

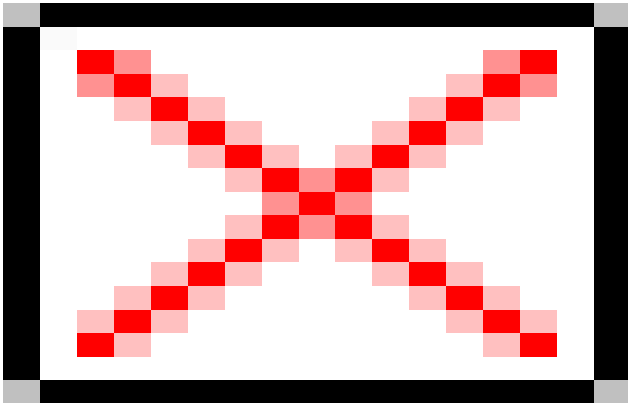
IMDC
Hydraulic and hydrologic river modelling

Location:

Vlaams-Brabant, Belgium

Client:

VMM Afdeling Water



Project Contact Information

For more information about this project, contact:

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Hydrologic and hydrodynamic numerical model of the Zenne basin

On behalf of the VMM afdeling Water (Ministry of the Flemish Community) and the Provincie Vlaams-Brabant dienst Waterlopen (Provincial services) IMDC conducted a hydrologic and hydrodynamic modeling study of the Zenne catchment that consisted of:

- Topographic survey;
- Measuring campaign on the river Zenne and its tributaries;
- Hydrological and hydrodynamic modeling of the river system and flooded areas;
- Analysis and design of flood mitigation measures

Asides the principal river Zenne, 3 tributaries were modeled, each with their proper needs:

The Lotbeek is re-routed whilst crossing several infrastructures with locally very low bed slope.

At the city of Halle, the mouth of the Groebengracht is re-routed and covered at each expansion of the city.

Extensive farming in its catchment area leads to high peak discharges.

In the 19th century, the valley of the Molenbeek and its tributaries were the scenery of a booming mill industry. Rivers were re-routed, impounded, reservoir ponds were built. Nowadays, the left structures are not designed for the current peak discharges caused by increasing urbanization of the upper catchment.

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