

# Algae Control in Auckland Dam

Five solar-powered algae control systems were installed in the Lower Nihotupu Dam in Auckland, New Zealand to reduce the levels of blue-green algae. The project started in December 2016 and so far, the project appeared to be of great success with the blue-green algae count over summer 90 per cent less than the previous year.



## Drinking water reservoir, Watercare, New Zealand



- ✔ 90% reduction in blue-green algae
- ✔ Real-time water quality insights

### The Challenge: Reduce blue-green algae

The main objective for this project was to reduce the blue-green algae counts in the dam used as water supply. When blooming in the summer, the blue-green algae increases the process costs of the water, or even making the water unusable. A reduction in blue-green algae would also allow for savings in the use of (expensive) chemicals.

### The Solution: Ultrasonic sound waves

Ultrasound technology combined with real-time water quality monitoring provides a cost-effective solution to control algal blooms. The ultrasonic sound waves provide a long-term solution for a healthy ecosystem and are proven to be safe for humans, plants and other aquatic life.

### The Results: 90% reduction

Since the installation in December 2016 the project appeared to be of great success. The blue-green algae count proved to be 90% lower during the summer compared to the previous year. The real-time water quality data predicts new algal blooms allowing them to be controlled before they become a problem.



Figure 1: Continuous water quality monitoring combined with web-based software allows for an early warning of toxic algal blooms.



*"It gives that extra assurance that when people turn on the tap the water that they are drinking is safe".*

**Amy Holliday, water quality and environmental analyst for Watercare**

This case study is based on the article; "Sound waves kill algae in Auckland lake" published at Stuff Environment, written by Simon Smith.