

Water and Sanitation in the News

More poo in the pipeline for Cape Town seas

Cape Town residents and visitors should get used to raw sewage in the ocean - there is more on the way. That is according to the City of Cape Town, which said its "marine outfall" pipes into the ocean are big enough to accommodate population growth for the next 20 years.



Image by: Jean Tresfon

The news is cold comfort for residents, who reacted with outrage to recent pictures of what appeared to be large sewage "plumes" close to pipe outfalls near Hout Bay and Green Point - not far from popular tourist beaches.

The origin of the plumes is still under investigation by the Department of Environmental Affairs.

Source: *Times Live*, 11 June 2015

Context

Recently published photos of the alleged sewerage plumes have made headlines and caused quite a public uproar. A media response from City of Cape Town was as follows:

"Our officials had a look at the picture and their assumption is that one cannot confirm what exactly the plume or the source thereof is. It could be many things and the City's experts will have to do a comprehensive analysis. ...Save to say, if it is indeed sewage spewing out then there should be a constant daily plume (its direction will be dependent on the wind/wave action). Secondly, the sewage is discharged through several diffusers at a depth of 30 metres i.e. it should be dispersed before it reaches the top level of the ocean. Lastly, no seagulls are noticeable in the photo and their presence would have been an indication of sewage discharge. In addition, one

would be able to see the seagulls gathering around the sewage plume from the shoreline."

However, the photographer, Jean Tresfon, claimed it was raw untreated sewage as he responded with a close-up image showing hundreds of seagulls near the plume. GPS co-ordinates recorded by Jean also reportedly indicate that the plume was originating where the Green Point outfall pipeline ends. City of Cape Town has reported that they are investigating the situation. The City have also recently begun the application process for renewed Coastal Waters Discharge Permits in line with the Department of Environmental Affairs' Integrated Coastal Management Act (ICMA), 2008 (Act 24 of 2009); which already came into effect on 1 December 2009. The application includes a **public participation** phase that runs from 1 June to 10 July 2015. That means that the public has the opportunity to submit comments, recommendations or input to the municipality on how the sewage can be dealt with.

According to the City's [online marine outfall info page](#) he combined capacity of City of Cape Town's three marine sewer outfalls (at Green Point, Camps Bay and Hout Bay) are approximately 55 Million litres of largely untreated sewage per day. That is equal to filling 22 Olympic-sized swimming pools every day with sewerage.

Sources: *Zigzag*, 09 June 2015; *News 100*, 26 May 2015

WAMtechnology has **35 years of expertise** in the provision of specialist engineering services on marine outfalls, especially outfall design. The conceptual designs include the following elements: route selection for the pipeline and head works siting; hydraulic design; compliance with the site-specific water quality objectives (achievable initial dilutions); achievable dilutions at distant locations (secondary dilutions and decay); construction considerations: type of materials and the method of installation; monitoring programmes: effluent, water quality and ecology.

A WAMTechnology multi-port diffuser hydraulic model (based on the US-EPA UOUTPLM programme) has been applied to numerous outfall projects (national and international), including Mauritius, Kenya, Richards Bay, Durban, East London, Robben Island, Coega IDZ, Caltex Milnerton, Umkomaas KZN, Sizela KZN, Gansbaai, Mosselbay, etc.

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