



Surface-Groundwater interaction in the Rio Velez aquifer (Málaga, Spain) based on hydrochemical and stable isotope data

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The in-depth knowledge of the interaction between surface water and groundwater is one of the challenges of the Water Framework Directive (WFD) in order to achieve good quantitative status of water bodies. This fact makes necessary to improve the currently held knowledge about the relationship between groundwater and surface water in recharge and discharge areas of aquifers (wetlands, rivers, lakes, etc.), the dependence by each other and the importance they have for the associated ecosystems.

The Velez alluvial aquifer (Province of Malaga, Southern Spain) was selected to meet river-aquifer relationships by studying the hydrochemistry and stable isotopic content of water molecule ($\delta^2\text{H}$, $\delta^{18}\text{O}$), dissolved inorganic carbon ($\delta^{13}\text{C}$) and sulphate ($[\text{U}+\text{F}064] 34\text{S}$, $[\text{U}+\text{F}064] 18\text{O}$).