

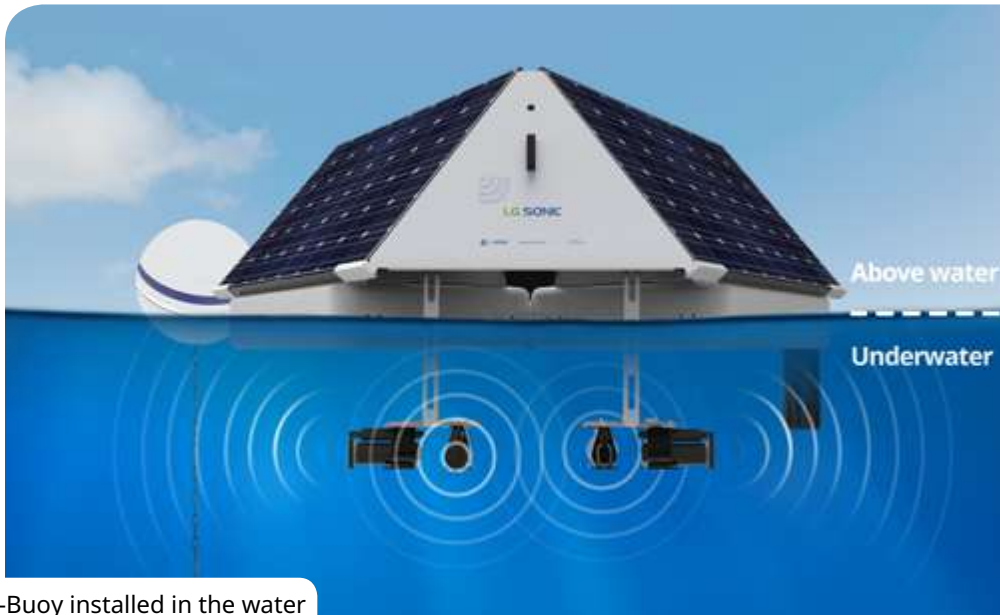
## Algae Control in Raw Water Reservoirs

The MPC-Buoy is a floating, solar-powered system that combines real-time water quality monitoring and ultrasonic sound waves to control algae effectively.

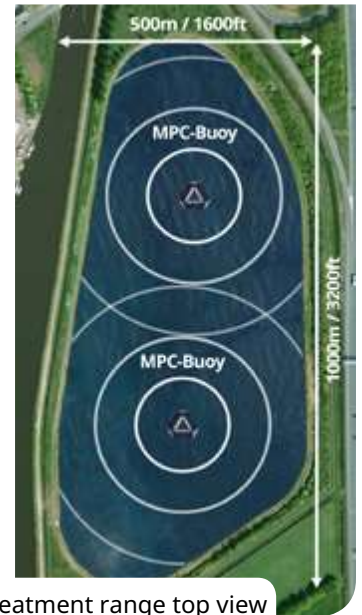
### Control Algae with Ultrasound

Specific ultrasonic sound waves based on real-time water quality data can be used to control algae in raw water reservoirs.

- ✔ Eliminate up to 70-90% of the algae
- ✔ Reduce TSS, BOD and chemical usage
- ✔ Safe for fish, plants and other aquatic life



MPC-Buoy installed in the water



Treatment range top view

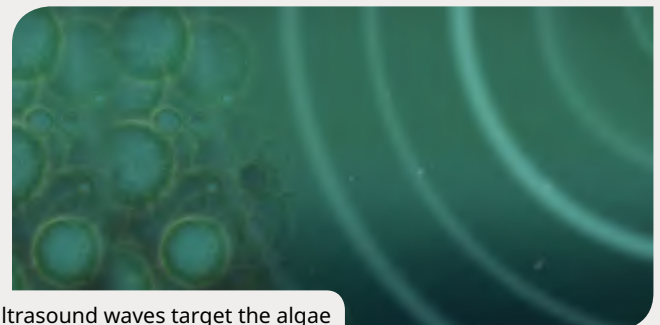
Each MPC-Buoy system has an ultrasonic treatment range of 500m in diameter

### How Ultrasound Targets Algae

Specific ultrasonic frequencies, waveforms and amplitudes can be utilised to directly target algae.

1. Ultrasound waves create a sound layer in the top layer of the water
2. The sound layer has a direct impact on the buoyancy of the algae
3. The algae cells sink to the bottom where they are unable to photosynthesize and eventually die due to a lack of light

LG Sonic products have been tested by various universities and are proven to be safe for fish, plants, zooplankton, and insects.



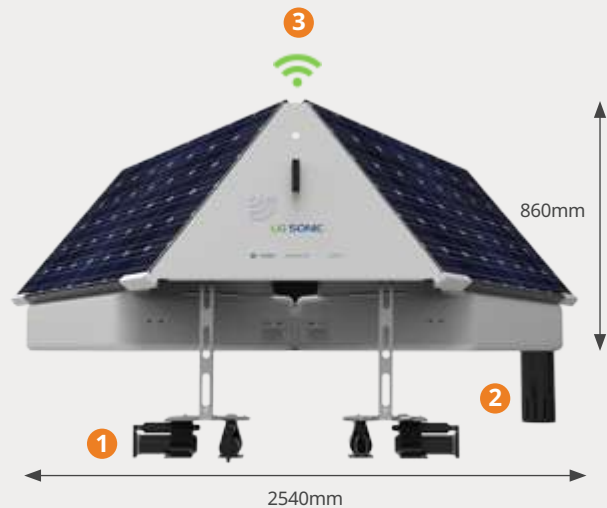
Ultrasound waves target the algae

## LG Sonic Algae Control Products

### MPC-Buoy

The MPC-Buoy is a solar-powered system that controls algae using sound waves. The solution is to anchor one or multiple systems that transmit specific ultrasonic parameters depending on the type of algae.

- 1 Specific ultrasonic parameters control algae up to 90%
- 2 Sensor package provides real-time insight in the water quality
- 3 The real-time water quality data is automatically transferred to online software



### Real-time Water Quality Monitoring Software

Real-time water quality monitoring combined with web-based software allows to have a clear overview of the water quality in a drinking water reservoir.



- ✔ Real-time insight in the water quality
- ✔ Data transfer through radio, GPRS, 3G
- ✔ Ultrasonic program based on received data

The MPC-Buoy provides a complete overview of the water quality by collecting the following parameters every ten minutes: Chlorophyll α (green algae), Phycocyanin (blue-green algae), pH, Turbidity, Dissolved Oxygen, and Temperature.

Based on the received data an algorithm determines the most effective ultrasonic parameters.

The customer can visually monitor the water quality, progress of the treatment, and technical status of the devices