

Coastal investigations – a challenge for hydrogeophysics

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ABSTRACT

Coastal areas are worldwide under pressure by human activities as well as by the global phenomena of climate change. Sustainable coastal zone management needs, amongst others, a good knowledge and understanding of hydrogeologic subsurface structures and processes. Hydrogeophysical tools like electrical or electromagnetic methods, georadar, NMR (nuclear magnetic resonance) or seismic techniques are ready to meet the challenges of delineating aquifer geometry, to identify groundwater salinization or submarine groundwater discharge and to provide parameters for groundwater modelling. Applications from northern German coastal areas will be presented.