poor condition and continuously impacted by landslips and fallen trees in bad weather. Improving their resilience by stabilizing slopes and upgrading track infrastructure to minimise the risk of access failure in an event, ensuring continuous operation of the water supply and safer travel for maintenance crews.</p> <p>Proposed Scope: Targeted reservoir access tracks that become impassable and dangerous in severe wet weather by improving the road conditions and ensuring safer access not only for maintenance workers to reach the sites but also for emergency services and heavy machinery to have the capacity to access critical water infrastructure regardless of the conditions.</p>	<ol style="list-style-type: none"> 1. Uninterrupted Drinking Water Security 2. Long-Term Infrastructure Durability 3. Enhanced Worker Safety and Operational Efficiency 4. Improved Emergency and Fire Response Capacity 5. Prevention of Environmental Degradation <p>By ensuring reliable, all-weather access to critical hilltop reservoirs, water treatment and maintenance crews can rapidly reach the sites following severe tropical weather events or cyclones. This prevents prolonged operational downtime and ensures a continuous, safe drinking water supply for Cairns residents during broader systemic crises.</p> <p>Upgrading the poor-condition tracks with proper drainage, reinforced retaining walls, and slope stabilization directly mitigates the vulnerabilities of the steep terrain. This proactive "build back better" approach significantly reduces the frequency of washouts and landslips, cutting down on expensive, reactive emergency road repairs after every heavy wet season.</p> <p>Navigating degraded, landslip-prone tracks on steep inclines is a major occupational hazard. Upgrading and widening these access roads minimizes dangerous driving conditions for Cairns Regional Council staff. Safe, clear access allows for faster routine maintenance and the rapid deployment of heavy machinery needed to clear fallen trees or repair pumps.</p> <p>Reservoirs are critical water-drawing points during bushfires, which can rapidly ascend steep hillslopes during the dry season. Resilient, well-maintained access roads ensure that emergency services and heavy firefighting apparatus can safely and swiftly reach high-elevation points to defend critical water infrastructure or combat hilltop blazes.</p> <p>Heavily degraded dirt tracks and resulting landslips contribute to severe soil erosion during heavy tropical downpours. Stabilizing these access roads and upgrading drainage systems protects the surrounding hillside ecosystems, preventing large-scale sediment runoff from polluting local watersheds and flowing into downstream marine environments.</p>	Pre-concept/Feasibility Study	Other - Roads and Transport	Flooding	3 - We seek new opportunities to reduce disaster risk	5
Built	Proposed	Flash Flood Early Warning Network	<p>Proposed Project: install a flash flood early warning network to deliver real-time flood intelligence across Cairns LGA to better protect the Cairns region, in particular areas that are at higher risk of flooding</p> <p>Proposed Scope: Install a network of 40 water height and 7 rain gauges across the Cairns Regional Council LGA.</p>	<p>Enhanced safety and improved resilience:</p> <ol style="list-style-type: none"> a. enables community to use flood resilient technology b. Assist the community to take action in an event 	Delivery Ready	Flood Warning Infrastructure	Flooding	3 - We seek new opportunities to reduce disaster risk	6
Roads and Transport	Proposed	Currunda Creek Bridge	<p>Proposed Project: Construct an elevated bridge over Currunda Creek in Redlynch to replace an existing low-level culvert that is highly vulnerable to flooding. Because this crossing is the sole access route for numerous properties and a primary water intake point for Cairns, its frequent inundation risks community isolation and threatens city-wide water security. Elevating this infrastructure will bolster community resilience by ensuring safe, continuous access to homes and safeguarding the operation of vital water supply systems during severe weather.</p> <p>Proposed Scope: Replace the low-level culvert with a flood-immune bridge and elevated road approaches. The primary focus is to overcome current height limitations and eliminate the risk of isolation during heavy rainfall. This upgrade guarantees a reliable, all-weather link, ensuring safe evacuation routes for residents and uninterrupted access for both emergency services and water infrastructure maintenance crews.</p>	<p>Catastrophic Evacuation Security: Secures the sole exit route for Redlynch Valley, eliminating a deadly bottleneck and guaranteeing residents a safe, reliable mass evacuation path in the extreme event of a Copperlode Dam failure.</p> <p>City-Wide Water Security: Guarantees all-weather access to Cairns' primary water intake facility, ensuring maintenance crews can securely reach, manage, and protect the broader city's drinking water supply during severe disaster events.</p> <p>Prevention of Community Isolation: Eliminates the routine risk of Redlynch residents being trapped during heavy seasonal rainfall, ensuring continuous access to essential services and minimizing the social and economic disruptions of being cut off.</p> <p>Uninterrupted Emergency Response: Provides first responders with a dependable, flood-immune path, ensuring critical police, fire, and medical assistance can reliably reach the valley without life-threatening delays.</p> <p>Reduced Operational Vulnerability: Replaces easily inundated and debris-prone culverts with a highly resilient structure, minimizing the ongoing burden of post-storm repairs and ensuring immediate functional recovery of the transport link following severe weather.</p>	Pre-concept/Feasibility Study	Bridges	Flooding	3 - We seek new opportunities to reduce disaster risk	7

Environment	Proposed	Rainforest - fire risk	<p>Proposed Project: Rainforest - fire risk - study to identify triggers and develop benchmarks when rainforest becomes flammable and counts as fuel rather than a 'green break'.</p> <p>Proposed Scope: Conduct a rainforest fire risk study to identify triggers and minimise risks of a rainforest related fire which would cause significant damage and loss within the Cairns LGA, and surrounding councils' built in rainforest areas</p>	<p>Better information regarding the risk associated from heatwave/bushfire events during response. Able to make informed decisions regarding breaks required.</p>	Pre-concept/Feasibility Study	Flora Habitat	Bushfire	1 - We understand the potential disaster risks we face	8
