



Y S I Integrated Systems & Services



# MONITORING SYSTEMS THAT DELIVER BETTER RESULTS



## CUSTOMERS GET BETTER RESULTS:



Our streamlined operations and on-hand inventories help deliver your **coastal observing systems** in weeks rather than months—resulting in reliable data more quickly.



**Source water management** customers use our automated vertical profiling systems to target treatment processes and reduce the cost of operations.



**Environmental consulting** customers use our water velocity instruments and our hydrologists to complement their staff and get accurate results the first time.



Our monitoring systems help you to **stay in compliance** with environmental regulations to avoid fines and pollution.



**Aquaculture customers** protect millions of dollars of fish stock with our continuous data alerts of potential threats to aquatic health—hypoxic water, toxic algal blooms, and pollution.

YSI provides natural-resource monitoring instrumentation and services to **governments, universities and private organizations** whose goal is to make the best use of the earth's resources by understanding our impact on them.

## HOW CAN YOU GET BETTER RESULTS WITH YSI?

### Integrated technology for a complete solution

- Data to the web
- Automated horizontal and vertical monitoring
- Robust sensor technology
- Durable and reliable monitoring platforms

### 30+ years of industry experience and application expertise

### Standard solutions that can be delivered quickly

**On-site engineering services** get your system working and your staff trained at the same time

### Custom solutions for unique monitoring applications

# APPLICATIONS: OUR EXPERIENCE HELPS YOU DELIVER BETTER RESULTS

Many YSI employees used to be our customers. Their decades of experience in the field are used to develop the most effective and practical solutions to address your project's budget and implementation guidelines.



## Water Company Uses Reservoir Profiler to Reduce Costs

Thames Water is the largest water company in England, supplying water to around 8 million people near London. An extended drought, which has included low rainfall over two consecutive winters, has depleted water reserves and the company has implemented measures in order to protect the region's resources.

At Queen Mother Reservoir near Heathrow Airport, the company installed a YSI vertical profiling system. Near real-time data, especially turbidity, allow managers to extract high-quality water from different depths in the reservoir. Chlorophyll and blue-green algae data allow them to activate a mixing system when necessary to suppress algal growth and therefore reduce treatment costs.

The success of this system prompted Thames Water to install profilers at additional reservoirs, thus providing continuous monitoring data affordably.



### SOURCE WATER MANAGEMENT

- Challenges**
- Detect events
  - Optimize water treatment
  - Select appropriate supply source
  - Analyze reservoir dynamics

- Solutions**
- Vertical profiling system
  - Water quality sonde
  - Nutrient analyzers
  - AUV

### HYDROLOGY STUDIES

- Challenges**
- Quickly measure stream discharge and flow with fewer errors
  - Flood alerts

- Solutions**
- Acoustic Doppler profiler
  - Stage/gauge
  - Data telemetry and alarms

### ENVIRONMENTAL IMPACT ASSESSMENT

- Challenges**
- Quickly assess water quality parameters
  - Perform complete assessment on-time and on-budget

- Solutions**
- Water quality sonde
  - Sampler
  - Acoustic Doppler profiler
  - MET
  - AUV

### EVENT MONITORING

- Challenges**
- Receive multi-level alerts and alarms
  - Capture event as it happens with real-time monitoring, sampling, and telemetry

- Solutions**
- Water quality sonde
  - Data logger and telemetry
  - Sampler
  - MET
  - Stage/gauge
  - Services

### BASELINE DATA

- Challenges**
- Collect high-resolution temporal and spatial data cost-effectively

- Solutions**
- Water quality sonde
  - Data buoy
  - MET
  - Vertical profiling system

### AQUACULTURE MONITORING

- Challenges**
- Receive early warnings to protect fish stock
  - Collect real-time data to stay in compliance

- Solutions**
- Vertical profiling system
  - Water quality sonde
  - Acoustic Doppler profiler
  - Data logger and telemetry
  - MET
  - Services

### COASTAL ENGINEERING

- Challenges**
- Collect data in harsh environments
  - Reduce implementation time to collect accurate information

- Solutions**
- Water quality sonde
  - Acoustic Doppler profiler
  - Data logger and telemetry
  - Data buoy
  - MET
  - AUV

# PRODUCTS & SOLUTIONS THAT DELIVER RESULTS THE FIRST TIME



## 1 Data Buoys that Never Sink

- Designed specifically for water quality monitoring
- Puncture-proof hulls provide unsinkable design
- Reliability and long life make these a cost-effective choice
- Models for open ocean to lake/river environments
- Components for networked observing systems
- Sold and deployed worldwide



## 2 On-Demand Data Telemetry

- Data delivery to web or workstation
- Automated data reports sent directly to co-operator, freeing up resources
- Alarming and alerts
- Telemetry options for any location: cellular, radio, satellite
- Simple, pre-programmed set up with YSI instruments
- Customizable displays



## 3 Flexible Data Loggers & Monitoring Stations

- Monitor weather, MET, flow, and water quality
- On-site installation available
- Investigate land/water interactions
- River monitoring platforms
- Data from multiple inputs integrated into single set



## 4 Rugged Water Monitoring Instruments

- Water quality sondes for temperature, conductivity, depth, dissolved oxygen, chlorophyll, blue-green algae, pH, turbidity, and more
- Acoustic Doppler profilers for velocity, flow, and current
- Nutrients, PAR, and hydrocarbons
- Software for data analysis



