



SYSTEM FOR CLIMATE, HYDROMETRIC AND WATER QUALITY MONITORING IN SPRING ENVIRONMENT

System for 24/7 climate, water level and flow and water quality monitoring in spring

Environment Supply: 2007/2015 | Maintenance: Puglia



CHALLENGE

Execution of a stand-alone system for monitoring climate parameters, able to monitor the water level and flow and several water quality parameters in a spring environment.

WHY ETG?

The wealth of experience that ETG has acquired in the weather instrumentation sector and in real-time monitoring data acquisition, archiving, processing and circulation makes it a valuable collaborator.

INTRODUCTION

The monitoring system in question consists of over **20 fixed stations** that continuously determine climate, hydrometric and water quality parameters, including temperature, conductivity, salinity, pH, dissolved oxygen and turbidity and **1 Control Centre**.

The multi-parameter probes supplied by ETG are lowered into water inside a surge pipe, down to the desired depth. The probe and datalogger are connected using a compensating cable in PUR with which the measurement and atmospheric pressure are compensated.

The probe selected for this purpose was specifically customised for the customer with the possibility to acquire previously listed data of particular interest for studying spring environments.

ETG allows its customers to package specific probes with the acquisition of parameters that interest them up to a maximum number of 16 parameters at the same time.

SOLUTION

The system, comprising the elements described above, is able to monitor climate, hydrometric and water quality parameters and to send them to the central acquisition system via GSM/GPRS vector.

The management, display and alarm software produced by ETG, with the trade name WinNET6, was installed on a machine set up to play the role of control centre.

This software displays data in real time and makes available a set of instruments helpful for representing and analysing them.

The system is also equipped with an optional alarm package, useful for notifying the customer should special signals be activated from the field and for being able to manage them in real time.

BENEFITS

The system described was able to provide continuous monitoring of water quality parameters in particularly delicate situations, where a very high sensitivity of the sensors used is necessary.

Thanks to the solution and technical quality of the products ETG installed, the system was able to acquire the data with a 100% Quality Level (QL) starting from the very moment the stations were installed.

This proves to be essential because the positioning of the water quality sensors is particularly problematic, demanding intervention time and procedures not at all negligible.

CONCLUSION

Every new monitoring system engineered by ETG entails peculiarities that can be solved only by those - like our company - that have been working in the sector for years.

The system built for Acquedotto Pugliese led to a clash with a particularly delicate condition owing to the need for sensors having a very high level of accuracy and for their positioning, namely in the spring.

In view of these particular conditions, ETG had to implement some specific strategies and choose sensors such as to be able to best counter this particular case.