Built	Proposed	Master Mitigation and Adaptation Plan (CBD & Central Cairns) Stage 1 - Project Start Up, Data Gathering, Economic and Environmental Vulnerability Assessment, Vision and Master Plan Options	<p>Proposed Project: The Central Cairns Master Mitigation and Adaptation Plan will provide a long-term program for the coordination and alignment of mitigation and adaptation projects for the Cairns CBD and surrounding environs, and to prioritise delivery of these projects with the identification of finer-grain precincts within the CBD and surrounding environs. Central Cairns is identified to accommodate approximately 30% of growth through the Cairns Towards 2050 Growth Strategy and includes the CBD as the primary centre for the FNQ Region. Central Cairns is vulnerable to natural hazards, particularly flooding and storm surge, and much of the catchment remains under-protected. This project is founded on the principle of 'safe growth' – a process of advancing climate resilient development in a way that proactively builds in mitigation and adaptation activities to make safer places now and for the long term.</p> <p>Project Scope: The project request is to complete Stage 1 which which relate to foundational activities such as data collation and capture, initial stakeholder engagement, governance and visioning, and the creation of initial master plan options for testing and modelling in future phases. Phase 1 – Project Start-up and Governance Phase 2 – Data Gathering- Collate contemporary hazard, building, asset and infrastructure datasets suitable for the project purpose, across all settlement stakeholders (public and private). This stage will include a vulnerability assessment to identify the specific risks posed to the Cairns economy and environment by natural hazards and disasters and consider the interdependencies between critical economic infrastructure—such as the Cairns Airport, and Port of Cairns, road and rail connectivity and business continuity. As part of the assessment a suite of strategic actions aimed at improving Cairns' resilience and recovery capabilities will be prepared and prioritised. Phase 3 – Engagement and Visioning - Project socialisation with key stakeholders, including state agencies, Ports North, NQ Airports Group, Department of Defence, Coordinator General, Queensland Health, CQU and JCU universities and potentially significant operators within the marine and defence, tourism, aviation, construction, education and training sectors. Internal engagement to determine key success criteria, bounds / parameters, and intended outcomes Phase 4 – Master Plan Options Development - Create 3 resilient settlement scenarios based on the outcomes of the Towards 2050 Growth Strategy and apply Identify existing and future mitigation and adaptation project opportunities for each scenario.</p>	<ul style="list-style-type: none"> Coordinate and align Council's mitigation obligations and adaptation opportunities Develop a settlement scale mitigation and adaptation program, which provides a long-term master plan for the delivery of mitigation and adaptation projects Provide an infrastructure staging program (10-year capital works program and longer term program) Prioritise adaptation projects through precincts for progression to concept design, business case and costings Position Council for future mitigation / adaptation funding and to support cost sharing models Protect the strategic function of Cairns as the gateway to the Asia / Pacific and Cape York Peninsula <p>Coordination of key stakeholder responses improved Council knowledge to build community's resilience and reduce economic and environmental risks before, during and after a disaster/ hazard event, increased resilience with better supports to enable businesses to pivot and continue functioning to minimise economic loss and further impacts on their personnel</p>	Pre-concept/Feasibility Study	Other - Built	Flooding	3 - We seek new opportunities to reduce disaster risk	9
Roads and Transport	Proposed	Deadman's Gully Bridge	<p>Proposed Project: Construct a new, elevated bridge at Deadman's Gully in Clifton Beach to replace an undersized culvert that recent modeling reveals increases local water levels by 400mm. This bottleneck has caused persistent flooding to nearby properties and regular disruptions to a highly important local transport link. While alternative road links exist, eliminating this flow restriction significantly bolsters community resilience. It protects adjacent Clifton Beach homes from preventable inundation and ensures residents maintain a reliable, safe travel route during severe weather events.</p> <p>Proposed Scope: The removal of the restrictive culvert and the construction of a flood-immune bridge with upgraded road approaches to restore natural water flow at the Clifton Beach crossing. The primary focus is to eliminate the 400mm backwater effect impacting surrounding properties and to prevent this critical route from being severed. The project ensures this corridor remains operational in wet weather, providing the community with a vital, dependable travel option and ensuring emergency services have reliable, sustained access to the area.</p>	<p>Mitigation of Property Flooding: Eliminating the 400mm backwater effect directly protects adjacent Clifton Beach properties from recurrent inundation, significantly reducing financial damage and emotional distress for local residents.</p> <p>Reliable Emergency Access and Evacuation: Upgrading the crossing guarantees an all-weather route for emergency services to reach the community without delay, while providing residents with a safe, dependable travel path during severe storms.</p> <p>Enhanced Transport Network Resilience: Securing this important local link maintains critical road capacity, ensuring residents stay connected to essential services and preventing alternative routes from becoming overwhelmed by diverted traffic.</p> <p>Reduced Maintenance and Recovery Costs: Replacing the vulnerable, easily blocked culvert with a flood-immune bridge drastically lowers the ongoing burden and expense of post-storm repairs and debris clearing for local authorities.</p> <p>Restored Natural Hydrology: Removing the restrictive infrastructure restores the natural water flow of Deadman's Gully, preventing unnatural upstream pooling, reducing localized erosion, and supporting a healthier waterway environment.</p>	Pre-concept/Feasibility Study	Bridges	Flooding	3 - We seek new opportunities to reduce disaster risk	10
Human and Social	Proposed	Volunteer Surge Plan	<p>Proposed Project: Develop a plan to manage surge volunteers during an event in regard to "Mud Armies" and Donation Hubs.</p> <p>Proposed Scope: This project will focus on the anticipated surge management of volunteers immediately after an event in regard to the clean up of impacted areas and the management of donations for those community members impacted by an event. Both areas require a unique response to in order to deploy a pro-active approach that ensures that community goodwill is channelled to where it is needed.</p>	<ol style="list-style-type: none"> Volunteers are able to support clean up effort in a safe and coordinated way Volunteers are able to support recovery efforts by supporting the operation of donation hubs Key community organisations are upskilled to manage surge volunteer activity in partnership with Council and other key agencies 	Pre-concept/Feasibility Study	Community Members	Tropical Cyclone	4 - We continually improve how we prepare for, respond to and recover from disasters	11
