# **Tablelands Regional Council**

# Climate Risk Management Strategy

Phase 1 – Strategic Climate Risk Profiling

Tablelands Regional Council acknowledges the Traditional Custodians of the Tablelands region and recognise their continuing connection to country. We pay our respect to Elders past, present and future.



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### 1. Strategic Overview

#### Context:

The global climate is warming due to greenhouse gas emissions, with 20 of the last 22 years the hottest on record. Locally, this presents both challenges and opportunities for the community, environment and economy of the Tablelands region. Even if there is major global action to reduce greenhouse gas emissions, we are likely to experience changes to climate and extreme weather events due to the legacy of greenhouse gases in the atmosphere.<sup>1</sup>

#### **Problem:**

Climate change presents both physical and systemic risks for Tablelands Regional Council (TRC) as an organisation, and to the broader community and local government area. It is likely to increase costs for managing TRC's operations, assets and services, as well as increase demand for many services. Proactively assessing and planning for these risks will require a commitment to ensure our organisation, communities and landscapes remain sustainable, prosperous and resilient.

#### Scope:

TRC is one of the largest organisations in the region and has a responsibility to develop informed strategies and actions to maintain services and assets and protect the interests of local communities into the future. Our community is looking to us to demonstrate leadership. There is a great deal of knowledge and expertise within both TRC and the Tablelands community that can be called upon and shared to help respond to the risks posed by a changing climate.

#### **Strategic Response and Action:**

TRC will reduce our exposure to climate risks and contribute to the ongoing sustainability of our region, by taking action in three areas.

- Adaptation: We will take actions that help us adjust and build resilience across our
  organisation, communities, businesses and natural environments, to minimise the impacts of
  climate change in our region.
- **Greenhouse gas emissions reduction**: We are committed to reducing our greenhouse gas emissions to play our part in mitigating climate change.
- **Transition**: We will manage the impacts and opportunities of transitioning to a low carbon future.

#### **Commitment:**

To deliver on these actions, TRC commits to the following:

<u>Valuing community involvement:</u> There is a highly engaged, motivated and capable community of people in the Tablelands region and we will work with them to develop practical responses to the risks of climate change. We recognise the contribution empowered communities make to building resilience and responding to climate change.

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<sup>&</sup>lt;sup>1</sup> https://report.ipcc.ch/ar6wg2/pdf/IPCC\_AR6\_WGII\_HeadlineStatements.pdf

<u>Allocating resources:</u> Climate change will have financial impacts on TRC and allocation of appropriate resources will be needed to help reduce our exposure and vulnerability to climate-related risks. This may include internal budget or staff allocation, or actively seeking external funding. We recognise early planning and action is likely to reduce costs over the longer term and provide better outcomes for our region.

<u>Partnerships:</u> Maintaining involvement in regional and local government-led approaches to attract external funding, share learnings and leverage resources for efficient delivery, such as those coordinated through Far North Queensland Regional Organisation of Councils (FNQROC), Cities Power Partnership and the Local Government Association of Queensland (LGAQ).

#### 2. Climate Actions

#### 2.1. Action Plan

Responding to the organisational risks of climate change will require coordinated action across TRC to provide a systematic and integrated approach. A range of actions has been identified to minimise the organisational risks of climate change, reduce emissions and support transition to a low carbon future (Tables 1-3). These have been developed through a qualitative risk assessment with input from staff, Councillors and community and includes recommendations from the recent LGAQ Climate Resilient Councils Governance Practice Standards assessment of TRC.

