

Sewage on the seashore: Here's what's causing Cape Town's beach closures

By <u>Steve Kretzmann</u> 13 Jan 2023

The post-Covid holiday season, which has the provincial government celebrating a "spectacular recovery" in visitor numbers through Cape Town International Airport, has also seen one of the city's main attractions - its beaches - suffer temporary closures due to sewage spills.



Visitors, including children, were swimming in Kalk Bay's Dalebrook tidal pool on 11 January despite a warning sign posted by the City of Cape Town. Source: Steve Kretzmann/GroundUp

Over the past month, eight beaches have been temporarily closed, some of them more than once, due to sewage spills, which the city has largely blamed on the impact of load shedding on its sewage pump stations.

The latest, and ongoing closure at time of writing, was the popular Dalebrook tidal pool and adjacent Kalk Bay beach area. The cause of the pollution here has not yet been determined.

Dalebrook tidal pool was first closed on 7 January, reopened on 9 January, and closed again on 11 January.

On a visit to the tidal pool on 11 January, we found a sign posted on a poolside railing warning of polluted water unsafe for swimming, playing, or drinking. However, the pool was filled with swimmers, including many children.

When asked if she was worried about the health of her children playing in the water, Bernadine from Kirstenhof said she hadn't seen the sign.

"But the water doesn't look too bad," she said.

She said she doesn't follow the city's social media pages, so she was not aware of the warnings which had been posted.

"If it was serious, wouldn't they have closed it completely?" she asked, referring to there being a warning sign but no restrictions to swimming.

Three 16-year-olds, who had been swimming, said they also had not seen the warning sign.

Corrie said she had come from Plumstead for a swim, but when she saw the warning sign, she opted to get wet under the beach shower instead.

She said she wished she'd known about the pollution warning as it would have saved her driving to Kalk Bay.

Alex Lansdowne, chairperson of the mayoral advisory committee for water quality, said the pollution at Kalk Bay did not seem to be caused by the sewage pump station situated next to the tidal pool.

Lansdowne said the "extremely low tides" following the recent full moon, which results in the water remaining stagnant and shallow for a number of hours, combined with the number of people using the tidal pool, may have contributed to high levels of faecal coliforms found in the pool that resulted in it being closed again.

"We suspect this may be the case as there is no known sewage leak, but we are investigating thoroughly before we conclude."



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Rolling closures

The first beach to be closed over the summer holidays was the section between Muizenberg Pavilion and Sunrise Beach on 12 December, just as the festive season started. The city said sewage had spilled into Zandvlei, which flows out to sea at Muizenberg, due to an electrical fault at a pump station situated near the estuary mouth.

According to the city, the electrical fault was caused by "a faulty ultrasonic device", and the public was advised to avoid contact with the water until further notice as it could result in tummy bugs.

A city media release stated "non-stop load shedding" was impacting infrastructure, including sewage pump stations: "Despite contingency measures such as (mobile) generators and telemetry systems at our sewer infrastructure, with severe load shedding, i.e., large areas without power, it is not logistically possible to prevent sewer overflows entirely, in which case the operational teams do their utmost to contain and clean up such flows."

Residents were also asked to reduce water usage, as load shedding was also hampering the ability to pump water to reservoirs on the Cape Flats.

Muizenberg was opened again on 16 December when water quality samples determined E. coli was within the recreational activity risk limits. But two days later, Fish Hoek's popular family beach was closed due to a "sewer overflow in the area". This was later found to be caused by a blocked sewer. Fish Hoek beach was opened again the next day.

"The city experiences daily challenges with inappropriate objects blocking our sewer network. The situation is compounded by load shedding – particularly the sustained higher levels that we have experienced. The impact is quite visible, particularly as relates to our coastal areas, at a time when the beach is a very popular destination. I think we need to accept that pump station faults can and will occur, given the ongoing load shedding," said acting mayor Eddie Andrews.

Despite ongoing load shedding, there were no further beach closures in December other than Lagoon Beach at the mouth of the Milnerton Estuary, which has been signposted as too polluted for swimming for <u>at least three years</u>.

But as 2023 started, beach closures came thick and fast. Strand Beach and Small Bay in Blaauwberg were closed on 1 January, with a section of Fish Hoek closed again on 2 January due to blocked sewer lines.

By 3 January, Strand and Small Bay were reopened, with Fish Hoek reopened on 4 January, only for a section of Gordon's Bay Beach to be closed after a pump station tripped.

Three days later, Gordon's Bay was reopened, only for Kalk Bay beach and popular Dalebrook tidal pool to be closed, on this occasion due to a sewage overflow.

As Dalebrook opened on 9 January, Llandudno was closed due to an overflow from a sewer pump station as a result of a load shedding power surge.

Dalebrook was opened on 10 January, although the Kalk Bay beach section remained closed, only for Dalebrook to be announced closed again on 11 January, with the cause of the sewage pollution yet to be determined, while Llandudno was reopened.

Criteria for closure

Lansdowne said decisions to effect beach closures were based on the National Water Quality Guidelines for full immersion, with 500 faecal coliform colony forming units (cfu) per 100ml being the maximum allowed. Faecal coliforms, such as E.coli, are bacteria naturally occurring in the human gut and high levels are indicative of sewage pollution.

He said it took 48 hours from the time of taking a water sample, to obtaining the results, as the sample had to be cultured in the laboratory. Thus when a "pollution incident" occurred, the beach was closed for a minimum of 150 metres on either side of the pollution source as a precautionary measure, and daily water samples taken until the water was deemed clean enough for swimming.

He said 90% of the time, city engineers were on the scene within two hours of an incident being reported and started work on fixing the cause of the pollution.

It was a "cautionary, risk-averse approach".

Proactive approach

Caroline Marx, an environmental activist who has been at the forefront of fighting for the clean-up of the Diep River estuary, and one of the people behind <u>rethinkthestink.co.za</u>, said while coastal water quality was poor at many beaches, she was "glad" the city was being proactive about pollution rather than pretending everything was fine.

Marx said after years of fighting for transparency over water quality, the city was now moving in that direction.

"More questions are being asked and water and sanitation are being put under the hammer and councillors are holding them accountable." She said the "trend is good" but the water quality results "are bad".

However, chairperson of the Fish Hoek Valley ratepayers and residents association Brian Youngblood believes the city was not being proactive enough in mitigating the impact of load shedding leading to sewage pollution.

Youngblood said in the Fish Hoek valley there were two pumpstations with generators that pumped sewage to a higher lying pump station. However, the higher-lying pump station did not have a generator so its small sewage reservoir often overflowed during load shedding, polluting the Silvermine River wetlands.

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