

# Lärjeån

Client: Göteborg Vatten



Göteborgs Stad  
Göteborg Vatten

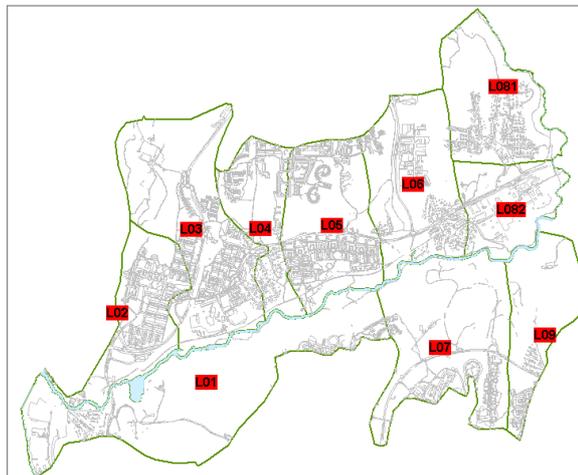


The Swedish Environmental Protection Agency proposed to Gothenburg Water that treatment should be provided at all known surface water discharge points to remove a range of pollutant loadings prior to discharge to the main watercourse.

Caley Water in conjunction DHI undertook a pilot project for Gothenburg Water to assess the merits of providing surface water treatment and the value it will bring to environmental and operational performance of the system. This will allow an informed cost benefit analysis to be undertaken when water treatment facilities.

Caley Water completed a model build of the Lärjeån storm water network to quantify storm runoff discharges at outfalls and also their associated pollutant loadings. DHI applied standard pollutant loadings associated with varying road and land use types to assess the water quality impacts from storm water sewers discharging to the Lärjeån.

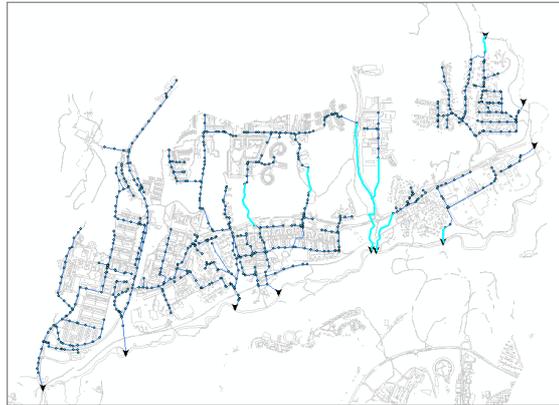
The hydraulic modelling was undertaken using DHI's Mike Urban software.



## Services provided

- Developed a robust hydraulic model of the storm water networks discharging to the Lärjeån.
- Undertake hydrological assessment and prepare rainfall runoff model for analysis.
- Determine the Land Use surface types within each storm water catchment.

- Classification of the surfaces leading to each outlet point for application of appropriate pollutant loadings.



### **Solutions and added value**

Caley Water has taken the clients brief and developed a study methodology. There was no specification for similar work in Gothenburg or specific guidance from the client. Caley Water adopted general principles for hydraulic modelling in Sweden and also best practice experience from the UK to tailor the study.

Caley Water has extensive experience in hydraulic modelling and water quality analysis in the UK. This is primarily using InfoWorks software. We were able to apply this experience to this study and adapt the approach to using the different modelling software platform. We were also able to provide DHI with some feedback in relation to the approach to hydraulic modelling within the software packages.

This pilot study provided Gothenburg Water to quantify the impact from their storm water networks on the receiving watercourse. This had not been undertaken before and allowed the client to discuss the findings with the Environmental Protection Agency with some confidence and agree the merits of any further investigations.