



#### Woodgate Beach Shoreline Erosion Project

Dwayne Honor – Branch Manager Engineering Services – 6th August 2024

#### Agenda

- Background Coastal Hazard Adaptation Strategy & Shoreline Erosion Management Plan
- Buried Seawall & Nourishment Engineering & Approvals
- Erosion Review
- Construction Update
- Questions



#### Where is Woodgate Beach?





#### **Bundaberg LGA**

Geographical Area:

6,500 km2

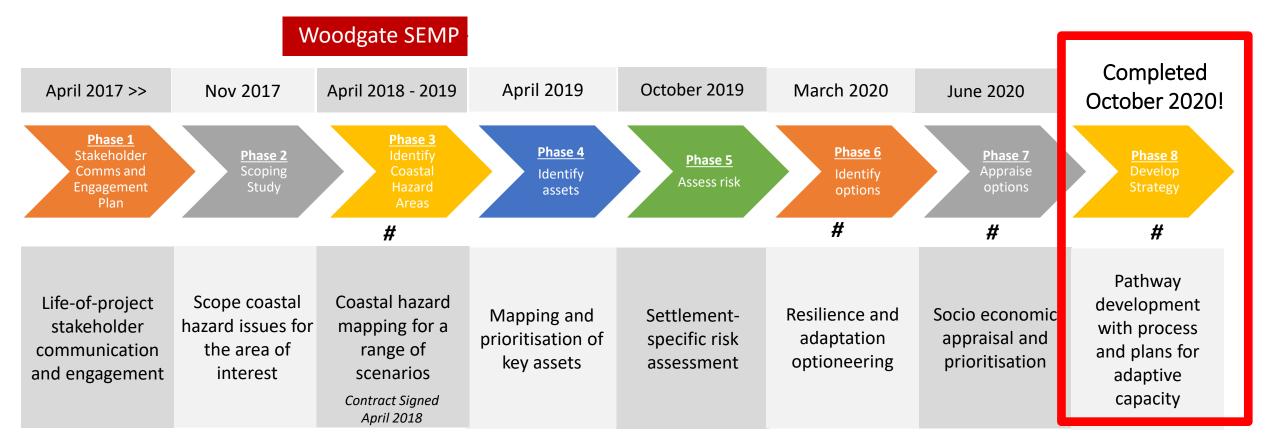
Coastline:

~115km



## Coastal Hazard Adaptation Strategy





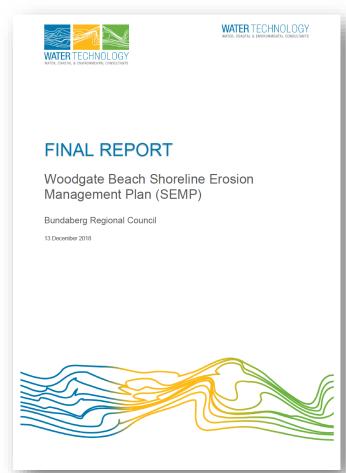
Community and Stakeholder Engagement



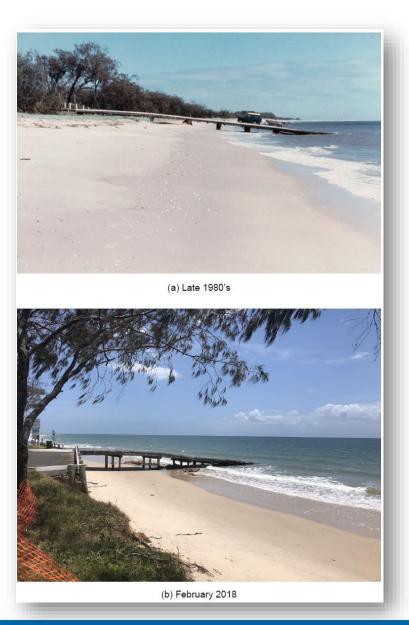
## Shoreline Erosion Management Plan

- Non-statutory planning document
- Sets out an agreed framework and management strategy for responding to existing erosion problems and possible future erosion threats

So why did Council do one?

