Location Denmark

Type of project Development of guidelines

Client The Danish Environmental Protection Agency

Predicted flooded areas for "Climate Scenario A2".

The results are based on rainfall events with return periods of 10 (red), 50 (blue), 100 (orange) years.

Description

It is in the interest of society to provide protection for the population and to protect the valuable infrastructure against flooding in a timely and cost efficient way. Climate changes may change the precipitation pattern significantly over Denmark. It is foreseen that the extreme summer rainfall events will increase both in number and in intensity. The Danish Environmental Protection Agency has initiated a series of investigations in order to mitigate the impact of climate change on flooding from urban drainage systems. The goal of these investigations is to provide guidelines to Danish municipalities how to carry out timely and cost efficient management of future climate changes.

The output of the project is a set of guidelines to mitigate impacts on urban drainage systems in Denmark due to changes in climate. The guidelines have been developed for the Danish EPA, focusing on new design standards and flood mitigation. In addition to the key principles of the proposed guidelines for the mitigation of the impacts of climate changes, the project comprises a case study, in which the guidelines have been applied in order to develop and upgrade a scheme for a sewer system already suffering from flood problems.