22nd International River*symposium*

Graeme Milligan / 21 October 2019

Queensland Government

Workshop at 20th River*symposium* 2017

QRA QUEENSLAND RECONSTRUCTION AUTHORITY
2017 Program
www.riversymposium.com
20th International RIVER SYMPOSIUM

Queensland Flood Resilience Program – Peer Review

Commentary from an international panel of river basin management experts at the 20th International River*symposium* and Environmental Flows Conference on 20 September 2017

Strengthening flood resilience in Queensland – background information

The Queensland Reconstruction Authority (QRA) is the lead agency responsible for disaster recovery, resilience and mitigation policy in Queensland and has responsibility for the coordination of whole of government flood risk management planning and implementation. Although the QRA has assumed this coordination role, effective flood risk management requires collaborative action through a shared responsibility approach by Commonwealth, state and local governments and the community.

The *Strategic Policy Framework for Riverine Flood Risk Management and Community Resilience* was released in 2017 as a framework for best practice riverine flood risk management in Queensland. Key objectives of this guiding policy for Queensland includes:

- a whole of catchment approach
- developing capability and capacity
- enhancing community flood awareness and readiness
- building community resilience
- resilient land use planning – a risk based approach
- aligning funding guidelines to flood mitigation and resilience priorities
- risk based infrastructure delivery
- maintaining consistent flood risk knowledge base and information
- promoting information sharing and consultation
- practicing integrated policy development and implementation
- enhancing flood warning capability and infrastructure
- developing a culture of continuous improvement
- promoting a coordinated multi-disciplinary approach.

The QRA is delivering projects that align with the *Queensland Strategy for Disaster Resilience* to achieve these goals by working collaboratively with stakeholders to deliver a catchment-scale approach to floodplain management.

International peer review

A 90 minute session was held at the 20th International River*symposium* and Environmental Flows Conference to focus on the flood resilience work being delivered by the QRA. An international panel of river basin management experts provided guidance and feedback, which focussed on achieving greater coordination for managing the impact of floods through a catchment approach.

This poster includes comments from the international panel as confirmation of the way forward for flood risk management in Queensland.

Creedence Brownwater Revival

by Professor Bill Dennison

As long as I remember the rains being coming down
Clouds of mystery pouring confusion on the ground
Good people throughout the ages trying to find the sun
And I wonder still I wonder who'll stop the rain

Went down to the river seeking shelter from the storm
Caught up in the flood I watched the mystery grow
Too much surface, not enough
And I wonder still I wonder, who'll stop the rain

Heard the climate's changing
How to build resilience
It's getting more urgent, we need to act now
Still the rain kept pouring, falling on my ears
And I wonder still I wonder, who'll stop the rain

Graeme and Rachel are in the most flood prone state
Paul promotes 'Ten Golden Rules'
Chris promotes Golden Governance
Lauren promotes golden flooding
And I promote this silly song
And I wonder still I wonder, who'll stop the rain

Chris Spray on governance and an integrated approach

Your governance picks up on the multi-discipline, multi-organisation and multi-benefits. I encourage you to keep thinking about integrated approaches. One of the things shown in our flood studies is that some of the mitigation measures undertaken in the upper catchment don't financially stack up for flooding. However, if you add water quality and biodiversity to the equation, then benefits to any economist looks wonderful. So don't just think you are only doing it for flooding.

Lauren on the benefits of flooding

Ecologically, flooding is a good and natural process and the ecosystems surrounding this river have adapted over millennia to engage and have all these natural processes that go along with it. There are different types of floods and semi-regular floods are really important for the basic processes. We can think of it as a spring cleaning for the river.

Paul Sayers on the notion of risk

Risk is a human construct. It is something that we put a layer of our values on. As a result it's always difficult to put a priority on what acceptable risk and not acceptable risk is.

2018 QRA update

Feedback from the conference helped to guide the development of Queensland's first integrated catchment management strategy, which was completed for the Burnett River Catchment in May 2018.

