



CITY OF CAPE TOWN
ISIXEKO SASEKAPA
STAD KAAPSTAD



DUNE MANAGEMENT: GORDON'S BAY

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Making progress possible. Together.

MOTIVATION FOR PROJECT

The Gordon's Bay beachfront extends from Harbour Island in the north west to the naval college in the south.

This 2.1km stretch of coastline is a popular recreational area and forms the start of the scenic Clarence Drive coastal road.

Natural coastal processes lead to sand being deposited on the beach and the beach thickening during the winter months. This sand used to be transported by the prevailing westerly summer winds towards the Cape Flats.

This process still remains, but the sand can no longer move and is therefore trapped within the narrow dune belt that now needs to be managed.

The dunes had become unstable with tall, sparsely vegetated sand patches leading to an increase of wind-blown sand on surrounding infrastructure.

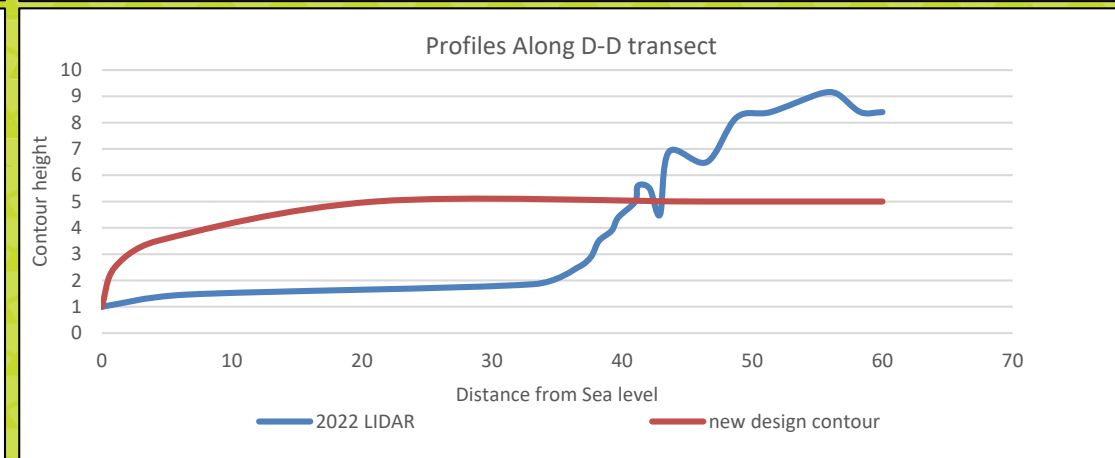
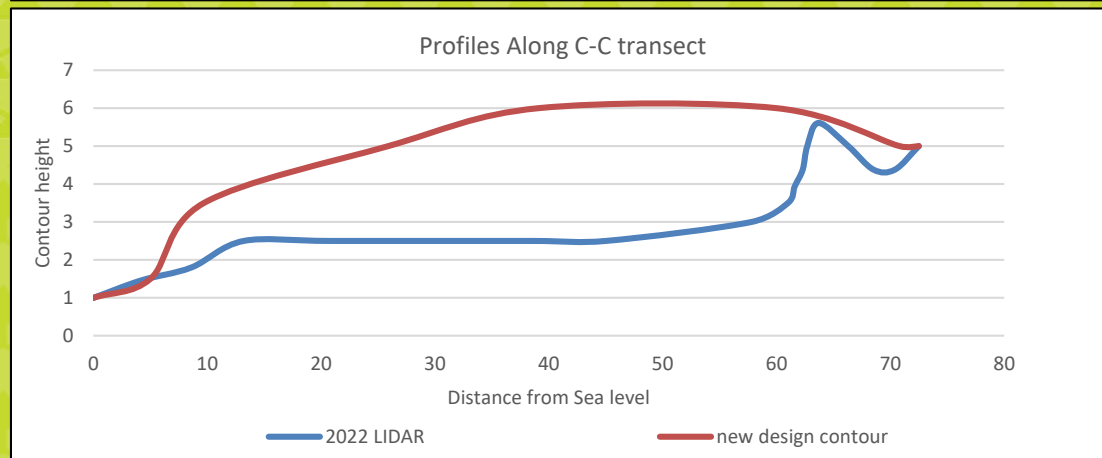
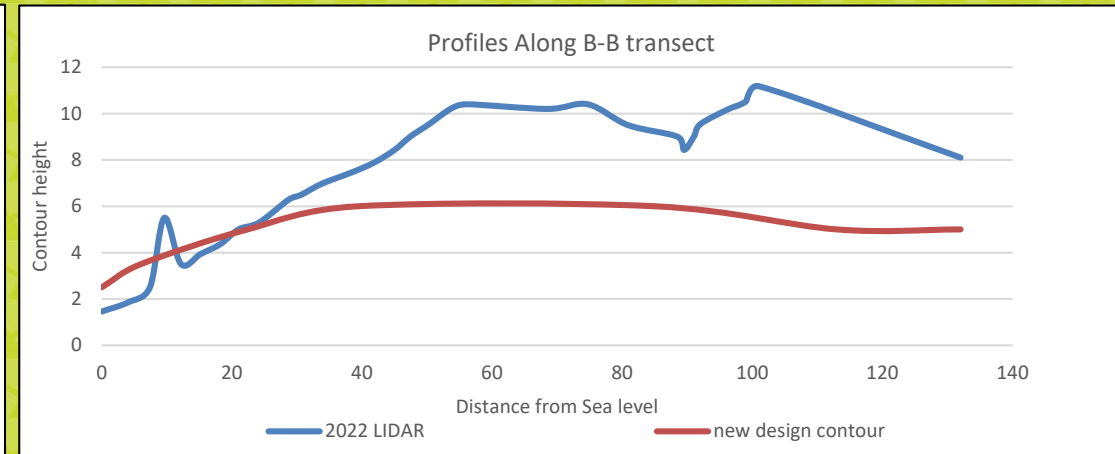
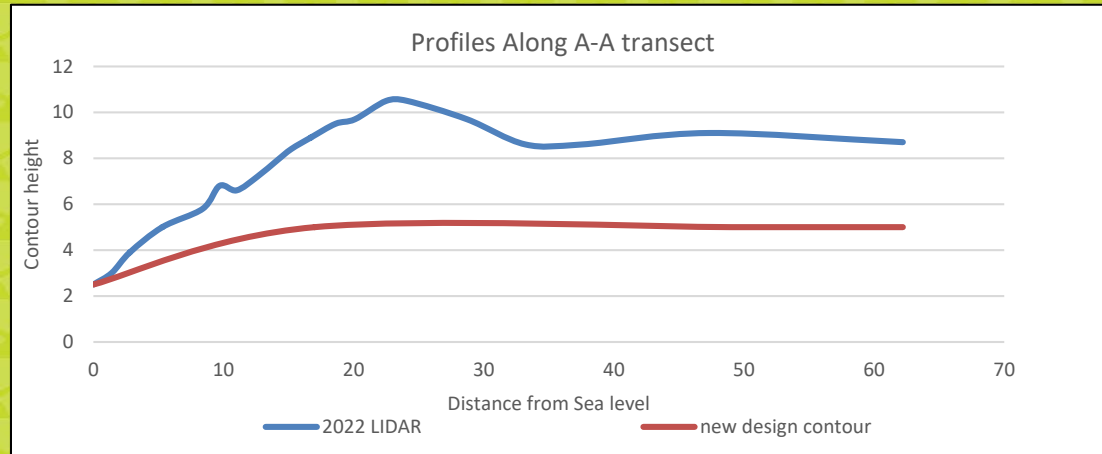
These remaining dune systems are important to protect surrounding infrastructure and buffer the coastline against storm surge events and sea level rise.

