



tethys

# Tiscapa Lagoon, Nicaragua (2017 – 2021)

Mechanical and Biological aeration of the waterbody and sediment in order to reduce algae blooms and reverse serious hypoxia of the lagune.

## INVOLVED

### NOTIFYING BODIES:

- CIRA (Universidad de Managua)
- Ministerio de Ambiente (Nicaragua)

## PLACE OF EXECUTION

- Managua, Nicaragua

## SCOPE OF WORK

A combination of mechanical aeration and biological activation was applied for the cleanup of the Tiscapa lagune. It was proven that only mechanical aeration was not enough to recover the whole laguna because the sewer is still entering the lagune, causing eutrophication and anoxia in some areas. The combination of mechanical and biological activation caused an intense smell the first weeks after commissioning, but after this period the lagune became cleaner each month. After a year the first phase was finished and the formation of algae blooms was stopped. The flora and fauna of the laguna recovered quickly and many small fish and turtles were spotted. The biochemical analyses of CIRA showed an increase in oxygen and a decrease in nitrogen and phosphate levels. The test is repeated in 2021 and data have been collected on a weekly basis.

The full report (English - Spanish) is available for our sponsors.

