

TNPA, eThekwini Municipality's sand pumping initiative nourishes Durban beaches

A sand pumping initiative, proposed and launched by eThekwini Municipality and Transnet National Ports Authority (TNPA) has seen sand reinstated along eroded sections of Durban's Golden Mile. As a means to tackle beach erosion exacerbated by climate change and inclement weather, the project, initially conducted as a trial in October of 2017, could offer similar benefits for beaches extending further northwards.

The special beach nourishment programme involves deploying one of TNPA's dredging vessels, the Ilembe, out at sea.



llembe Direct Feed

Sand collected by the dredger during TNPA's usual harbour dredging operations from the 'sand trap' (an area just around the outside of the southern breakwater) is then discharged directly onto the beach via a floating under-sea pipeline. Private contractors appointed by the municipality, Subtech and Katlantic, are responsible for managing the positioning of the pipeline, as well as the shore side managing of the sand under the guidance of an expert from Royal IHC, the Netherlands company which built the Ilembe vessel.

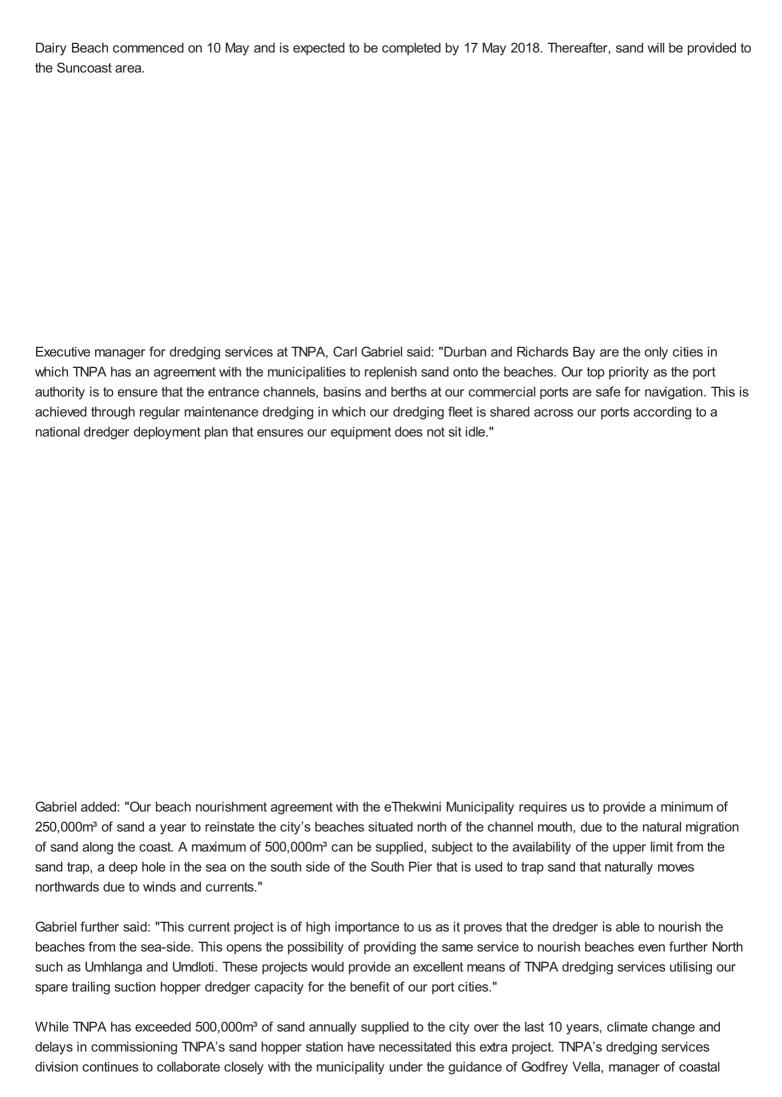
This method of sand replenishment – in use globally but not to date on South African beaches – has provided direct nourishment to affected areas of the Durban beachfront in a fast, productive and cost-effective manner.

Portions of North Beach, Dairy Beach, Country Club and Battery Beach were closed to the public from 20 April 2018 to allow the sand pumping operations to take place over approximately four weeks. To date, North Beach has been completed with approximately 74,000m³ of sand replenished in this area. As at mid-May, a total of 194,000m³ of sand was dredged across the initial beaches – and locals have already noticed the difference.



Durban is slowly becoming a seaside city without any sand

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engineering, stormwater and catchment management, at eThekwini Municipality.



Image via Wikimedia - Skyline of Durban.

TNPA's temporary solution for sand pumping also includes a direct discharge line (DDL) to replenish large volumes of sand from the channel back onto the Durban beaches as quickly as possible. However, the permanent solution will be the commissioning of the TNPA sand hopper station by the end of May, once final performance testing has been completed at the facility. The new sand hopper will deliver sand directly into the municipality's sand pumping booster station for sand to be distributed to the beaches north of the port's entrance channel.

The TNPA sand hopper was built to replace the municipal sand hopper which had to be demolished to accommodate the harbour entrance widening project in 2007.

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