

Currents with FINEL

Currents with WAQUA

## Optimisation connection of the Lek channel to the River Lek

To improve the connection of the Lek canal to the River Lek the hydraulic and morphological effects of several alternatives were investigated by Svašek Hydraulics.

For the modelling of the hydraulic effects, Svašek Hydraulics used two different models: WAQUA and FINEL. Both models were calibrated using ADCP current measurements in several lines across and parallel to the river.

FINEL showed better results and was further used as the design tool for the hydraulic design.

The following services were provided:

- development 2DH WAQUA and 2DH FINEL model of the river Lek near Nieuwegein in order to study several junction configurations
- morphological study to determine the impact of several junction configurations on the river bed
- hydraulic study on the development of eddies in the entrance of the Lek canal
- the impact of the eddies on the maintenance dredging volumes

Client

Rijkswaterstaat, Utrecht, the Netherlands

## Location

Connection of the Lek canal to the River Lek, near the city of Nieuwegein

**Date** 2000

## Services

2D hydraulic modelling (FINEL and WAQUA), morphology study