The Strategy piloted a regional-scale approach to building flood resilience that will be implemented throughout Queensland by 2022.

www.qldreconstruction.org.au/ResilientQueensland

Queensland Government

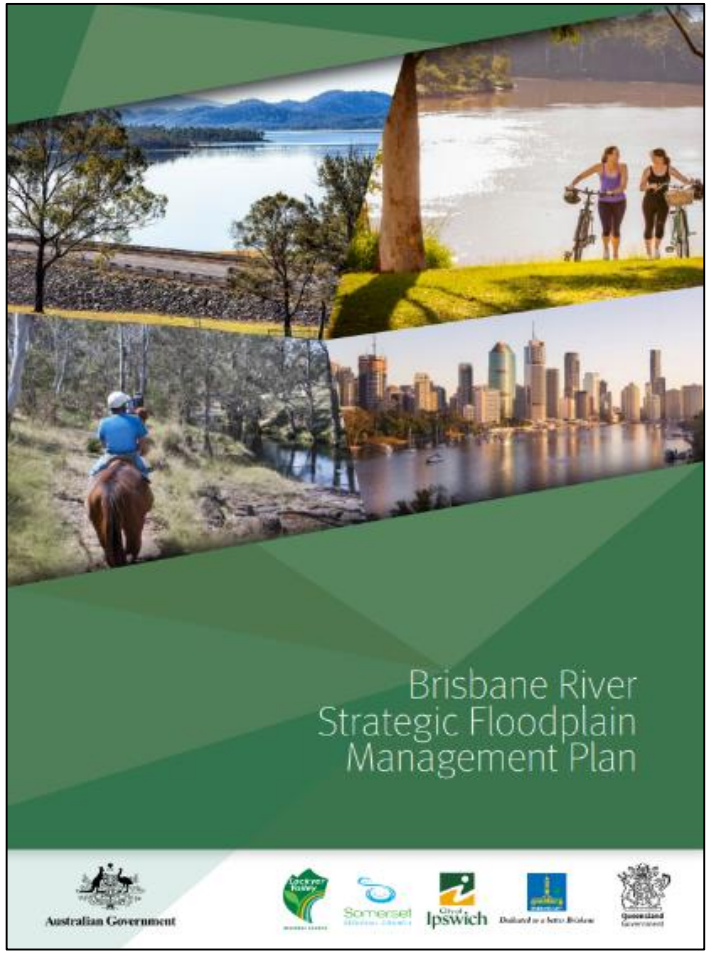
International peer review

- "Your governance picks up on multi-discipline, multi-organisation and multi-benefits."
- "Some mitigation measures don't stack up until you add water quality and biodiversity to the equation. Keep thinking about integrated approaches."
- "Flooding is a good and natural process. Think of it as a spring cleaning for the river."
- "We put a layer of our values on risk so it's difficult to put a priority on what acceptable and not acceptable risk is."

