

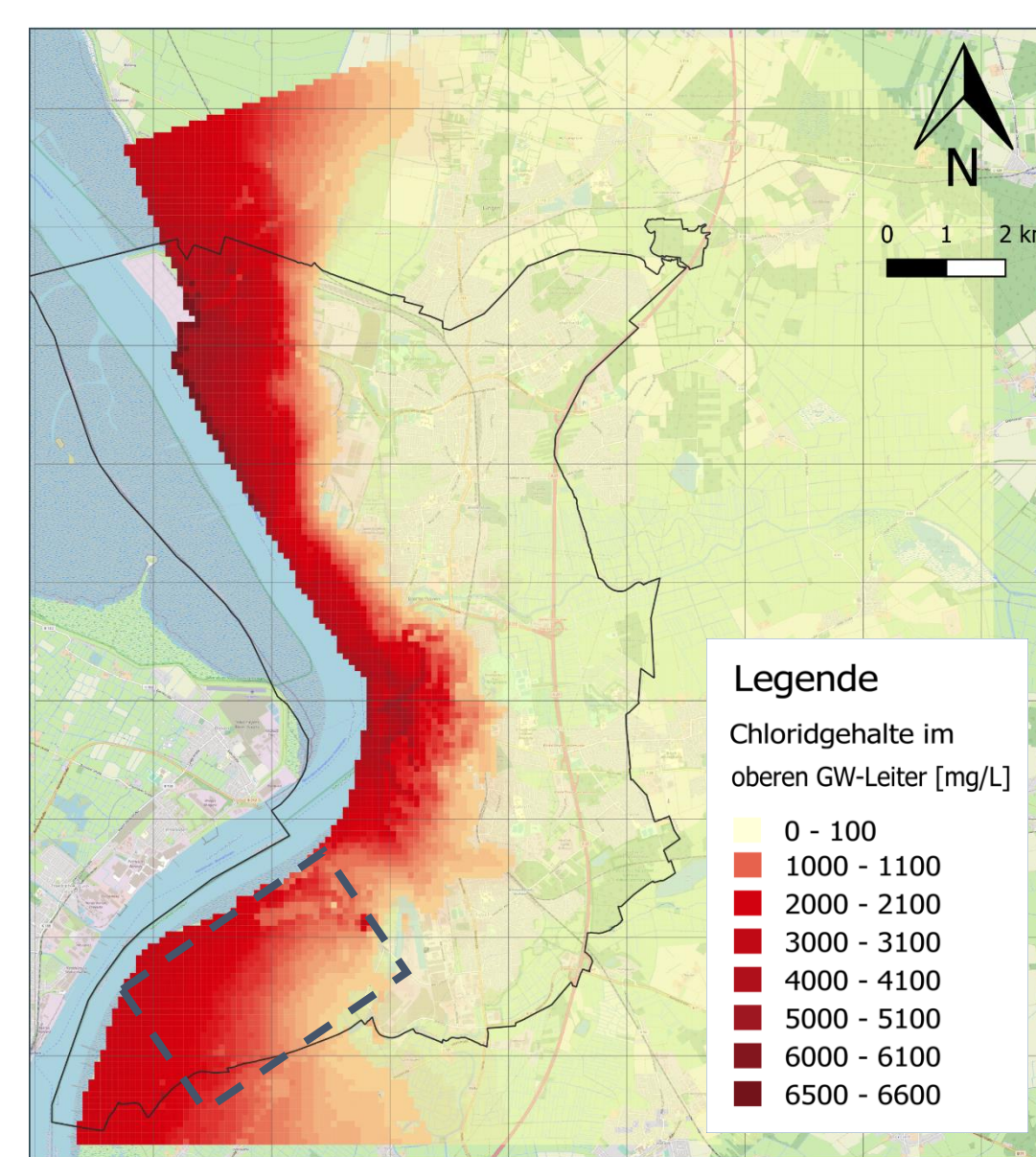
