



Whitsunday
Regional Council
Disaster Management

COMMUNITY RESILIENCE STRATEGY

2023-2025

Whitsunday Disaster Management Group

www.disaster.whitsundayrc.qld.gov.au

 Whitsunday Disaster & Emergency Information

LIFE THREATENING EMERGENCY (MOBILE)

112

WHITSUNDAY DISASTER COORDINATION CENTRE

1300 972 006

QUEENSLAND POLICE SERVICE

Crime Stoppers	1800 333 000
Police Link	131 444
Whitsunday Police Station	4948 8888
Whitsunday Water Police	4967 7222
Proserpine Police Station	4945 9666
Bowen Police Station	4761 3500
Collinsville Police Station	4785 5377

QUEENSLAND FIRE AND EMERGENCY SERVICES – URBAN

Airlie Beach Fire Station (Permanent / Auxiliary)	4946 6442
Proserpine Fire Station (Auxiliary)	4965 6621
Bowen Fire Station (Permanent / Auxiliary)	4786 1811
Collinsville Fire Station (Auxiliary)	4785 5083

RURAL FIRE SERVICE

Mackay District (former Whitsunday Shire area)	4965 6641
Townsville District (former Bowen Shire area)	4796 9082

QUEENSLAND STATE EMERGENCY SERVICES (SES)

Flood Storm Emergency	132 500
Mackay Area Office	4965 6651
(For SES groups located at Airlie Beach, Gloucester, Proserpine and Bowen)	

QUEENSLAND HEALTH SERVICES

13 HEALTH	13 43 25 84
Proserpine Hospital	4813 9400
Bowen Hospital	4786 8222
Collinsville Hospital	4785 4777

QUEENSLAND AMBULANCE SERVICE

Mackay Local Ambulance Service Network	4965 6601
(For stations located at Whitsunday, Proserpine, Bowen, Collinsville and Hamilton Island)	

MARITIME SAFETY QUEENSLAND

Airlie Beach (former Whitsunday Shire area)	4841 4500
Townsville (former Bowen Shire area)	4421 8100

VOLUNTEER MARINE RESCUE

VMR Whitsunday	4946 7207
VMR Bowen	4786 1950
VMR Burdekin (Molongle Creek)	4783 1014
Telstra	13 22 00
Ergon – Emergencies only	13 16 70
Ergon – Faults only	13 22 96
SunWater	13 15 89
Whitsunday Regional Council	4945 0200

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DOCUMENT DETAILS

Acknowledgement

The Whitsunday Regional Council thanks all contributors and stakeholders involved in the development of this document.

Disclaimer

Information contained in this document is based on available information at the time of writing. All figures and diagrams are indicative only and should be referred to as such. While the Whitsunday Regional Council has exercised reasonable care in preparing this document, it does not warrant or represent that it is accurate or complete. Council or its officers accept no responsibility for any loss occasioned to any person acting or refraining from acting in reliance upon any material contained in this document.

WHITSUNDAY LOCAL GOVERNMENT AREA MAP



ACKNOWLEDGEMENT OF COUNTRY

Council acknowledges the traditional owners and custodians of the lands in our region.

We pay respect to Elders past, present and emerging and acknowledge their ongoing relationship and connection to Country.

Their enduring presence on this land spans countless generations, and their resilience in the face of natural hazards is a testament to their profound knowledge of the landscape.

The traditional owners in this region possess a remarkable understanding of the complexities and patterns of the environment. Through their deep-rooted relationship with the land, they have developed an intimate knowledge of the hazards that shape our region, such as cyclones, flooding, and bushfires. Their wisdom, passed down through generations, offers invaluable insights into how to navigate and respond to these challenges.

We are committed to working together in a spirit of partnership, mutual respect, and shared responsibility. By combining our respective knowledge systems and experiences, we aim to enhance our community's resilience and preparedness in the face of disasters.

AUTHORITY TO PLAN

The Community Resilience Strategy has been prepared by the Whitsunday Local Disaster Management Group for the Whitsunday Regional Council in accordance with Section 57(1) of the Disaster Management Act 2003.

APPROVAL OF THE COMMUNITY RESILIENCE STRATEGY

The Community Resilience Strategy was endorsed by the Whitsunday Local Disaster Management Group. In accordance with the Disaster Management Act 2003 Section 80(1) (b), the Whitsunday Regional Council approved the Community Resilience Strategy.

OUR VISION FOR A RESILIENT WHITSUNDAY

WHITSUNDAY DISASTER RESILIENCE STRATEGY

OUR VISION

Enabling Whitsunday Communities to be resilient and adaptive to change.

OUR MISSION

To empower Whitsunday communities to prepare for, respond to, and recover from natural and man-made disasters.

OUR OBJECTIVES

Increase Social Capital to enable Disaster Resilience	Provide opportunities that increase social networks and connectedness between neighbours, communities, Council and the Whitsunday Disaster Management Group.
	Promote volunteerism in the region to facilitate increased connections between individuals, volunteer organisations and the Whitsunday Disaster Management Group.
Improve Risk Management and Understanding of our Risks	Build awareness amongst individuals, businesses and communities of risks faced in the Whitsunday region.
	Communicate our hazard risk profile to our communities and provide public access to up-to-date assessment information.
	Build relationships between communities and the Whitsunday Disaster Management Group.
	Create a common community agenda and co-develop a clear vision, goals and outcomes to enable disaster resilience.
Support Capabilities for Disaster Resilience	Exercise our collective disaster response and recovery arrangements regularly.
	Build upon community capabilities and strengths by providing training and resources to better enable communities to understand their risks and undertake disaster preparedness, response and recovery.
	Develop local community-based response plans to encourage community empowerment, self-reliance and foster connectedness.
	Seek new opportunities to partner with communities and stakeholders.

ABOUT THE STRATEGY

Aim

- Tell our resilience story.
- Build on what needs to be done to improve disaster resilience in the Whitsunday region.
- Deliver a clear Whitsunday Community Resilience Strategy.

Who should use the Strategy?

Disaster resilience is a shared responsibility and relies on a collective effort to make effective change. The Strategy is designed to be used by all levels of government and the not-for profit and private sectors to better support the community.

Why do we need a disaster resilience Strategy?

A disaster can be described as an event that overwhelms the resources of a community and causes significant harm to people, buildings, infrastructure, the environment and/or the economy. A significant and coordinated response is needed to assist communities to cope with and recover from the consequences of a disaster. Disasters caused by natural hazards are an inherent part of the Queensland landscape and are occurring more frequently and often concurrently (Intergovernmental Panel Climate Change 2022). All levels of government are investing significantly in projects to reduce the risks posed by natural hazards, however, there remain hazards that cannot be entirely managed or eliminated.

Strategic Objectives

Our strategic objectives set out our long-term goals to help us achieve our vision of a resilient Whitsunday. They are intentionally high level, to provide scope for new initiatives and ideas throughout the life of this strategy, and into the future.

Our strategic objectives are to:

- Increase Social Capital to enable Disaster Resilience;
- Improve Risk Management and Understanding of our Risks; and
- Support Capabilities for Disaster Resilience.