Table 1 - Actions to adapt to climate change

Action	Timeframe	Complexity	Resourcing
Organisational Actions			
Participate in climate partnerships and alliances (e.g.	Act now	Low	Low
Qld Climate Resilient Councils (QCRC), Climate Resilient	Ongoing		
Alliance) to pool resources, share learnings, identify			
common actions, maximise value for expenditure and			
expand the impact of actions.			
Review and update workplace procedures to minimise	1-2 years	Low	Low
heat-induced labour productivity losses and protect			
staff.			
Undertake a detailed financial risk assessment for TRC	1-2 years	Medium	Medium
assets and services to better understand financial			
implications of climate change to TRC.		_	_
Identify and implement actions to address risks to TRC:	1-5 years	Low to	Low to
finances, development and planning, disaster		High	High
management and water supply, as identified in the first			
pass risk assessment, section 5.1.	4 -		
Implement the two key recommendations of the QCRC	1-5 years	Medium	Medium
Program's Detailed Climate Change Governance			
Assessment report to TRC undertaken by the LGAQ:			
<ol> <li>Developing a climate change policy</li> <li>Incorporating climate change into the Corporate</li> </ol>			
Plan.			
Conduct a detailed risk assessment of climate change	1-5 years	Medium	Medium
impacts on the TRC water supply scheme e.g. through	T-2 Acais	ivieululli	ivieululli
collaboration with state government for water supply			
reliability modelling, water allocations.			
Teliability modelling, water allocations.			

Introduce planning provisions to reduce exposure to	1-5 years	Medium	Medium
climate hazards e.g. review requirements for green			
space, drainage, climate resilient building standards,			
review flood mapping.			
Review Strategic Asset Management Plan to ensure	1-5 years	Medium	Medium
appropriate consideration of climate change impacts			
on asset maintenance and life span.			
Establish governance structures and engage with staff	2-5 years	Medium	Low
to build internal capacity to identify climate risks and			
implement mitigating actions.			
LGA-wide Actions			
Work with community partners to identify external	1-2 years	Medium	Low
funding sources and build community awareness and			
capacity to respond to climate change e.g. through			
building on existing relationships through TRC's Natural			
Asset Management Advisory Committee (NAMAC),			
supporting a community-led climate network or			
climate resilience hub.			
Support adaptation in business and industry sectors by	2-5 years	Medium	Medium
sharing learnings and promoting opportunities that will			
support regional economic resilience.			
Work with Traditional Owners in the region to support	1-5 years	Medium	Medium
their involvement in the planning and delivery of			
climate change adaptation strategies.			

Table 2 - Actions to reduce greenhouse gas emissions

Table 2 - Actions to reduce greenhouse gas emissions			
Action	Timeframe	Complexity	Resourcing
Actively identify energy management, efficiency and	1-2 years	Medium	Low
renewable energy opportunities which deliver			
operational savings and / or attract external funding.			
Establish a corporate greenhouse gas emissions	1-2 years	Medium	Medium
inventory and monitor across TRC operational			
functions, to support future targets for emission			
reductions across TRC operations. Once a baseline has			
been established, set targets for emissions reductions			
across TRC operations.			
Identify opportunities to reduce TRC emissions across	2-5 years	Medium	Medium
priority sources e.g. electricity, fleet, landfill.			
Build community and business awareness of	2-5 years	Low	Low
opportunities to reduce emissions.			
Investigate carbon sequestration opportunities and	Ongoing	Medium	Medium
build ecosystem resilience through protecting or			
restoring habitat and carbon sinks.			
Encourage industry-led renewable and resilient energy	Ongoing	Low	Low
development opportunities in the TRC region that			
meet appropriate environmental impact assessment			
procedures.			

Table 3 - Actions to reduce transition risks and maximise opportunities in the transition to a low carbon economy

Action	Timeframe	Complexity	Resourcing
Actively monitor changes in legislations and legal	Ongoing	Medium	Low
precedence regarding climate risk management			
relating to Queensland local governments (e.g. State			
Planning Policy, Waste Management Act, Disaster			
Management Act).			
Conduct communications campaign to build internal	1-2 years	Low	Medium
and community knowledge of climate change and			
transitional opportunities for TRC and the region.			
Promote environmental market opportunities for TRC	2-5 years	Medium	Low
and in the region.			
Develop and implement a TRC sustainable	2-5 years	Medium	Medium
procurement policy to support local suppliers and			
reduce whole of life costs and resource use.			

