



PLUVIOMETRIC AND HYDROMETRIC MONITORING SYSTEM INTEGRATED INSIDE PUGLIA'S CIVIL DEFENCE SYSTEM

24/7 meteo-hydrologic parameter monitoring system integrated in the Puglia civil defence system

Supply: February 2018 | Region: Puglia



CHALLENGE

Execution of a stand-alone monitoring system able to automatically handle pluvio-hydrometric alert situations.

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.

INTRODUCTORY SECTION

As part of the activities performed for the reclamation, environmental remediation and upgrading of the Taranto area, the Special Commissioner for the urgent reclamation, environmental remediation and upgrading interventions of Taranto planned an "Integration of the monitoring network in the Galeso River basin, with installations of pluviometers and hydrometres in a defined area in the Mar Piccolo area and its interior in order to study the overall contribution of water flowing to the same basin", and chose ETG for this activity due to its **in-depth knowledge** of the topics in question and of the Puglia territory, in addition to the **quality of the solutions and products it offers**.

The monitoring system in question consists of 3 fixed stations that continuously determine meteorological parameters and **1 fixed station** that continuously calculates the flow rates.

THE SOLUTION

The system, comprising the elements described above, is able to monitor climate and flow rate parameters and to send them to the Puglia Region Civil Defence system.

Since this system is integrated inside the above-mentioned network, it will be able to exploit its alert and management functions guaranteed by the system engineered, produced and maintained by ETG.

Based on its knowledge of the Puglia Region alert network and the particular peculiarities of the territory, ETG dedicated close attention to the engineering and the design stage of all 4 stations, guaranteeing their perfect integration in Puglia's UHF radio transmission network.

THE BENEFITS

Expansion of the Puglia Region radio system with the 4 newly supplied stations is proof of how the networks we design are expandable without altering their structure.

As regards the flow rate measurement hydrometric station, the challenge ETG took up was that of developing a flow scale, necessary for collecting the flow rate data from the level data in the presence of a section on the Galeso River affected by spring components.

In this case, the hydraulic model and its flow scale are much more complex than the standard hydrometric sections, and therefore need a totally different study that is much more complicated than the normal ones.

CLOSING SECTION

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.

In the case of the system made for the Special Commissioner of Taranto, it ran into a highly complex hydrologic condition, that of the spring.

This type of situation entailed a study and a shrewd choice both of the hydraulic models used and of determining the relevant flow scale with which to program the iLogger control unit.