Social Capital

Social capital is broadly defined as the aggregate assets or resources that exist within individuals and communities. Social capital consists of three types: bonding, bridging and linking, with each contributing different outcomes for building community resilience. Bonding social capital refers to the tight bonds and connections between individuals and describes the strong connections between family and friends which enable the provision of social support during times of disaster. Bridging social capital refers to the connections between individuals that bridge social groups. This type of social capital provides opportunities and information to access resources that can alter the recovery. Bridging social capital refers to ties between individuals to organisations and institutions that may not otherwise be available through bonding capital. Linking social capital refers to a network connection that links individuals across a power or authority gradient through trust and respect. By developing programmes and strategies aimed at stimulating bonding, bridging and linking social capital, resilience at the community level can be improved.

OBJECTIVE 1 Increase social capital to enable disaster resilience	
1a	Provide opportunities that increase social networks and connectedness between neighbours, communities, Council and the Whitsunday Disaster Management Group.
1b	Promote volunteerism in the region to facilitate increased connections between individuals, volunteer organisations and the Whitsunday Disaster Management Group.
1c	Create a common community agenda and co-develop a clear vision, goals and outcomes to enable disaster resilience.

Improve Understanding of our Risks

A resilient community is one that understands its risks and has the capability to manage those risks. This strategy outlines our commitment to thoroughly identifying risks faced in the Whitsunday region and communicating these risks to our communities. We will ensure residents and visitors to the Whitsunday region have access to up-to-date information regarding our risks. We believe that understanding risks is essential to building resilience and knowing the steps we can all take to recover from disaster, however we know that providing information alone is not always enough to encourage behaviour change. This is why this strategy encompasses the themes of social capital and increased capacity to support this information exchange.

OBJECTIVE 2 Improve understanding of our risks	
2a	Build awareness amongst individuals, businesses and communities of risks faced in the Whitsunday region.
2b	Communicate our hazard risk profile to our communities and provide public access to up-to-date assessment information.
2c	Build relationships between communities and the Whitsunday Disaster Management Group.
2d	Exercise our collective disaster response and recovery arrangements regularly.

Support Capacity Building for Disaster Resilience

Capacity building refers to the process of developing and strengthening the skills, abilities and resources that enable communities to respond, adapt and recover from disaster events. Capacity building is an important focus of our strategy as community resilience relies on the ability of communities to take action in their family, workplace, school, faith-based group, community and other groups they belong to, that supports the community as a whole.

OBJECTIVE 3 Support capacity for disaster resilience	
3a	Build upon community capabilities and strengths by providing training and resources to better enable communities to understand their risks and undertake disaster preparedness, response and recovery.
3b	Develop local community-based response plans to encourage community empowerment, self-reliance and foster connectedness.
3c	Seek new opportunities to partner with communities and stakeholders.

PARTNERS & STAKEHOLDERS

- National Emergency Management Agency
- Whitsunday Disaster Management Group Members
- Local State and Federal Emergency Management Agencies
- WRC Staff
- Community Organisations
- Community Members

FUNDING BODY

Preparing Australian Communities Program

Supported by the National Emergency Management Agency, the Preparing Australian Communities Program – Local stream is providing support to locally identified and locally led projects that will improve the resilience of communities against natural hazards.

The 158 funded projects are improving the resilience of communities against bushfires, flood and tropical cyclones through the following activities:

- Planning - assessment of risk, vulnerability, resilience and disaster risk reduction activities, investment/business case, or technical feasibility
- Awareness and capacity - increasing disaster risk and resilience awareness and capacity building activities
- Infrastructure - delivery of built and/or natural infrastructure, including new or upgraded infrastructure.

Projects are aimed at reducing the risk to and improving the resilience of communities against bushfires, flood and tropical cyclones and increasing communities' ability to mitigate, avoid, withstand and recover from the increasing effects of natural hazards as a result of climate change, through activities targeting or delivering resilience in one or more of the following domains:

Social environment - increasing the community's social resilience to relevant natural hazards.

This may include projects that strengthen social networks or essential services that enable the community to continue functioning in the event of a disaster, or support health, wellbeing and social recovery following an event.

Economic environment - improving the ability of the local economy to withstand and recover from relevant natural hazards.

This may include projects that enable businesses to continue operating in the event of a disaster or reduce their vulnerability to the economic shocks associated with particular kinds of hazards.

Built environment - increasing the disaster resilience of and/or reducing the disaster risk to infrastructure assets such as transport, energy and telecommunications, utilities, housing, cultural and commercial precincts, and other assets.

This might involve, for example, projects designed to reduce the risk of local infrastructure sustaining damage in the event of a relevant hazard or enable it to continue functioning (or quickly resume functioning) following an event.

Natural environment - increasing the disaster resilience of and/or reducing the disaster risk to natural assets such as wetlands, rivers, land, forests, oceans, other complex natural ecosystems, agriculture, and water sources.

GETTING ACTIONABLE ABOUT RESILIENCE

The Whitsunday Regional Council will take a coordinating role for community resilience in the Whitsunday region, working with our communities and key stakeholders to contribute to the ongoing evolution of this strategy and our collective objectives.

The Whitsunday Regional Council will establish a community resilience collective as a mechanism to engage communities, community leaders, community organisations, government and other stakeholders in the role out of this strategy and its ongoing development. Participation and involvement of the community is integral to building trust and buy-in for community resilience initiatives. Adopting an approach to community resilience that empowers communities to determine their own goals and outcomes is a considerable shift from the traditional "top-down" approach of the disaster management sector. However, we believe that an empowered community is more resilient and adaptive in the face of change.

Over the life of this document, we will work with communities to develop new approaches to building community resilience, led by their ideas and goals.

Leadership

We acknowledge that new approaches are needed to solve complex problems. No one person or organisation can achieve this on their own; leaders who can facilitate the conditions to enable others to make progress toward social change are needed.

For us all to be resilient requires system leadership:

- Get involved in system change efforts.
- Be outcomes focused.
- Let go of our own agenda; and work toward the collective agenda.
- Work with other system leaders.

Empowering Community

One model for community-led action that has been piloted in the Whitsundays following Tropical Cyclone Debbie the development of community response plans. Community response plans are both an outcome and a process. They cover large geographical areas, such as residential suburbs, and bring together stakeholders and community leaders to define roles and responsibilities ahead of an emergency.

The development of the community response plan in the Gloucester community empowered them to determine how they could respond and recover from a disaster. The process enabled community members to develop new skills, build on their existing strengths, and determine their own plan for before, during and after a disaster. It also provided many opportunities for individuals to connect and get to know one another.

Adopting an approach to community resilience that empowers communities to determine their own goals and outcomes is a considerable shift from the traditional “top-down” approach of the disaster management sector. However, an empowered community is more resilient and adaptive in the face of change, and community-based planning provides one model that can support empowered and resilient communities.

Community Engagement

Adopting an approach to community resilience that empowers communities to determine their own goals and outcomes is a considerable shift from the traditional “top-down” approach of the disaster management sector. However, we know that an empowered community is more resilient and adaptive in the face of change. Empowering communities to make decisions by supporting them, and increasing their capability to do so, can offer a pathway to address vulnerability.

We will engage according to the National Strategy for Disaster Resilience: Community Engagement Framework.

