



tethys

Ypacarai Lake, Paraguay (2007 – 2014)

Biological activation of the waterbody in order to eliminate blooms of blue algae in the lake.

INVOLVED

NOTIFYING BODIES:

- WUR (University of Wageningen Netherlands)
- UNA (Universidad Nacional de Asunción)

PLACE OF EXECUTION

- Club de Caballeros, Ypacarai

SCOPE OF WORK

Sectioning two specific areas in the lake for the test. Both sections were closed with a dam so water from the lake in pond 1 and pond 2 were exactly the same. Pond 1 was kept as is and in pond 2 a natural movement of the water was created with pumps, in combination with the dosing of a biocatalyst. The test was continuously monitored and after 5 days the quality of the water in pond 2 was improved a lot and met the safety regulations for recreative use and even the intake for drinking water purposes. The water in pond 1 was still toxic. The test is repeated 3 times and also samples were taken of the sediment. The full report (Spanish – English) is available for sponsors.

A second test was performed by the University of Asuncion by creating floating helophyte islands that absorb excesses of nitrogen and phosphates. In combination with biological stimulation of the surrounding areas as result, an increased flora and fauna were observed. These islands were located in anoxic places in the lake and stimulated the production of oxygen by realizing an exponential growth of native chemotroph microorganisms.

