

How to anticipate the effects of drought on populations ?

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Drought is a natural climatic event, characterized by a deficit of water over a more or less long period. With global warming, droughts will become increasingly frequent. The study of groundwater levels can help to minimize the impact of drought on populations.

Study subject : The Easter Cave (Saint- Cézaire sur Siagne)



Picture : Jean Paul Chappuis

Visit of the cave

The tap water supplied to the inhabitants of the Cannes area comes from several natural water resources including the Siagne canal, which is fed by water from the Easter Cave.

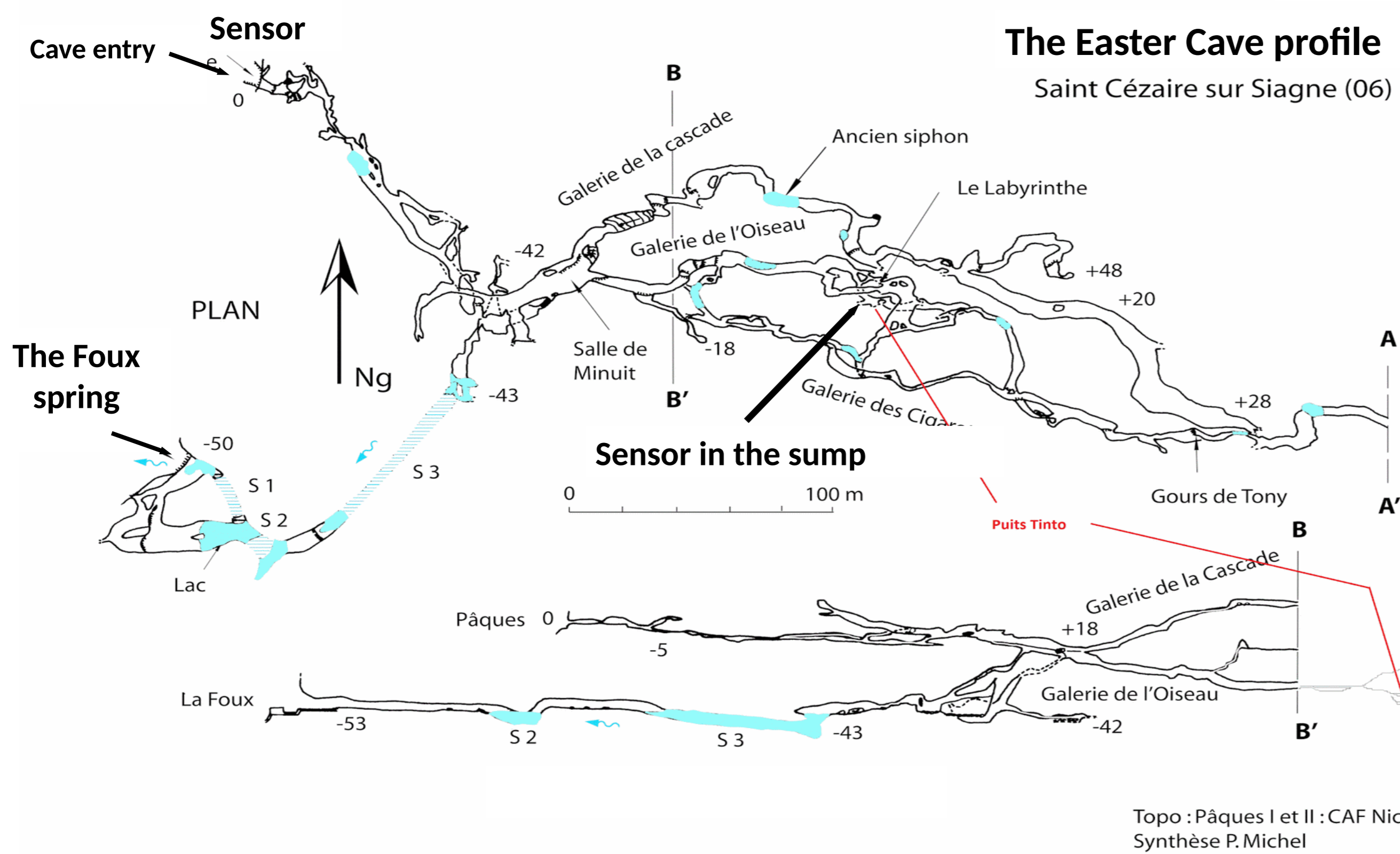


Picture : Jean Paul Chappuis

The Foux spring



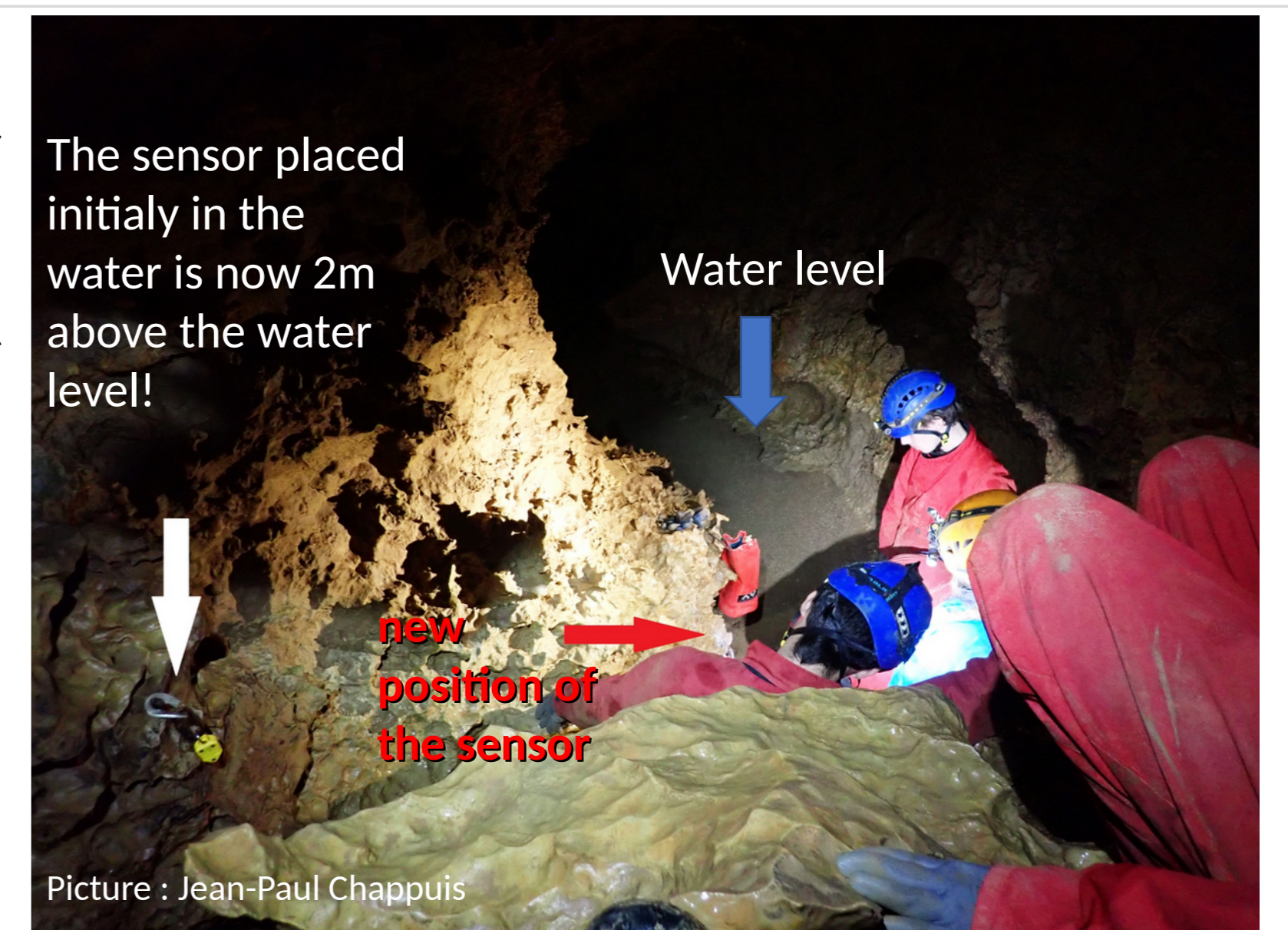
