

Vertical Profiling Systems

BETTER DATA. BETTER DECISIONS.

Providing 24/7 water column profiling and remote data delivery for freshwater and marine environments



Simultaneously monitor water quality, water velocity, and meteorological data 24/7 with an automated *Vertical Profiling System*, the most comprehensive environmental monitoring system available

Automated water quality monitoring and telemetry systems



a xylem brand

Vertical Profiling Systems

FOR CONTINUOUS MONITORING

What are your concerns?

Algae problems?

- Blanketing algae blocking filters
- Penetrating algae causing taste and odor events
- Toxic algae with public health implications

Improve efficiency?

- Treatment decisions based on real-time raw water quality conditions
- Optimal flocculent choice
- Reduce filter/sludge waste with targeted treatments

Energy costs?

- Control mixers and oxygenation systems with real-time stratification data
- Evaluate the effectiveness of aeration systems and control their use

Understanding reservoir dynamics?

- Establish a 3-D baseline automatically across all seasons
- Predict turnover or blooms based on data trends
- Complement water quality with MET data to predict events and their propagation throughout reservoir

Streamline operations?

- Prevent slow-downs in output rate with real-time source water data
- Prevent overpressure on pumps due to filter clogging
- Avoid re-circulating water with early warning of influent conditions
- Reduce chemical and filter costs with targeted treatment
- Reduce trips to field for manual profiles

Why Profile?

Water quality assessment is best conducted through a **complete time series** that monitors physical, chemical, and biological parameters.

YSI's automated Vertical Profiler offers further advancements by **sampling at different depths, allowing you to monitor an entire water column.**

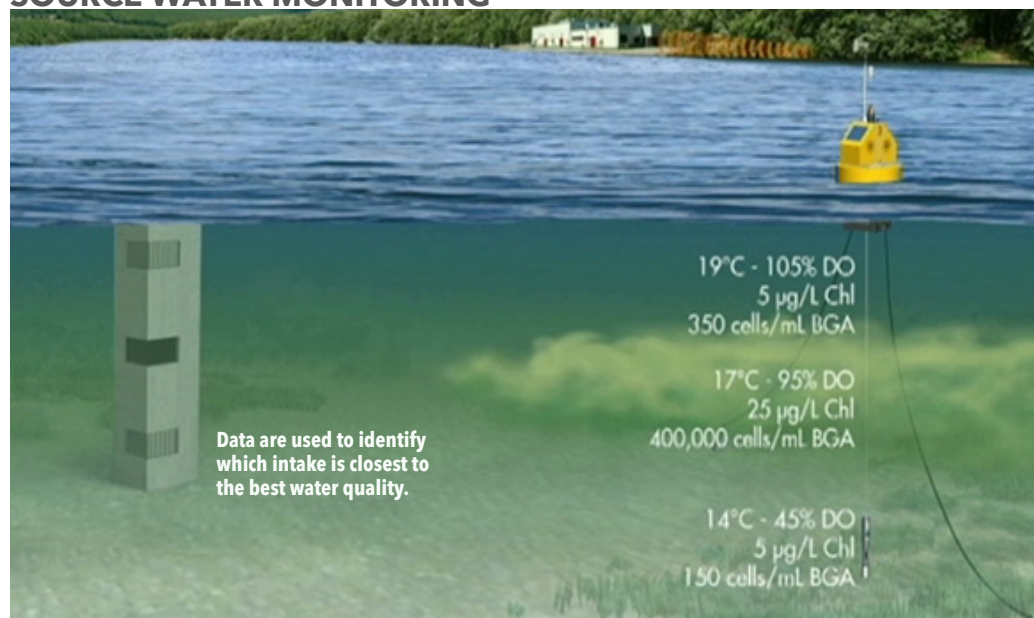
Variations in temperature, wind, rainfall, salinity, and flow cause changes in the vertical structure of a water column, varying from highly stratified to well-mixed.

Users who apply data from a Vertical Profiler will see the impacts of the physical environment on their water resources - **without frequent trips to the field.**

An automated system provides a data set far superior to one generated through spot sampling. The system will detect short-term events routinely missed by traditional field sampling programs:

- Early identification of algal blooms
- Diurnal low-oxygen events
- High turbidity plumes
- Changes in thermocline and pycnocline

SOURCE WATER MONITORING

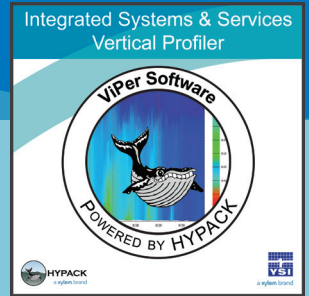


A Vertical Profiler is moored next to a water intake tower in a drinking water reservoir. Profiler data are used to continuously assess water quality, allowing a plant manager to select the most appropriate intake.

Sonde collects water quality data at uniform steps throughout the water column.