Brisbane River Strategic Floodplain Management Plan

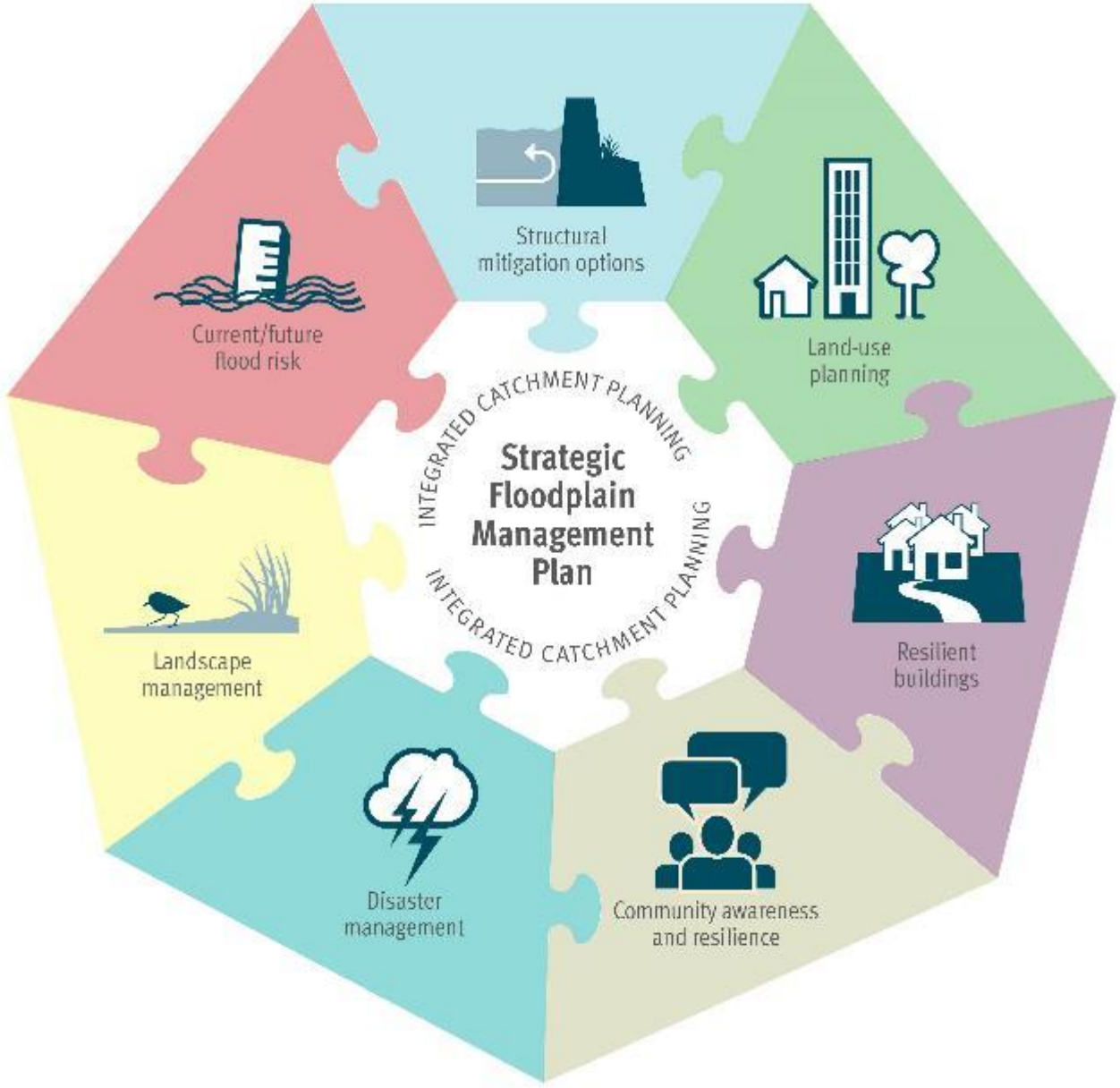
An historic project for Queensland

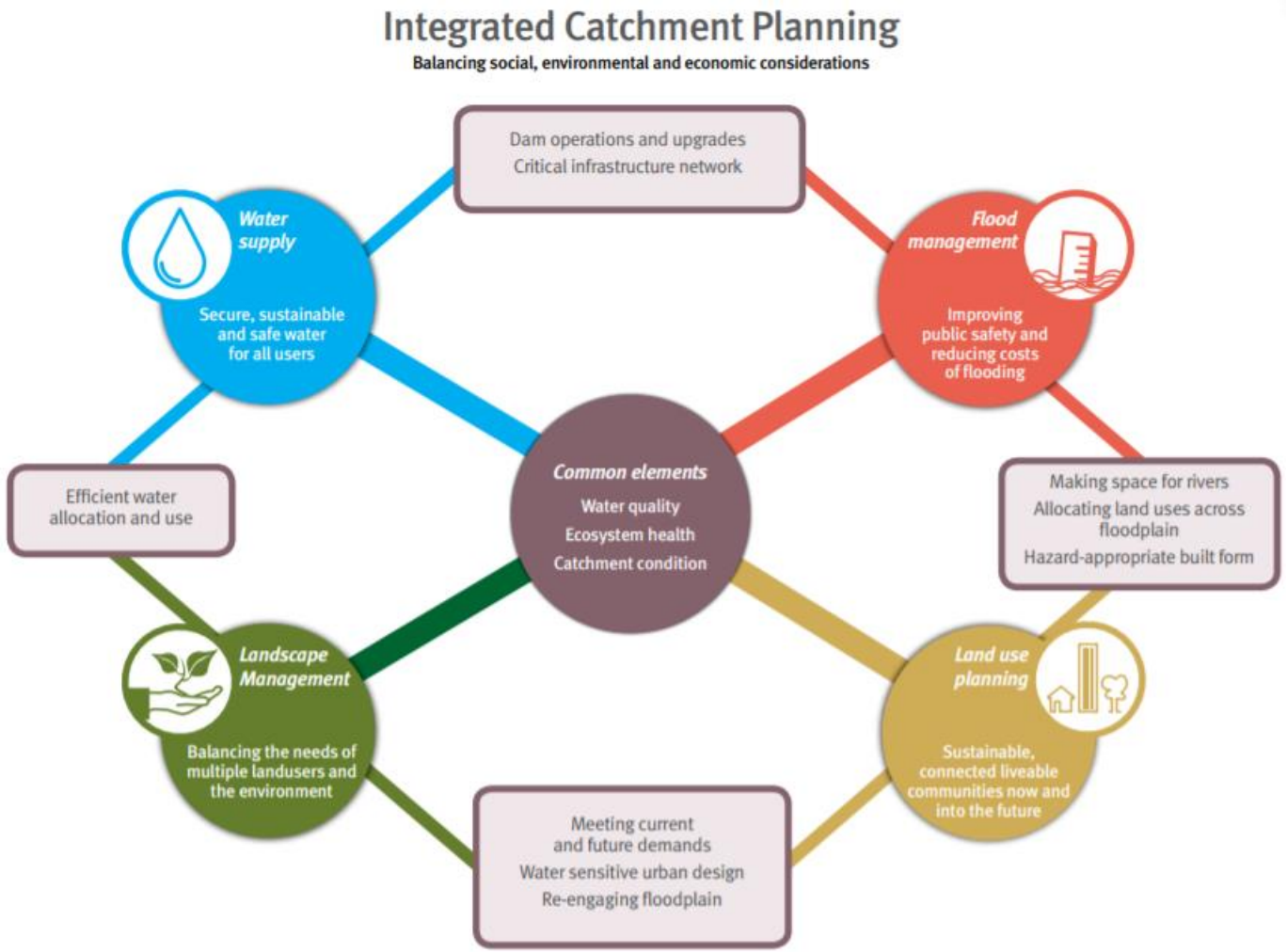
www.qra.qld.gov.au/BRCFS



Our shared vision

"Working together to strengthen the flood resilience of our communities, our economy, our infrastructure and our environment."





The success of integrated catchment planning is influenced by several key elements:

- recognising and balancing the relationships between cause and effect, impacting on people, property, infrastructure and ecosystems within a catchment
- a coordinated approach from all levels of government
- community and private enterprise engagement.

Desired Outcome 9 - Landscape management across the catchment contributes to flood risk reduction.

- The relationship between landscape management activities and changes in rainfall runoff are currently not well understood.
- Two sensitivity scenarios considering the potential benefit from a reduction in catchment inflows of 5% and 10%.
- Assessed through a multi-criteria assessment.
- Five landscape management recommendations committed to in the SFMP .

