



Council adapting to climate change

Storm Smart Strategy planning work tackling future coastal and inland flooding hazards in our region

CLIMATE change is a real threat to coastal communities like Mackay.

That's why it was "smart" to start planning now for coastal and inland flooding hazards likely to be exacerbated by climate change, said Mayor Greg Williamson.

"All of the advice from experts and other levels of government suggest we need to be cognisant about the effects of climate change when planning for the future," he said.

The Queensland Climate Cr Williamson said council

Change Strategy predicts cyclone intensity is expected to increase by 2050, with cyclone-associated rainfall tipped to increase by up to 20 to 30 per cent.

Projected increases in temperature also equate to a 10 per cent increase in general rainfall intensity by 2050, 15 per cent by 2070 and 20 per cent by 2100.

A 0.3m rise in sea level by 2050, a 0.5m rise by 2070 and a 0.8m rise by 2100 is also predicted.

was working on a Storm Smart Strategy to ensure the community was prepared and able to adapt.

"Unlike other climate change projects, this strategy is focused primarily on risks associated with sea level rises, increased cyclone intensity, higher intensity rainfall and the resulting increase in inundation and erosion potential," he said.

"It will help reduce the risk to people and property and enhance the community's resilience to natural hazards. Governments have indicated



Beach erosion at Midge Point caused by storm surge associated with Cyclone Debbie last year.

there will be reduced funding for recovery in the future, with a focus on spending to improve resilience.

"The strategy is for parts of our local government area identified as potentially impacted by coastal risks or inland flooding. Generally, these can be identified by

looking at the Mackay Region Planning Scheme's flood and coastal hazards overlays, but can include up to 40 per cent of properties."

Council has accessed more than \$200,000 in State Government Qcoast 2100 funding to start the strategy. It will continue to apply for a

share of \$12 million on offer for coastal councils.

Did you know?

Mackay Regional Council manages more than:
- 630km of underground drainage
- 10km of levees
- 140km of open drains

>> More information on how climate change will affect our region can be found on the Department of Environment and Heritage website at <http://bit.ly/21ICW7s>



Significant sand loss at Lamberts Beach, resulting in a near-vertical scarp.

Beaches bear brunt of damage

THE State Government has just approved additional funding to improve resilience at Lamberts Beach and Midge Point.

They were two beaches in our region that fared worst during Cyclone Debbie.

The new funding includes about \$1.7 million for Lamberts Beach to help fund the replenishment of 39,000 cubic metres of sand.

There is also about \$2.6 million for 26,500 cubic metres at Midge Point.

Council CEO Craig Doyle said these crucial extra funds were on top of about \$2.9 million previously approved

for the two beaches under NDRRA Category D funding.

"The previous funding will restore the two beaches to their pre-Cyclone Debbie condition.

"This additional funding will allow us to improve resilience at the beaches."

Mr Doyle said preliminary Category D funding provided \$110,000 for sand pushing, minor revegetation and replacement fencing, which was completed at Lamberts Beach late last year. He said another \$950,000 in Category D funding had been approved to import 10,500 cubic metres of sand and to revegetate the area.

"Preparation of the permit application and design work is in progress, with construction expected to be completed by the end of September."

At Midge Point, significant sand loss along the full length of beach resulted in loss of an esplanade park and associated infrastructure at the north end. Preliminary NDRRA Category D funding provided \$100,000 for minor works.

"Major restoration NDRRA Category D funding of \$1.8m will be used to construct a 300m long geobag wall in the dune along the northern section of beach," Mr Doyle said. "This is also due to be completed by September."

Workshop to discuss adaptation

ANYONE wanting to learn more about climate change adaptation can attend an informative workshop in Mackay next month.

The National Climate Change Adaptation Research Facility (NCCARF) Community Workshop will be held in Mackay on Friday, June 8, from 5pm.

The theme is "Climate change adaptation for a secure future: people and places."

Council Strategic Planning representatives will also be at the workshop.

Anyone interested in attending the NCCARF Community Workshop needs to RSVP for the event.

For further information, or to RSVP, contact the workshop organisers by emailing marileecampbell@griffith.edu.au



Council will provide flooding information at Greenmount Heritage Fair this weekend.

History has lessons

WHEN residents reflect on history, rainfall data and records tell a powerful story about flood risk in the Mackay region.

So, it is only fitting that council will have flood modelling information on display at this weekend's Greenmount Heritage Fair.

Council's Character and Heritage Advisory Committee chair Cr Fran Mann said this year marked the 100th anniversary of the devastating 1918 cyclone and associated storm surge which resulted in lives lost and many of our young city's houses destroyed.

"Earlier this year, our libraries and museums staged a 1918 cyclone centenary exhibition at council's Jubilee Community Centre," she said.

