

Sunshine Coast Council Special Area Adaptation Precinct Planning – Private Development Case Study

Introduction

Sunshine Coast Council (Council) released its Coastal Hazard Adaptation Strategy 'Our Resilient Coast. Our Future' in May 2021. This long-term strategy seeks to proactively manage risks from coastal erosion and storm tide inundation, now and in the future under rising sea levels.

Special Area Adaptation Precincts are areas identified for further exploration of site-specific adaptation measures. Adaptation needs to consider the unique attributes of each location, which involve a complicated mix of public and private interests.

As Council is not responsible for the protection of private property from coastal erosion, it is undertaking an engagement and coordination role with numerous stakeholders to progress further investigations and planning to better understand options to address the coastal hazard risks within these precincts.



Project Overview

Located on the Sunshine Coast, the precinct faces east, directly fronting the Pacific Ocean.

A popular surfing beach exposed to open coast erosion, the precinct contains a mixture of highly valued public land and assets (beach, dunes, roads, utilities) and private land and residential assets.

Although historical dune erosion has come close to property boundaries in the past, there are no existing coastal defence structures such as seawalls protecting the properties lining the crest of the dune.

Early planning for adaptation in this area presents a key opportunity to limit the negative impacts of reactive erosion mitigation responses including emergency works, providing a consistent approach to hazard mitigation.

The overall purpose of the project is to determine if there is a collaborative option or a joint framework for future mitigation actions for non-council assets which can occur in parallel with the protection of public assets.

Drivers

- *The close proximity of private property and public assets to the current shoreline resulted in the area being identified in the 'Our Resilient Coast. Our Future' strategy as being at high risk from erosion under the current planning horizon through to 2100*
- *Poorly designed or implemented property protection measures could lead to loss of the popular recreational beach and accelerate erosion of adjacent unprotected properties*
- *The large number of individual property owners with assets at risk increases the complexity of achieving consistent and desirable hazard adaptation outcomes for the public beach.*

Process

- *Developed a framework for a coordinated, joint approach for the mitigation of erosion risk*
- *Established a transparent approach for identifying and assessing potential adaptation options*
- *Identified an initial recommended adaptation pathway for further consideration*
- *Identified detailed actions to support further adaptation planning within the precinct*
- *Recognised that this is the first part of a longer process that will require broader community engagement and further detailed assessments*

Benefits

- *Strategic, 'whole of beach' adaptation guides consistent, effective and timely site-based adaptation that avoids ad-hoc emergency protection works*
- *Improve Council, landholder and community understanding of risk, feasibility of adaptation options and associated roles and responsibilities*
- *Seeks to retain the adjacent beach which is a popular recreational destination for the community and visitors.*

Engagement



- *Built on engagement undertaken for the 'Our Resilient Coast' strategy*
- *Clear communication that this is a learning experience for Council too*
- *Project website provided property owners with more information, including 'questions and answers', fact sheets and project updates*
- *Conducted two workshops and surveys focussing on values and options with directly impacted landowners*
- *Optioneering workshops with internal Council stakeholders*
- *Established a clear understanding of issues between directly impacted stakeholders before going to the broader community*

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Problems / Challenges

- *Recognition that adaptation project timeframes cannot be compressed at the expense of meaningful engagement with stakeholders – scope renegotiation with funding bodies was required*
- *Delayed recognition internally that adaptation is a Council-wide project*
- *Need for a clear program of priority sites to support sequencing with engagement processes and maintain project momentum – especially as these projects may have protracted delivery timeframes*
- *Clear and consistent internal signoff processes*
- *Directly impacted stakeholders were unaware of the existence of the coastal hazard adaptation work undertaken for the ‘Our Resilient Coast’ strategy. Many are not permanent residents.*
- *Some community stakeholders found it difficult to contemplate the different trade-offs and scenarios*
- *There was a lot of uncertainty from directly affected landowners around what Council’s role would be in an erosion event to protect private properties, with many unclear on their ability to protect their own land in such an event.*
- *Mechanisms for landowner funding of coastal protection works*
- *Complications where private works may need to be located on public land - will need to be resolved as part of detailed adaptation development*

Outcomes / Conclusions

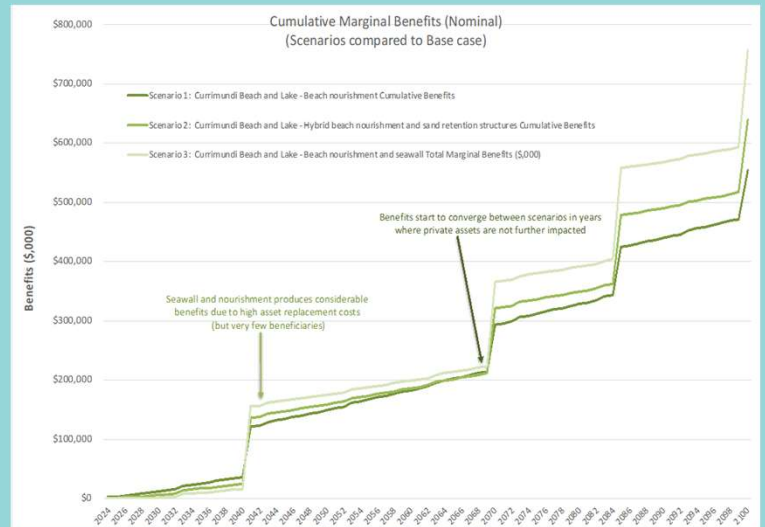
- *There was a strong and relatively consistent preference from directly affected stakeholders to retain a vegetated buffer between their properties and the beach, even with a seawall response.*
- *The detailed appraisal of options over time using multi-criteria analysis and cost benefit analysis techniques identified that beach nourishment was the preferred adaptation approach in the short to medium term, followed by a seawall to limit damage to private properties.*
- *Further technical assessments are required to understand physical limits of erosion – and therefore trigger points – based on localised geotechnical conditions.*
- *Additional data collection on local visitation to support cost-benefit assessments would be beneficial to refine assessments*
- *No formal decision will be made as a result of this project – broader community engagement and evolution of option design is required*

Key Stakeholders

- *Sunshine Coast Council*
- *Local landowners and residents*
- *Utility and service providers (Telstra, Optus, EnergyQ / Energex, Unity Water)*

Project Team

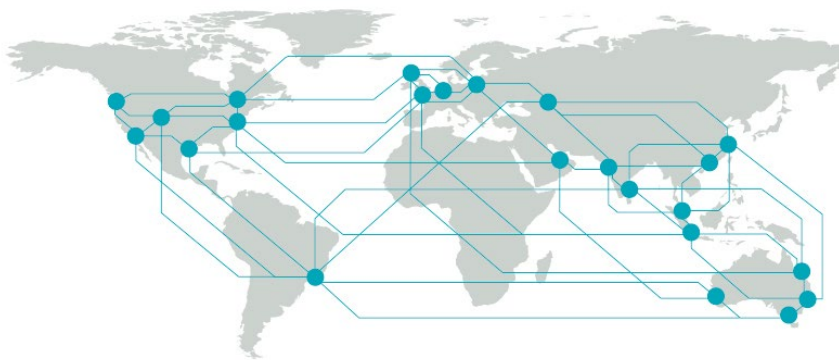
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