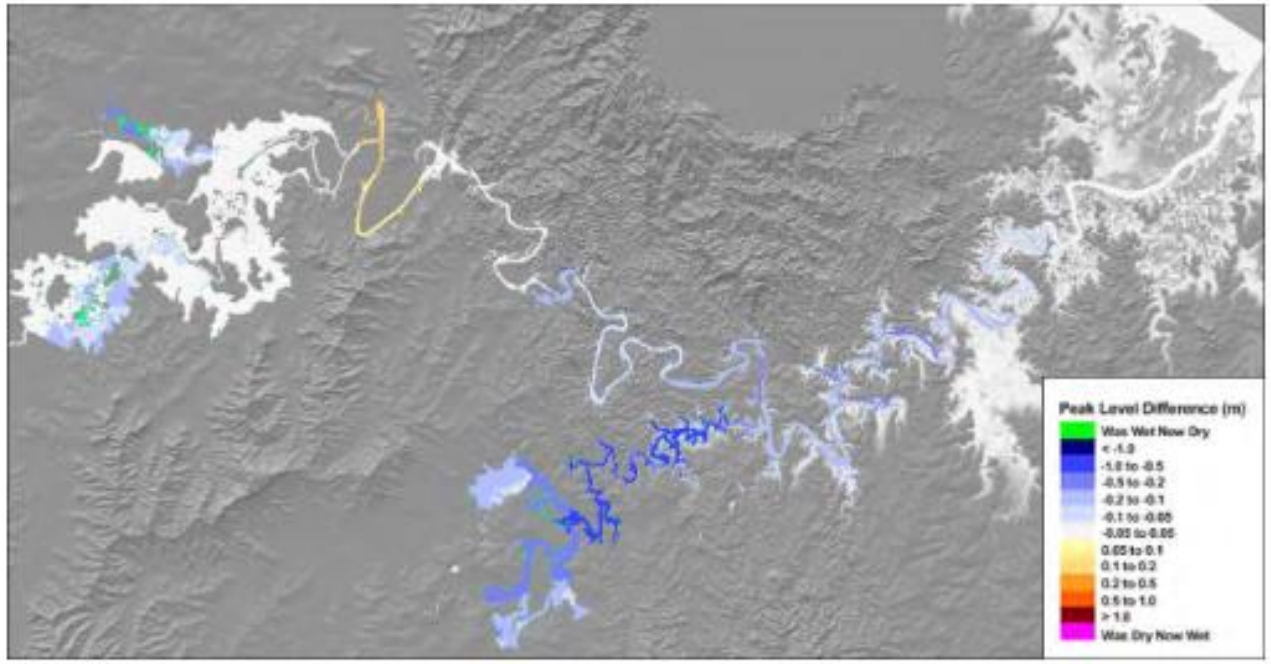