Coastal Management has taken the opportunity to include the Gordon's Bay dune system in its dune management plan, along with Fish Hoek, Kommetjie, Hout Bay and Table View.

GORDON'S BAY DUNE PROJECT

- Reprofile and vegetate the dunes to mitigate accumulation of windblown sand on adjacent infrastructure, including stabilisation and rehabilitation of the dune cordon.
- Install irrigation to encourage vegetation establishment.
- Install dune nets to facilitate the stabilisation, trapping and placement of windblown sand within the foredune area.
- Restore coastal infrastructure - beach access, pathways and fencing.
- The project will be completed in 2 "Management Units".
- Project to be fully implemented by end of June 2024. After which, the City will continue maintenance.





OPERATIONS

- During reprofiling of the dune system, organic material and other waste items that were uncovered from the earthworks, were collected daily and removed off site.
- A beach cleaning protocol was implemented to remove organic wash up from the beach.
- Ad hoc large scale clean-ups were undertaken and when required.
- Irrigation was installed to guarantee the establishment and long-term sustainability of the dune vegetation.

INFORMATION SHARING

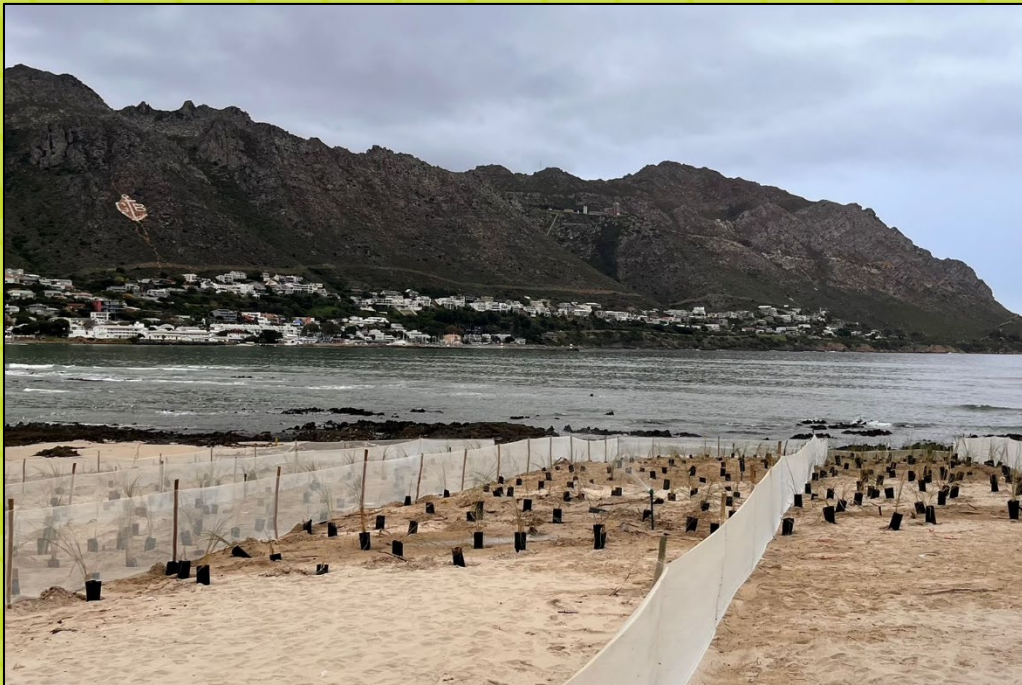
- The works have been undertaken in accordance with the City's Maintenance Management Plan (MMP) as authorised by the Provincial Environmental Authorities.
- 19 January 2023 - Public meeting held at Strand Council Chamber. Invites sent to Ratepayer Association, Ward Councillor, Sub council Manager and directly adjacent facilities and residences impacted by works
- 23 Feb 2023 - Press release issued advising of proposed works, start dates and duration

INTERESTING FACTS

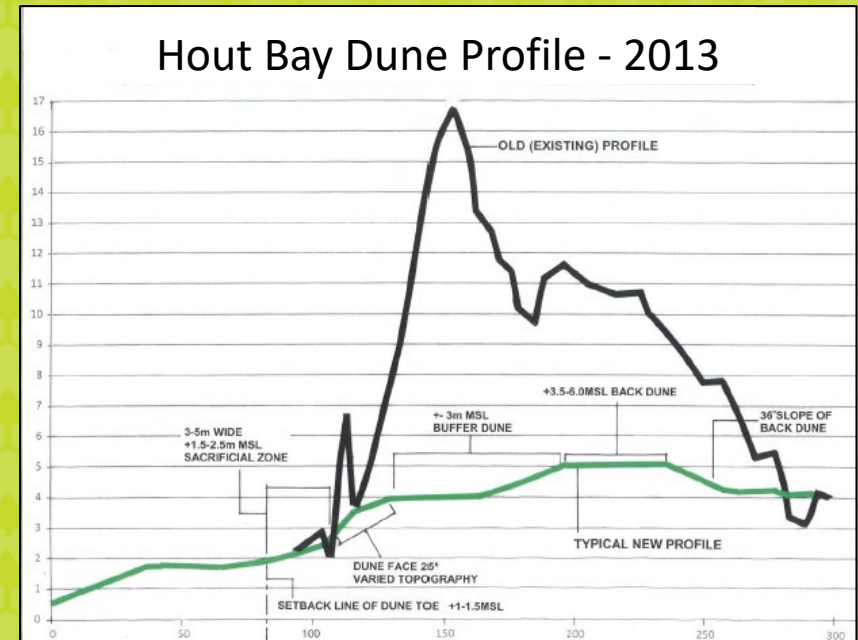
- 5.5 ha of dune was rehabilitated.
- 70 000 m3 of sand was moved.
- 61 000 m3 of sand was returned to the ocean for circulation within the system.
- Approximately 56 689 plants were rescued from the dune system and reused.
- Approximately 114 363 plants were planted within the dune system.
- Approximately 9000m of wind nets were installed to manage wind-blown sand.
- Plant species diversity and abundance increased due to variety planting of dune species.



SUCCESS TO DATE..



BASE MODEL - HOUT BAY BEACH BEFORE SAND MANAGEMENT..



HOUT BAY BEACH AFTER SAND MANAGEMENT..

