

South Australian Coast Councils

The Limestone Coast Perspective

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Robe Council

What has driven our approach?

- Lots of 'bits and pieces'
- Facilitated discussion
- \$50,000+ per annum for sand
- Small rate base (~1,400) servicing a large population in summer (~13,100)
- Focus on evidence based decision making
- Relationship with Flinders University

Closed System



Figure 6: Engineered coastline with a view of the marina breakwater and sheet pile entrance wall

Changing Coastline

Risk Zone 5 - Cliff Undercutting



2018



2020

People at Risk



Figure 11: Large undercut cliff at the southern carpark



Figure 12: Carpark at the end of Joy Terrace with cliff undercut sections visible

Private Assets at Risk



Narrow dune buffer at northern end

Public Assets at Risk



Public and Private Assets At Risk



Deeper than initial inspection

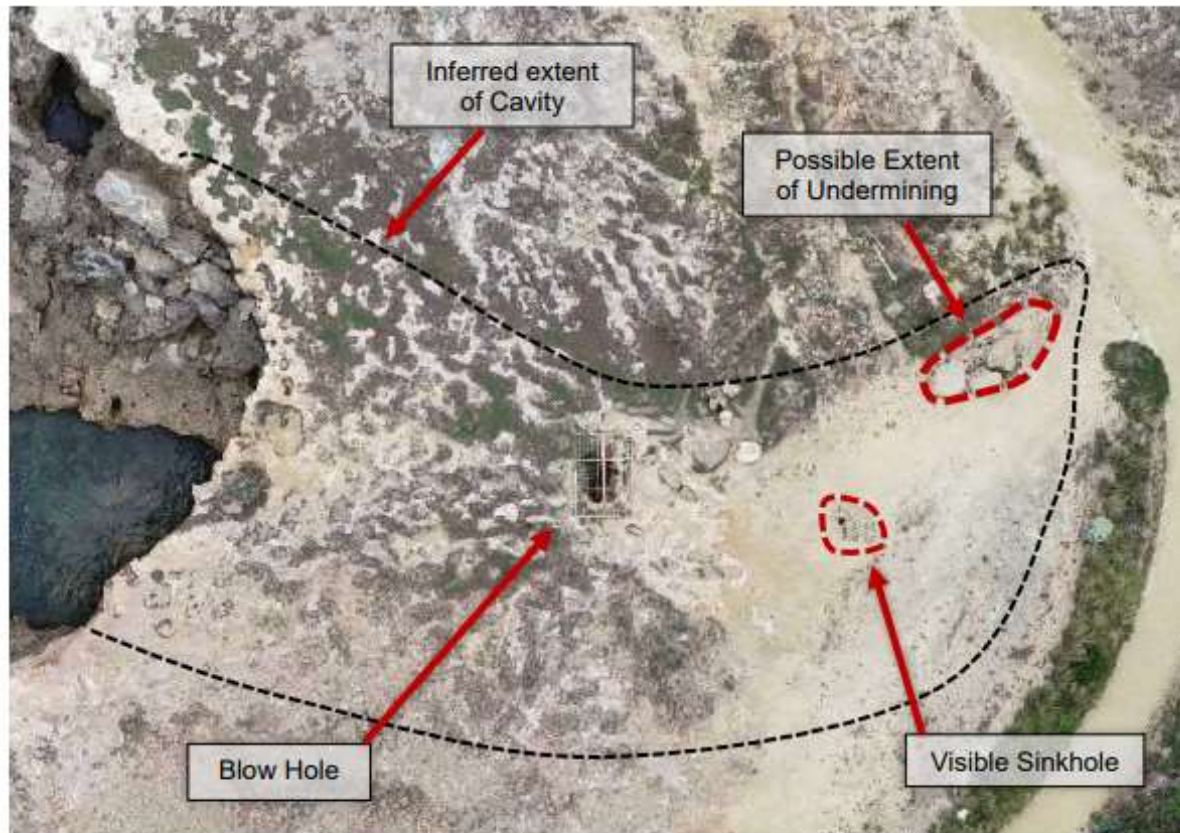


Figure 7 CH 1200 – Obelisk Nature Walk Blow Hole – Sink Hole



So What Have We Done

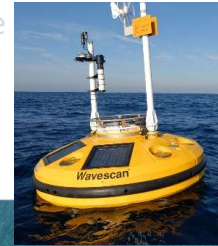
- Longitudinal study
- Management Road Map
- LiDAR & Hovermap