Roads and Transport	Proposed	Lake Morris Road Upslope Stabilisation	<p>Proposed Project: Undertake comprehensive upslope stabilization works along Lake Morris Road, the sole access route to Copperlode Dam and Lake Morris. Following recent weather events, the road has experienced several upslope landslips that have currently only received minimal treatment. As this route provides the only access for crews to manage Cairns' primary water storage infrastructure, ensuring its ongoing stability is critical. By implementing permanent stabilization measures, the project will improve the road's resilience, keeping it safe and operational for essential maintenance and emergency access during future weather events.</p> <p>Proposed Scope: The design and construction of permanent upslope stabilization solutions—such as soil nailing, rockfall netting, or retaining structures—at identified landslip sites along Lake Morris Road. The focus is to upgrade the current temporary measures to long-term structural solutions that mitigate the risk of future slope failures and subsequent road blockages. This work will secure a reliable transport link, ensuring dam operators and emergency services have continuous access to manage critical water infrastructure during and after heavy rainfall.</p>	<p>Secured Water Infrastructure Management: Guarantees all-weather access to Copperlode Dam, ensuring operators can reliably reach the site to manage water levels and oversee Cairns' primary water storage during severe weather events.</p> <p>Minimized Operational Downtime: Mitigating the risk of future landslips significantly reduces the frequency and duration of road closures, ensuring the route remains functional immediately during and after heavy rainfall.</p> <p>Guaranteed Emergency Access: Provides a stable, dependable route for emergency services to access the dam and surrounding catchment areas safely, preventing delays caused by debris or slope failures.</p> <p>Lower Ongoing Maintenance Costs: Upgrading from temporary fixes to permanent structural solutions reduces the recurring financial and operational burden of clearing minor slips and repairing the road after every wet season.</p> <p>Protection of the Road Asset: Effective upslope stabilization protects the road surface and underlying foundations from being damaged or undermined by falling debris, extending the overall lifespan of this critical transport link.</p>	Pre-concept/Feasibility Study	Roads - Local Roads	Flooding	3 - We seek new opportunities to reduce disaster risk	12

Roads and Transport	Proposed	Barron Gorge Road Upslope Stabilisation	<p>Proposed Project: Undertake comprehensive upslope stabilization works along Barron Gorge Road, a critical access route to the Barron Gorge Hydroelectric plant. Following recent weather events, the road has experienced several upslope landslips that have currently only received minimal treatment. As this route provides vital access for crews to manage, operate, and maintain this key renewable energy infrastructure, ensuring its ongoing stability is essential. By implementing permanent stabilization measures, the project will improve the road's resilience, keeping it safe and operational for essential maintenance and emergency access during future weather events.</p> <p>Proposed Scope: The design and construction of permanent upslope stabilization solutions such as soil nailing, rockfall netting, or retaining structures at identified landslip sites along Barron Gorge Road. The focus is to upgrade current temporary measures to long-term structural solutions that mitigate the risk of future slope failures and subsequent road blockages. This work will secure a reliable transport link, ensuring plant operators and emergency services have continuous, safe access to manage and safeguard the hydroelectric facility during and after heavy rainfall.</p>	<ol style="list-style-type: none"> 1. Improved Energy Resource Security Barron Gorge Road is the primary vehicular access route to the Barron Gorge Hydroelectric Power Station. Fortifying the road ensures that maintenance and emergency crews have uninterrupted, safe access to the station, guaranteeing that the region's main renewable power supply remains stable and functional during and after major crises. 2. Enhanced Infrastructure Durability By upgrading the road with advanced rockfall protection structures, reinforced retaining walls, and slope stabilization techniques, the project directly addresses the specific vulnerabilities of the steep gorge terrain. This "build back better" approach ensures the road can better withstand future heavy rainfall, landslips, and extreme weather events like Tropical Cyclone Jasper, drastically reducing future repair costs and closure times. 3. Ecotourism and Economic Continuity The gorge is a major draw for tourists, heavily utilized by white-water rafting companies and visitors to nearby areas like Lake Placid. Restoring and future-proofing the road ensures reliable access for these businesses, preventing prolonged operational shutdowns, protecting local jobs, and preserving a vital revenue stream for the regional tourism economy. 4. Environmental and Ecological Protection The project site sits within the sensitive Wet Tropics World Heritage Area. Implementing improved, resilient drainage systems and engineered landslip mitigations prevents severe erosion and large-scale mud deposits from washing into the Barron River. This protects the local water quality and the surrounding rainforest ecosystem from being smothered by infrastructure debris during future flood events. 5. Strengthened Emergency Response Capacity A resilient, reliable road network into the gorge is critical for public safety. Upgrading the route ensures that emergency services, Cairns Regional Council crews, and disaster response teams can rapidly access the area during extreme weather events, improving evacuation timelines and safety outcomes for stranded tourists, local residents, or hydro-station workers. 	Pre-concept/Feasibility Study	Roads - Local Roads	Flooding	3 - We seek new opportunities to reduce disaster risk	13
Built	Proposed	Continue to fund and upgrade waste water pump stations	<p>Proposed Project: 100 waste water pump water stations are due for upgrade with many starting to fail. 30 to upgraded next year. Ageing infrastructure generally is a big issue. This program of works will see all sewerage pump stations upgraded across the region to improve performance and capacity.</p> <p>Proposed Scope: a prioritised list of 30 waste water stations has been developed based on categorisation of risk, cost and use of life to prevent significant environmental and health impacts on the community and the reputation to Cairns economy inc tourism.</p>	<ol style="list-style-type: none"> 1. Increase the resilience of the waste water treatment network. 2. Reduce failures in the waste water treatment network. 3. Reduce future maintenance expenses. 	Design	Water Network	Flooding	4 - We continually improve how we prepare for, respond to and recover from disasters	14
