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Water and Sanitation in the News

E.coli threatens Blue Flag beaches

Water quality at Cape Town beaches may be getting worse because of sewage pumped into the sea, the Sunday Times reported. The water quality at Clifton beach, which has Blue Flag status, and other beaches around the Cape Peninsula, may have an elevated E.coli count, according to Professor Edda Weimann of the University of Cape Town.

There were several sewage stations on the peninsula coastline that pump sewage into the sea. "Only debris and larger particles are filtered out," the newspaper quoted Weimann as saying. Weimann has been monitoring Clifton and noted the yellow foam and bad smell. Last week she photographed pollution at Grotto Beach in Hermanus another Blue Flag beach - and dead seals on Pearly Beach and Die Dam. "Foam and yellowish colouring of sand was associated with elevated E.coli counts," she wrote in an ecology journal.

Blue Flag status is an international award for beaches with excellent safety and cleanliness, according to the Wildlife and Environmental Society of SA. The society's Morgan Griffiths told the newspaper that the beaches were safe. Water was tested every two weeks, and Clifton tests this week did show slightly elevated E.coli levels. However, a test sample the following day showed the water was clean. "The public does not need to be stressed that they are swimming in sewage water. They are swimming in some of the cleanest and independently tested seawater," Griffiths said.

An environmental justice organisation in Durban has also warned that the water off many beaches there contains toxic chemicals. Desmond D'sa of the South Durban Community Environmental Alliance said this week that although he had not taken samples at Durban beaches, there were high levels of E.coli at many of them due to illegal dumping. In addition, he said, Durban's sewerage system had collapsed because of a lack of maintenance over the years. "I haven't checked the latest results, but in October and November the results of E.coli tests were very high," said D'sa.

Sources: SAPA; Times LIVE, 28 Dec. 2014

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At present there are 14 deep-sea marine outfalls on the South African coastline releasing municipal and industrial waste water into the marine environment. Any failures of offshore pipelines (pipelines that release effluent beyond the surf zone) are mostly due to operational problems; however damage due to adverse weather and damage from ships had occurred in the past.



Source: eWISA

WAMtechnology has expertise in the providing of specialist engineering services on marine outfalls for the past 35 years, 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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