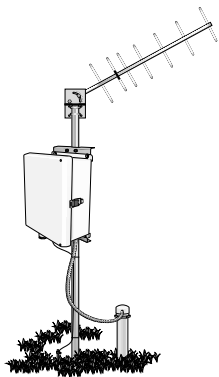


Canal Control

www.campbellsci.com/canal-control

Benefits of Our Systems

1. Unattended control can be based on time or measured parameters.
2. Wireless communication allows remote control of gates and other devices.
3. Multiple channel types measure nearly every available sensor, including shaft encoders, bubblers, and pressure transducers.
4. Communications options include: phone, cellphone, radio, and satellite (DCP).
5. A voice message can call out to a cellphone reaching district personnel within range.
6. Onboard mathematical capabilities provide on-site data processing.
7. Batteries and solar panels allow long-term, remote operation or continued power in case of AC outage.



Systems are protected by weather-proof enclosures.



CR10X



Our systems automate water management by measuring water level, adjusting gate height, and recording information—all unattended—every day, every night, all year long.

Campbell Scientific offers systems for unattended monitoring and control of diversions, canals, and laterals. Our systems monitor water distribution by measuring water level or flow. We can help you manage water distribution by controlling gates, pumps, and other devices based on time of day, conditions, or measured parameters. Stations can call district personnel to report changing conditions via cellphones or pagers. Key components of our systems are dataloggers, sensors, and communications devices, customized for every site.

Dataloggers

Campbell Scientific systems are cost-effective. We build dataloggers that have wide operating temperature ranges and directly interface to a large variety of sensors. Our loggers feature low power consumption and can operate using batteries that are recharged with solar panels or AC power, or even operate directly from alkaline D-cell batteries. Versatility allows programmable scan rates, measurement types, and data recording intervals. Onsite data reduction is accomplished using onboard mathematical and statistical algorithms. You can choose the units (cfs, psi, feet, inches, meters) in which you want your data reported or stored. As your electronic monitoring program grows, our dataloggers are expandable using multiplexers and other peripherals. Additional stations are easily added to a network.

Diversions can be automated to adjust as conditions change. Because human intervention is not necessarily required, personnel availability is increased. Gates can be moved based on water level, flow rate, or downstream conditions. Alarm conditions can be set to allow adequate response time for personnel once the datalogger has alerted them to a problem, such as loss of AC power, rapid water level rise, or non-responsive gates. Water delivery and reservoir level can be optimized to benefit both agricultural and recreational users.

Communications

View what's happening at your gauging stations or diversions from one screen at your home or office computer, or call the station(s) from your vehicle. We offer multiple communication options to transmit information. Our standard options include satellite (DCP), RF, telephone, cellphone, and voice-synthesized phone, but we can also do SCADA and microwave systems. Communication devices can be used together, such as phone-RF combinations, or RF sites being used as repeaters for stations farther away from your base station. We can help you determine what will work best for your application.

Software

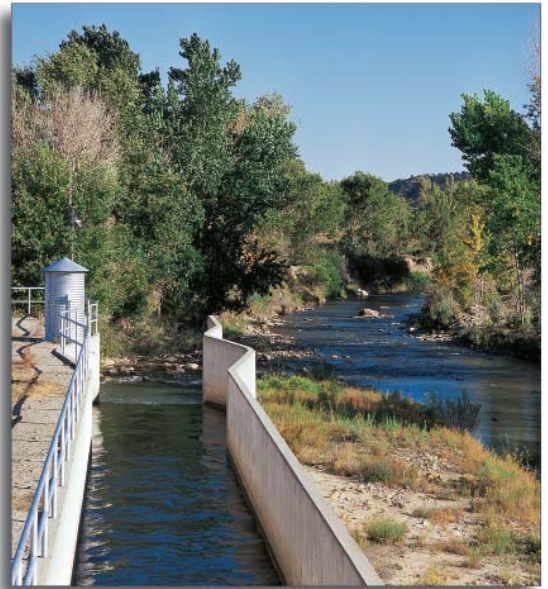
We provide software to simplify the entire monitoring and control process, from programming to data retrieval, data display, and data analysis. Use our software to automate data collection from one or many monitoring stations. Robust error-checking ensures your data arrives uncorrupted. Real-time or historical data can be viewed easily, or exported as ASCII files for further processing by spreadsheets, databases, or analysis programs. We can even help you post your data to the Internet for all interested parties to view.

Measuring Level

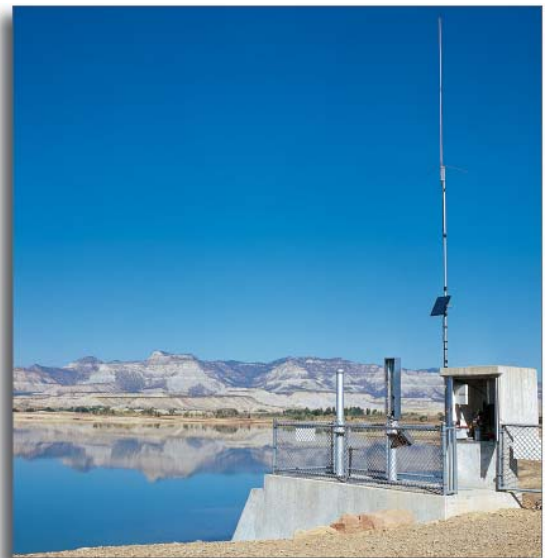
Because not every site is the same, our dataloggers can measure multiple types of sensors. Whether measuring water level in a stilling well with a shaft encoder or on a river with a bubbler, we can help you match accuracy and reliability requirements to your budget. Multiple channel types enable our dataloggers to read nearly every commercially available sensor, allow stations to be customized for each installation, and let you take advantage of sensors you may already own. For new installations, we offer a variety of water level sensors that feature low drift and high reliability.

Sensors

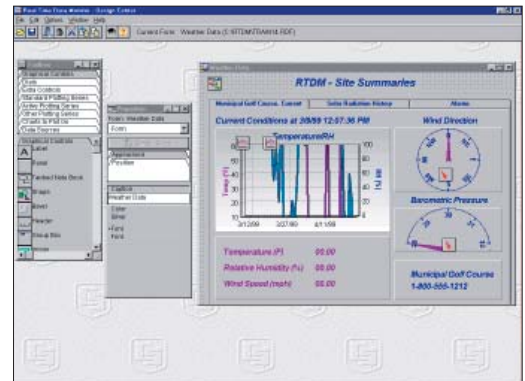
Many new regulations require measurement of water quality and meteorological parameters. We can help you add these sensors to your gauging stations, or instrument new sites using single parameter or multiple-parameter probes.



A variety of wireless communication options allow systems to perform remote monitoring and control.



This station monitors the reservoir's level and provides remote control of a headgate via radio telemetry.



We offer a range of software, applicable to single-station monitoring or advanced networking capabilities.