

**USING MODELLING AS A MANAGEMENT TOOL FOR WATER
RESOURCES: IDENTIFYING PROBLEMS AND CAUSES AND PROVIDING
SOLUTIONS TO CURRENT EUTROPHICATION PROBLEMS IN LAKE
CHIVERO**

by

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Abstract

The PAMOLARE model can be used as an effective tool for managing water resources. Projections show that in the next 25 years Lake Chivero's water quality will further deteriorate if there are no measures taken immediately to reduce the rapid inflow of nutrients into the lake. Reducing the phosphorous and nitrogen loadings into Lake Chivero from 24.4g/m²/year to 0.5 g/m²/year and 108.9 g/m²/year to 2 g/m²/year respectively will see the recovery of the lake within 5 years of implementing remedial steps. The failure to implement remedial measures is predicted to result in residents of Harare and neighboring towns facing escalating water charges since the costs of water treatment will increase due to the increased water pollution.

"We may all see that freshwater ecosystems are at risk; we therefore need also to act with the knowledge and resources needed for sustainable change".

-Chief Emeka Anyaoku

"A vision without action is just a dream; an action without vision just passes time; a vision with an action changes the world."

-Nelson Mandela.

Lake Chivero requires both vision and action to see it turn around and eliminate the pollution problem. The lives of millions are at stake. The time to act is now.

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