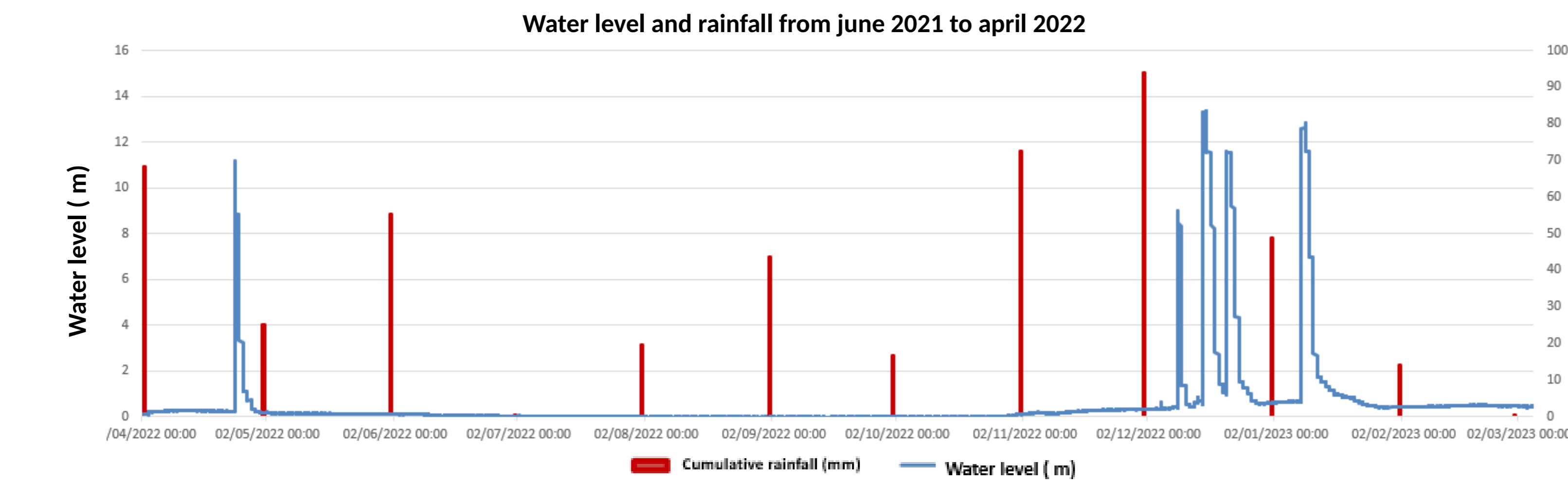
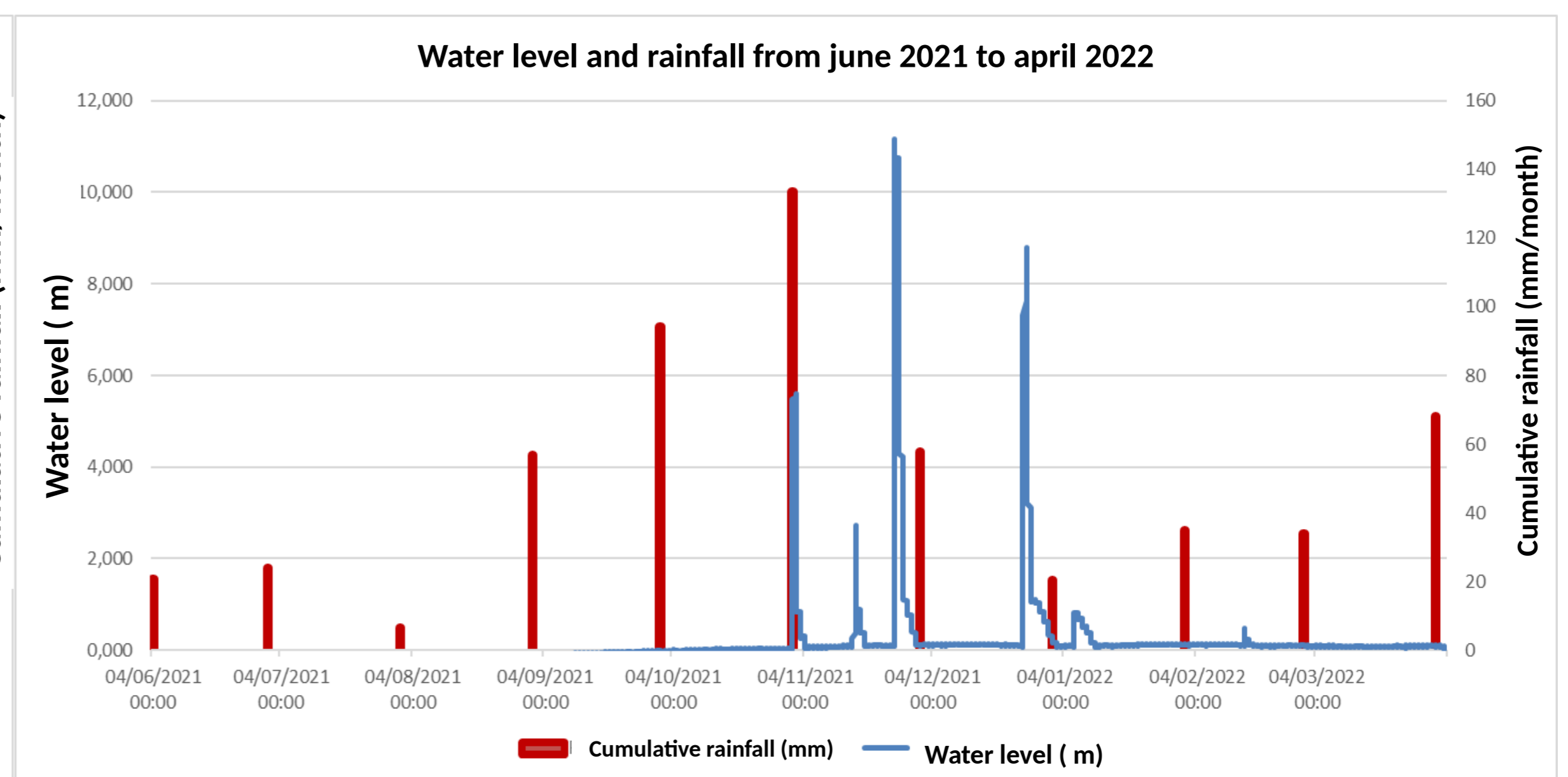
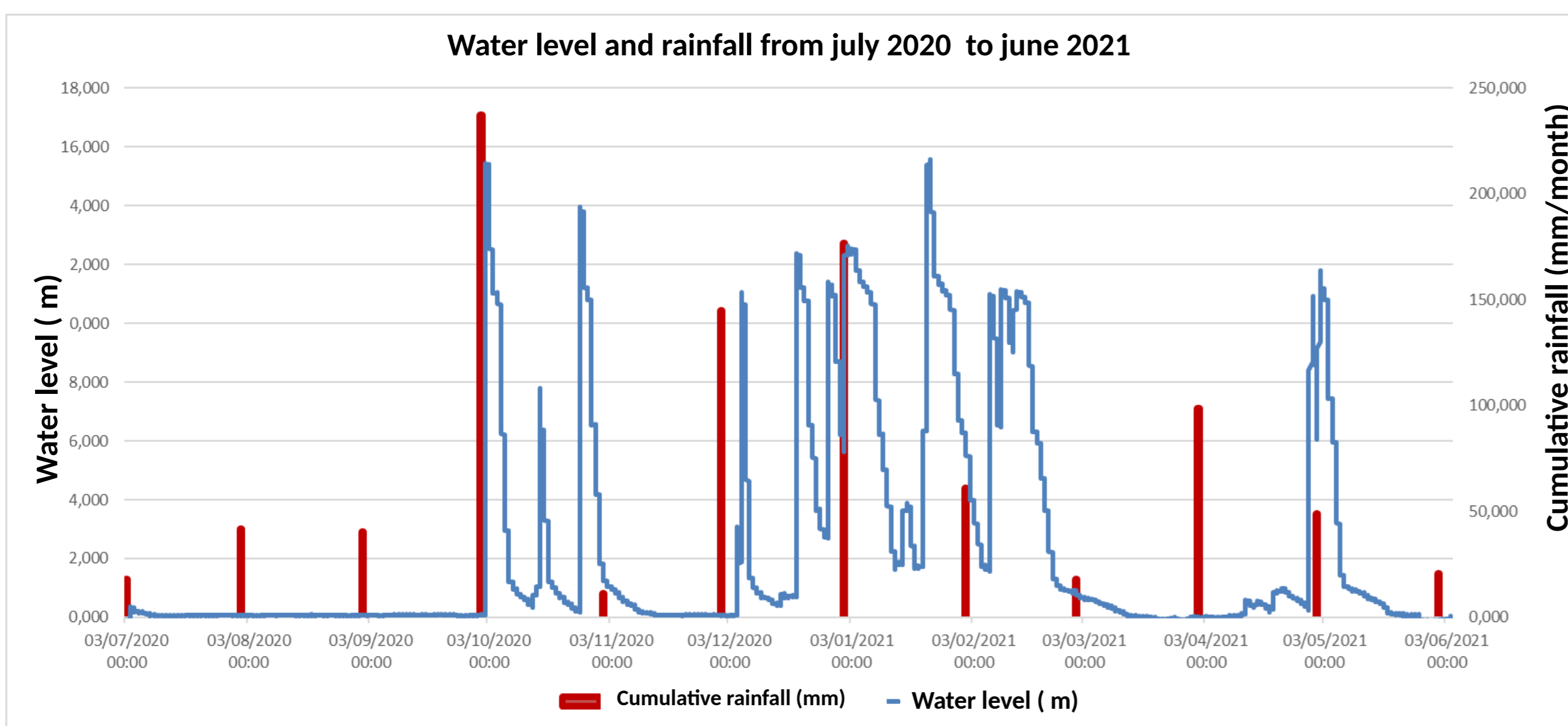
Sensors to measure groundwater levels



2 sensors fixed to the wall
 -1 immersed in water -> absolute pressure
 -1 in the open air -> pressure atmospheric

$$\text{Water pressure} = P \text{ absolute} - P \text{ atm}$$

water level (m)



As we can see between February 22 and December 22 the water level did not register any flooding. The rainfall was not sufficient to refill the water level.

Optimizing and restricting water abstraction

Use of water-efficient technologies for industry

Repairing leaks in drinking water distribution networks

Ban on irrigating more than once a week (agriculture)

Limiting water abstraction (grass watering, car watering...)