#### 2.2. Climate Resilient Alliance Actions

TRC is one of four local government authorities that make up the Rivers to Reef Climate Resilient Alliance pilot project, facilitated by FNQROC. An action plan has been developed through this project to collaboratively accelerate the reduction of greenhouse gas emissions, transition communities to a low carbon economy and build resilience to climate risks across the region. Member councils voluntarily 'opt in' to these Alliance activities to accelerate further action, reduce duplication and achieve more than what one council could do alone. Further detail can be found in the Rivers to Reef Climate Resilient Alliance Action Plan<sup>2</sup>. Appendix 1 contains a summary of the short-term (Table 5) and long-term (Table 6) priorities identified through the alliance.

#### 2.3. Existing Actions

TRC's Corporate Plan 2021-2026 commits to promoting sustainable practices and responding to climate change<sup>3</sup>. There are also some existing actions being taken by TRC which contribute to responding to climate change, particularly within the Planning and Environment department. TRC will continue to support the current actions outlined in Table 4.

Table 4 - Current TRC Climate Actions

#### Action

Membership of the Queensland Climate Resilient Councils network and associated initiatives such as the Rivers to Reef Climate Resilient Alliance project with FNQROC.

Participation in the Reef Guardian Councils program that collectively advocates in response to threats such as climate change.

Implementation of the FNQROC Natural Assets Stewardship Accord 2019-2024.

Partnerships with Natural Resource Management (NRM) groups, industry bodies and community groups to develop climate change resilience.

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<sup>&</sup>lt;sup>2</sup> <a href="https://www.fnqroc.qld.gov.au/files/media/original/005/2b2/ed7/af5/Rivers-to-Reef-Climate-Resilient-Alliance---Action-Plan.pdf">https://www.fnqroc.qld.gov.au/files/media/original/005/2b2/ed7/af5/Rivers-to-Reef-Climate-Resilient-Alliance---Action-Plan.pdf</a>

<sup>&</sup>lt;sup>3</sup> https://www.trc.qld.gov.au/download/corporate-plan/

Working with the District Disaster Management Group to build resilience using the Queensland Emergency Risk Management Framework (QERMF).

Maintaining relationships between TRC and local landholders and interests concerning natural asset management and biodiversity through the TRC Natural Asset Management Advisory Committee (NAMAC), which became a formal advisory committee to Council in February 2022.

Developing a Natural Asset Framework to provide a high-level tool that guides the development of specific products and projects.

Supporting the development of the emerging carbon, ecosystem services and First Nations credit markets, such as the Cassowary Credit Scheme to build ecosystem resilience.

Investigating lower cost restoration techniques for building landscape resilience.

Investigate and implement carbon farming opportunities that sequester or abate greenhouse gas emissions, generate environmental, social and economic, and First Nations co-benefits and have a demonstrated benefit to TRC.

## 3. Climate Risk Management Framework

The development of this strategy was guided by Phase 1 of the Climate Risk Management Framework for Queensland Local Government (Figure 1). The framework was developed by the LGAQ on behalf of the Queensland Government, as part of its Queensland Climate Resilient Councils (QCRC) program<sup>4</sup>. It aims to support participating local governments to identify logical, defensible and effective actions that can reduce the potential impact of climate risk.

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<sup>&</sup>lt;sup>4</sup> https://gcrc.lgaq.asn.au/climate-risk-management-framework1.html



Figure 1 - Climate Risk Management Framework for Queensland Local Government

TRC is one of three local government authorities to pilot the first phase of the framework, and the support of the Tablelands community, business chambers and TRC'S NAMAC was instrumental in securing funding from the State for this pilot.

It is anticipated that TRC will continue to implement Phase 2 of the LGAQ framework, which involves a detailed climate risk assessment. This strategy has identified some of the risks that will need to be quantified during Phase 2, especially around financial impacts to TRC's major cost centres.