While not everyone in a resilient community will be personally resilient, and resilient individuals do not necessarily constitute a resilient community, we do know from the research that resilience at an individual level can improve resilience at a community level. Personal resilience and being able to connect with strong social networks enable individuals to recover faster. While these two concepts are not perfectly linked, building personal resilience into this strategy will support our objectives.

VALUES GUIDING OUR RESILIENCE

Our Disaster resilience pathways are guided by several core values that underpin the approach and decision-making process. These values help shape the strategies, actions, and priorities in building resilience. Here are some key values that guide disaster resilience pathways:

Public Safety

The value of safety is paramount in disaster resilience. The protection and preservation of human life, property, and well-being are central considerations. Resilience pathways prioritise measures that reduce the risks posed by hazards, ensuring the safety and security of individuals and communities.

Sustainability

Resilience pathways emphasise sustainability, aiming to balance present and future needs. They consider the long-term impacts of actions on social, economic, and environmental aspects. Sustainable practices and strategies are pursued to avoid exacerbating vulnerabilities, reduce dependency on finite resources, and promote the well-being of current and future generations.

Equity and Social Justice

The values of equity and social justice are crucial in resilience pathways. These pathways aim to ensure that resilience-building efforts address existing inequalities and vulnerabilities, and that the benefits are accessible to all members of society. They prioritise inclusivity, engagement, and empowerment of marginalised communities, promoting fairness and equal opportunities in resilience planning and implementation.

Collaboration and Partnership

Resilience pathways value collaboration and partnerships among various stakeholders, recognising that no single entity can address resilience challenges alone. They foster cooperation among governments, communities, private sector organisations, academia, and civil society to pool resources, share knowledge, and coordinate efforts in building resilience.

Adaptability and Flexibility

Resilience pathways embrace adaptability and flexibility, acknowledging that conditions and risks evolve over time. They emphasise the ability to learn, adapt, and respond to changing circumstances and emerging challenges. Flexibility allows for adjustments to strategies and actions based on new information, lessons learned, and changing priorities.

Knowledge and Evidence-Based Decision Making

Resilience pathways prioritise knowledge and evidence-based decision making. They rely on scientific research, data, and local knowledge to understand risks, assess vulnerabilities, and identify effective resilience measures. Ongoing monitoring, evaluation, and learning contribute to evidence-based decision making and continuous improvement of resilience strategies.

Preparedness and Proactivity

Resilience pathways emphasise preparedness and proactivity. They recognise the importance of pre-disaster planning, early warning systems, and capacity-building to enhance response capabilities. Proactive measures such as risk reduction, mitigation, and adaptation are prioritised to minimise the impacts of disasters and enable a swift recovery.

Transparency and Accountability

Resilience pathways value transparency and accountability in governance and decision making. They promote open and inclusive processes, ensuring that information is accessible to all stakeholders. Accountability mechanisms are in place to track progress, evaluate outcomes, and ensure responsible and ethical practices in resilience efforts.

These values collectively guide the ethical and moral principles of disaster resilience pathways, shaping actions that promote the well-being, safety, and sustainable development of communities in the face of hazards and disasters.

STRATEGIC ALIGNMENT

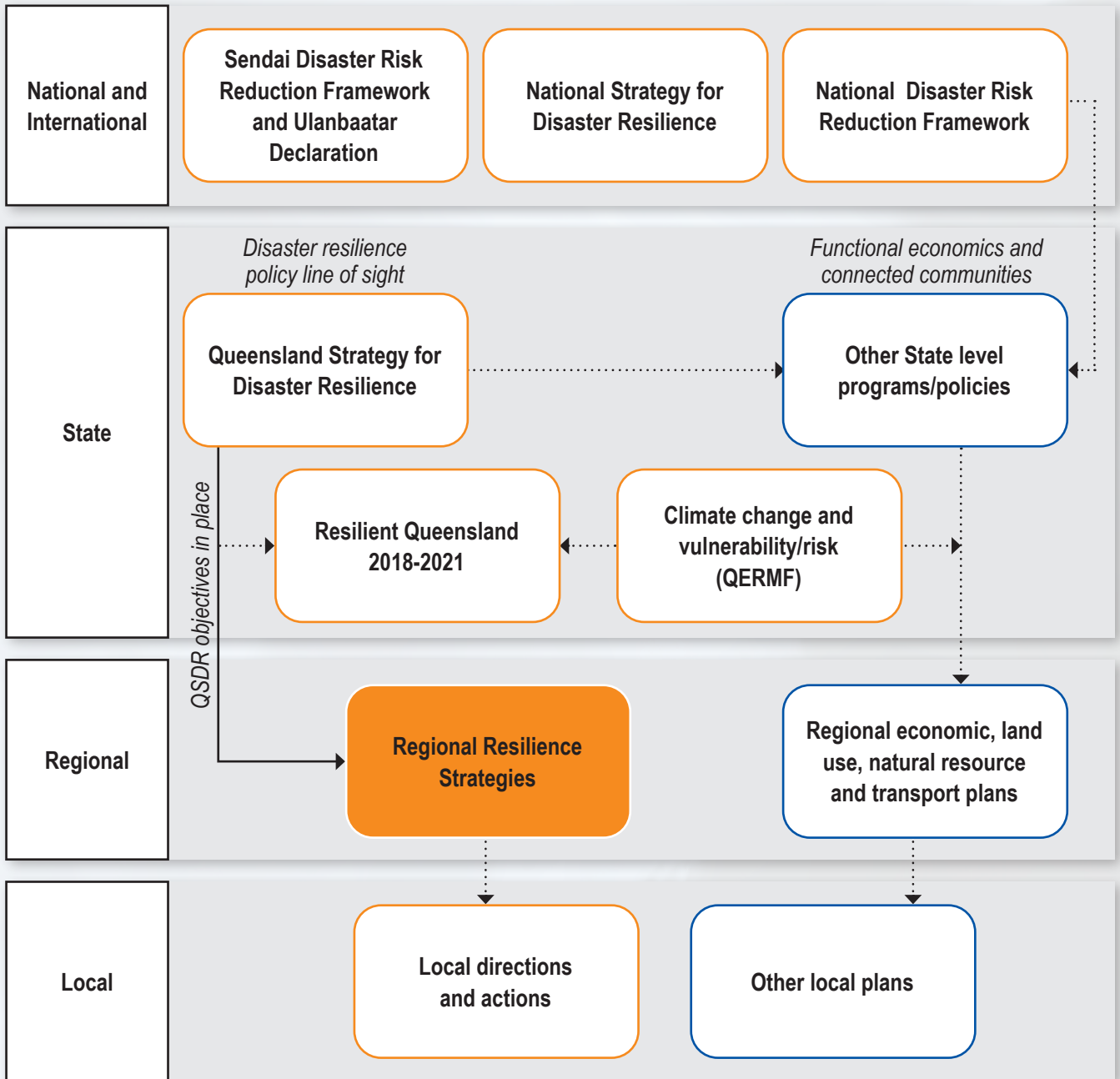
This Strategy was made possible due to funding provided by the Preparing Australian Communities – Local Stream Grant provided by the Australian Government.