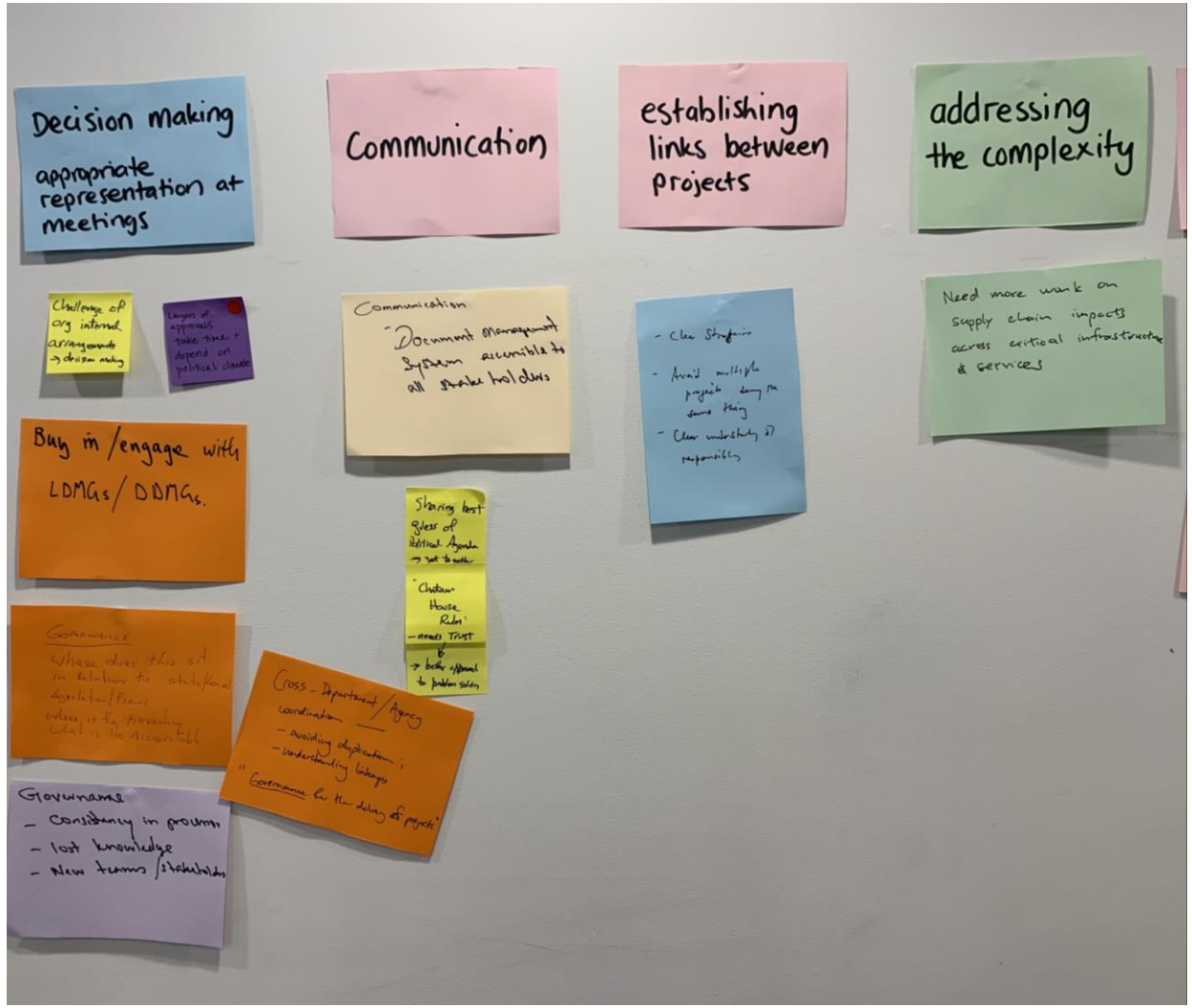


