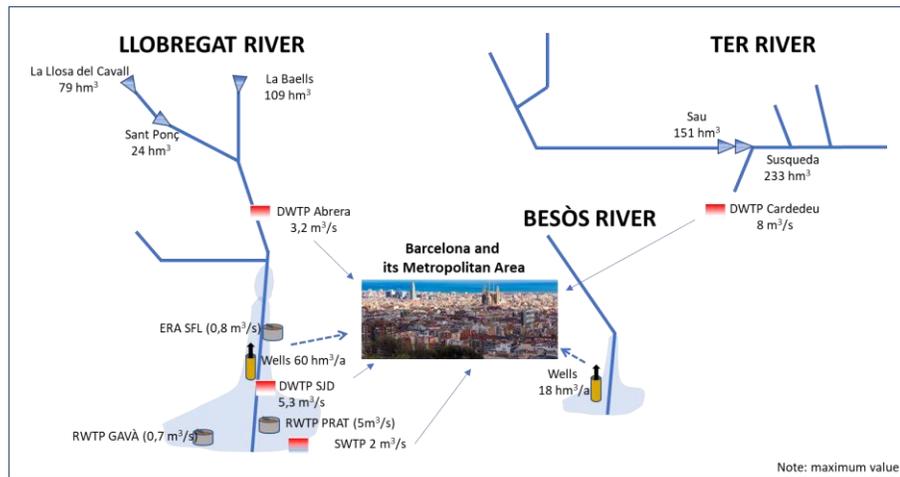


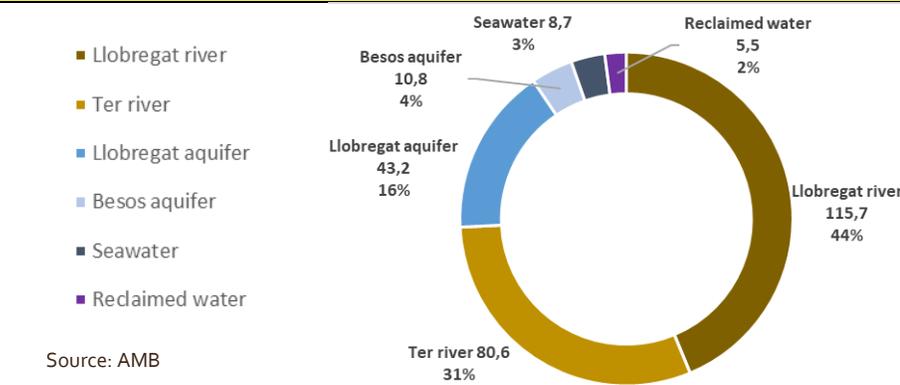
HYDROLOGICAL CYCLE - BARCELONA AND SURROUNDS



Diagram of the hydrological cycle Barcelona Metropolitan Area



Distribution of water sources in Barcelona and surrounds



Coordinated management of Llobregat aquifers



DELIVERABLE 3.3.2: Hydrological cycle in the pilot areas

Barcelona and its metropolitan area cover an area of 636 km² and supplies a population of 3.2 million inhabitants.

The origins of the water that make up the hydrological cycle and guarantee the supply to the population of Barcelona and its Metropolitan area, in addition to the industrial and agricultural sector, are surface water (Ter and Llobregat river), groundwater (Vall Baixa aquifer and Llobregat delta, Besòs delta, desalinated water (ITAM Prat) and reclaimed water (ERA Prat, EDAR Sant Feliu and ERA Gavà).

The average annual consumption of water is 270 hm³.

The combined use of the different water sources in moments of water scarcity, allows the guarantee of supply.

For this reason it is so important to apply artificial recharge technologies to achieve water masses in good condition, both quantitatively and chemically, to maintain and protect the strategic resource.

In addition, it is crucial that the output water from the WWTP - ERA is of the highest possible quality, since its reuse will depend on it, and it may be the water that is used for the artificial recharge of aquifers.

The Special Drought Plan implemented in the study area combines the use of the different sources of water according to the state of the reservoirs and the aquifer piezometric indicators, also progressively coming into play the use of reclaimed and desalinated water.