# 4. This Strategy

This Phase 1 Climate Risk Management Strategy provides an initial 'Roadmap' for TRC to begin the process of managing the current and future risks that climate change presents to council services, infrastructure and operations. In addition, this strategy recognises the need to reduce greenhouse gas emissions and support the transition to a low carbon future. Over six months, TRC staff, Councillors and Tablelands community members participated in a process to identify climate risks, and actions to address those risks. This document identifies the broad organisational-level climate risks for TRC and the region, along with the overarching strategic direction and key actions that TRC will take to address these risks within their operations. It also highlights some of the risks for the LGA, and the various roles TRC can take to manage these (e.g. educator, advocate, facilitator, provider, partner, funder, regulator).

### 5. Identifying Climate Risks

Climate risks are challenging because we can't predict exactly when or where climate hazards will occur. This uncertainty is why addressing climate risks requires new approaches to risk identification and response. As with any other risk, uncertainty should not be an excuse to delay planning or action.

Climate risk incorporates both physical (acute and chronic) and transition risks.

**Acute physical risks** are adverse climate conditions that happen spontaneously and cause negative economic, social or environmental impacts. Climate risks are often understood as acute events (either as natural disasters like cyclones or biological disasters like disease outbreaks), triggering specific preparation, response and recovery actions by local government and State disaster managers.

Chronic physical risks arise from slow-onset climate changes such as steadily increasing temperatures and sea levels. Drought is a commonly understood chronic climate risk. Other impacts, such as increased incidence of asthma or the southward spread of mosquito-borne diseases, aren't always obvious but are a result of the many ways in which weather and climate interact with human health, agricultural productivity, the tourism sector, and the built environment. These incremental changes over longer timeframes can have major impacts.

**Transition risks** stem from human action or inaction to address climate risks and can create flow-on effects that reverberate through sectors, sometimes generating further risks or new opportunities, with the potential for positive synergies or unwelcome outcomes.

#### Elements of risk

The Queensland Emergency Risk Management Framework (QERMF) has been used to carry out a preliminary identification of climate-related risks to TRC services, operations and assets, as well as risks to the broader community and region. A central part of the framework is an assessment of the elements of hazard, exposure and vulnerability to identify risks and potential mitigating or adaptive actions.

#### <u>Hazards</u>

The Queensland Future Climate Dashboard<sup>5</sup> was used to understand the potential hazards that we will be exposed to under different emissions scenarios. Importantly, we expect that our climate will change even if there is concerted international action to reduce greenhouse gas emissions due to emissions already accumulated in the atmosphere.

Scientific consensus on the projected hazards for our region include:

- Substantial increases in average, maximum and minimum air temperatures;
- Substantial increases in the temperature, frequency and duration of hot days;
- Increases in evapotranspiration in all seasons;
- Increased intensity of extreme daily rainfall events;
- Increased risk for bushfires for parts of the TRC region, particularly during drought years;
- Less frequent but more intense tropical cyclones.

#### Exposure

Exposure is an element of risk that we have some control over. People and assets are exposed to hazards by their physical location and/or relation to protective infrastructure. Examples identified by TRC staff during the development of this strategy range from sporting and cultural events held

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<sup>&</sup>lt;sup>5</sup> https://longpaddock.qld.gov.au/qld-future-climate/dashboard/

during the hotter seasons, outdoor workers exposed to heat and above ground water infrastructure exposed to bushfires and floods.

#### **Vulnerability**

Vulnerability is a characteristic of the people or assets that are exposed to a hazard. It is a measure of how well people or structures can resist being impacted by the hazard or recover if they are impacted. Examples identified during the development of this climate risk strategy include elderly people vulnerable to heat waves, unsealed roads vulnerable to intense rainfall events and wooden structures vulnerable to bushfires.

TRC staff have been introduced to the framework during the development of this climate risk strategy and applied it to their field of operations to undertake a preliminary identification of risks and adaptive actions. Councillors and executive level staff have been engaged during two workshops and heads of department interviewed individually to understand operational level risks and actions. Identified risks were organised into themes and the major themes form the basis of the organisational level risks presented in this strategy.

