



## **Conceptual hydrogeological model of a coastal hydrosystem in the mediterranean**

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Groundwater resources management in the Mediterranean basin is an issue of paramount importance that becomes a necessity in the case of the coastal hydrosystems. Coastal aquifers are considered very sensitive ecosystems that are subject to several stresses being of natural or anthropogenic origin. The coastal hydrosystem of Lavrion can be used as a reference site that incorporates multi-disciplinary environmental problems, which are typical for Circum-Mediterranean.

This study presents the synthesis of a wide range of field activities within the area of Lavrion including the monitoring of water resources within all hydrologic zones (surface, unsaturated and saturated) and geophysical (invasive and non-invasive) surveys. Different monitoring approaches -targeting to the collection of hydrochemical, geophysical, geological, hydrological data- were applied, that proved to provide a sound characterization of the groundwater flows within the coastal karstic system in connection to the surrounding water bodies of the study area.

The above are used as input parameters process during the development of the conceptual model of the coastal hydrosystem of Lavrion.

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