



Planning our coastal adaptation

Gold Coast is one of Australia’s most iconic coastal cities, with golden beaches, endless waterways and a beautiful natural landscape. To protect our coast, the City of Gold Coast (the City) is planning to ensure our environmental resilience, now and in the future.

Queensland’s dynamic coast is always changing. According to the State Government, by 2100 sea level rise is projected to be 0.8 metres higher with a possibility of cyclone activity increasing and tracking south more often. This means changes to coastal areas with increased erosion, storm tides and flooding in low lying areas.

The City, together with 41 other Queensland Councils, was awarded funding under the State Government’s \$12 million Coastal Hazards Adaptation program (QCoast₂₁₀₀) to develop effective plans to minimise the impacts of coastal hazards.

Our Resilient City

Building future resilience of our valued environmental, cultural and built assets is one of our top priorities. To safeguard our city we are developing *Our Resilient City – our plan for coastal adaptation*.

We’re collaborating with stakeholders, asset owners, key agencies and the community to start the conversation on how we can better understand coastal hazards and respond with cost-effective adaptation options, now and into the future.

Finding new solutions

An adaptation option is a recommended solution to avoid, manage or mitigate coastal hazards. These options are underpinned by extensive stakeholder input and the best available science, engineering and economic studies.

The solution could suggest to maintain or modify an existing approach in the following areas:

- land use planning and development assessment,
- infrastructure planning and management,
- asset management,
- community planning,
- business continuity planning, and
- emergency management.

Developing our plan

Planning	1	<ul style="list-style-type: none"> • stakeholder communication and engagement • governance structure
Coastal hazards	2	<ul style="list-style-type: none"> • identified areas prone to erosion • reviewed asset data • risk assessment carried out
Investigation	3	<ul style="list-style-type: none"> • identified areas exposed • waterways, bank alignment and type and canal setback
Key assets	4	<ul style="list-style-type: none"> • identified assets potentially impacted • prioritised assets for further evaluation
Risk assessment	5	<ul style="list-style-type: none"> • developed level of risk for key assets • applied to coastal hazards in 2050, 2070 and 2100
Identify potential adaptation solutions	6	<ul style="list-style-type: none"> • options to respond to priority risks • consider City Plan • stakeholder and community engagement
Appraisal of adaptation solutions	7	<ul style="list-style-type: none"> • undertake cost-benefit analysis • prioritise adaptation options • socio-economic appraisal
Strategy development, engagement, implementation and review	8	<ul style="list-style-type: none"> • schedule implementation of adaptation options • community engagement

How adaptation options work

Project Kirra is an example of a successful groyne structure adapted over time to assist in mitigating erosion along southern Gold Coast beaches.

Kirra groyne was originally constructed in 1972 and shortened in 1996 to assist with sand movements as part of the Tweed River Entrance Sand Bypass Project.

Reinstating the groyne to its original constructed length of 180 metres involved designing specific rock layers to form a buffer to resist wave energy.

Project Kirra was a key initiative of the City's Ocean Beaches Strategy.



Kirra groyne, southern Gold Coast

Adapting for the future

Our Resilient City – our plan for coastal adaptation builds on our existing coastal management efforts demonstrated over 50 years through the use of innovative research, technology and a proven success in protecting coastal assets.

Our plan will be developed under QCoast₂₁₀₀, the State Government's Coastal Hazards Adaptation program assisting Councils in their long-term planning efforts for coastal resilience and in minimising the risk of coastal hazards to the city's valuable assets such as roads, utilities, parks, natural areas and heritage places.

A multi-million dollar investment delivered through the actions of our Ocean Beaches Strategy 2013-23 prioritises protecting our city from coastal hazards.

Our ongoing coastal protection activities include sand replenishment, seawall and groyne construction, installation of artificial reefs, upgrades to accessibility and infrastructure, and ongoing cleaning, dredging and facility maintenance.

Our achievements from the Ocean Beaches Strategy include:

- an additional five kilometres of Oceanway constructed
- the \$18.2 million Palm Beach Artificial Reef installed
- Beach Nourishment project delivered 3,026,758m³ of sand to key beaches protecting against erosion and major storms
- 9 locations for beach accessibility equipment
- 15 tonnes of rubbish removed each year
- 9000 metres or 80 per cent of public seawalls constructed and certified
- more than 7000 tonnes of specialist rocks extended Kirra Point groyne to 180 metres
- 60,000 cubic metres of sand dredged annually from Currumbin and Tallebudgera Creeks to Burleigh Heads and Palm Beach.

Key stakeholders

- The State Government
- Local Government Association of Queensland (LGAQ)
- Internal Technical Working Group (TWG)
- External Advisory Group (EAG)
- Project Reference Groups.

We are also consulting with more than 40 coastal councils in Queensland currently progressing their own coastal adaptation plans, and similar work is ongoing across Australia and internationally.

Join the
CONVERSATION

Learn more and become involved

Our coast is integral to our city's lifestyle, reputation and identity. It's important that our plans, as well as adaptation options, align with community expectations, preferences and values.

The development of *Our Resilient City – our plan for coastal adaptation* provides a platform for conversations about what we value and how we manage our coastline together.

If you are interested in learning more about our coast and its future resilience, we want to hear from you.

Visit gchaveyoursay.com.au/ourresilientcity to learn more, join the discussion and provide your feedback.