### 5.1. Organisational Risks

While climate events such as cyclones, severe weather, floods and fire are already considered to some extent through TRC's risk assessment processes, climate change will affect the level of risk experienced. Although it's not possible to predict the exact timing and nature of climate change hazards, it's highly likely that the frequency, intensity and/or duration of some severe climate events will increase. Chronic changes to climate, such as increasing temperatures, are also likely to be experienced. Incorporating new risks and higher levels of existing risk systematically across TRC's organisational areas will provide the foundation for minimising impacts to the organisation and the region.

Risks to TRC from climate change include corporate, financial, social, reputational and operational risks to our staff and contractors.

The major organisational-level climate risks that are likely to affect TRC's business model are:

- Increased demand on TRC services; and,
- Increased cost of service provision.

These risks were identified in most areas of TRC's operations and impact our major cost centres. A key issue is that constraints on resources already impact TRC's ability to deliver current levels of service and maintain infrastructure into the future. These pressures are likely to be amplified under a changing climate and with a growing population.

Staff have identified a need to address both knowledge gaps and organisational structures and processes. Also noted is a lack of a coordinated, integrated approach to climate risk management across the organisation.

In addition to risks, there may be opportunities for TRC and the region from climate change and from having a clear, strategic approach to minimising climate risk. Some examples include:

- Security of services long-term, such as water access and supply.
- Longer life of assets due to hazard-informed forward planning.
- Appeal to new residents due to sustainable management of water resources.
- Enviably cooler climate compared to other areas.

• Supply of renewable energy, local offsets and healthy natural assets to support economic productivity and emerging markets.

This could provide benefits to TRC such as maintaining the rates base over time and meeting legislative obligations, such as those in the Planning Act or Workplace Health and Safety Act.

#### 5.1.1. Financial Impacts

The potential financial risks of climate change for TRC are large, wide ranging and go to the core of our business model. The cost of providing services to the Tablelands community is predicted to increase for seven of our eight departments. Demand for our services is likely to increase in five departments, including in the water and waste department, which makes up a large part of our cost base.

TRC has a dispersed and ageing network of assets and faces constraints in the level of funding needed to maintain assets and current levels of service. Reductions in external funding will also create further financial strain. TRC recognises that the community may have less capacity to support an increase in rates in comparison to other local government areas in Queensland and Australia.

TRC has a duty to the community to identify the financial impacts of climate change and how it may impact on services, assets and/or rates. Staff must be supported to identify actions at an operational level that will reduce the level of climate-related risk and contribute towards TRC's long-term financial health.

#### 5.1.2. Development and Planning

The TRC planning scheme contains provisions that address some climate risks such as bushfire and flooding. Planning scheme provisions place limits on the use and development of private property that can be seen as an impediment to economic growth and development by a range of stakeholders. However, these same provisions protect TRC from future risks, disaster management pressures and liabilities and ensures the costs of inappropriate development are not passed onto its businesses and residents. For example, preventing urban development in flood hazard areas reduces the exposure of TRC's road and drainage assets to flood impacts.

Development that does not adhere to planning provisions can create long-term negative impacts that outweigh the immediate economic benefits. It is essential that all stakeholders involved in the proposal and approval of development schemes understand the intent and purpose of planning scheme provisions to increase the level of support for the scheme. Education and advocacy are important activities for TRC to maintain the effectiveness of its planning scheme, along with regular reviews and amendments. Future reviews should incorporate likely changes to climate-related hazards.

Building design can reduce exposure to climate hazards, especially heat. Although design standards are set by state government, TRC can demonstrate leadership. We are one of the first three Queensland local government authorities to implement the Climate Risk Management Framework and are a member of the Rivers to Reef Climate Resilient Alliance along with 3 other far north Queensland councils. Working with other councils makes our voice stronger and enables advocacy for state-level improvements in building design standards to help reduce the exposure of our community and businesses to future climate-related risks.

#### 5.1.3. Disaster Response

The TRC Local Disaster Management Plan (LDMP) guides disaster management, prevention, preparation and response. The plan is developed and implemented by the Local Disaster Management

Group (LDMG), which includes TRC staff and representatives from essential service organisations such as policing, health, emergency services, telecommunications and water.