Environment	Proposed	Assessment of nature-based solutions for adaptation and disaster risk reduction	<p>Proposed Project: Identify opportunities to implement nature-based solutions to address hazards across the LGA.</p> <p>Proposed Scope: Review priority coastal hazard areas and develop options paper for implementation of further nature-based solutions (e.g. dune strengthening, riparian restoration) to address multiple climate hazards such as sea level rise, storm surge, flooding, erosion, heat and fire. Collaboration with partners including NRM groups, research and Indigenous Land and Sea Rangers to assess condition, improvements to strengthen DRR function and realise environmental, social co-benefits.</p> <p>Findings will inform future shoreline erosion management plans and catchment planning.</p> <p>Will identify a suite of options and concept designs that can form part of future funding requests for mitigation infrastructure to protect coastlines (nature-based and hybrid).</p>	<ol style="list-style-type: none"> 1. Strengthen ecosystem-based disaster risk reduction function of hazard-prone areas 2. Protect and connect environmental assets, including community facilities and recreational areas 3. Improves access to funding opportunities. 4. Capacity building and skills sharing. 	Pre-concept/Feasibility Study	Other-Environment	Tropical Cyclone	3 - We seek new opportunities to reduce disaster risk	15
Environment	Proposed	Community Group based land management; Traditional Landholder (Ranger) group Strategy	<p>Proposed Project: Encourage establishment and sustainability of Traditional Owner Ranger and Land management groups in the region, increasing land management occurring in the region, knowledge that can be utilised and resources/capacity available in case of events.</p> <p>Proposed Scope: work closely with relevant Government and key NGO partners to establish/ support the Traditional Owner Ranger and Land Management groups to develop tools and resources to share and increase resilience and risk reduction knowledge of the lands</p>	<ol style="list-style-type: none"> 1. Increased capacity and knowledge/resources for land management in region 2. Improved land asset management 	Pre-concept/Feasibility Study	Other - Environment	Tropical Cyclone	2 - We work together to better manage disaster risk	16
Built	Proposed	Master Mitigation and Adaptation Plan (CBD & Central Cairns) Stage 2 -Modelling and Feasibility	<p>Proposed Project: The Central Cairns Master Mitigation and Adaptation Plan will provide a long-term program for the coordination and alignment of mitigation and adaptation projects for the Cairns CBD and surrounding environs, and to prioritise delivery of these projects with the identification of finer-grain precincts within the CBD and surrounding environs.</p> <p>Central Cairns is identified to accommodate approximately 30% of growth through the Cairns Towards 2050 Growth Strategy and includes the CBD as the primary centre for the FNQ Region. Central Cairns is vulnerable to natural hazards, particularly flooding and storm surge, and much of the catchment remains under-protected.</p> <p>This project is founded on the principle of 'safe growth' – a process of advancing climate resilient development in a way that proactively builds in mitigation and adaptation activities to make safer places now and for the long term.</p> <p>Project Scope: The project request is to complete Stage 2 which builds on the foundational elements and includes the following phases. Phase 5 – Base case analysis - analyse the existing and future base case for economic value without mitigation. Phase 6 - Mitigation options analysis - undertake a comprehensive mitigation option analysis and testing / modelling region to determine no regret action and quick wins as well as development dependent actions. Phase 7 - undertaken detailed social economic analysis on the three resilient development scenarios to model the costs and benefits of each development scenario to determine how much mitigation spend affords in terms of protection or reducing the risk and how much his can maximise the spend on development potential in the CBD and Central Cairns. Phase 8 - Undertake a feasibility analysis on the preferred option/s to determine under what circumstances the preferred mitigation options are feasible and present a return on investment.</p>	<ul style="list-style-type: none"> • Coordinate and align Council's mitigation obligations and adaptation opportunities • Develop a settlement scale mitigation and adaptation program, which provides a long-term master plan for the delivery of mitigation and adaptation projects • Provide an infrastructure staging program (10-year capital works program and longer term program) • Prioritise adaptation projects through precincts for progression to concept design, business case and costings • Position Council for future mitigation / adaptation funding and to support cost sharing models • Protect the strategic function of Cairns as the gateway to the Asia / Pacific and Cape York Peninsula <p>Identify a preferred structure plan option and suite of mitigation options that best represent maximum urban development outcome, minimise mitigation investment and maximise potential for economic activity.</p>	Pre-concept/Feasibility Study	Other - Built	Flooding	3 - We seek new opportunities to reduce disaster risk	17
Built	Proposed	Master Mitigation and Adaptation Plan (CBD & Central Cairns) Stage 3 - Investment and Implementation Planning	<p>Proposed Project: The Central Cairns Master Mitigation and Adaptation Plan will provide a long-term program for the coordination and alignment of mitigation and adaptation projects for the Cairns CBD and surrounding environs, and to prioritise delivery of these projects with the identification of finer-grain precincts within the CBD and surrounding environs.</p> <p>Central Cairns is identified to accommodate approximately 30% of growth through the Cairns Towards 2050 Growth Strategy and includes the CBD as the primary centre for the FNQ Region. Central Cairns is vulnerable to natural hazards, particularly flooding and storm surge, and much of the catchment remains under-protected.</p> <p>This project is founded on the principle of 'safe growth' – a process of advancing climate resilient development in a way that proactively builds in mitigation and adaptation activities to make safer places now and for the long term.</p> <p>Project Scope: The project request is to complete Stage 3 which is the final stage and includes the following phases. Phase 9 – Preferred master plan refinement - prepare the preferred final master plan and adaptation plan and confirm the statutory implementation alternatives to facilitate delivery and development of mitigation activities. Phase 10 – Investment integration and alignment - work with external stakeholders to support aligning investment and develop internal processes to align future investment into Council operations. Phase 11 - Infrastructure staging program - develop a long term infrastructure staging program (and reliable costs estimates for the master plan works) Phase 12 - Monitoring, evaluation and trigger framework, develop the framework to trigger action under the master plan based on monitoring. Phase 13 - Prepare scope of work and preliminary cost estimates for precinct master plans to set the foundation for concept design and estimates in priority delivery locations.