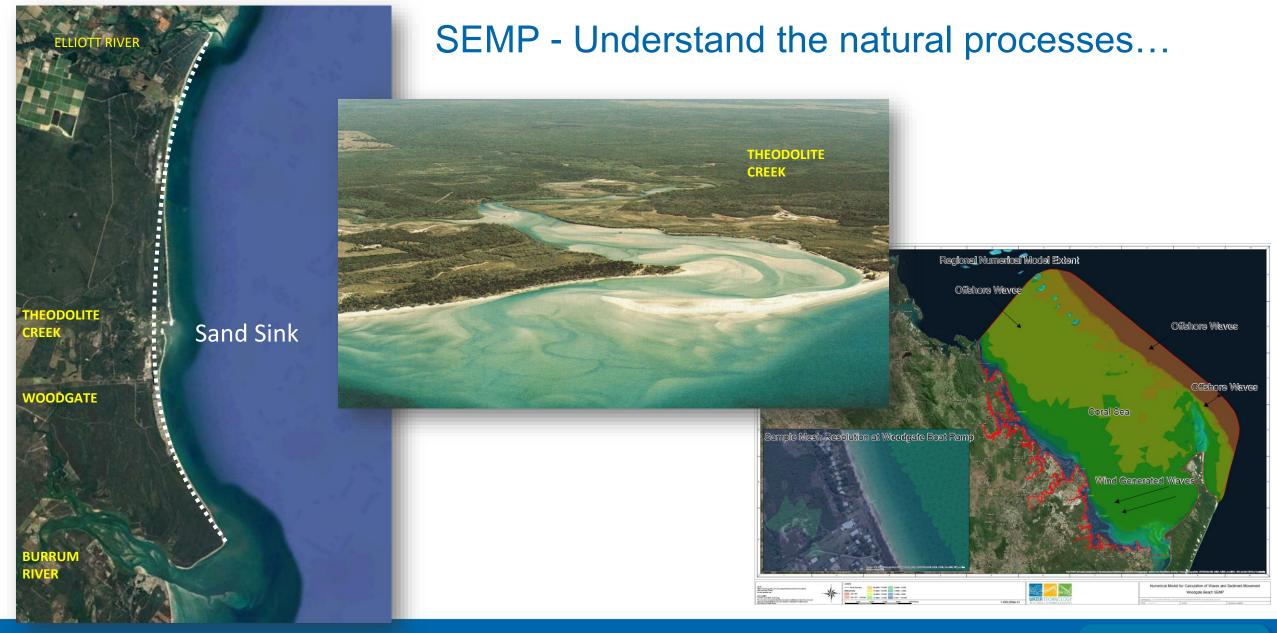












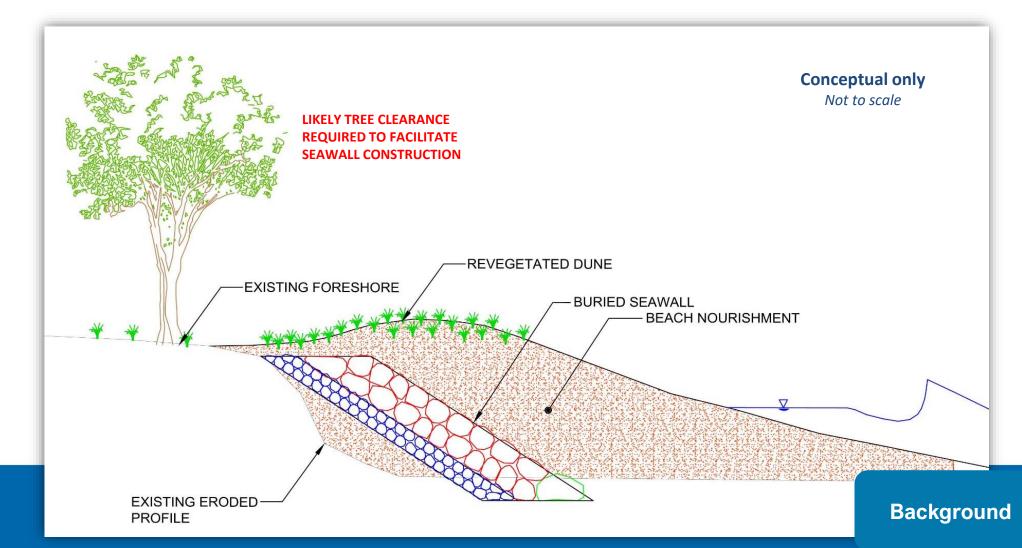






#### Northern Precinct = Erosion Beach Profile 2 (200m North of Boat Ramp) 1.0 ----- Oct-82 0.0 -1.0 -2.0 1980's **RECESSION** ~ 0.6m/year at boat ramp 2018

# Recommended Erosion Strategy – Nourishment & Buried Seawall









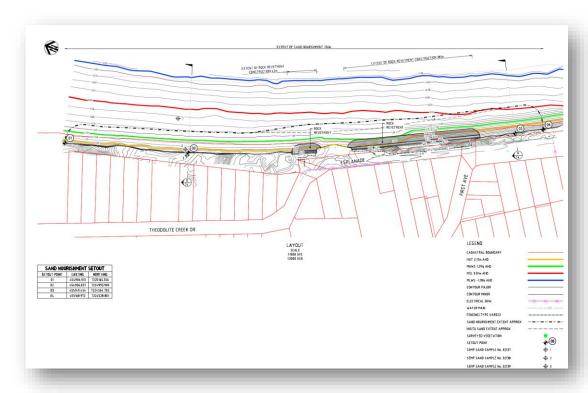
## Engineering

- Used the SEMP to inform the design
  - ~ 240 metre of buried rock revetment; and
  - ~ 16,000 m3 of sand nourishment either side of the Woodgate Beach Boat Ramp
- Primary purpose:
   Provide terminal shoreline protection;
   protecting infrastructure and
   residential development immediately
   landward from shoreline recession
- Completed January 2020





#### Approvals (SARA)



Total Cost Estimate – **\$2.4m (2020)** *Includes* ~\$726,000 nourishment