Government at every level is committed to enhancing disaster resilience to better prepare our communities for the growing occurrence of disasters. Starting in 2021, regions in Queensland were included in a locally led and regionally coordinated action plan workshops aimed at strengthening disaster resilience, resulting in Greater Whitsunday Resilience Strategy and the Queensland Reconstruction Authority Resilience Action List. This Community Resilience Strategy is a derivative of the Greater Whitsunday Resilience Strategy and the Queensland Reconstruction Authority Resilience Action List, as well as aligning with many internal and external plans and strategies aimed at improving resilience in the Whitsundays region.

Furthermore, this Strategy is in accordance with the Queensland Disaster Management Arrangements (QDMA) and builds upon the foundation established by the Queensland Emergency Risk Management Framework (QERMF) conducted in this region in 2022-2023.

Figure.1

The Whitsunday Regional Council Disaster Management Community Resilience Strategy Policy line of sight to local, regional, state, national and international levels (great Whitsunday Regional Resilience Strategy).



Alignment Documents

Internal

- Queensland Emergency Risk Management Framework Risk Assessments - 2023
- Corporate Vision / Goals - WRC Corporate Plan 2021-2026
- Coastal Hazard Adaptation Strategy (CHAS)
- Operational Plan - 2022-2023
- Water Quality Management Plan
- Biosecurity Plan
- Regional Master Plans
- Area Specific Bushfire Plans
- Community Plan 2022-2032
- Regional Economic Strategy - 2022-2025
- Reef Guardian Council Action Plan 2020-2021
- Coastal Management Plans
- Queensland Reconstruction Authority - Resilience Action List
- Reef Catchments
 - Natural Resources Management Plan 2014-2024
 - Traditional Owners Reference Group
- Mackay, Isaac and Whitsundays Strategic Plan 2017-2027
- National Strategy for Disaster Resilience 2011
- Mackay, Isaac, Whitsundays Regional Resilience Strategy

External

- Transport and Main Roads - Mackay, Isaac and Whitsundays Regional Transport Plan
- Queensland Strategy for Disaster Resilience 2022-2027
- Area Fire Management Group – Operation Cool Burn
- Healthy Rivers to Reef - Report Card 2021
- GW3
 - Regional Agribusiness Supply Chains
 - Growing Great Whitsunday Agribusiness - 'Planting the Seed'
 - Regional Water Strategy

OUR APPROACH

We seek to apply new thinking to solve complex problems:

- Our approach will be evidence-based.
- We will not reinforce inequalities in our approach.
- We focus on our community strengths and assets.
- We are proactive and encourage new connections.

Our strategy is developed by comprehending our requirements, which include horizon scanning, data analysis, risk assessment, and alignment. Additionally, we evaluate our current outputs and activities, conducting a gap analysis. This process is supported by actively engaging with key stakeholders and the community.

Under the “Doing Same” approach, we acknowledge the activities currently in place that effectively meet legislative and funding requirements. However, we are always striving to cultivate continuous improvement in our capability and capacity. Nonetheless, certain parts of the system may continue to function successfully even in the face of disruption.

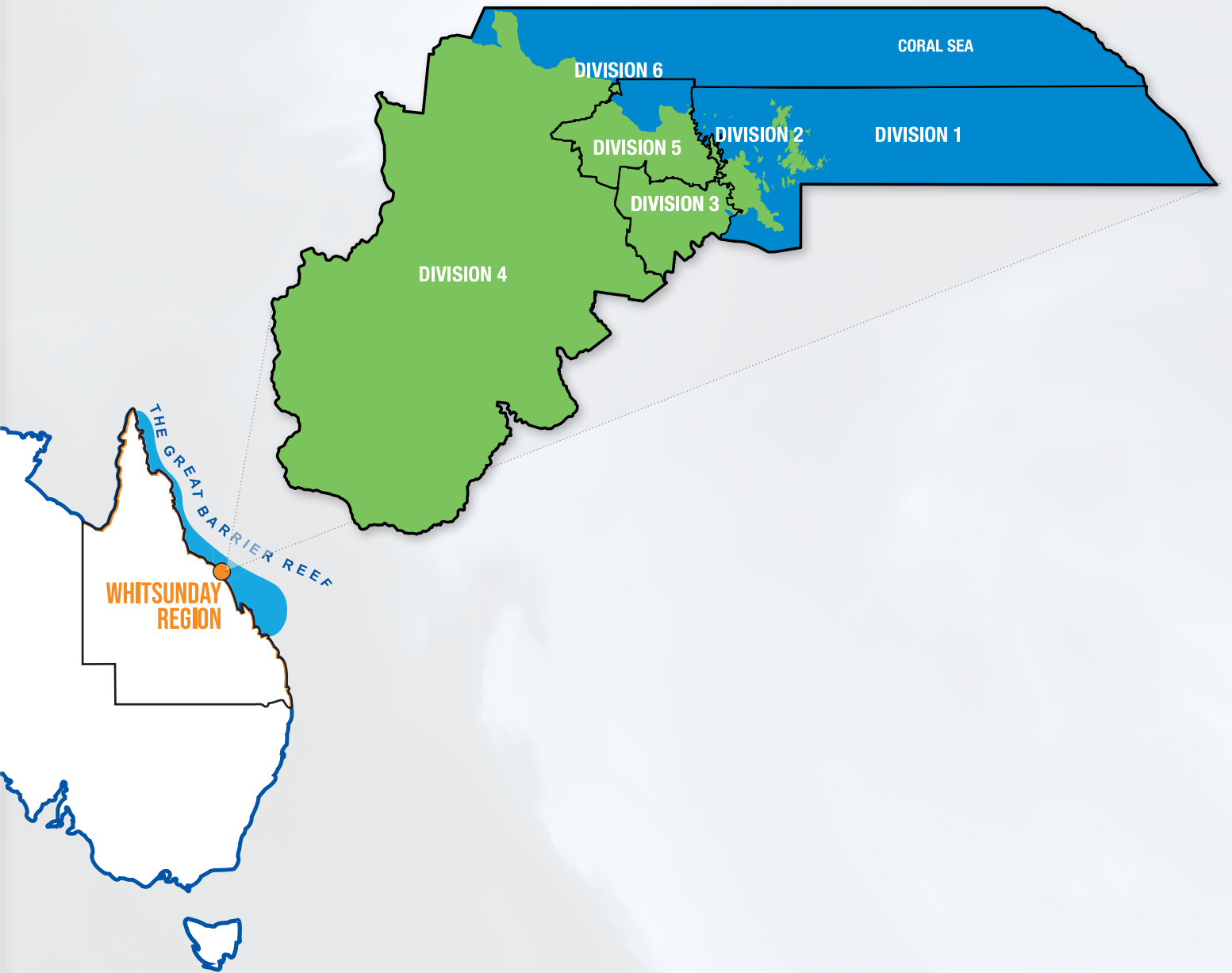
The “Doing Better” approach identifies areas where we can make adjustments and incremental changes to enhance efficiency to meet the desired outcomes. This involves utilising updated knowledge to facilitate improved decision-making and action.

For areas requiring significant transformation, we adopt the “Doing Different” approach. This involves overhauling structural elements and conducting further investigation. By addressing root causes and re-prioritising, we aim to upgrade the system to withstand the escalating frequency and magnitude of disruptions. This approach necessitates a meaningful pivot to achieve our goals and prioritise valuable elements.