"Parts of that exhibition will be on display at the Greenmount Heritage Fair, which is a popular annual event.

"Our planning officers will also attend with modern-day information on flood modelling for our region, including a 3D simulation model.

The annual Greenmount Heritage Fair will be held at Greenmount Homestead this Sunday, May 27, from 9am to 3pm.

>> Homestead details at mackay.qld.gov.au/greenmount

Insurance costs at a premium

FLOOD modelling work undertaken by council isn't just useful for its new Storm Smart Strategy.

Mayor Greg Williamson said council hoped the evolving flood data would help reduce insurance premiums in our region.

He said rising insurance premiums were impacting significantly on cost of living pressures for residents.

"Average insurance premiums in North Queensland are three times higher than the state and New South Wales average and four times higher than South Australia, Victoria, Tasmania and Western Australia.

"They are impacted by our tropical climate, including



Major flooding in Mackay during February, 2008.

being in a cyclone zone and to a lesser extent property flood risk."

Cr Williamson said council had undertaken flood studies

to define flood risk more accurately and that work was ongoing.

"We're working with the Insurance Council of Australia

in a bid to improve insurers' understanding of flood risk in our area," Cr Williamson said.

"For example, we have been

developing new data which highlights the floor levels of properties in our region," he said.

"A high-set property may have a lesser flood risk than a low-set property next door.

"Property owners are able to speak with council officers about obtaining information relating to their properties that they may be able to take to insurers in a bid to reduce premiums."

Other tips for lower insurance premiums:

- > Consider a higher excess
- > Talk to your insurance provider about ways to lower premium, such as removing large trees etc from the back yard
- > Shop around

COUNCIL - in brief -

Our strategy

Building a resilient, low carbon region is a key focus for council's Environmental Sustainability Strategy 2017-2022. The refreshed strategy has been informed by existing strategies with input from council staff, councillors and key stakeholders to set a new direction in the area of environmental sustainability over the next five years. Under the strategy, council will continue to take positive action to mitigate and adapt to climate change — both within our organisation and across the Mackay region.

Power partners

Council is committed to assessing and reducing its organisational emissions, as well as developing an emissions profile for the Mackay region. Council recently joined the Climate Council's Cities Power Partnership. Under the partnership, council will accelerate action in five key areas to improve efficiency and reduce costs and carbon emissions. Council will benefit from knowledge sharing between other leading practice councils.

Coastal plans

Council manages its coastal land through an integrated program of planning, on-ground works, monitoring and community engagement known as the Coasts and Communities Program. As part of this program, Coastal Management Guidelines have been developed to provide a framework for management decisions and activities for coastal land under council's jurisdiction. Individual Local Coastal Plans provide site-specific recommendations for individual coastal units. Community involvement in coastal management is encouraged through the Coastcare Program.

Climate move

Council made a positive move last year and joined the Queensland Climate Resilient Council Program. This leading practice, three-year initiative has a strong focus on improving governance to strengthen internal decision making processes to respond to climate change.

Helping gauge effects of flooding

Pioneer River Flood Heights at Forgan Bridge (m gauge datum)



THE 1918 cyclone and storm surge remains the most significant natural disaster in the Mackay region's history.

It claimed 22 lives and caused hundreds of injuries, as well as destroying about 75 per cent of the building stock in Mackay.

The event was caused by the coincidence of heavy rainfall — 1397 mm in three-and-a-half-days — with an intense tropical cyclone crossing the coast, which produced a storm tide level of about 5.4m AHD (1.76m above HAT).

The "Foulden Flood" during 1958 is regarded as the largest documented Pioneer

River flood and is most well-known for removing the entire settlement of Foulden. Two lives were lost to drowning and one person was declared missing, with 136 people rescued from Foulden and Cremorne."

Significantly, the Pioneer River has not broken its banks at Mackay City since the construction of a levee system in the 1960s in response to the 1958 flood.

More recently, in 2008, an intense rainfall event (unofficially 736mm in less than six hours) directly over the Mackay urban area and local catchments damaged more than 4000 houses.

Although the intensity of the 2008 event was not comparable to anything experienced in the region before, the pattern of flooding — rapid rise followed by rapid recession of floodwaters on the falling tide — is generally typical of the urban catchment flooding experienced across the region.

Of 53,000 properties in the council area, about 12,000, or more than 20 per cent, are in known coastal hazard areas. Furthermore, about 20,000, or 40 per cent, are within a flood hazard area (including the 12,000 in the coastal hazard areas). * Source: Wright, B, 2008

A crowd gathers to watch rising flood waters during the flood of February, 1958, at the corner of Evans Avenue and Harbour Road. Photo: Mackay Regional Council Libraries Image No. 00241