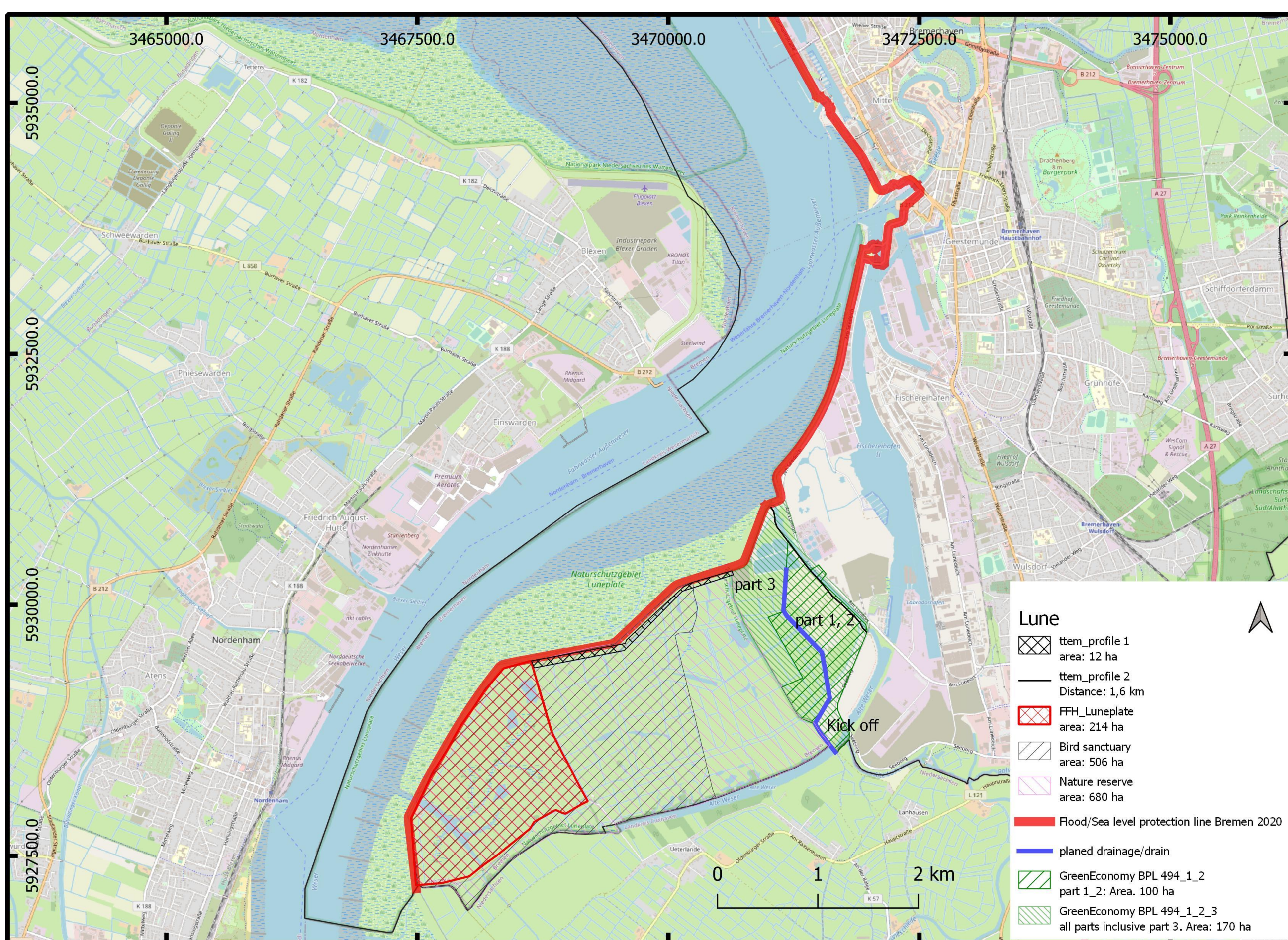
Pilot summary