- Development Application for Operational Works for Tidal Works (Approved August 2020)
- SARA Referral Agency
- Schedule 10, Part 6, Division 3, Subdivision 3, Table 1 (Planning Regulation 2017) – development impacting marine plants
- Schedule 10, Part 17, Division 3, Table 2
   (Planning Regulation 2017) tidal works
   impacting maritime safety
- Schedule 10, Part 17, Division 3, Table 1 (Planning Regulation 2017) – tidal works and work in the coastal management district impacting coastal management

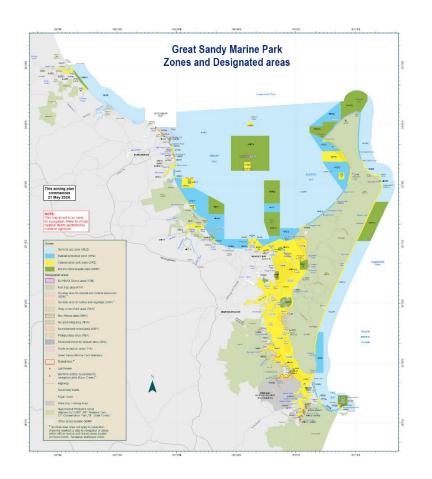


#### Woodgate Erosion Timeline...

- Completed SEMP March through December 2018
- Detail engineering designs completed January 2020
- Operational Works application June through August 2020
- QRA North Queensland Natural Disaster Mitigation Funding Secured – November 2022 (to be expended December 2023)
- Construction Tender Released 4th March 2023



