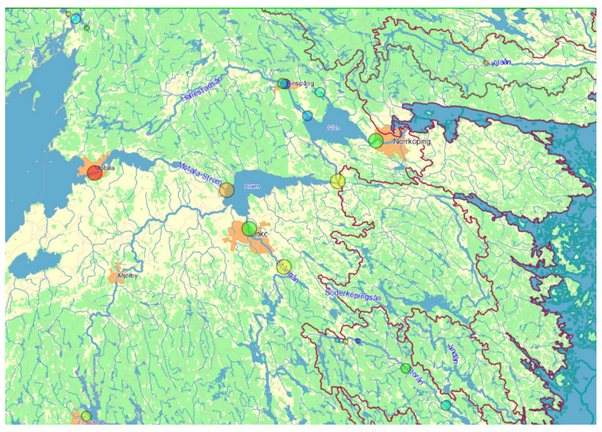
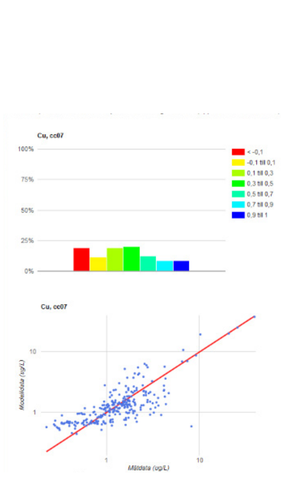
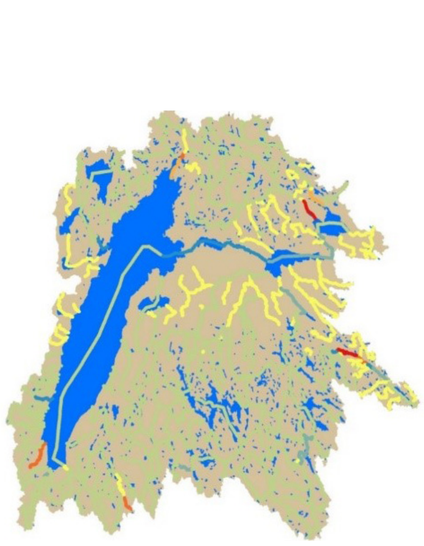
Modelling Industrial Pollution

in the project Innovative Sustainable Remediation (INSURE)



Map over model area in Åtvidaberg. Figure: Länsstyrelsen Östergötland





Observed levels of Copper, including samples from the INSURE project. Figures: SMHI

The Net Modell

NET is a general tool made by SMHI, for upscaling water quality information. The tool describes the hydrology of Sweden in high temporal and spatial resolution. In the set-up, which was used for this project, Sweden is divided into about 37000 sub-basins, modelled dynamically. NET has been used in INSURE to model Cadmium (Cd), Cupper (Cu), Mercury (Hg), Nickel (Ni), Lead (Pb) and Zinc (Zn).

The Åtvidaberg approach

In the Åtvidaberg pilot area we made an overview where the pollutions were located and where they originated from. Following were questioned:

- In which areas are the sources for the different metal contaminants?
- How are the contaminants dispersing in the area and where do we need more knowledge?

We decided to focus on the central parts of the B-factory and the Åssa area. This method facilitates a more accessible overview of the polluted area. The information was later used by the municipality of Åtvidaberg and their consultants when constructing the sampling plan for the pre-sanitation study.

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