</p>	<ul style="list-style-type: none"> • Coordinate and align Council's mitigation obligations and adaptation opportunities • Develop a settlement scale mitigation and adaptation program, which provides a long-term master plan for the delivery of mitigation and adaptation projects • Provide an infrastructure staging program (10-year capital works program and longer term program) • Prioritise adaptation projects through precincts for progression to concept design, business case and costings • Position Council for future mitigation / adaptation funding and to support cost sharing models • Protect the strategic function of Cairns as the gateway to the Asia / Pacific and Cape York Peninsula <p>Develop a long-term infrastructure staging program (and reliable cost estimates for the broad master plan works), that aligns with Council's 10-year capital works program (Capex) for no-regrets investment and beyond (Stratex) where funding availability is less certain, through the prioritisation of delivery precincts to focus mitigation and adaptation efforts for the preferred resilient settlement scenario, across the short, medium and long term.</p> <p>Develop the scope of works for a concept design, business case and intended budget for Precinct Mitigation and Adaptation Plans, aligning with the Queensland Business Case Development Framework.</p>	Pre-concept/Feasibility Study	Other - Built	Flooding	3 - We seek new opportunities to reduce disaster risk	18

Economic	Proposed	Building business resilience workshop through BCTs	<p>Proposed Project: The Cairns Disaster Management Unit proposes to work closely with the Cairns Chamber of Commerce whose network currently has approximately 60 members.</p> <p>The Cairns Chamber of Commerce is the peak body for business representation in the Cairns region. The Chamber assists its members' businesses grow by connecting them to opportunities and to act in the best interests of the Cairns region business community. The Chamber drives business success for our members via the development of a strong and resilient regional economy, the development of a constructive business environment, and by being the voice of business.</p> <p>Projected Scope: Specialised workshop on business continuity plans and evacuation plans targeting small businesses</p>	<ol style="list-style-type: none"> 1. Improve awareness and understanding of natural hazard risks. 2. Improve connection and understanding of the business community, its people and character 3. Improve community and professional connections and economic understanding . 4. Enhance skills and knowledge in the business sector. 5. Enhance baseline resilience 	Design	Small Businesses Flooding	4 - We continually improve how we prepare for, respond to and recover from disasters	19
Built	Proposed	Flood surveillance for 24/7 use and monitoring capacity	<p>Proposed Project: Improve current flood resilient technology as current flood surveillance does not work during rains and at night which are the times that the community are more reliant on this to be able to make informed decisions on their movements to ensure</p> <p>Proposed Scope: improve current flood resilient technology so that at times of higher risk it is working and communities in low lying areas can be better prepared and make informed decisions based on the situation on hand. This includes moving/ adjusting the location of the flood camera so it fits its purpose and addresses the community identified need (for example, at Holloways Beach, move the camera near the access road).</p>	<p>Enhanced safety and improved resilience:</p> <ol style="list-style-type: none"> a. enables community to use flood resilient technology and make quick, informed decisions with improved access to audience friendly information and warnings. b. Assist the community to take safer routes in the event of a disaster, minimising risk to themselves and other community members. 	Pre-concept/Feasibility study	Flood Resilience Infrastructure Flooding	2 - We work together to better manage disaster risk	20
Built	Proposed	Multipurpose hall (evacuation centre) in Holloways Beach	<p>Proposed Project: Improve Holloways Beach AFL Club in the event of a flood and the community are unable to leave the area to a safer location.</p> <p>Proposed Scope: The AFL clubhouse is proposed to be used as an evacuation centre when flood waters rise and isolate the community by restricting movement out of Holloways, essentially locked in due to the rain. Renovations are required to make it a fit for purpose as a venue for the community to evacuate to as a safe place of refuge through a building assessment</p>	<p>Enhanced safety within the community, improved community resilience.</p> <p>Safe space for the community and to build social cohesion, especially during and after a disaster.</p>	Pre-concept/Feasibility study	Other - Built Tropical Cyclone	4 - We continually improve how we prepare for, respond to and recover from disasters	21
Human and Social	Proposed	Risk Management Study and Evacuation Plans for At-Risk Suburbs	<p>Proposed Project: This project will develop a comprehensive risk management study and evacuation plan for the suburbs of Machans Beach, Holloways Beach, Yorkeys Knob and Caravonica. The study will identify hazards, evacuation triggers, warning times, withdrawal routes and safe shelter options. The project aims to provide clear, practical guidance for residents and emergency services to improve disaster preparedness and community safety. Community workshops have identified that many residents currently do not know where to evacuate or whether available buildings are safe during emergencies. This project will address these gaps through evidence based planning and community engagement.</p>	<ul style="list-style-type: none"> •At risk residents can create an informed personal emergency plan •PCEP plans can be created for vulnerable residents •Community understands their risk •Improves communities capability to evacuate safely •Improved timeliness and content of targeted warnings and triggers •Evaluate the risks and identify risk treatment options. 	Pre-concept/Feasibility Study	Community Members Flooding	4 - We continually improve how we prepare for, respond to and recover from disasters	22
