

QCoast₂₁₀₀ Case Study

Douglas Shire Council

Summary

Douglas Shire lies within the Wet Tropics World Heritage Area in North Queensland. It has over 100 km of coastline extending from Degarra in the north, down to just south of Wangetti. Famous for its Rainforest to Reef setting, its coastal zone is at the interface of two World Heritage Listed areas: The Great Barrier Reef; and the Wet Tropics of Queensland (including the ancient rainforest of the Daintree).

The coastline is characterised by a unique combination of coastal landforms, including: rocky headlands; pocket beaches; bays; estuaries; dune systems; near shore reefs; and the ecosystems which they support. The coastal landscape, climate and lifestyle are drawcards for domestic and international tourism and are also the focus for a growing emphasis on world-class research & development. The Shire also has an innovative sugar industry, which has been operating for more than 120 years.

Project overview

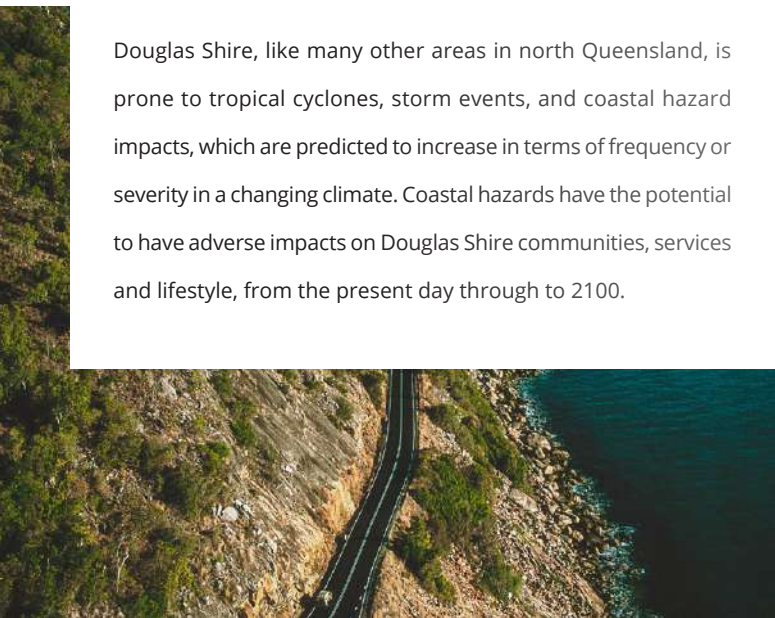
In 2016 Douglas Shire Council was awarded funding to undertake the Resilient Coast program by developing a Coastal Hazard Adaptation Strategy (CHAS), through the QCoast₂₁₀₀ program - a state-wide initiative between the Queensland Government and the Local Government Association of Queensland (LGAQ).

Douglas Shire, like many other areas in north Queensland, is prone to tropical cyclones, storm events, and coastal hazard impacts, which are predicted to increase in terms of frequency or severity in a changing climate. Coastal hazards have the potential to have adverse impacts on Douglas Shire communities, services and lifestyle, from the present day through to 2100.

The Resilient Coast Strategic Plan was developed through an eight-phase process as outlined in the QCoast₂₁₀₀ Minimum Standards & Guidelines.

The process included a series of studies and activities that covered the full coastline and sought to:

- + Identify coastal hazard areas;
- + Understand vulnerabilities and risks to assets;
- + Engage with the community to understand the preferred approaches to adaptation; and
- + Determine adaptation actions, costs, priorities and timeframes for implementation.



Benefits of completing a CHAS

A resilient coast has social, economic and environmental systems in place to avoid, manage and mitigate the impact of hazardous events or changes to coastal processes. Resilience also describes the ability to respond or reorganise in ways that maintain the essential function, identity and values of the region.

For Douglas Shire, coastal hazard adaptation options needed to be developed in keeping with the identity and values of the coastal communities:

- + Community services and lifestyle;
- + Environmental values;
- + Traditional Owner values;
- + Infrastructure;
- + Economy and growth; and
- + Public safety.

The project has enabled Douglas Shire to be better prepared to reduce the impacts of coastal hazards on communities, the environment, cultural values, infrastructure, liveability and services. It has increased awareness of coastal risks and provided an enhanced understanding of the responsibilities for adaptation. Additionally, the processes has highlighted areas and assets which are at risk both now and through to 2100.

The impact of coastal hazards on road access is one of the greatest risks to tourism in the Shire. A number of roads are potentially at risk from inundation or erosion. The most notable of these is the Cape Tribulation Road which provides the gateway to much of the Daintree Rainforest - a major attraction for visitors. The cost to the local economy from a one-week closure of the Cape Tribulation Road is estimated to be in the range of \$0.25M to \$1.3M. Knowledge of this impact enables Douglas Shire to plan and prioritise adaptation action on an informed basis.

Engagement Activities

A key challenge within this process has been communicating and tailoring technical data in a digestible format to stakeholders. Douglas Shire Council was fortunate to engage a highly experienced technical and engagement team led by Alluvium Consulting Australia, who guided Council through the complete process.

Positive outcomes from engagement events included:

- + A shared understanding of:
 1. Values and issues from the coastline and different communities;
 2. Past events, and a vision for what a Resilient Coast looks like in the future for Douglas Shire; and
 3. Coastal hazard and risk (likelihood and consequence).
- + Tailoring of technical investigations based on input from stakeholder groups and communities;
- + Appreciation of the shared objectives for coastal management, and preferred approaches to adaption.

Outcomes

The Strategic Plan presents 35 actions to work through over the next ten years to improve the resiliency of Douglas Shire.

These actions come under four adaptation option themes which relate to avoiding mitigating, and managing the risk of coastal hazards:

1. Shire-wide initiatives to enhance resilience and adaptive capacity;
2. Planning updates;
3. Modifying infrastructure; and
4. Coastal management and engineering.

Douglas Shire have a strong sense of community stewardship, and this plan will continue to foster the shared care of this world class, spectacular coastline.

Project Partners and Stakeholders

The Strategic Plan was developed via a transparent process with all Douglas communities.

The Stakeholder Advisory Group, chaired by Mayor Julia Leu, included representatives from:

- + Australian Cane Farmer Association/Next Gen;
- + Canegrowers Mossman;
- + Daintree Marketing Cooperative;
- + Department of Agriculture and Fisheries;
- + Douglas Shire Council;
- + Jabalbina Yalanji Corporation;
- + Queensland Parks and Wildlife Service;
- + Terrain NRM;
- + Tourism Port Douglas Daintree; and
- + Wet Tropics Management Authority

Other special interest groups also provided input and feedback via tailored briefings, including:

- + State Government and Local Government Association of Queensland;
- + Transport and Main Roads;
- + Utilities providers (Telstra, Ergon Energy, National Broadband Network);
- + Douglas Local Marine Advisory Committee; and
- + Local Disaster Management Group - Douglas



For more information
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