Our strategy has been formulated through regional engagement and collaboration with local governments and stakeholders. It has been calibrated by drawing upon existing resilience efforts across the region, including studies, reports, plans, and strategies. Furthermore, strategic observations derived from the initial assessment of exposure and vulnerability in the region have been considered. This comprehensive approach enables us to incorporate both locally identified community needs, and strategic vulnerabilities based on risk-informed information. By considering these factors together, we can strengthen resilience initiatives throughout the region.

Overall, our strategy encompasses three options or opportunities. Firstly, “Doing Same” acknowledges parts of the system that can function successfully despite disruptions, while recognising the need to avoid reinforcing existing vulnerabilities. Secondly, “Doing Better” involves making incremental changes and adjustments to improve decision-making and actions based on updated knowledge. Lastly, “Doing Different” focuses on addressing root causes and implementing structural changes to ensure the system can withstand increasing disruption frequency and magnitude, ultimately delivering on our valued goals.

OUR REGION



Within the Whitsunday region, five groups of traditional owners occupy the country, within, but not limited to the following areas:

- Ngaro Country around the Whitsunday Islands and the mainland coastlines
- Gia Country around Proserpine and Gloucester surrounds (north to Bowen, south to O'Connell River and east to the Clarke Connor Ranges)
- Juru Country around Bowen and Gumlu north to the Burdekin River
- Jangga Country around Mount Coolon and surrounds
- Birriah Country around Collinsville and surrounds

The Whitsunday region holds global renown, primarily driven by its thriving tourism industry. Airlie Beach serves as the vibrant hub for unforgettable experiences, including the exploration of the Great Barrier Reef, unique rainforests, and the enchanting 74 Whitsunday Islands. It has become a popular destination for backpackers seeking both relaxation and adventure on the reef before embarking on farm work to support the region's agricultural sector.

Agriculture, mining, and tourism are the three main pillars of the Whitsunday economy, with construction and transportation providing additional support. We have administrative centres in Bowen and Proserpine and two additional Customer Service Centres in Cannonvale and Collinsville, offering access to essential services and government activities. Initially founded on the sugarcane and cattle industries, which still thrive today, Proserpine also benefits from its location downstream of Lake Proserpine. The lake not only caters to water sports and freshwater fishing but also serves as a habitat for Barramundi. However, it's important to note that the Proserpine River, known as one of Queensland's most crocodile-infested waterways, presents a natural hazard of a different kind.

North of Proserpine lies the coastal community of Bowen, renowned for its robust agriculture, resource extraction, and tourism industries. Bowen has enjoyed international recognition for its enviable lifestyle, annual mango and tomato harvest, and its role as the focal point for the filming of Baz Luhrmann's movie 'Australia'.

Inland, we find Collinsville, the gateway to the Bowen and Galilee Basins, which boast abundant mineral reserves. These reserves have long been associated with significant mining activities, attracting economic opportunities and investment to the region.

OUR CLIMATE

The Whitsundays is located in Queensland, Australia, and has a tropical climate characterised by warm temperatures, high humidity, and distinct wet and dry seasons. Here are the key features of the climate in the Whitsundays:

Wet Season (Summer): The wet season in the Whitsundays typically occurs from December to March. During this period, the region experiences increased rainfall, high humidity, and occasional tropical storms or cyclones. The temperatures range from around 24°C (75°F) to 31°C (88°F) on average.

Dry Season (Winter): The dry season in the Whitsundays lasts from April to November. It is characterised by milder temperatures, lower humidity, and minimal rainfall. The temperatures during the winter months range from around 17°C (63°F) to 26°C (79°F) on average.

Average Temperatures: The Whitsundays generally enjoys warm temperatures throughout the year. Average temperatures range from 25°C (77°F) in winter to 30°C (86°F) in summer.

Rainfall: The region receives the majority of its rainfall during the wet season, with January and February being the wettest months. The annual average rainfall in the Whitsundays is around 1,100 to 1,500 millimetres (43 to 59 inches).

Sunshine: The Whitsundays is known for its abundant sunshine throughout the year, with an average of around 8 to 9 hours of sunshine per day.

OUR RISK PROFILE

A comprehensive risk assessment was conducted and finalised by the Whitsunday Regional Council in early 2023. This was conducted using the Queensland Emergency Risk Management Framework (Queensland Fire and Emergency Services, 2018). The following is a summary of hazards in Whitsunday region.

Hazard Type	Actual Risk Score	Overall Risk Rating	ARI (Average Recurrence Interval) - How often this is likely to happen - 1 in 5-year event.	AEP (Annual Exceedance Probability) (percentage chance of happening annually)
Severe Tropical Cyclone Category 3-5	9.92	H10	10	10%
Tropical Cyclone Category 1-2	9.68	H10	5	20%
Severe Weather Event	9.37	H9	2	50%
Chemical Biological or Radiological	9.30	H9	5	20%
Pandemic	7.90	M8	20	5%
Heatwave	7.62	M8	1	63%
Bushfire	7.61	M8	2	50%
Infections Plant or animal disease (biosecurity)	6.66	M7	1	63%
Earthquake 5.35 Magnitude	6.88	M8	700	0.14%
Earthquake 6.05 Magnitude	6.88	M8	5000	0.02%
Tsunami	6.88	M8	3000	0.06%

Likelihood (X)		Rare (1)					Unlikely (2)					Possible (3)					Likely (4)					Almost Certain (5)				
Vulnerability (Y)		V.Low (1)	Low (2)	Mod (3)	High (4)	Extr (5)	V.Low (1)	Low (2)	Mod (3)	High (4)	Extr (5)	V.Low (1)	Low (2)	Mod (3)	High (4)	Extr (5)	V.Low (1)	Low (2)	Mod (3)	High (4)	Extr (5)	V.Low (1)	Low (2)	Mod (3)	High (4)	Extr (5)
Consequence (Z)	INSIGNIFICANT (1)	VL1	VL2	VL3	L4	L5	VL2	VL3	L4	L5	L6	VL3	L4	L5	L6	M7	L4	L5	L6	M7	M8	L5	L6	M7	M8	H9
	MINOR (2)	VL2	VL3	L4	L5	L6	VL3	L4	L5	L6	M7	L4	L5	L6	M7	M8	L5	L6	M7	M8	H9	L6	M7	M8	H9	H10
	MODERATE (3)	VL3	L4	L5	L6	M7	L4	L5	L6	M7	M8	L5	L6	M7	M8	H9	L6	M7	M8	H9	H10	M7	M8	H9	H10	H11
	MAJOR (4)	L4	L5	L6	M7	M8	L5	L6	M7	M8	H9	L6	M7	M8	H9	H10	M7	M8	H9	H10	H11	M8	H9	H10	H11	E12
	CATASTROPHIC (5)	L5	L6	M7	M8	H9	L6	M7	M8	H9	H10	M7	M8	H9	H10	H11	M8	H9	H10	H11	E12	H9	H10	H11	E12	E13

Key: VL= Very low; L = Low; M = Medium; H = High; E = Extreme
Scale: 1 (lowest) to 13 (highest)

The Risk Matrix used in this process QERMF risk assessment process, inputs the likelihood (X), vulnerability (Y) and consequence (Z) levels (ranked 1-5 respectively) to output an overall severity rating (1-13). The severity rating is then broken down across five levels of risk which range from Very Low to Extreme. (Queensland Fire and Emergency Services, 2018.)