Built	Proposed	Recovery and Resiliency Support Staff	<p>Proposed Project: The proposed project seeks funding to engage dedicated Resiliency Support Staff to oversee and accelerate the coordination and delivery of critical disaster response and recovery programs. During and following severe weather events, local administrative and project management resources are frequently stretched beyond capacity, which can hinder critical operational phases. By resourcing specific personnel to manage Counter Disaster Operations (CDO), Emergency Works (EW), Immediate Reconstruction Works (IRW), and the Reconstruction of Essential Public Assets (REPA), this project ensures that immediate threat mitigation and subsequent infrastructure restoration are delivered efficiently, effectively, and without placing undue strain on existing local government operations.</p> <p>Proposed Scope: The scope of this initiative includes the recruitment and onboarding of specialized project management and administrative support personnel for a defined disaster response and recovery period. These staff will be directly responsible for the end-to-end coordination of CDO activities to support the immediate disaster response, managing the rapid rollout of EW and IRW to quickly restore community safety and access, and overseeing the complex, long-term delivery of REPA infrastructure projects. Their targeted duties will encompass funding administration, procurement coordination, strict state and federal compliance, and active stakeholder engagement, ensuring all response and recovery streams are seamlessly executed.</p>	<p>Accelerated Disaster Response and Recovery: Dedicated personnel will fast-track the execution of Counter Disaster Operations (CDO) and Emergency Works (EW), ensuring immediate community hazards are mitigated and safety is restored much faster following an event.</p> <p>Maximized Funding and Compliance: Specialized staff will expertly manage complex state and federal disaster funding frameworks, ensuring strict compliance, maximizing eligible funding retrieval, and reducing the financial risk to the local government.</p> <p>Relief for Core Local Operations: By absorbing the massive administrative and project management burden generated by disaster events, this initiative prevents staff burnout and allows "business as usual" council services to continue uninterrupted for the community.</p> <p>Resilient Infrastructure Delivery: Focused oversight on Immediate Reconstruction Works (IRW) and the Reconstruction of Essential Public Assets (REPA) guarantees that critical infrastructure is repaired to a high standard, ensuring "build back better" principles are effectively managed.</p> <p>Enhanced Community Confidence: A highly visible, well-coordinated, and swift restoration of vital infrastructure reduces post-disaster anxiety, minimizing community trauma and fostering public trust in local disaster management capabilities.</p>	Delivery Ready	Other - Built Flooding	4 - We continually improve how we prepare for, respond to and recover from disasters	23
Environment	Proposed	Koombal fire access and fire break	<p>Proposed Project: Formalisation of fire break and fire line access for Koombal community area</p> <p>Proposed Scope: Establishment of a clear area behind Koombal community on Council land able to be used as a fire break by Council and Rural Fire Services.</p>	<ol style="list-style-type: none"> 1. Reduce bushfire fuel loads in urban areas 2. Reduce bushfire risk to life, property and environment 	Design	Flora Habitat Bushfire	3 - We seek new opportunities to reduce disaster risk	24
Built	Proposed	Master Mitigation and Adaptation Plan (CBD and Central Cairns) Stage 4 – Precinct Planning Delivery	<p>Proposed Project: Progressing the outcomes of the Master Mitigation and Adaptation Plan (Cairns CBD & Environs), this project will begin to undertake the first steps of design towards a precinct based strategy towards wide scale flood mitigation and/or adaption for a localised area of the CBD & Environs catchment (area TBC pending the outcomes of the Master Mitigation and Adaptation plan), informing a package of works required to deliver improved immunity and resilience in the relevant precinct.</p> <p>Proposed Scope: This project will commence a detailed feasibility analysis into identified precinct options for the area of flood adaptation, including land acquisition requirements, required works and engineering feasibility (construction, operation, maintenance), preliminary cost estimation and a financial analysis for implementation.</p>	<ol style="list-style-type: none"> 1. Increase the resilience of the stormwater network. 2. Reduce failures in the stormwater network. 3. Reduce future maintenance expenses. 	Pre-concept/Feasibility Study	Other - Built Flooding	4 - We continually improve how we prepare for, respond to and recover from disasters	25
Human and Social	Proposed	Community Resilience Grants	<p>Proposed Project: In the event of a disaster, communities are supported by Qld Government for pre-specified funding at the individual level but not at the community level. Council currently supports the community (during peace times) through Community Partnership Grant funding. Experience is within Council to develop criteria for affected communities to apply for small funding grants to support their community in building their resilience. The selection panel would include key recovery and resilience partners with the Human & Social Response Group Coord and DMU representative (Community Resilience Officer - Disaster)</p> <p>Proposed Scope: Council proposes to support affected communities, through their recovery journey in building their resilience with the provision of small grants, over a dedicated period of time (for example, commencing 6 - 9 months to 3 years after the event), as it considers the diversity of communities and their different recovery journeys</p>	<ol style="list-style-type: none"> 1. Enhance community led recovery planning and resilience building 2. Greater efficiencies in use of funds 3. Strengthen social cohesion following a disaster 4. Improved support for the community to address their identified needs 	Pre-concept/Feasibility Study	Community Groups and Networks Flooding	3 - We seek new opportunities to reduce disaster risk	26
Environment	Proposed	Farm Biosecurity Management Plans	<p>Proposed Project: the delivery of XXXX number of Biosecurity Management Plans (farm biosecurity plans - BQ Act mechanism) jointly developed with Council and industry guidance targeting X properties in the XXX industry targeting pest spread from pest hygiene and farm practices. e.g. Cane farms having Biosecurity management plans simialr to the banana industry for Panama</p> <p>Proposed Scope: Targeted at specific sized agricultural properties. Could be mid size hobby farms or greater</p>	<ol style="list-style-type: none"> 1. Limit spread of invasive weeds 2. Improve productivity of land and water quality. 3. Enhance environmental resilience through pest and weed programs 	Design	Other - Environment Biosecurity emergency	2 - We work together to better manage disaster risk	27

Human and Social	Proposed	Building community resilience through recovery readiness	<p>Proposed Project: Build community awareness and knowledge on what to do after a disaster. Get Ready focuses on preparing for the disaster and response. Currently there is no specified information on who and where to go and what to do following a large scale disaster and who is available after the event. Enabling communities to be resilient ready.</p> <p>Proposed Scope: Develop a booklet/ brochure with information for households and one for small businesses with information on who/ where/ when/ why/ what and how to support their recovery efforts. Noting this may be updated per disaster so having information online as well as in print form for Cairns LGA with key phone numbers will build the community's resilience in the long-run.</p>	Increased awareness and capacity to build resilience, after an event with information that is accessible and easy to follow. This information will enable the affected community/ household/ individual to commence with their steps to recovery after being impacted.	Design	Other - Human & Social	Tropical Cyclone	4 - We continually improve how we prepare for, respond to and recover from disasters	28
