Sunshine Coast Council

Pumicestone Parkland Adaptation Pilot project - Case Study

Introduction

Introduction	➢ *Location information (inc. Map):* Located at the end of Jellicoe St Golden Beach, opposite Bribie Island Breakthrough (BIB). ➢ *Background:* New seawall and adaptation of parkland for climate hazards and BIB. Also a CHAS recommendation to adapt this area. ➢ *Description of coastline:* Mostly Sandy beaches, road reserves, properties and high rises in close proximity, services very close, low lying reclaimed mangrove swamp, at high risk to coastal hazards.
Project overview	➢ *What was the project about?:* The project sought to raise and adapt the area for coastal hazards. ➢ *What approach did council take?* Perform a options assessment review and determined that it was best to build a new seawall as seawalls existed either side of the site. ➢ *What were the specific issues in focus?:* Overtopping/erosion of the area from increased tidal prism following BIB

Project Details

- New 80lm seawall constructed in response to Bribie Island Breakthrough
- Parkland raised to 2m AHD (approx. 850-900mm
- 97 living seawall tiles fitted and monitoring program initiated with USC
- New 4m wide overtopping slab/public walkway which is resilient to climate hazards
- Parkland refurbished (shelter, seats, new balustrades etc)
- New beach access
- New DDA compliant binoculars for viewing shorebirds

Project Location: Jellicoe St Golden Beach

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Drivers

- *This area of Golden Beach was quite low at around 1.2m HAD. The tidal prism had changed following the BIB and the coastal path and park area was regularly inundated on high tide. Significant erosion along the foreshore was also happening and infrastructure was being negatively affected .*

Benefits

- *The parkland was raised to prevent inundation up to 2074*
- *New seawall to protect public infrastructure with 97 living seawall tiles fitted*
- *New 4m wide overtopping slab/coastal pathway*
- *New balustrades*
- *New beach access*
- *Disability binoculars for birdwatching*

Engagement Activities

- *As the changes to the area were progressing rapidly wider community engagement was not possible in order to achieve a timely outcome.*
- *The community were engaged through social media, project websites, project signage and letterbox drop for those nearby*

Process / Guidance

- *Engage contractors (Geotech, surveys, planners and designers)*
- *Get prescribed tidal works permits and any other required permits*
- *Get design package ready for tender and award a contract*
- *Construct new seawall*

Problems / Challenges

- *What challenges / difficulties were experienced throughout the process?*
  - *The team had a tricky time getting the seawall and landscape designs completed together in a timely fashion as the landscape design needed the seawall design to be mostly completed*
  - *Permits took longer than expected*
  - *Council had to find additional funds for the project as the estimates were lower than the tenders which was a sign of the rapidly changing construction industry*
- *What could have been done differently?*
  - *The contractor had a difficult time installing the seawall tiles late in the works, this could have been done during construction.*
  - *The design process might've been sped up if one consultant had done the seawall and landscape designs together.*
- *How were the above challenges addressed?*
  - *The design challenges resulted in lots of regular meetings between engineers and landscape architects*
  - *Additional funds were allocated from Council's capital works budget*

Outcomes / Conclusions

- *What outcomes were achieved?*
  - *New seawall constructed in response to Bribie Island Breakthrough*
  - *Parkland raised to 2m AHD (approx. 850-900mm)*
  - *97 living seawall tiles fitted and monitoring program initiated with USC*
  - *New 4m wide overtopping slab/public walkway which is resilient to climate hazards*
  - *Parkland refurbished (shelter, seats, new balustrades etc)*
- *What were lessons learnt?*
  - *The main lesson learned is council can adapt areas as per the CHAS recommendations. Not all areas can be easily adapted but this was a great project to trial adaptation on.*
- *What are the next steps?*
  - *Continue to monitor the seawall tiles for effectiveness*
  - *Continue to monitor the BIB*
  - *Continue planning and adaptation activities along Golden Beach as per the CHAS recommendations*

Before: Early 2022

After: December 2024

Project Partners

- *LGAQ QCoast2100 program*
- *Department of Environment, Tourism, Science and Innovation*
- *University of the Sunshine Coast*
- *University of Southern QLD*
- *Auzcon Contractors*

For more information

Please contact us

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Project Website*:* Golden Beach foreshore works | Sunshine Coast Council

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