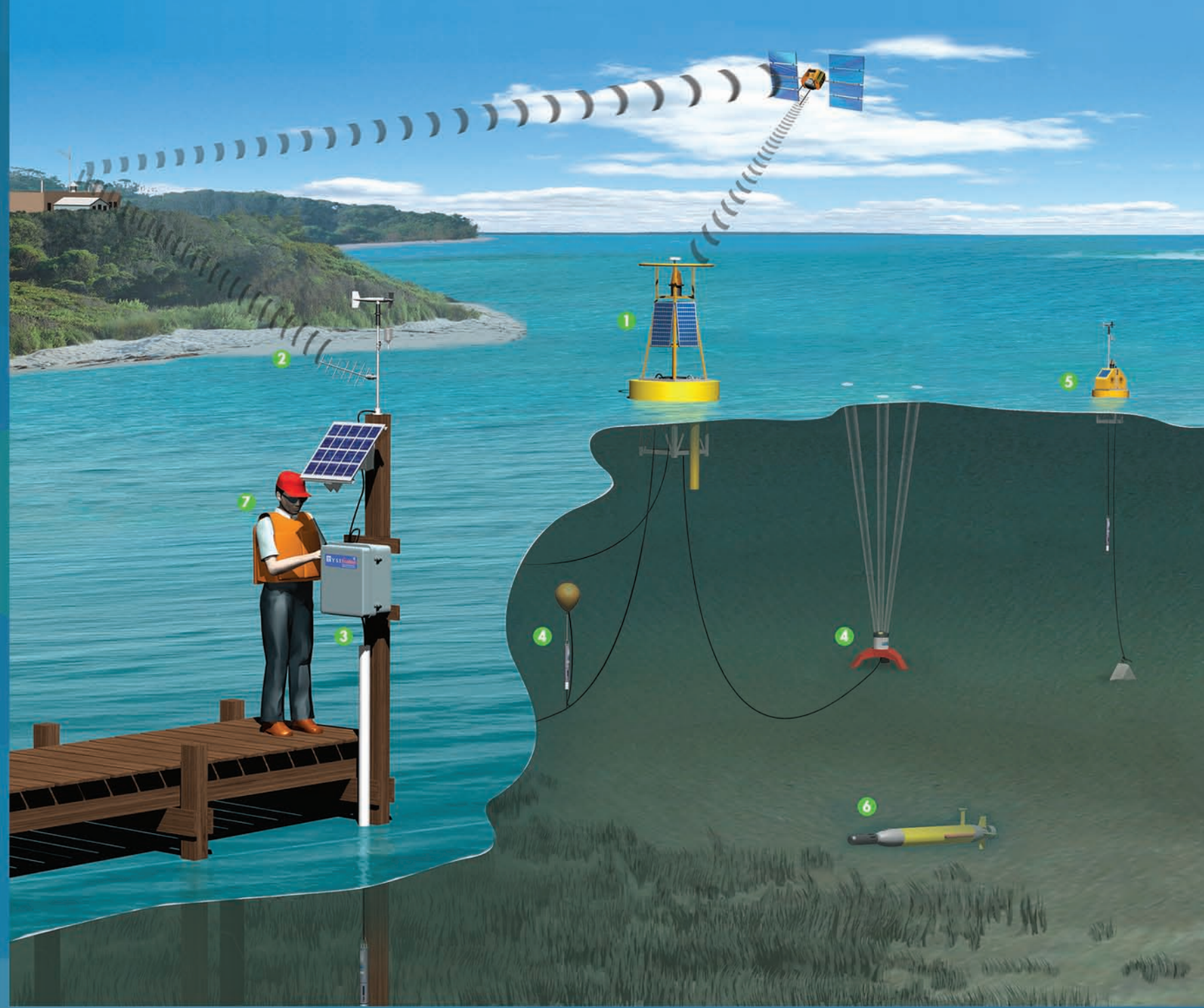
## 5 Vertical Profiling through Water Column

- Monitor water quality at various depths
- Continuously monitor stratification and vertical mixing
- Detect short-term events—storms, sediment transport, algal blooms
- 24/7 automated, unattended profiling
- Use data to make decisions for water treatment



## 6 EcoMapper™ for High-Resolution Mapping

- Completely autonomous underwater vehicle
- Deployable by one person
- Water quality and bathymetric mapping of large areas
- Easy-to-use mission planning software
- Cost-effective alternative to multiple field personnel and boat



## HAVE YOU CONSIDERED THESE STEPS TO A SUCCESSFUL MONITORING PROJECT?

### 7 Services to Streamline Your Budget

- Project definition
- Site evaluation
- Systems design
- Integration and testing
- Installation and start up
- On-site training
- Data collection and delivery
- Maintenance program



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**YSI is a complete solutions provider offering buoys, profilers, and services as well as water quality instrumentation and real-time monitoring systems. We are employee-owned and have dedicated staff around the world to partner with you.**

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**ISO 9001**  
**ISO 14001**

(Yellow Springs facility)

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**YSI incorporated**  
Who's Minding the Planet®



**ECO CALCULATIONS REPORT**

YSI, Inc. saved the following resources by using U2:YG made with 30% post-consumer recovered fiber and Green Power.

trees	energy	greenhouse gas	waste water	solid waste
2	1.2 million BTUs	629.76 lbs CO <sub>2</sub>	630 gal	104 lbs

Environmental impact estimates were made using the Environmental Defense paper calculator and the U.S. EPA's Power Profiler.  
U2:YG is a U2-type product manufactured by Appleton Chestnut  
www.appletonchestnut.com