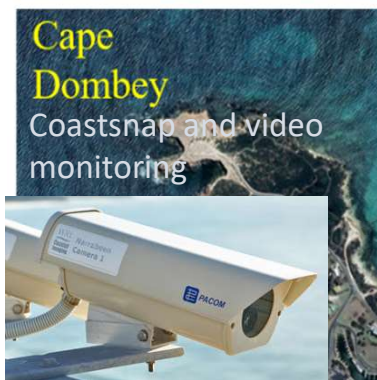
Offshore/shelf waves,
SST's, temp profiling.

Tide gauge
Meterological station

Inshore
waves



Water table and sea
level rise monitoring



Cape
Dombey
Coastsnap and video
monitoring



Current
meters

200m

Drone surveys



Long
Beach



Factory
Bay

West
Beach

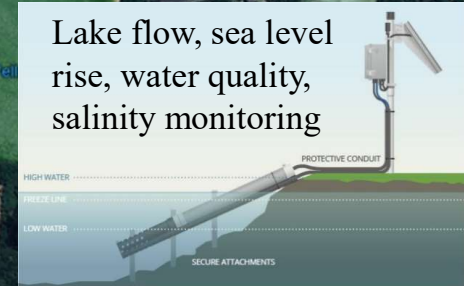
Groundwater
monitoring

Town
Beach

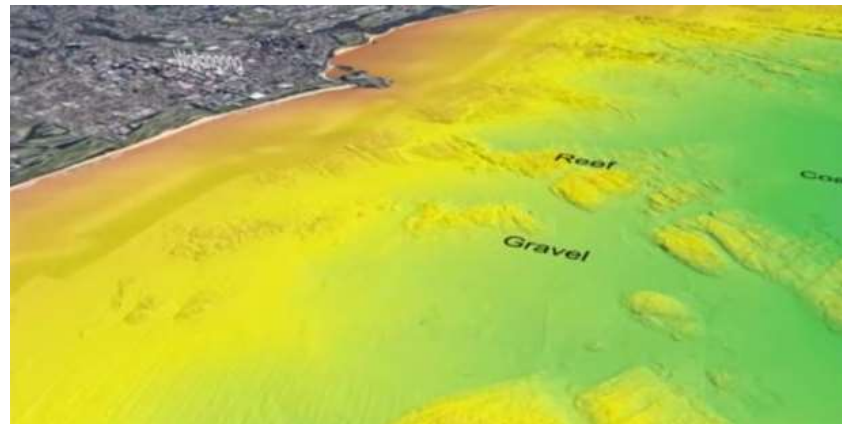
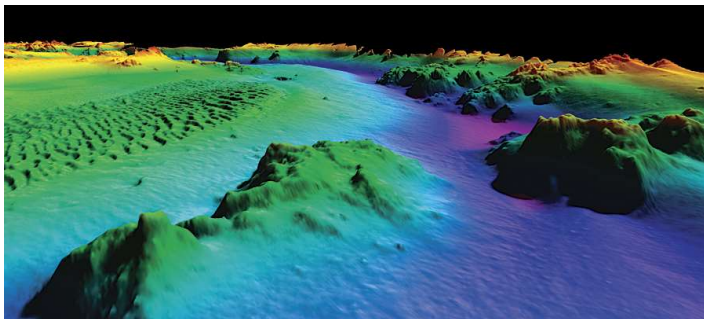
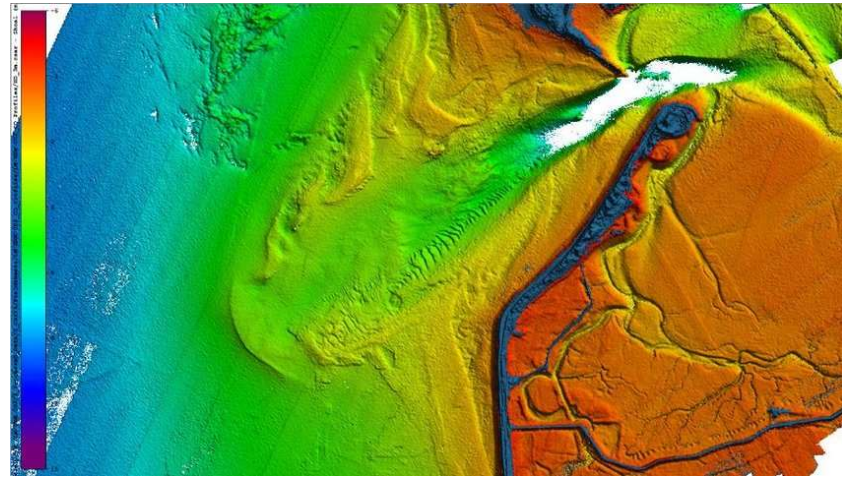
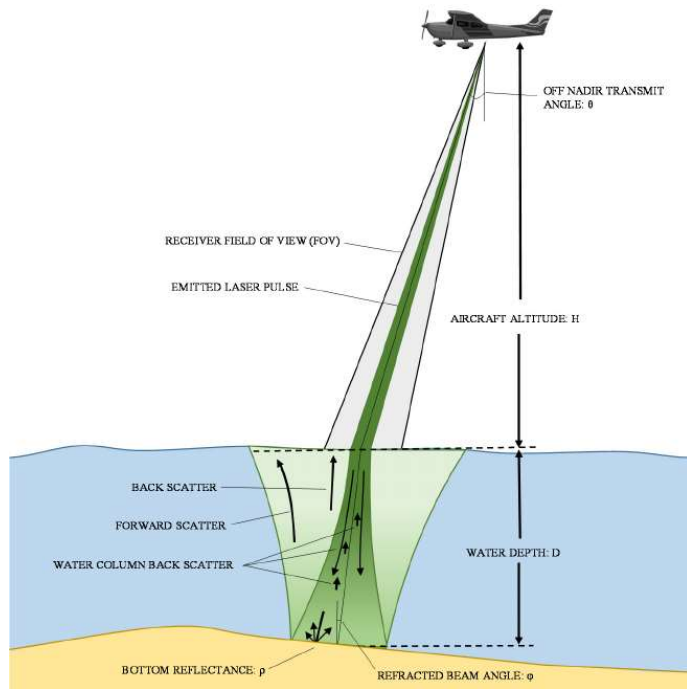
Hoopers
Beach