From the risk assessments, it is identified that:

A. Tropical Cyclones:

- Severe cyclones (Category 3-5) pose a high risk, occurring approximately once every 10 years with a 10% chance each year.
- Weaker cyclones (Category 1-2) still present a significant risk, happening approximately once every 5 years with a 20% chance each year.

B. Other Weather Events:

- Severe weather events, such as storms, carry a notable risk, occurring around once every 2 years with a 50% chance each year.
- Heatwaves are moderately risky, happening once every year with a 63% chance annually.

C. Environmental Hazards:

- Bushfires and chemical/biological incidents pose moderate risks, happening approximately once every 2 years with a 50% chance each year.
- Infectious diseases in plants or animals have a lower risk, occurring around once every year with a 63% chance annually.

D. Public Health Emergencies:

- Pandemics are a moderate risk, happening once every 20 years with a 5% chance each year.

E. Geological Hazards:

- Earthquakes with magnitudes of 5.35 and 6.05 have a moderate risk, occurring less frequently but still posing a notable threat.
- Tsunamis also have a moderate risk, happening less often but warranting preparedness.

These findings inform the strategies approach to enhance community resilience and establish effective measures for mitigation, preparedness, response, and recovery. By understanding the frequency and likelihood of each hazard, as well as the likely impacts, the Whitsunday region can prioritise resources and actions to ensure the safety and well-being of its residents.

OUR RESILIENCE STORY

Our resilience has been put to the test in recent years, yet through these experiences, we have discovered a number of strengths and assets that already exist at the individual, group and community level that help us adapt to change from disasters.

A healthy asset can be defined as a resource which enhances the ability of individuals, groups, communities, populations, social systems to maintain and sustain health and well-being and to help reduce health inequities. Effective disaster preparedness recognises the strengths and assets within a community to enable collaboration at multiple levels. It empowers collective action and participation in decision-making and planning processes. Acknowledging our strengths provides a baseline for assessing our resilience inputs, and a foundation for building on our assets.

Community Connectedness	A Strong and Diverse Economy	Prepared Communities
<p>We have a strong culture of volunteerism, sport and community participation. We are a community made up of smaller pocket communities, who are connected in day-to-day life. Our existing networks contribute to high levels of social capital. We have supported one another in the past during times of disaster and have a range of skills and experiences that we can rely upon to help one another.</p>	<p>Our diverse economy contributes to our resilience. We work in diverse industries, from cropping and grazing, mining, tourism, fishing and more. A diverse economy is less susceptible to the impacts of disaster, and we have learned lessons of business continuity from recent disasters.</p>	<p>Many people who live here are well prepared for disasters. This comes from our experience with a range of disasters during recent times. Households commonly have generators, solar energy, and water arrangements in place to seek shelter from cyclones with out-of-town family and friends. We know we are likely to experience disasters, particularly during storm season, and we know what to expect when we are impacted. We are familiar with the actions to take to prepare for disaster.</p>

Resilience Factors in the Whitsundays

As per the Australian Disaster Resilience Index – Resilience Factors in Whitsundays 2023 (Bushfire and Natural Hazards Cooperative Research Centre, 2023)

The Australian Disaster Resilience Index collects and analyses data that provides an overview of resilience factors. A report using this data was generated on 25/05/2023 providing the following information for our local government area.

Resilience Strengths

Social character

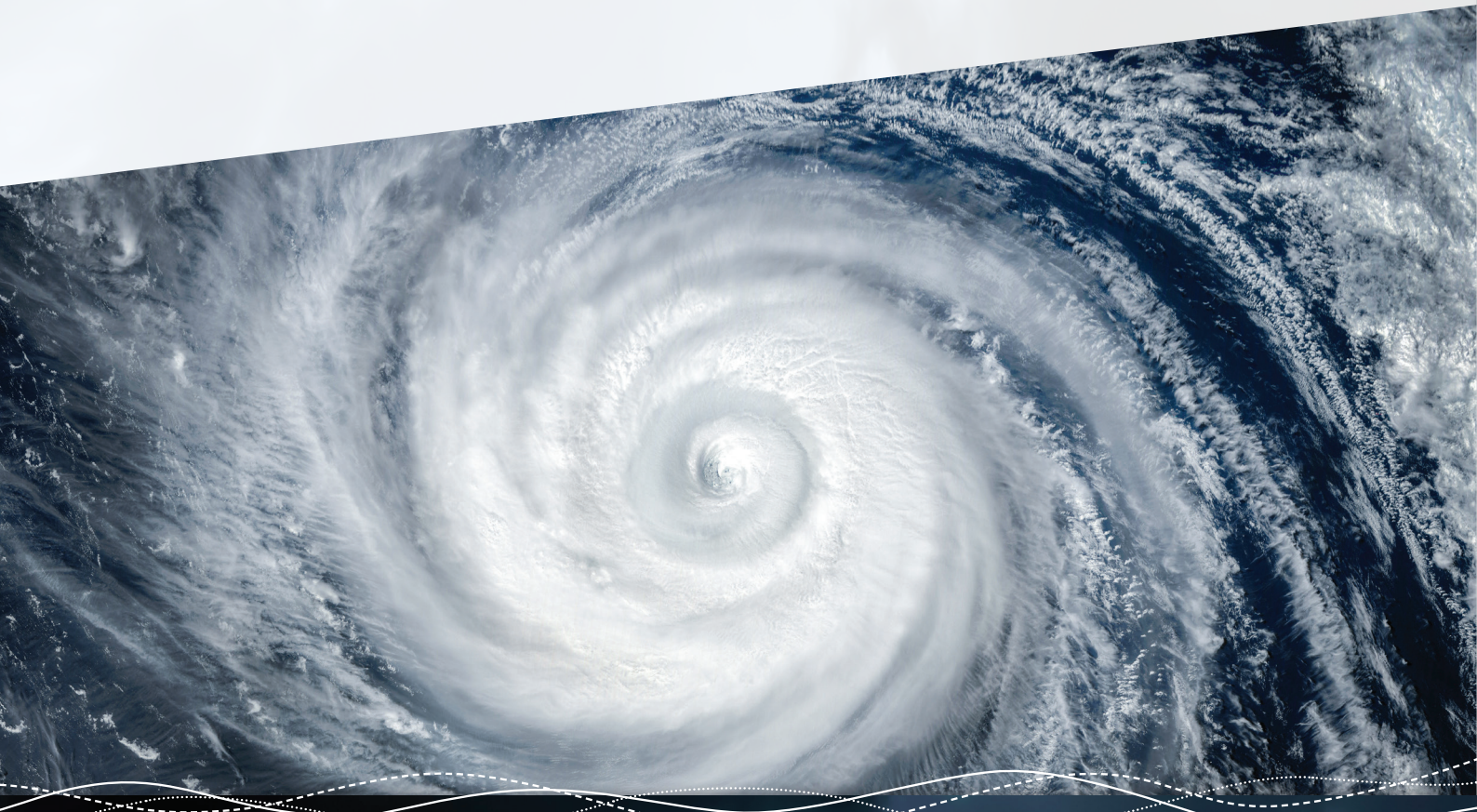
The social and demographic characteristics of the community. Factors such as household and family composition, age, sex, education, employment, disability, language, and length of residence have well-known influences on capacity to prepare for, respond to and recover from natural hazards.