# Approvals (QPWS)



- Great Sandy Marine Park Woodgate Beach
- The portion of the project area below Highest Astronomical Tide (HAT) within the Conservation
   Zone of the Great Sandy Strait Marine Park (CPZ07)
- 30<sup>th</sup> March 2023 QPWS advise that beach nourishment activities were NOT PERMITTED in the Conservation Zone, review proposes change to Habitat Protection Zone in New Zoning Plan ~2024 ....which would be permissible??
- Council requests urgent advice and assistance from Director General Department Environment and Science
- Council submits State Marine Parks Application under Marine Parks Act 2004 (21st July 2023 and approved 13 September 2023)
  - Carry out works Beach nourishment
  - Carry out works Foreshore protection
  - Must not carry out works during marine turtle nesting and hatching season (1 October to 30 April)



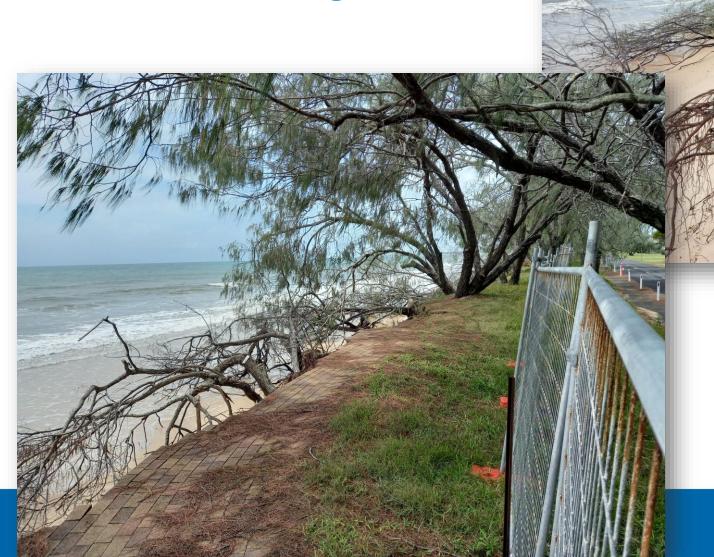
## Community highlight intolerable risk...



Source: https://www.abc.net.au/news/2023-10-11/woodgate-beach-erosion-prompts-flooding-fears/102952944



# Erosion Increasing...





#### **Erosion Review Outcomes**

- April 2024 Review of erosion rates and volume of nourishment required (includes baseline surveys post 2018)
- Between 1979 and 2018, the Central Precinct maintained stable; however, erosion rates have intensified since 2018.

Scenario	Total Volume	Length	Volume / m
<b>2018 SEMP</b> Recommendation	16,000m3	700m (400m north, 300m south of boat ramp)	23m3
2024 Updated Recommendation	33,000m3	1300m (400m north, 900m south of boat ramp)	23m3 (north of boat ramp) 26m3 (south of boat ramp)



#### **Construction Update**

- Pre-Construction January May 2024
- Construction started mid-May 2024!!
- 6.30am and 6.00pm Monday to Saturday
- 55,000t of sand being to be placed. 17,000t placed already
- Stockpiled just outside of township
- 2x truck and dogs per day from quarry (production rate limits)
- Sand Placement Rate ~1,000t / day (sourced from local stockpile with 4 dump trucks loading into a Moxy to place on beach)







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- QRA North Queensland Natural Disaster Mitigation Funding Secured November 2022 (to be expended December 2023)
- Construction Tender Released 4<sup>th</sup> March 2023
- Great Sandy Marine Park Zoning Plan Review QPWS advises beach nourishment <u>not</u> <u>permissible activity</u> for Woodgate Beach – 30<sup>th</sup> March 2023
- Marine Park Permit Application July 2023 Approved 13th September 2023
- Community Uproar "Save our Beach" Campaign and Rally October 2023
- Principal Contractor Appointed January 2024
- Pre-Construction Planning January May 2024
- New Great Sandy Marine Park Zoning Plan comes into effect 21st May 2024
- Site Works May 2024 until ~December 2024



#### Questions...

#### Want to know more?

https://www.ourbundabergregion.com.au/woodgate-shoreline-erosion-management-plan