The Luneplate in southern Bremerhaven has been proofed within TOPSOIL to be the most sensitive area of Bremerhaven with respect to saltwater intrusion. In the nature protected area with an organic rich alluvial loam extensive farming takes place.

In the northern part an area of economic activities is located. Recently this will be expanded by a green business park with a climate-neutral approach "Green Economy". This gives the opportunity to join the challenges of climate change for these both areas. The focus will be on water management and the use of excess rainwater (more intense rain events are predicted) to prevent saltwater intrusion and the desiccation of the organic rich loam with the associated CO₂ submission.



Activities



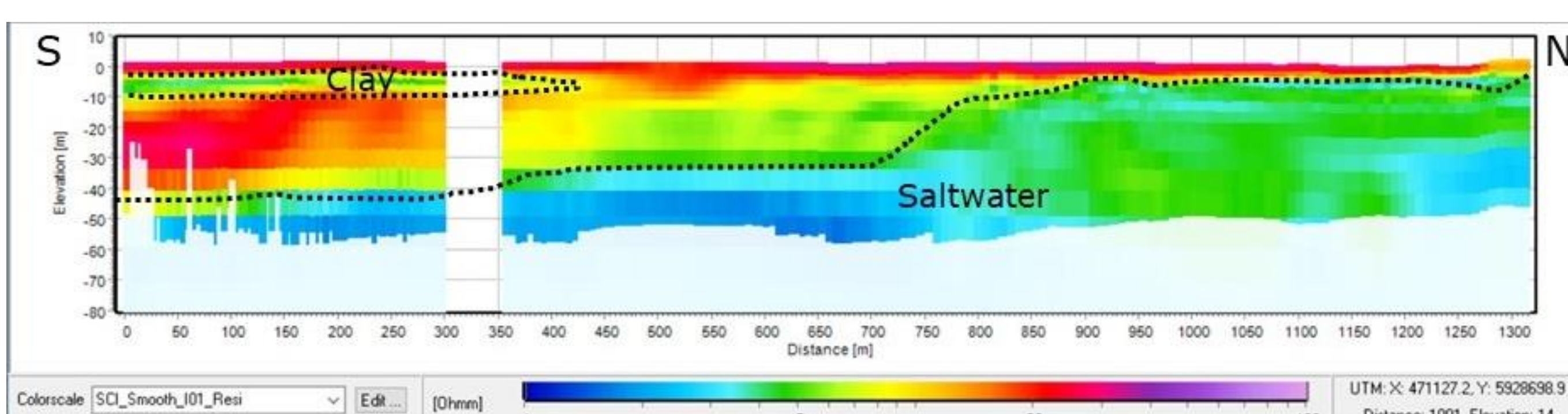
Saltwater intrusion into the groundwater body in Bremerhaven (Julius 2020)

Effects of measures on the groundwater system and rainwater infiltration and storage would be simulated in a model and their effects measured by permanent groundwater monitoring wells.

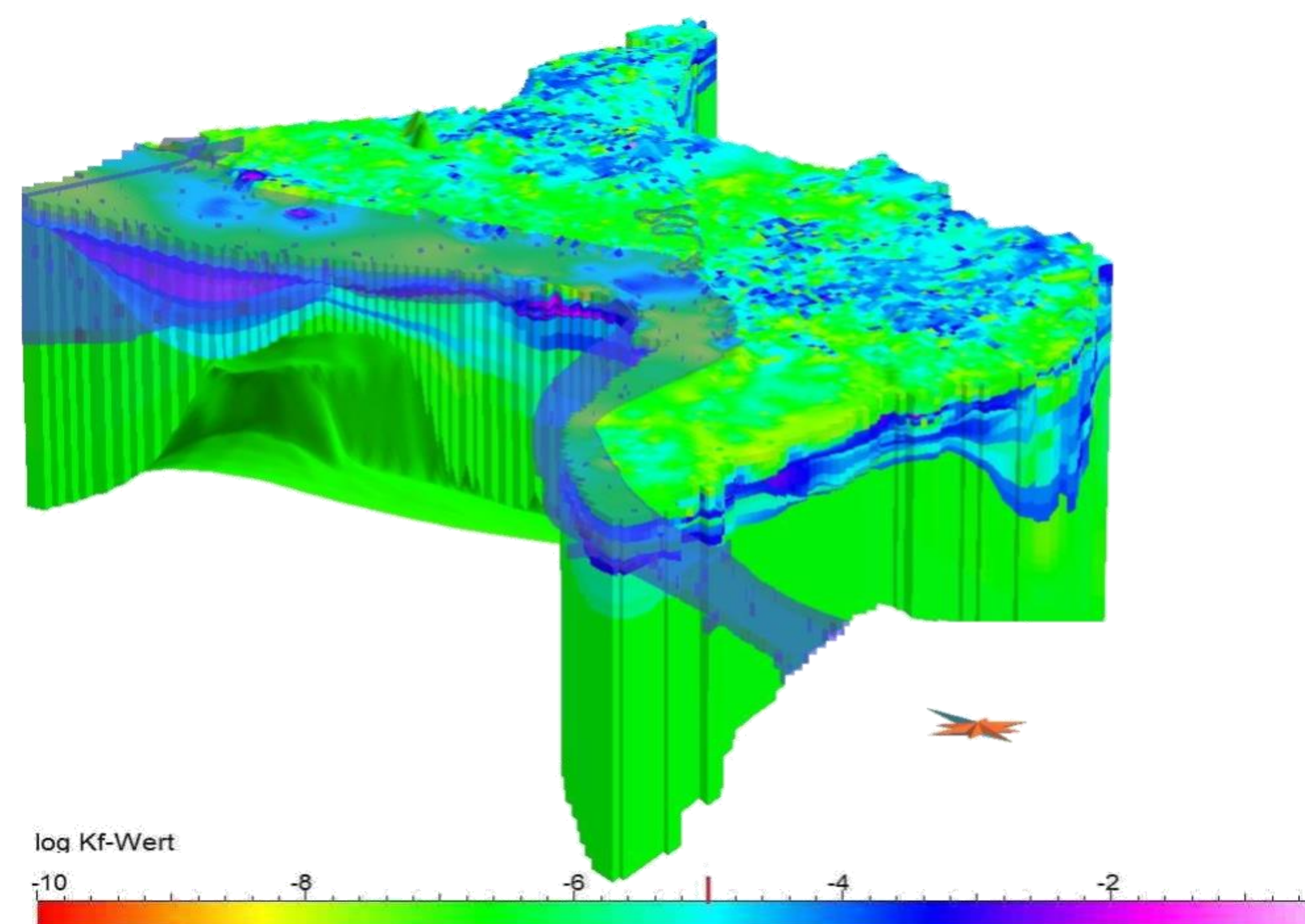
Monitoring program: monitoring wells and datalogger will be installed.