The
Outlet
Fox
Beach

Lake flow, sea level
rise, water quality,
salinity monitoring



Bathymetric LiDAR



Our History in Coastal Management



- Marine Facility Committee – Rivoli Bay
- Adhoc Decisions
- Beachport Boat Ramp
- Coastal Erosion
- Poor Relationship
- Community Division



Coastal Awareness

- Understanding the issues and challenges
- Realisation that a number of possible solutions exists with every one having its own benefits and consequences
- Gaining inhouse knowledge
- Identifying the need to do better community engagement
- Taking a Scientific and long term approach to the problem and reduce the amount of adhoc decisions
- Increase engagement with Coastal Protect Board and DEW staff

Scientific Investigations

- Rivoli Bay Study – Worley Parson

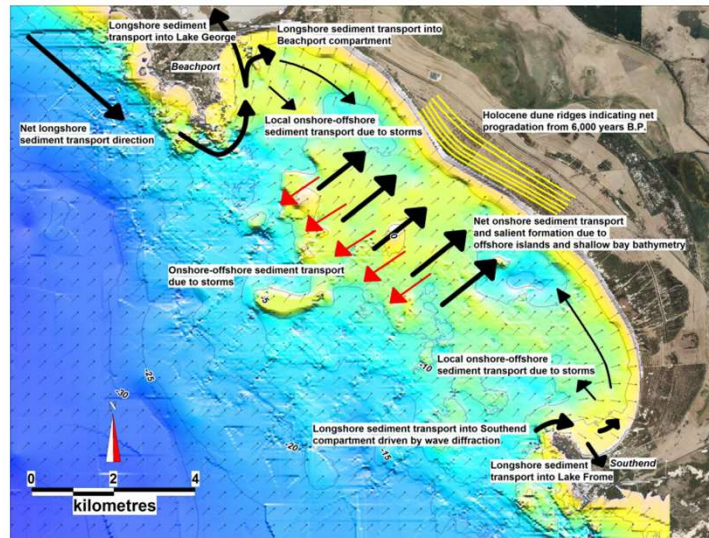


Figure 3 – Regional coastal processes conceptual model

Rivoli Bay Study

301015-03541 – 001
26 Oct 2015





Scientific Investigations

- Salmon Hole, Beachport Coastal Erosion

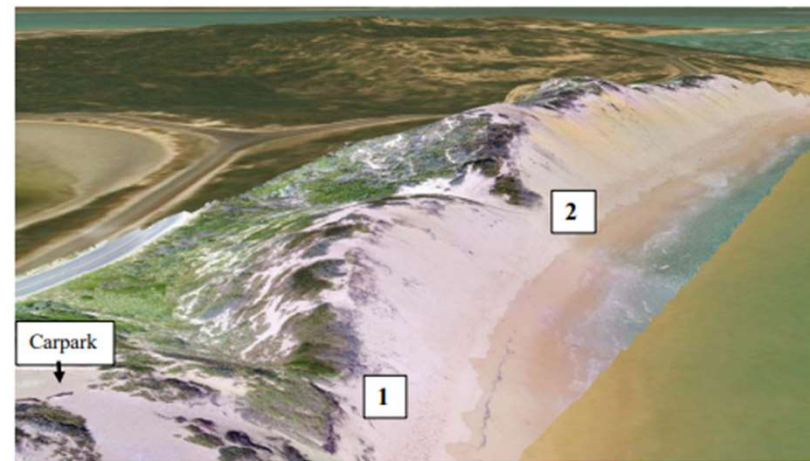
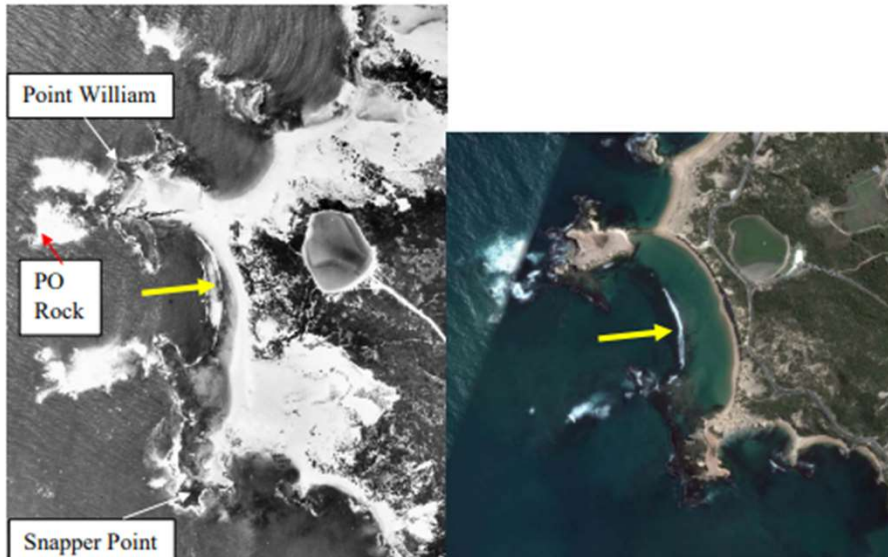


