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Interaction between surface water and groundwater in a coastal region of east Tunisia

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Multi-tracer approach using inorganic solute constituents and stable isotopes and hydrometric observation approach were applied to investigate the interaction between surface water and groundwater in a coastal region, Cap-Bon Peninsula, eastern Tunisia.

The spatial distribution of chemical and stable isotopic compositions in the surface and the groundwater coupling with the hydrometric data shows that the stream water recharges the groundwater in a certain quantity, and the spatial distribution of the groundwater table supports that.

Additionally, the sea water intrusion into the groundwater was observed due to the huge groundwater pumping for the irrigation of the crop lands.

Keywords: Groundwater-surface water interaction, Groundwater recharge, Coastal region, Tunisia