An increase in the frequency or severity of disasters, such as cyclones or fire, is likely to result in additional budget and resource pressures on TRC. More importantly, the burden on staff involved in disaster management will also increase.

The LDMG has recently commenced applying the QERMF to identify and assess disaster risks in the region. Applying the QERMF to the LDMP will be an important capacity building exercise for TRC and, with appropriate resourcing and staffing, will help the organisation move beyond climate-related disaster management to identify chronic climate-related risks and adaptive actions to reduce exposure and vulnerability.

#### 5.1.4. Water Supply

Water supply schemes in the Tablelands region are at risk of being impacted by heat, longer dry periods and more variable rainfall. Hotter days and increasing periods of dry weather will increase the demand for water and the likelihood of water restrictions. Water restrictions create multiple financial impacts for TRC, reducing economic activity within the region, as well as reducing TRC income from water supply charges.

Management of water supply infrastructure is detailed in TRC's Water Supply Strategy, which describes levels of service for reliability and quality, as well as capital investment requirements. It is important that estimates of scheme reliability incorporate likely changes to future rainfall patterns and water availability.

Allocation of water in the region is governed by the Barron and Wet Tropics Water Plans that are developed by the Queensland government and are currently being reviewed. The water resource models that underpin Queensland Water Plans are periodically updated to include the latest climate projections.

#### 5.2. Community Aspirations and Climate Risks

TRC seeks to demonstrate leadership within the community and will help to raise awareness of the multi-faceted risks that climate change poses to the region's diverse community.

More than 20 stakeholders provided written support for TRC's grant application to the LGAQ to pilot the first phase of the Climate Risk Management Framework. This strong demonstration of community support was instrumental in the success of the grant application and TRC is committed to involving community stakeholders in co-designing a practical response to climate risk.

Throughout this phase, community feedback was sought in a range of ways, including a public survey that generated over 250 responses, engagement with a community climate focus group established through this project and through TRC's NAMAC. In addition to these targeted approaches, outcomes of community consultation by TRC to develop its new community plan, Tablelands 2030+, has also been referenced. This process identified climate and the natural environment as central aspects of community identity and the region's liveability, with many respondents identifying innovative solutions and approaches to addressing the risks of climate change.

There is a high level of involvement and engagement from the community, indicative of the desire to see action and leadership to minimise the impact of climate risks to the region. Sectors represented through consultation and engagement activities included agriculture, conservation, industry, social

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services, catchment / landcare, business and tourism. People from a wide range of demographics and locations participated.

Many stakeholders involved have considerable knowledge and in-depth understanding of climate risks for various sectors across the TRC region and provided valuable contributions to identifying the broader climate risks to these sectors.

There was a high level of concern about the impacts of climate change on individuals and the wider Tablelands community, as well as the environment and economy of the region. There was strong support for action on climate change, including for TRC to take a lead role in managing local climate change risks and reducing its greenhouse gas emissions.

Feedback from the community recognised that TRC needs to work within its scope and areas of responsibility, while still acknowledging the broader, significant impacts of climate change to the region. The potential impacts to the region's economy, natural assets and industries have flow-on effects to the region's reputation, tourism potential and liveability, which could all impact on TRC's rate base, staff recruitment and service delivery. Outside TRC's direct areas of responsibility, there may be opportunities for TRC to provide influence, such as advocacy or partnering with others to support important initiatives.

Our community has identified the risks that acute and chronic climate change presents to the biodiversity, ecosystem services (e.g., clean water supply and carbon sequestration, river bank stabilisation, etc) and natural assets of the region. These features also support the largely nature-based tourism industry, generating valuable income for the regional economy. There are also significant risks to the region beyond damage to natural assets, which could impact the liveability of the region and community and social well-being. Climate change needs to be understood as more than an "environmental" problem.

There was also recognition of the potential opportunities that a changing climate and transition to a low-carbon economy could bring to the region and the need to actively identify and pursue those opportunities.