Community capital

The cohesion and connectedness of the community. Social capital is a resource that facilitates collective action for mutual benefit. Sense of community fosters participation, community competency, pro-social behaviour and preparedness through working with others to solve shared local problems.

Social and community engagement

The capacity within communities to adaptively learn and transform in the face of complex change. Adaptive communities have support and resources to manage complex change and to renew for mutual benefit. Characteristics of adaptive communities include social engagement, trust, cooperation, learning and wellbeing.



Resilience Barriers

Economic capital the economic characteristics of the community. Economic capital can contribute to the reduction of losses from natural hazard events through improved mitigation and risk management, individual flexibility and adaptation, enhanced recovery, market continuity and business continuity.

Emergency services the presence and resourcing of emergency services. Emergency management is a core government service and is integral to natural hazard preparation, response and recovery. Emergency services undertake a range of activities to assist communities before, during and after natural hazards.

Planning and the built environment

The presence of legislation, plans, structures or codes to protect communities and their built environment. Land use planning articulates and regulates relationships between development and hazards. Planning reduces current and future risk and enhances the readiness and capacity of organisations to respond to events.

Information access

The potential for communities to engage with natural hazard information. Telecommunication and internet access is vital to information sharing before, during and after natural hazard events. Community engagement activities benefit communities through capacity building, social connectedness, self-reliance, training, awareness of risk and psycho-social preparation.

Governance and leadership

The capacity within organisations to adaptively learn, review and adjust policies and procedures, or to transform organisational practices. Adaptive institutions have conditions suited to the development of the skills, knowledge and culture for managing complex change. They have flexibility and can learn from experience, innovate and adjust.



Figure 2. Big Map Workshop – Identification of Resilience themes and potential activities, challenges and strengths by Council Staff.

OUR RESILIENCE REQUIREMENTS IN THE WHITSUNDAY REGION

As identified in the Greater Whitsunday Resilience Strategy 2022:

The Greater Whitsundays Region faces numerous geographic, demographic, and climatic events that can significantly impact its resilience. It is important to address these challenges to ensure the region's long-term sustainability and well-being (Queensland Reconstruction Authority & Greater Whitsunday Council of Mayors, 2022)

The following transformative forces have the potential to shape the region:

- **Transient populations and demographic shifts:** Understanding and adapting to the fluctuations in population due to tourism and seasonal workers.
- **Changing market forces and commodity prices:** Responding to market fluctuations and their impact on industries such as tourism, agriculture, and mining.
- **Emerging markets and increased incidence of boom/bust cycles:** Adapting to the emergence of new markets and managing economic cycles.
- **Ageing population:** Addressing the challenges associated with an ageing population, including healthcare and support services.
- **Retaining youth in the region:** Creating opportunities and favourable conditions for young people to stay and contribute to the region's growth.
- **Cost of living:** Managing the cost of living to ensure affordability for residents and support sustainable economic development.
- **Increased digital enterprise:** Harnessing the potential of digital technologies to drive economic growth and enhance connectivity.
- **Increasing multiculturalism:** Fostering an inclusive and diverse community that benefits from multiculturalism.

The region also faces long-term situations or circumstances that weaken systems and deepen vulnerability. These stresses include:

- **Periodic and long-term drought:** Implementing strategies to mitigate the impact of drought on water resources and agricultural activities.
- **Water quality:** Ensuring the availability of clean and safe water for residents, agriculture, and tourism.
- **Labour shortages:** Addressing workforce shortages, particularly in critical sectors, to maintain economic productivity.
- **Housing pressure:** Managing the demand for affordable housing to meet the needs of residents and workers.
- **Insurance:** Improving accessibility and affordability of insurance coverage, particularly in high-risk areas.
- **Weed and pest outbreaks:** Developing effective strategies to manage invasive species and protect natural ecosystems.
- **Loss of biodiversity:** Preserving and enhancing biodiversity through conservation efforts and sustainable land use practices.
- **Food security:** Ensuring a secure and reliable food supply for the community.
- **COVID-19 pandemic:** Building resilience to future health crises and adapting to the challenges posed by the pandemic.
- **Climate change:** Addressing the impacts of climate change, including sea-level rise, changing weather patterns, and increased frequency of extreme events.

Shocks

The region is vulnerable to sudden events with significant negative impacts. These shocks include:

- **Flooding:** Strengthening flood mitigation measures and emergency response capabilities.
- **Landslides:** Identifying and managing landslide-prone areas to minimise risks to infrastructure and communities.
- **Bushfires and grassfires:** Implementing strategies for prevention, preparedness, and effective firefighting.
- **Heatwaves:** Developing measures to mitigate the impact of heatwaves on human health and infrastructure.
- **Earthquakes:** Considering the potential risks associated with earthquakes and implementing appropriate measures.
- **Cyclones, severe storms, and wind:** Enhancing infrastructure resilience and preparedness for tropical cyclones and severe weather events.
- **Short, sharp, and sudden rainfall events:** Addressing the risks of intense rainfall and flash flooding.

Core Resilience Needs

To enhance resilience in the Whitsundays region, the following core needs have been identified:

- Continued investment in locally identified disaster risk management, mitigation, and adaptation priorities.
- Implementation of existing hazard mitigation and risk reduction plans and strategies.
- Person-centered emergency preparedness (P-CEP) to ensure the well-being of individuals and communities during emergencies.
- Enhanced and maintained flood warning infrastructure network for effective early warning systems.
- Improved information and knowledge sharing platforms and processes to facilitate informed decision-making.
- Strategic prioritisation of infrastructure improvements in supply chain networks to enhance resilience.
- Enhanced water security measures to address drought and ensure sustainable water management.
- Implementation of urban heat design interventions to mitigate the urban heat island effect.
- Support for disaster management resources, capability, and capacity, including allied networks.
- Natural resource management and landscape sustainability to preserve the region's natural assets.
- Improved insurance outcomes through collaborative efforts and risk reduction measures.
- Cross-sector collaboration to foster integrated and coordinated resilience efforts.
- Incorporation of climate-related considerations to inform strategic land use planning.
- Alignment of disaster resilience and climate transition initiatives to address long-term sustainability and climate change impacts.

A Changing Climate

To address the projected climate changes and their implications, the Whitsundays region will need to focus on adaptation and preparedness measures. Some of the key considerations for the future include:



A. **Higher annual average temperatures:** With rising temperatures, the region will need to implement strategies to cope with heat stress and mitigate the impacts on human health, agriculture, and ecosystems. This may involve improved urban planning, heat mitigation measures, and the development of heatwave management plans.



B. **More frequent hot days:** The increase in hot days, particularly during summer, will require the implementation of measures to protect vulnerable populations, ensure sufficient water supply, and manage energy demands. It will be crucial to enhance heatwave warning systems, promote public awareness, and provide cooling infrastructure in urban areas.