Built	Proposed	Sandbags - Flood mitigation technology	<p>Proposed Project: conduct research into alternative material options for sandbagging that is used for flood mitigation during severe weather season.</p> <p>Proposed Scope: Work closely with an interested tertiary institute to research flood mitigation options that can be used at household and community level, which is effective and affordable, as an alternative to current sandbagging as the flood mitigation option.</p>	<ol style="list-style-type: none"> 1. better understanding of resilient materials that will contribute to preparedness and resilience 2. potentially minimise the physical labour associated with sand bagging for protection and recognition that is not the ultimate solution 3. potentially providing a more inclusive, equitable solution for all community members (and vulnerable community members are empowered with this capability). 	Pre-concept/Feasibility study	Other - Built	Flooding	2 - We work together to better manage disaster risk	29
Built	Proposed	GIS Platform	<p>Proposed Project: In order to make well informed decisions on asset management a GIS platform is required to be fully informed of the, location, distances, relationship and more of each council owned or managed assets in all networks: water, sewer, roads, drainage, open space, green, blue and built.</p> <p>Proposed Scope: Understand the options available, steps, IT, skills and capacity required to enable creation of or access to a GIS platform suitable for needs. This can be a shared platform with data and information input from existing sources. Council should consider back-end integration with the Disaster Dashboard.</p>	<ol style="list-style-type: none"> 1. Improves internal knowledge and understanding of assets 2. Improves decision making ability 3. Improves ability to apply for and accurately describe infrastructure upgrade requirements 4. Improves access to funding opportunities 	Design	Other - Built	Tropical Cyclone	1 - We understand the potential disaster risks we face	30
Environment	Proposed	Henley Hill Canopy Establishment	<p>Proposed Project: Infill and expansion of existing vegetation on high maintenance, high biomass grass areas of Henley Hill. Established tree canopy cover would reduce fire risk by shading our the high biomass grasses creating most of the fuel on site. The area historically if a prioritised fire risk mitigation site for Council and an arson risk site.</p> <p>Proposed Scope: Project would cover initial tree planting and the cost of maintenance of site for two years in line with expected site self sustaining. up to 608 trees on the flat are below the water tank. Approx \$20 per tree (difficult site to establish)</p>	<ol style="list-style-type: none"> 1. Reduce bushfire fuel loads in urban areas 2. Reduce bushfire risk to life, property and environment 	Delivery Ready	Flora Habitat	Bushfire	3 - We seek new opportunities to reduce disaster risk	31
Built	Proposed	Purpose built educational centre for disaster resilience	<p>Proposed Project: Build a State of the Art multi purpose educational centre for disaster resilience, with a key focus on hazard specific educational facilities (multi) to include accommodation and conference facilities as a self funding space.</p> <p>Proposed Scope: Build an educational facility with a key focus on Disaster Resilience that is multipurpose, where the community (and tourists) can visit and better understand the different hazards (not only in FNQ) and learn how to build their own resilience. (modelled on the Hyogo Disaster Resilience Centre in Tokyo). This centre would also integrate inclusion, equity and diversity principles so that in proposed solutions consideration would also included traditional knowledge and ensure accessibility for all hazard focused experiences .</p>	Enhanced safety, increased knowledge, improved disaster risk awareness at the community level: <ol style="list-style-type: none"> a. provide experience on what to expect and how to prepare for a range of hazards through simulated activity, b. increase resilience substantially at an individual level, c. improve risk awareness collectively across the community and tourists d. support for the region in raising awareness as Cairns is a key gateway to the Far North communities and a gateway to SE Asia and to the South Pacific which are high risk/ disaster prone areas. 	Pre-concept/Feasibility study	Other - Built	Tropical Cyclone	4 - We continually improve how we prepare for, respond to and recover from disasters	32
Environment	Proposed	Biosecurity Landholder Assistance Scheme	<p>Proposed Project: Targeted landholder assistance scheme (herbicide provision, expert Council advice and simialr) tied to either a farm/property developing/having a Biosecurity Management Plan or similar targeting prioity pest species in line with Council's Biosecurity Ptna.</p> <p>Proposed Scope: Targeting pritoy pests for the region and specific to hericide selective aginst those pests (not herbicides that can be utilised for everything e.g. Glyphosate)</p>	<ol style="list-style-type: none"> 1. Limit spread of invasive weeds 2. Improve productivity of land and water quality. 3. Enhance environmental resilience through pest and weed programs 	Design	Other - Environment	Biosecurity emergency	2 - We work together to better manage disaster risk	33
Built	Proposed	Develop a public facing urban heat data platform	<p>Proposed Project: Past initiatives by Cairns Regional Council and James Cook University installed IoT (Internet of Things) temperature sensors in the Cairns CBD; the data of which could be hosted online. A public, digital platform can make this heat data of the Cairns CBD accessible to the general public, as well as disaster practitioners and the research community.</p> <p>Only 23% (17 out of 75) of sensors returned verifiable temperature readings during the 2018 extreme heatwave (Source: State Heatwave Risk Assessment 2019). A reliability review of these sensors should be undertaken by the sensor asset owner, and consideration given to upgrading sensors to ones which offer a higher level of data reliability and weather durability. Key data reliability requirements for urban heat data sensors include:</p> <ul style="list-style-type: none"> • sensors have a data error margin of 0.3C for temperature and 1% for humidity • sensors receive a calibration certification and are recalibrated against other instruments every two years • sensors have an ingress protection (IP) rating of IP65 (EN 60529) (https://www.iec.ch/ip-ratings) <p>Proposed Scope: Work with urban heat stakeholders to assess the reliability of existing sensor data (upgrading sensors if required) and develop an online platform to host live sensor data</p>	<ol style="list-style-type: none"> 1. Improve local response capability to heatwaves 2. Increase community education and awareness of extreme heat 3. Increase data availability to support urban cooling initiatives 	Design	Other - Built	Heatwave	3 - We seek new opportunities to reduce disaster risk	34