Figure 7-7 Peak Level Difference for 10% Peak Flow Reduction - 1:20 AEP

Next Steps

- Implementing the Strategy
- Developing Local Floodplain Management Plans
- 52 Strategic actions for coordinated approaches to flood resilience
- 14 Entities with actions
- 17 actions have state-wide benefits
- State and local governments are committed to delivering the actions
- Five year review

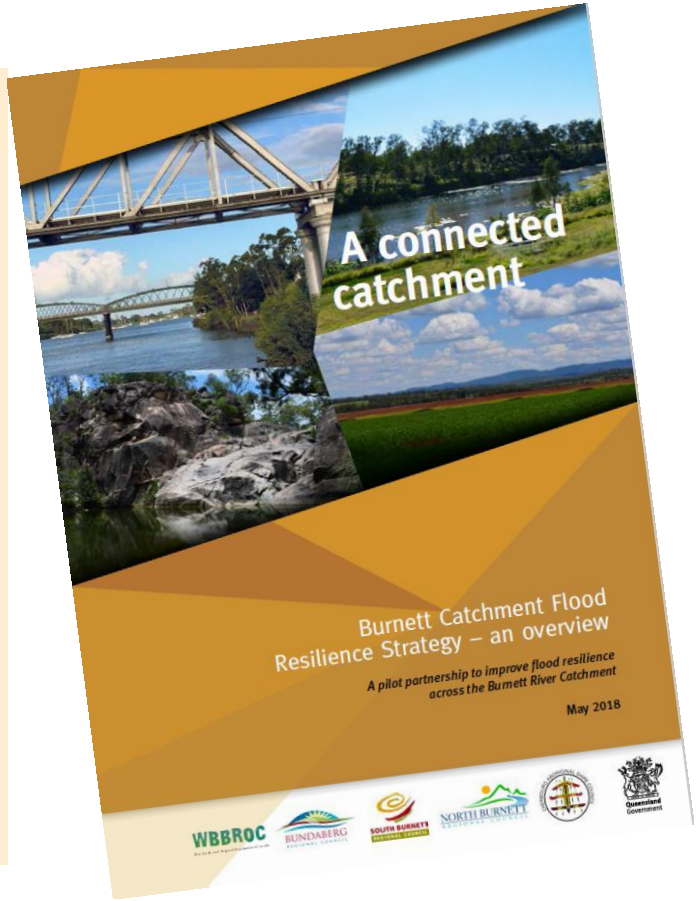


Burnett Catchment Resilience aspirations

Resilient society	We recognise and live comfortably with the prospect of flood as a part of life
Resilient economy	We strengthen our local economy against flood impact
Resilient environment	We help our environment to recover quickly from flooding – naturally and sustainably
Resilient settlements	Our built environment – our settlements and infrastructure – is the foundation upon which our communities thrive and prosper

Burnett Catchment Flood Resilience Strategy

- QRA, local governments and state agencies came together to create a long-term plan to manage the impact of future flood and enhance community safety and resilience in the Burnett River Catchment.
- It was successfully completed in May 2018 and provides a consistent and coordinated approach to managing flood risk across the four local councils located within the catchment.
- Implementation of the strategy is being overseen by the Wide Bay Burnett Regional Organisation of Councils.



Strategic pathways

Resilient Society

Change the conversation
Severe weather is a fact of life in the catchment, not an aberration

Understand and share the way the catchment and its systems work
Improved data intelligence, monitoring and reporting

Enhance contextualisation of data and warnings
Speak in a language people understand

Focus community awareness on risk, not just hazard
Empower the community to make better, risk informed decisions

Connect people to each other
To improve health and wellbeing

Resilient Economy

Develop pathways for infrastructure resilience over time
Make sustained improvements over time to support economic growth and community mobility

Evolve land management and agricultural processes
Increase capacity/capability to manage land more sustainably

Enhance resource stewardship for economic and social sustainability
A sustainable environment means a sustainable economy

Business continuity planning as business as usual
Lead awareness and action by small and medium enterprises to anticipate shocks

Resilient Environment

Develop a strategic environmental management approach, based on risk
Delivery region-wide programs that address regional risks such as waste, weeds and riparian vegetation

Increase focus on post-event environmental recovery
Clarify pathways for recovery/ resilience funding for environmental purposes

Climate adaptation as business as usual
Expand existing efforts across agriculture, business and government sectors to adapt to our changing environment

Resilient Settlements

Connect disaster management into land use planning
Develop in a risk-responsive way, accounting for evacuation, isolation and inundation

Build redundancy into infrastructure
Focus on improving gaps in power and telecommunications over time

Resilience in asset management and renewal
Take opportunities to improve asset resilience in upgrade and renewal processes

Queensland Strategy for Disaster Resilience

As Queenslanders, we are disaster resilient when:

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

Sincere apologies to Credence Clearwater Revival!

Heard the climate's changing, ♫ ♫
how to build resilience?
It's getting more urgent,
we need to act now.
Still the rain kept pouring,
falling on my ears.
And I wonder, still I wonder,
who'll stop the rain? ♫