Figure 15: DEM produced from a February, 2018 UAV drone flight and overlaid on a Google Earth image showing the dune system and the two topographic low areas. 1 – Gully; 2 – Blowout.

Scientific Investigations

Southend adaptation strategy
 Report prepared for Wattle Range Council
 27 March 2018

• Southend Adaptation Plan – Wavelength

Figure 1. Coastal erosion hazard lines: Western beach (Note: Coastal hazard Lines Immediate ZWI, 2050 Almost Certain ZR and 2100 Almost Certain are located in the same position).



Figure 2. Coastal erosion hazard lines: Outlet groynes to Leake St.



Figure 3. Coastal erosion hazard lines: North of Leake St.

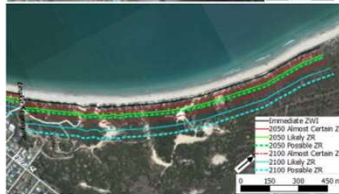


Figure 1. Coastal inundation mapping for 2017, 2050 and 2100 scenarios.



Scientific Investigations

- Beachport and Southend Coastal Report – Baird
- Fact Sheets for Public Engagement - Wavelength



Future

- Beachport Adaption Plan
- Southend Erosion Management and Detailed Design
- Localised Coastal Erosion Management
- Future Actions based on adaptation plans (identified trigger points)
- Major Challenges - Funding