C. **More intense fire weather:** While the frequency of fire weather may not necessarily increase, the intensity of fire events is expected to rise. This highlights the importance of proactive bushfire management strategies, including fuel load reduction, improved firefighting capabilities, and community education on fire prevention and safety.



D. **Higher intensity rainfall events:** The region should anticipate more intense rainfall, which can lead to increased flood risks. Effective floodplain management, improved stormwater infrastructure, and land-use planning that considers flood-prone areas will be essential to minimise flood impacts on communities and infrastructure.



E. **More intense tropical cyclones:** While the frequency of tropical cyclones may not change significantly, their intensity is projected to increase. This emphasises the need for robust disaster preparedness plans, resilient infrastructure, and effective evacuation strategies to protect lives and minimise property damage during cyclone events.



F. **Sea level rise:** As sea levels continue to rise, the region must prioritise coastal management and adaptation strategies. This may involve shoreline protection measures, coastal erosion management, and careful planning for development in vulnerable coastal areas.



G. **Warmer and increasingly acidic seas:** The impact of warming and acidification of seas on marine ecosystems and coral reefs, including the Great Barrier Reef, will require sustained conservation efforts, monitoring programs, and proactive measures to protect and restore these fragile ecosystems.



H. **More frequent sea level extremities:** The region needs to prepare for extreme sea level events, such as storm surges and king tides, which can result in coastal inundation and erosion. Coastal infrastructure planning, resilient building design, and community education on coastal hazards will be vital in reducing the vulnerability of coastal areas.

To effectively address these climate challenges, collaboration among government agencies, local communities, businesses, and scientific institutions is crucial. Long-term planning, sustainable resource management, and the adoption of innovative solutions will play key roles in building climate resilience and ensuring the long-term sustainability of the Whitsundays Region.

A Changing Funding Landscape

The Australian Government-State Disaster Recovery Funding Arrangements 2018 (DRFA) have been established to aid in relieving the financial burden on states and territories and to support the urgent financial needs of communities affected by disasters.

Effective from 1 November 2018, the DRFA replaced the previous Natural Disaster Relief and Recovery Arrangements (NDRRA). One of the key reforms implemented in the DRFA was the introduction of a framework aimed at incentivising reconstruction efficiencies, thereby generating additional funds for resilience and mitigation purposes.

It is crucial to pursue these efficiencies under the DRFA as they will play a critical role in funding future resilience and mitigation efforts. This shift in focus from reconstruction and recovery to prevention and preparedness is essential in changing the funding landscape. Figure 8 illustrates the transition towards prioritising prevention and preparedness.

With the recent changes in funding arrangements, we now have a clear plan for sustained investment in resilience and mitigation activities, allowing us to make lasting changes for the future. These changes will enable the creation of funds dedicated to mitigation and resilience, in addition to various other funding programs such as the Local Government Grants and Subsidies Program and Get Ready Queensland, all of which contribute to strengthening resilience.

The Regional Resilience Strategies and Local Action Plans serve as comprehensive lists of locally identified actions, which can be prioritised against a wide range of potential funding opportunities, including DRFA efficiencies. This approach ensures that resilience-building efforts in Queensland communities can be carried out gradually over time.



The way that disaster management is funded is changing, with a shift to fund prevention and preparedness activities, with the view that this will reduce the amount of Reconstruction and Recovery funding required. Adapted from Greater Whitsundays Regional Resilience Strategy, 2022.

WHITSUNDAY PATHWAY TO RESILIENCE

This strategy has been produced through engagement and collaboration with the Whitsunday Regional Council and stakeholders within the area and calibrated by drawing upon a spectrum of existing resilience efforts across the region, including a wealth of existing studies, reports, plans and strategies. It also draws upon the strategic observations drawn from the initial assessment of exposure and vulnerability undertaken across the area.

1	We understand the potential disaster risks we face
2	We work together to better manage disaster risk
3	We seek new opportunities to reduce disaster risk
4	We continually improve how we prepare for, respond to and recover from disasters

	Doing Same (Maintain)	Doing Better (Modify)	Doing Different (Transform)
Resilient Region - society, industry, environment and infrastructure	<ul style="list-style-type: none"> Provide hazard and risk communications and education 1 	<ul style="list-style-type: none"> Evolve our resilience communications 4 	<ul style="list-style-type: none"> Collaborate with community and industry with disaster management communications 3
	<ul style="list-style-type: none"> Support the development and implementation of various economic development plans and strategies 2 	<ul style="list-style-type: none"> Collaborate with industry to build resilience 3 	<ul style="list-style-type: none"> Foster active participation of businesses and industries in the development of community resilience 2
	<ul style="list-style-type: none"> Support the development and implementation of various asset, infrastructure and transport plans and strategies 2 	<ul style="list-style-type: none"> Improved monitoring and advocacy for existing, new, or emerging infrastructure and transport issues 4 	<ul style="list-style-type: none"> Celebrate and empower our community's resilience 3
	<ul style="list-style-type: none"> Support the development and implementation of various environmental plans and initiatives 2 		<ul style="list-style-type: none"> Understand and support First Nations connection to country and disaster resilience 4
			<ul style="list-style-type: none"> Seek new approaches to build social capacity and resilience 3
			<ul style="list-style-type: none"> Harness and build local community resilience 3
Resilient Disaster Management	<ul style="list-style-type: none"> Collaborate to deliver and maintain disaster management arrangement 2 	<ul style="list-style-type: none"> Local disaster management arrangements are relevant, understood and refined 4 	<ul style="list-style-type: none"> Broaden and adapt local disaster management arrangements in collaboration with all stakeholders 2
	<ul style="list-style-type: none"> Participate in and contribute to continuous learning 4 	<ul style="list-style-type: none"> Improved local situational awareness and shared information infrastructure and systems 1 	<ul style="list-style-type: none"> Seek innovative ways to increase and broaden regional disaster management capability and capacity 3
	<ul style="list-style-type: none"> Support and maintain response and recovery capability and capacity 4 	<ul style="list-style-type: none"> Increase accessibility and sustainability of emergency shelters 4 	<ul style="list-style-type: none"> Pursue new ways to house displaced people and emergency services personnel 3
	<ul style="list-style-type: none"> Maintenance of situational awareness infrastructure and systems 1 	<ul style="list-style-type: none"> Improved local capacity to maintain systems and resources 4 	<ul style="list-style-type: none"> Empower and protect resilience of personnel 4
		<ul style="list-style-type: none"> Prepare for resilient recovery 4 	

MONITORING METRICS

This strategy has been applied to our developed 2 Year Community Resilience Action Plan which acts as the main tool in monitoring metrics. When Key Performance Indicators are met, it will be deemed to be an improvement to community resilience. Further monitoring metrics may be obtained through results from surveys, such as the annual readiness surveys in conjunction with the beginning of the severe weather season.

Implementation

The successful implementation of the Community Resilience Strategy will rely on:

- Suitable Disaster Management Team workforce and resourcing
- The implementation of the Resilience Steering Committee
- Support and collaboration of internal and external stakeholders

NOTES

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Whitsunday
Regional Council
Disaster Management

Whitsunday Disaster Management Group

www.disaster.whitsundayrc.qld.gov.au

 Whitsunday Disaster & Emergency Information