

REMOTE WATER QUALITY MONITORING TECHNICAL INFORMATION



completewaters remote water quality monitoring is designed to bring detailed water quality data to your fingertips. We provide all elements from hardware, build, installation, maintenance, telemetry and a customised remote monitoring software platform that creates an all inclusive service solution that allows your team to focus on other areas of a project.

REMOTE MONITORING BUOYS

We offer full service, custom built, remote monitoring buoys with customised sensor payloads to suit a range of waters and applications. A remote monitoring buoy takes away the field component of your monitoring program and gives you extensive data sets relating to your chosen parameters. It also links to and gives you access to a remote monitoring platform, custom built by lake managers. We take care of everything: buoy, sensor payloads, deployment, maintenance, online monitoring platform and recovery. Collecting more extensive data sets than traditional spot and grab sampling workflows.

1. THE BUOY

Custom built by completewaters in house, we integrate remote telemetry hardware and sensors to buoy and anchor hardware to provide a robust physical platform for collecting water quality parameter data. An ideal solution for any fresh water, lake, coastal area, pond or lagoon where typical water quality monitoring takes place. The Buoy is maintained by completewaters, included in the pricing of the service. Fully customisable to suit your needs with custom deployment durations.

2. SENSOR PAYLOADS

Customisable sensor payloads to suit your monitoring program. Choose from sondes that hold four or six sensors in custom arrays including wipers to keep sensor heads clean with settings for ping rates and uploads customised to your needs. Custom cut cable lengths to suit any deployment depth. We choose our sonde and sensor equipment based on reliability and ruggedness, built for long term monitoring projects.

Four sensor + wiper



Six sensor + wiper



PARAMETERS:

- TEMPERATURE
- DISSOLVED OXYGEN (RDO)
- TURBIDITY
- NITRATE
- CHLOROPHYLL a
- AMMONIUM
- CONDUCTIVITY
- pH/ORP
- CHLORIDE
- BLUE/GREEN ALGAE
- PRESSURE

3. REMOTE MONITORING PLATFORM

An intuitive remote online platform purpose built for ease of use and clear data visualizations, giving you and your team 24/7 access to your water quality data. View and export data at any time. A widget based visual platform, allowing you to zoom in and out of singular sensors during certain times, days and weeks as well as graph overlays of all sensor data to show characteristics between parameters.

4. FIELD DEPLOYMENT AND MAINTENANCE

The Buoy service includes buoy deployment on the water, a monthly maintenance/site visit for general checks, cleaning and retrieval at the end of the project. Images of the buoy in location, spot checks and onsite readings and field logs can all be uploaded and recorded onto the remote monitoring platform.

THE PROCESS:

Step 1: BUOY BASE. This is the buoy or pipe built for the specific water including all hardware, the buoy installation on water and recovery at end of deployment. The buoy system is customisable to be floating, pipe mounted or utilise existing groundwater well infrastructure.

Step 2: SENSOR PAYLOAD. Choose your own sensor payload to be integrated to the buoy. Sonde options include the simultaneous operation of two to six sensors at one depth in the water. Multiple sondes can be daisy chained to the same cable and telemetry for monitoring the water column at varying depths on a singular buoy.

Step 3: MONTHLY. Monthly platform, communications and 1x maintenance field visit to the buoy to clean and make any adjustments. Gain access for you and your team to the platform via your own site portal, visualise your sensor data and export when needed.

Additional Platform Capabilities:

- Upload laboratory CSV files and overlay on graphs
- Add weather stations
- Add/upload field logs, notes and photos
- Add security camera to buoy locations

