

GEOPHYSICAL INVESTIGATION FOR SUDS SOLUTIONS, GLADSAXE

As part of future climate change adaptation in an area of the Municipality of Gladsaxe, near Copenhagen, is looking to Sustainable Urban Drainage Systems (SUDS) solutions, including rainwater infiltration. Prior to a detailed design of SUDS solutions in Gladsaxe, detailed investigations must be carried out in order to determine where these systems can be located.

In order to assess the near surface sediments where rainwater infiltration is possible, a full surface detailed geophysical investigation was carried out by Rambøll. This study used the electromagnetic method DualEM. With the DualEM system the electrical

resistivity of the subsurface is mapped up to a depth of approx. 10 m, where it is possible to map where the clayey and sandy subsurface sediments

On the figure below, red colors indicate high resistivity (sandy sediments), and green colors indicate low resistivity areas (clayey sediments). Combined with borehole information, the mapped resistivity can be used to delineate areas of permeable sandy sediments and less permeable clay sediments.

The dense distributed geophysical data, information from boreholes, and infiltration tests carried out in the area, forms data material when designing SUDS solutions.

CUSTOMER

GEUS/GrønPleje

LOCATION

Gladsaxe

PROJECT COUNTRIES

Denmark

PERIOD

2013

SERVICES PROVIDED

Geophysical mapping for Sustainable Urban Drainage Systems

