

CITY OF CAPE TOWN ISIXEKO SASEKAPA STAD KAAPSTAD



# DUNE MANAGEMENT: GLENCAIRN

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#### **MOTIVATION FOR PROJECT**

The Glencairn beachfront extends from the Whale View lookout in the north to the Tidal Pool in the south.

This 450m stretch of coastline is not only a favourite recreation area and a prime tourist attraction, but also a popular whale watching spot for local and international visitors during the spring months.

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 summer winds to Kommetjie.

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

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

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

#### **GLENCAIRN DUNE PROJECT**

- Reprofile and vegetate the dunes to mitigate accumulation of windblown sand on adjacent infrastructure, including stabilisation and rehabilitation of dune cordon.
- Install irrigation to encourage vegetation establishment.
- Install dune nets to facilitate the stabilisation, trapping and placement of windblown sand within the dune area.
  Initially, 2 Management Units (MU) were proposed. However, due to the close proximity of the railway line to MU 2, MU 1 was prioritised and MU 2 was removed.
  Project fully implemented and currently in a maintenance phase.



## **DUNE PROFILES**







### **OPERATIONS**

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- During the reprofiling process, dune sand was sifted to eliminate organic materials and debris, including railway ballast. The extracted railway ballast was then returned to the rail reserve, while the organic materials were disposed of off site.
- The clean, sieved sand was subsequently placed back onto the dune system for reprofiling and shaping.
- Irrigation was installed to guarantee the establishment and long-term sustainability of the dune vegetation.
- Historical dune species, have began to establish themselves between the wind nets.

#### **INFORMATION SHARING**

- Works are undertaken in accordance with the City's Maintenance Management Plan (MMP) as authorised by the Provincial Environmental Authorities.
- 19 January 2023 Public meeting held in Glencairn.
   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
- 04 May 2023 Article in the False Bay Echo upon commencement of works explaining the Fish Hoek & Glencairn dune projects specifically.

### **INTERESTING FACTS**

- 2760 m<sup>2</sup> of dune will be rehabilitated.
- Approximately 8550 marram grass plants were planted.
- The original seed bank is showing signs of regeneration.
- Installation of approximately 990m of wind nets.



## SUCCESS TO DATE..





### **BASE MODEL - HOUT BAY BEACH BEFORE SAND MANAGEMENT..**









## HOUT BAY BEACH AFTER SAND MANAGEMENT..







