

# Case Study

## WATER DISCHARGE AND SOIL MOISTURE MONITORING NETWORK TO "SMALL PRESPA" LAKE



### Project ID:

Network consisted of **10 telemetric stations** for measuring of water level and soil moisture, **around "Small Prespa" lake.**

Probably the most complete system of this kind in the country, as it measures the water level and calculates the water discharge in 10 points of the irrigation distribution channels network of the area.

Simultaneously measures the soil moisture in two depths for the calculation of needs for water.

The new network cooperates with the existed network of Agrometeorological stations, providing complete information to Producers, Consultants and Public Services.

### IN BRIEF:

**Item** : Water discharge and Soil moisture network

**Area** : Prespes Municipality

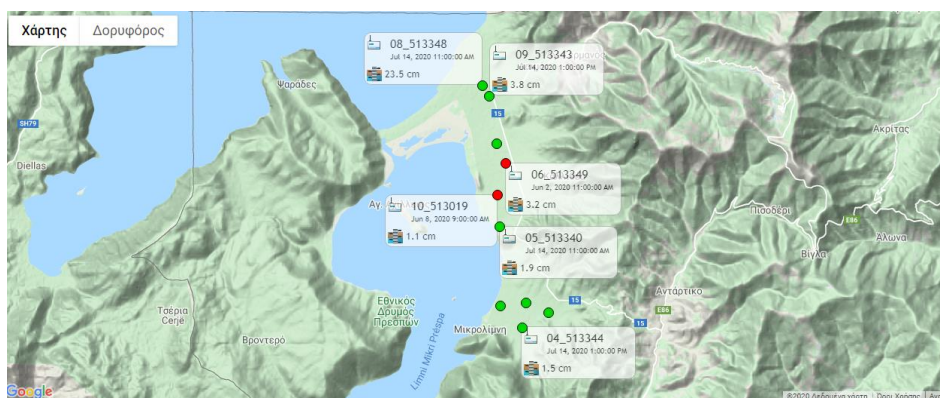
**Period** : March 2020

### ADMINISTRATOR:

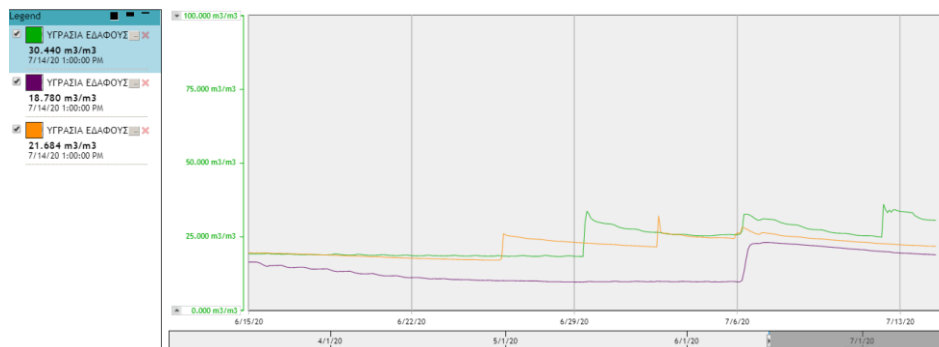
West Makedonia Region  
Florina Prefecture

### Important

Without use mobile telephony



The water level measurements of the channels are displayed in real time on the map.



The processing and visualization of the measurements are based on the most complete and reliable platform **addVANTAGE Pro.**

The platform can supply in real time, various software which operate to different services.

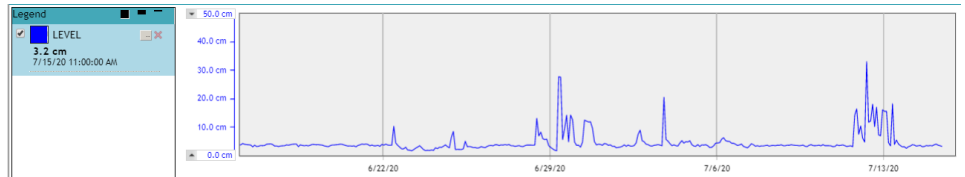


The installation of the sensors was implemented within the project **COMBINE2PROTECT** which is funded by the Interreg Cross Border Cooperation Programme CCI 2014 TC 16 I5CB 009



### Water Level Sensor

- Accuracy  $\leq \pm 0.1\%$  FS.
- Measuring Range up to 10 m.
- The sensor body is Stainless Steel 316L.
- Self-powered by the data logger.
- Temperature range of the Settler  $-20^{\circ}\text{C}$  up to  $+60^{\circ}\text{C}$ .
- Automatic barometric compensation.



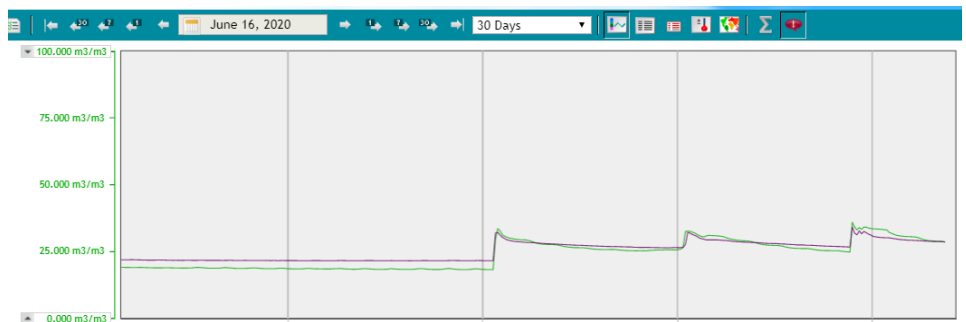
### Telemetry Unit

- Wireless robust telemetry unit.
- Powered by mini solar panel.
- Transmitting data up to 2000m.
- Protection degree IP 67.
- Dimensions 100 x 70 x 40 mm.
- Weight 450 g.
- Includes built-in rechargeable battery.
- Includes 6 analogue inputs with 12bit resolution.
- Includes 2 pulse inputs (16bit) and 2 digital I/O.
- Includes SDI 12 input for up to 40 sensors.
- Emission power 10 mW, max.
- Internal memory for up to 20000 measurements.



### Soil Moisture Sensor

- Includes stainless steel metal needles.
- Normal life time  $>10$  year.
- Accuracy with general calibration  $\pm 0.03$  m<sup>3</sup>/m<sup>3</sup> ( $\pm 3.00\%$  VWC).



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