



Customer Requirements

To continuously monitor and manage the quality of the water in a catchment area to test for a variety of chemical and biological agents as well as clarity, rate of movement and height. The logging solution must be able to collect large amounts of data from a range of sensors. The customer requires a simple data retrieval process in order to minimize training for staff.



Water Catchment: An aerial view of a water catchment where the water quality is strictly monitored.

dataTaker DT82E

- 1 A cost effective data logger designed with the environmental market in mind
- 2 Up to 6 analog ($\pm 30V$) sensor inputs
- 3 Built-in web and FTP server allows for remote access to logged data, configuration and diagnostics
- 4 Modbus slave functionality allows connection to SCADA systems
- 5 Smart serial ports capable of interfacing to RS232 and SDI-12 sensors or modems
- 6 Rugged design and construction provides reliable operation under extreme conditions
- 7 Includes USB memory stick support for easy data and program transfer



dataTaker Solution

Equipment

dataTaker DT82E Enviro-logger
USB memory stick

Sensors

Turbidity
Conductivity
Temperature
pH
Level
Flow

Implementation Notes

The dataTaker DT82E records dam parameters such as stream height, pH, turbidity conductivity and water temperature. Whenever stream height rises rapidly following a rainfall event in the catchment area, the data logger activates water-sampling equipment to collect stream samples for sediments, nutrient and chemical analysis.

Field staff visit the remote sites every three weeks to collect the water samples and data. The data is collected by simply removing a USB memory stick from the top of the data logger and replacing it with another.

The USB memory stick stores all data collected during the period, which can be read directly into a computer back at headquarters using the software supplied with the data logger.

For an application such as this, it may also be useful to know other environmental/weather parameters such as wind speed, wind direction, RH, air temperature, solar radiation and rainfall using a combined SDI-12 weather transmitter.