

Algae Control in Drinking Water Reservoir La Fe

Eight MPC-Buoy systems were installed to control and monitor algal blooms in a drinking water reservoir of EPM (Empresas Públicas de Medellín) in Medellin, Colombia. The reservoir is the main drinking water source of the City of Medellin. Since installation in May 2015, the systems have been in continuous operation.

Watch video 

Drinking water reservoir, EPM, Colombia



- ✓ Since 2015 the reservoir remains free of algae
- ✓ Significant improvements in water quality
- ✓ Reduced operational costs

The Challenge: Control algal blooms

The primary objective of the project was to reduce and control (cyanobacterial) algal blooms, and to improve the quality of the water that enters the water treatment plant. Secondary objectives of the project were to use the reservoir to its maximum, to save operational costs for pumps and filters.

The Solution: MPC-Buoy

Given the scale of the project, the best technical and economic solution was to install eight ultrasonic systems spread over the entire reservoir. The MPC-Buoy system provides a complete and environmentally friendly solution to control algae in large water surface. Solar energy powers the systems and operate remotely, which results in low operational costs.

The Results: Algae free reservoir

Since the installation of the systems, algal blooms have been controlled effectively, even in the extreme environmental conditions of "El Niño" in 2015-2016. The interactive algae control systems allowed to adjust the treatment for a high dynamic and fast-growing algal population. The treatment costs decreased.



Figure 1: Close-up of the MPC-Buoy installed in La Fe reservoir



"The algae and cyanobacteria control has been an excellent investment. We achieved by means of an environmentally friendly technology to improve the water quality and decrease the treatment costs, furthermore we have today a monitoring and control which is more adjusted to the behaviour of our reservoir".

Santiago Barrera – Professional Business Operations