### 6. Regional Risks

During development of this climate risk strategy, stakeholders have identified many risks that impact the Tablelands community as a whole and actions that need to be taken by different stakeholders. TRC will support the community and partner organisations to address these risks in its leadership and stewardship role, but also because impacts on the regional community will impact TRC's core business.

Community health will be affected, especially by heatwaves and hot nights. Direct impacts, such as effects on mental and physical health, as well as indirect impacts, such as an increased likelihood of mosquito borne diseases, will place increasing pressure on already stretched medical infrastructure.

For agricultural industries, increased evaporation rates and more frequent dry conditions will increase the demand for water and decrease availability. A reduction in cooler days and nights may see proliferation of insect populations that predate crops, noting in 2021 two new agricultural insect pests (mango shoot looper and fall armyworm moth) were detected in far north Queensland and Australia for the first time. It may no longer be possible to grow certain crops, potentially stranding significant assets.

Increased heat and reduced water availability will increase fire risks both to humans and ecosystems.

Communities across the region may have very different vulnerability and resilience to the hazards of climate change. TRC will need to engage widely across the region, ensuring that it reaches vulnerable people and communities to fully understand the breadth of community-level climate change risks.

## 7. Tablelands Regional Council Capability

LGAQ, through Climate Planning, has conducted an internal governance assessment of TRC practices for climate risk management as part of the Queensland Government's Climate Resilient Councils program.

A significant proportion of participants in an internal climate governance survey indicated that they have the knowledge and capacity to address climate risks in their work. Of 35 staff members interviewed during the assessment, nearly half indicated that they understood climate change risks enough to be able to incorporate it into their work. Further staff engagement would provide a more comprehensive overview of current knowledge, capacity and gaps across all work areas. TRC must ensure all staff understand that climate change presents broad risks to the entire organisation and its business model.

While the governance assessment identified three corporate documents (Budget and Operational Plan, Local Disaster Management Plan, Planning Scheme) that mentioned climate change, those references were often brief and lacked detail. The Budget & Operational Plan 2021-2022 includes a single mention of 'climate change' whilst the Local Disaster Management Plan 2020 contain both 'climate change' and 'adaptation' terms. The Planning Scheme 2019 includes six 'adaptation' words and one reference to 'climate change'.

Through the assessment, climate change was acknowledged as a financial issue by the finance department, however the specific financial impacts are not well understood across the organisation. There is a need for all staff to better understand the systemic financial risks throughout the organisation and that the capacity to deal with impacts in their own cost centres will be constrained by budgetary pressures elsewhere.

During interviews and workshops, staff demonstrated a good understanding of the risks of extreme weather events such as storms and floods. Most of the operational-level adaptive actions relate to these types of events. This is to be expected as acute events have happened within living memory and even if they become more intense in the future, the exposures and vulnerabilities that make them dangerous are the same. In contrast, the risks of chronic heat and drought are less well understood and present novel risks that may not have been encountered in the region before.

TRC's capacity is rated relatively highly compared to other councils of a similar size and demographic make-up due to the development of this climate risk strategy and involvement in regional climate initiatives (e.g. Rivers to Reef Climate Resilient Alliance through Far North Queensland Regional Organisation of Councils). Establishing governance structures and building the capacity of all staff to be able to identify climate risks is essential for addressing those risks. Embedding climate risk management across all areas of TRC builds ownership throughout the organisation and ensures a coordinated approach.

## 8. Appendix 1

Table 5 - Climate Resilient Alliance 1-2 year priorities

# CLIMATE RESILIENT ALLIANCE

# **OUR PRIORITIES 1-2 YEARS CLIMATE MITIGATION & TRANSITION** Support uptake of onsite solar PV Energy & emissions monitoring Unpack carbon & ecosystems market opportunities and roles for councils CLIMATE ADAPTATION & COMMUNITY OF PRACTICE Support councils' climate risk governance arrangements Build awareness of climate risks and inspire climate action Cooling our built environment Disaster management for natural assets