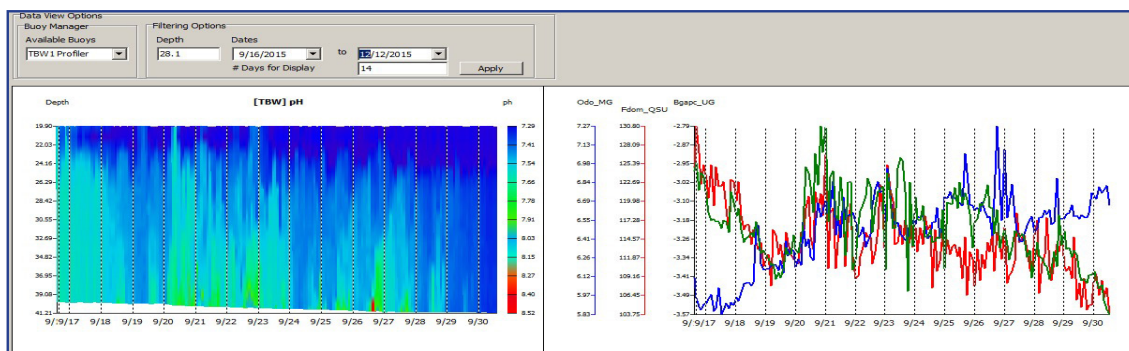
MAKE INFORMED DECISIONS ABOUT:

- Water quality in reservoirs, lakes, bays, estuaries, and near-coastal areas
- Impacts of nearby development and construction
- Water quality at different drinking water intakes
- Taste and odor issues

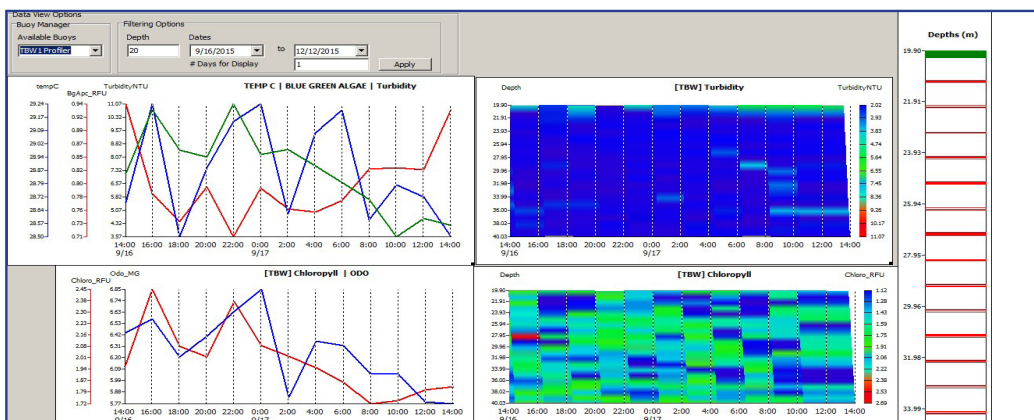
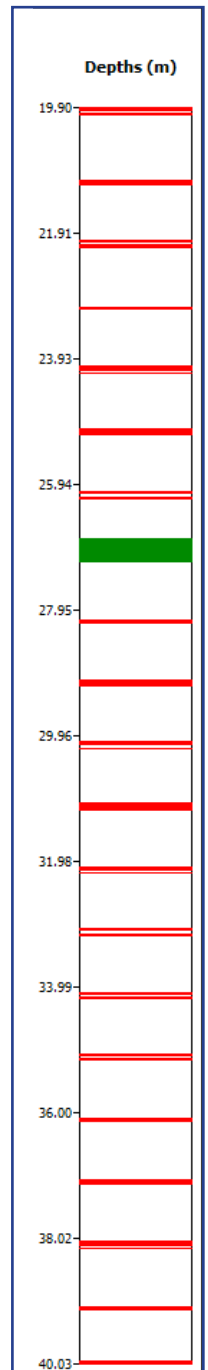
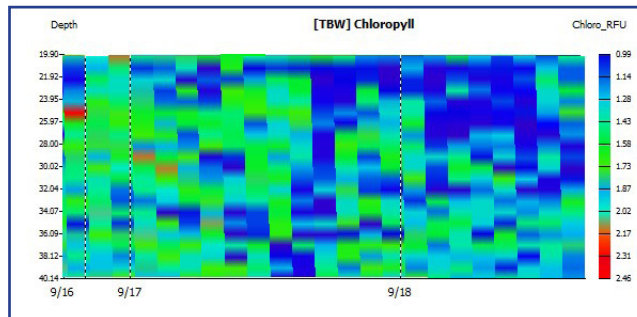
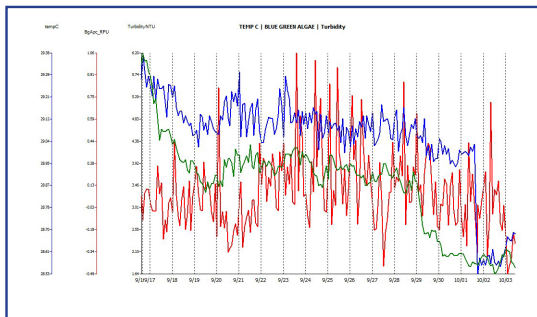


