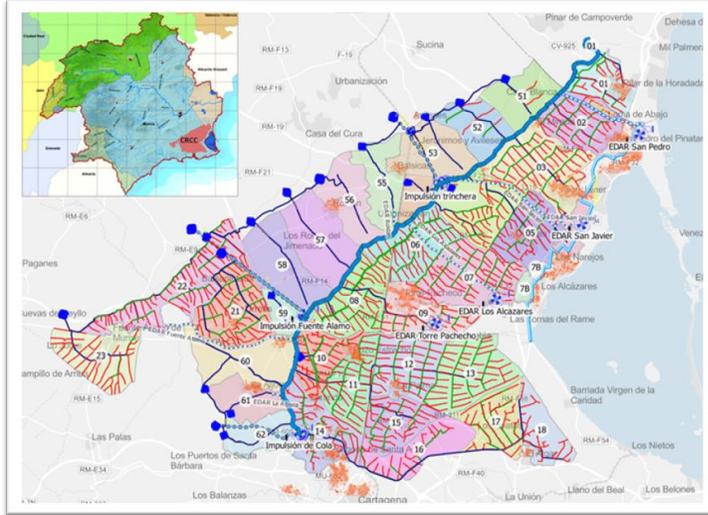


# HYDROLOGIC CYCLE CAMPO DE CARTAGENA

## DELIVERABLE 3.3.2: Hydrological cycle in the pilot areas.

The activity of the Campo de Cartagena Irrigation Community (CRCC) extends over an irrigable area of 42,255 ha, has 9,699 community members and is subdivided into two agricultural demand units (UDA): UDA No. -Segura (TTS) of the ZRT Campo de Cartagena" and UDA nº 75 "Cota 120 Campo de Cartagena" with mixed irrigation, in this case the main source of water for irrigation is groundwater and as secondary sources, reclaimed water, desalinated and surface water. In the case of UDA 58, the TTS is the main source of the resource, and the contributions from aquifers, desalinated, and the reclaimed water are secondary.

### Diagram of the hydrological cycle Campo de Cartagena

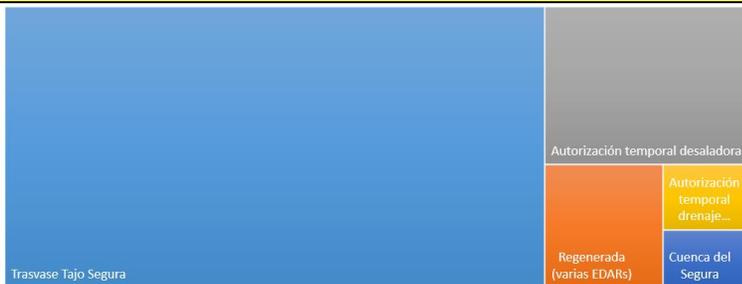


The real needs fluctuate between 150 and 180 hm<sup>3</sup> and the allocation of the TTS is 122 hm<sup>3</sup>, therefore, there is a deficit that is complemented with the rest of the authorizations.

The CRCC makes joint, combined and coordinated use of all available resources, with the exception of groundwater, which is managed by the irrigators themselves. The high agronomic quality of the TTS water allows, with its mixture, to reduce the electrical conductivity of water from other sources with poorer quality (reclaimed water, groundwater and desalinated water), which has an impact on better agricultural production and reduces the concentration of salts in the soil and effects on crops (eg: dilution of excess boron in desalinated water).

In the Segura basin, the Special Local Drought Plan combines the use of the different sources of water according to the state of the reservoirs and the piezometric indicators of the aquifers, with the use of reclaimed and reclaimed water playing a greater role progressively. desalinated.

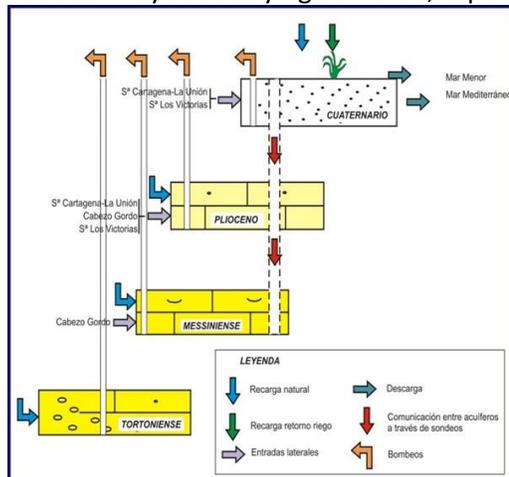
### Distribution of water sources in CRCC



|   |                       |
|---|-----------------------|
| Tajo Segura Transfer                      | 122 hm <sup>3</sup>   |
| Reclaimed water (several WWTP)            | 11,69 hm <sup>3</sup> |
| Temporal authorization Desalination plant | 22,29 hm <sup>3</sup> |
| Temporal authorization Mojón drainage     | 4,73 hm <sup>3</sup>  |
| Segura basin                              | 4,2 hm <sup>3</sup>   |

### Coordinated management of the Campo de Cartagena aquifers

Groundwater cushions the scarcity of resources from other sources, and has been key to satisfying demands, especially in times of drought.



#### ESQUEMA DE FUNCIONAMIENTO

##### Entradas (recarga):

- Principalmente por el acuífero Cuaternario (Infiltración de la lluvia útil y retorno de riegos)

##### Salidas (descarga):

- Bombeos
- Laterales al Mar Menor y Mar Mediterráneo
- Descarga a cauces

##### Comunicación entre acuíferos