Luneplate and area of investigation (blue lines)

Geophysical measurements (tTem) done in cooperation with danish project partners in the Topsoil project part 2 along and perpendicular to the river side can be used to calibrate the model. Further measurements are welcome.



tTem measurements during the Topsoil Project in Bremerhaven Luneplate

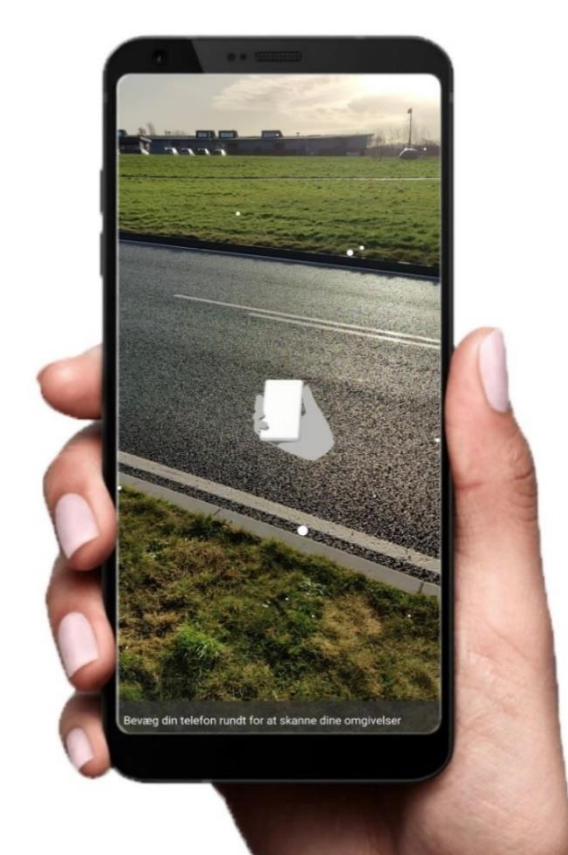


Modelled permeability for the quaternary units

Governance

Measures and activities will be presented and discussed at least 1/year with the stakeholders (farmers / local authorities / planning offices for the business park).

The "green business park" on the Luneplate could be one of only a few commercial districts in Germany to be awarded a certificate from the German Sustainable Building Council (DGNB) for commercial districts.



Bring ideas to life
VIA University College

Digital twin is planned, realized by danish project partners (VIA University College)



Katherina Seiter



Björn Panteleit



Sina Julius

