

Water shocks

PAISEY BEANGSTROM
News Editor

POLLUTION flowing into Kamfers Dam from the Homevale Sewerage Works is threatening not only the flamingo population but posing serious health risks for the people living in the surrounding area.

Water quality tests, funded by the Save the Flamingo Association and conducted by international water quality expert, Dr Jan Roos (Water Quality Consultants, Bloemfontein), has revealed that the quality of the water is unacceptably poor and below national and international standards.

According to a statement released by the association, water samples were recently collected, including the inflow from the Homevale Sewerage Works into Kamfers Dam and then at various sites in the dam itself. "The aim of this work is to monitor the dam's water quality, not only in the interests of the population of flamingos but also for the people who live in the suburbs surrounding Kamfers Dam."

Jahn Hohne, Chairperson of the Save the Flamingo Association, said that as was expected, the water quality was very poor. "This is attributed to the still malfunctioning Homevale Sewerage Works and the totally inadequate treatment of Kimberley's sewage water." According to Dr Roos, of particular concern is the unacceptably high level levels of coliforms bacteria in the dam's water, with the origin of these bacteria in Kamfers Dam's water almost certainly being the Homevale Sewerage Works.

The Save the Flamingo Association has expressed concern about the health risks this poses to people who are exposed to these microbes.

One of the threats is an elevated risk of water-borne gastroenteritis, as well as a higher risk of pathogens in the water, which could lead to diseases like cholera, dysentery, typhoid fever, viral and bacterial gastroenteritis, and hepatitis A.

According to the tests, The E. coli concentrations in the outflow water were very high and this also poses a significant health risk to people who come into contact with the water.

The water samples have also tested positive for Clostridium, a bacterium that causes botulism in birds, which can result in mass mortalities.

"It is therefore not inconceivable that an outbreak of botulism at Kamfers Dam could wipe out the entire population of the dam's flamingos," the Save the Flamingo Association pointed out.

Meanwhile, the Chemical Oxygen Demand (COD) and Biological Oxygen Demand (BOD) of the water flowing into Kamfers Dam are also unacceptably high, indicative of poorly treated sewage water.

It was determined during the last breeding event that at least one-third of the 9 000 juvenile Lesser Flamingos had avian pox virus, the first time that the virus has been observed in any species of wild flamingos. The symptoms of this virus are wart-like lesions that are visible on the featherless areas of the body. Avian pox virus is spread by biting insects (such as mosquitos) which live and breed in water of a poor quality.

Mark Anderson, Executive Director of BirdLife South Africa, said that ornithologists and veterinarians would once again be monitoring the incidence of avian pox virus in Kamfers Dam's flamingos and surveys will be done to determine the proportion of chicks which are infected with this virus.

The Save the Flamingo Association will continue with its water quality monitoring programme and its campaign to ensure a well-functioning sewerage works and a healthy environment for the people and wildlife that live in Kimberley and its surrounds.

Municipal spokesperson, Sello Matsie, said that while they welcomed the water quality tests, they were aware of the situation and had embarked on an emergency construction project that started in September. The R3 million project is expected to be completed by the end of February and would enable sludge withdrawal from the process which, Matsie said, would dramatically improve the effluent quality.

"The next phase of the refurbishment of the Homevale Sewerage Works is expected to start in February and will consist of two operations, namely civil works at a cost of R8 million and electrical/mechanical works at a cost of R22 million."

He added that according to the projected plan, this was expected to be completed by the end of 2009. "This is all being done in close co-operation and with the approval of the Department of Water Affairs and Forestry who are closely monitoring the process in line with our domestic and international obligations."