ViPer Software Software for Visualization of Environmental Data

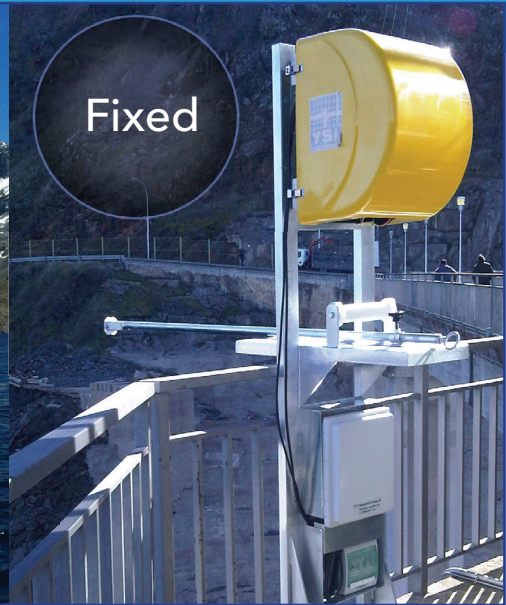
ViPer enables you to visualize your environmental sensor data. Choose from up to 25 sensor variables and view them in profile, gradient, or spreadsheet view.



- Show data in single-day or multiple-day displays.
- Real-time updates insure you always view the latest data. No need to manually update data files to display the latest data.
- Send screen captures of your displays, in jpeg or bmp format, to your web page for online viewing by a wider audience.
- Each buoy system stores up to 25 sensor variables to a DAT file, which ViPer queries to generate your displays.

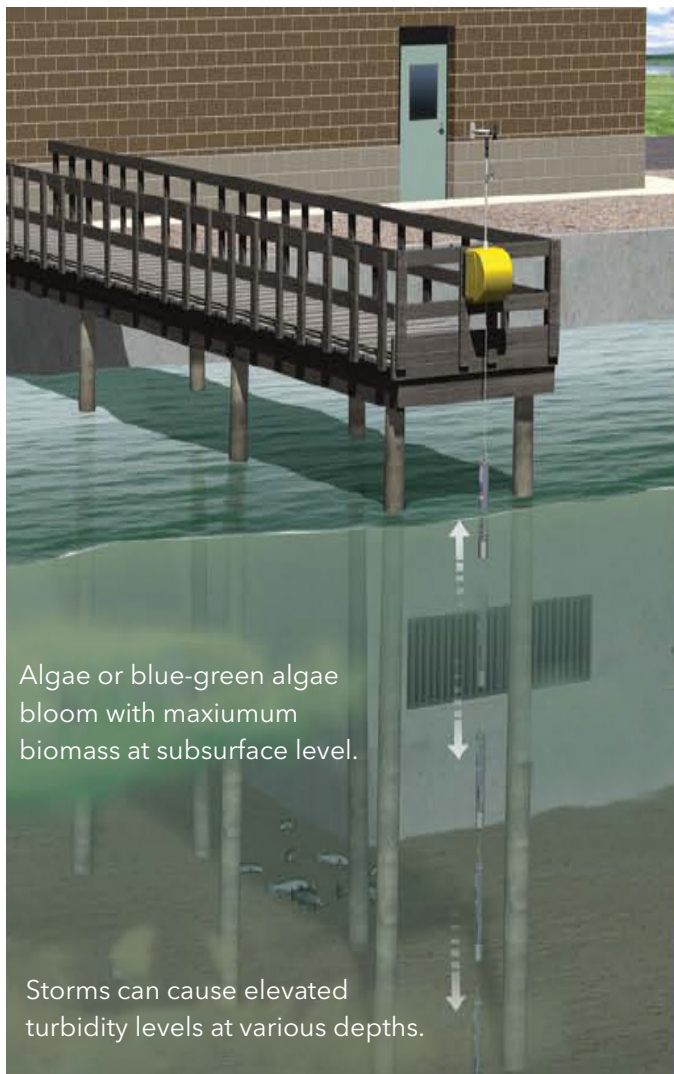


Are you thinking of choosing YSI?



Better Data, Better Decisions

RAW WATER INTAKE



Algae or blue-green algae bloom with maximum biomass at subsurface level.

Storms can cause elevated turbidity levels at various depths.

Many of our employees were once our customers. We know that longer intervals between maintenance and fewer failures equal significant savings in time and money.

Our systems include water quality and velocity sensors, floating and fixed platforms, mounting hardware, flexible data collection platforms, and installation and maintenance services.

Every environment is unique. Talk with our hands-on applications specialists, who can assist you with your specific monitoring needs.



YSI applications specialists and customer set up a Vertical Profiler

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www.ysi.com/products/monitoring-buoys-and-platforms