Environment	Proposed	Study: Bushfire Risk Analysis	<p>Proposed Project: The state provides set bushfire Prone Areas mapping (BPA) for local government to adopt which provides a level 2 (basic) model of potential bushfire risk which is useful information for planning and disaster management. However for more detailed planning and asset management, a more accurate - or level 3 study, is required which will include more detailed and localised risk assessment. Council has also identified the need to establish firebreaks in the Scheme.</p> <p>Proposed Scope: Undertake a bushfire risk analysis to incorporate into the local planning scheme. Engage a qualified consultant to determine if councils current bushfire response in the planning scheme complied with the SPP or if level 2 mapping is beneficial in providing better outcomes for the region.</p>	Better information regarding the risk associated from bushfire. Allowing better fire risk mitigation actions from prioritisation of sites.	Design	Other - Environment	Bushfire	1 - We understand the potential disaster risks we face	35
Environment	Proposed	Mt Lumley fire access and fire break	<p>Proposed Project: Access track to identified priority fire risk management area, doubling as a break and walking track. Previously suggested as the basis for a white arrow community walking track.</p> <p>Proposed Scope: In line with previously developed engineering document for MT Lumley access.</p>	<ol style="list-style-type: none"> 1. Increased access on Mt Lumley for fire response and risk mitigation actions. 2. Reduce bushfire risk to life, property and environment 1. Reduce bushfire fuel loads in urban areas 	Delivery Ready	Flora Habitat	Bushfire	3 - We seek new opportunities to reduce disaster risk	36
Environment	Proposed	Develop Vegetation Management Plans	<p>Proposed Project: Develop Vegetation Management Plans. Councils own and manage much open space, valued natural landscape and protect and enhance urban land and street scapes through vegetation. Understanding vegetation types, locations, purpose, value, maintenance and resilience is important to facilitate operational programs and manage vegetation as a community asset. The preparation of local vegetation management plans will enliven the ability to protect and maintain urban vegetation.</p> <p>Proposed Scope: Determine the number and areas for each of the proposed Vegetation management Plans which cover the open spaces, influence and interaction of community and other contributing factors to the area to plan for good management practice across the diverse areas of the Cairns LGA</p>	<ol style="list-style-type: none"> 1. Greater strategic management of regional vegetation issues 2. Improved asset management 3. Improved operational understanding 	Design	Flora Habitat	Tropical Cyclone	2 - We work together to better manage disaster risk	37
Environment	Proposed	Council Private Nature Reserve Policy	<p>Proposed Project: LGA has a range of private nature reserves with no monitoring or encouragement for their establishment or maintenance in the region.</p> <p>Proposed Scope: LGA specific policy and potential funding required, consult with G&S re: any planning scheme actions in the policy</p>	<ol style="list-style-type: none"> 1. Greater strategic management of regional vegetation issues 2. Improved asset management 3. Limit spread of invasive weeds through good practice land management 4. Enhance environmental corridors and outcomes. 5. Improve productivity of land and water quality. 	Design	Flora Habitat	Tropical Cyclone	2 - We work together to better manage disaster risk	38

Environment	Proposed	Develop a list of priority ecosystem restoration sites which can contribute to disaster risk reduction and resilience in Cairns	<p>Proposed Project: Ecosystems can help mitigate the effects of natural hazards - a concept known as ecosystem based disaster risk reduction (DRR) (eco-DRR). An assessment of ecosystem contributions to DRR was undertaken and provide several recommendations to strength eco-system contributions in the region.</p> <ul style="list-style-type: none"> • Rec 1: preserve existing remnant vegetation • Rec 2: improve the condition of remnant vegetation through land management practices • Rec 3: provide financial incentives for landholders to retain and manage remnant vegetation • Rec 4: Rehabilitate non-remnant vegetation in riparian areas to increase ecosystem connectivity • Rec 5: Rehabilitate non-remnant vegetation in other priority areas for DRR, including floodplain, coastal, hillslope and urban ecosystems • Rec 6: provide financial incentives for landholders to rehabilitate non-remnant vegetation in priority area <p>Proposed Scope: Review actions from the Cairns Assessment of Ecosystems DRR and Resilience across the relevant Council divisions. Focus on priority restoration areas.</p>	1. Improve ecosystem functioning and services 2. Enhance ecosystem-based disaster risk reduction and resilience services of local ecosystems	Design	Other - Environment	Flooding	2 - We work together to better manage disaster risk	39
Built	Proposed	Urban Greening for a Cooler Cairns	<p>Proposed Project: A 3-year Proactive Street Tree Planting Program to provide urban cooling in strategic locations to reduce the severity of heat hazards in high humidity and highly developed public settings. Project Scope: Program design and evaluation framework by urban forestry expert. Undertake detailed modelling of heatwave and UHIE under one future climate scenario (2050). Map current canopy cover, vulnerable populations, key community service areas (e.g. health, schools, nursing homes) and active travel, outdoor events and sporting facilities. Prioritise areas to target tree planting along the walking/cycling and public transport network, including rest stops. Undertake site assessments. Coordinate tree plantings and initial maintenance schedules (1 year) across the 3 years. Assess cost-effective modes for delivery and green asset management, including community partnerships. Establish urban greening research partnerships and recommend strengthened practices or policy within Council and other asset owners in the LDMG. Includes a discrete technology stream (e.g. for enhanced condition assessments or heat imaging) to support evaluation and asset management, along with small budget for R&D to select disaster resilient species and cool material trails for adjacent capital works (existing, budgeted).</p>	1. Enhanced safety: Improved shade and cooling in the public realm, reducing risks to residents and visitors. 2. Low Maintenance Costs - Delivery Ready through improved species selection for resilience and avoiding impacts on grey infrastructure.		Community and Recreational Assets	Heatwave	3 - We seek new opportunities to reduce disaster risk	40