

HydroSWMM

# Overview

The HydroSWMM™ software presents a completely new simplified approach to engineering modelling software where the engineering model lives inside a geographical information system (GIS).

*Our software is designed by engineers for engineers. We aim to simplify the modelling process during every step and make the power of GIS available to the modeller.*



## MODEL LIVES IN GIS

**The storm water model is embedded in our own powerful Albion™ GIS platform.**

The power of GIS can now be applied to the engineering model, allowing the modeller to directly harness GIS tools when creating and editing datasets.

For example, spatial correlation can be used to extract text, such as pipe diameters from CAD or other GIS sources and apply it directly to the pipe entities of a hydraulic model.

Another example would be to select part of the model using a spatial query, then refine the selection using a SQL text query. Finally the resulting filtered dataset can be populated interactively with data. This works directly on the engineering model.

The more advanced modeller can create extensive selection or update queries using SQL, and see the effect immediately rendered in the GIS based model.

Model tables are now dynamic, fast and practically unlimited in size. There are no more tabs on spreadsheet tables. The modeller can have multiple user customizable layouts with field groupings in colour.

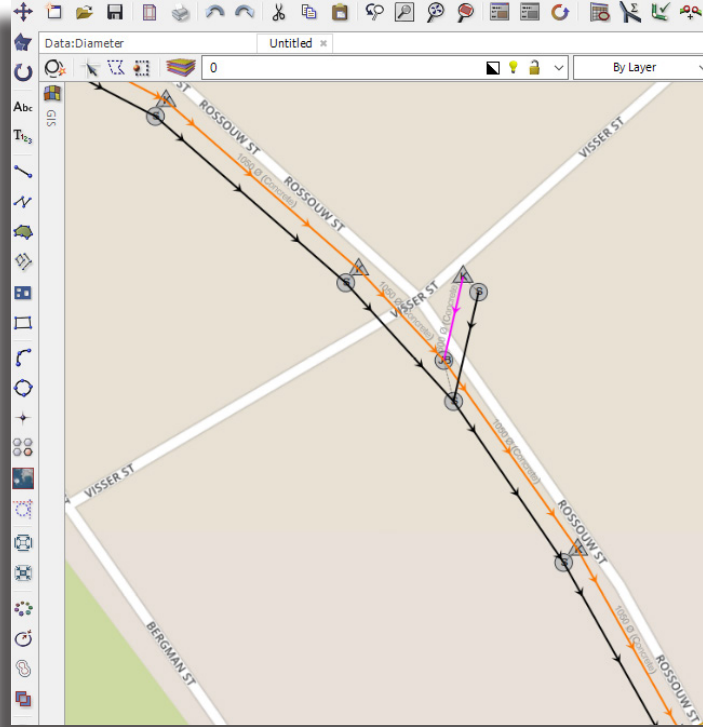
All model operations are now also fully undo-able.

# HydroSWMM Overview

HydroSWMM presents a simplified approach to modelling storm water systems, utilizing EPA's Storm Water Management Model (SWMM).

## Key features of HydroSWMM

- Capable of creating very large systems.
- Ability to design and size systems
- Master planning of storm water and sewer systems
- Variety of closed and open conduits
- Incorporate natural channels
- Support for weirs, flow dividers, storage units, pumps and orifices
- Dynamic wave, kinematic wave or steady-flow routing methodologies
- Use varying rainfall patterns while also adding additional external inflows directly
- Flood plain mapping



Model view with OpenStreetMap background

## Simplified model building

Version 6 simplifies the process of model building from a wide range of sources including as built drawings, CAD plans, GIS data sources, scanned images, schematic layouts, tabular spreadsheets or even hand drawings. The process of adding model elements such as pipes, cables or catchments with the minimum number of clicks has been at the forefront of the new design to minimize repetitive tasks for the modeller.

## Interaction with web services

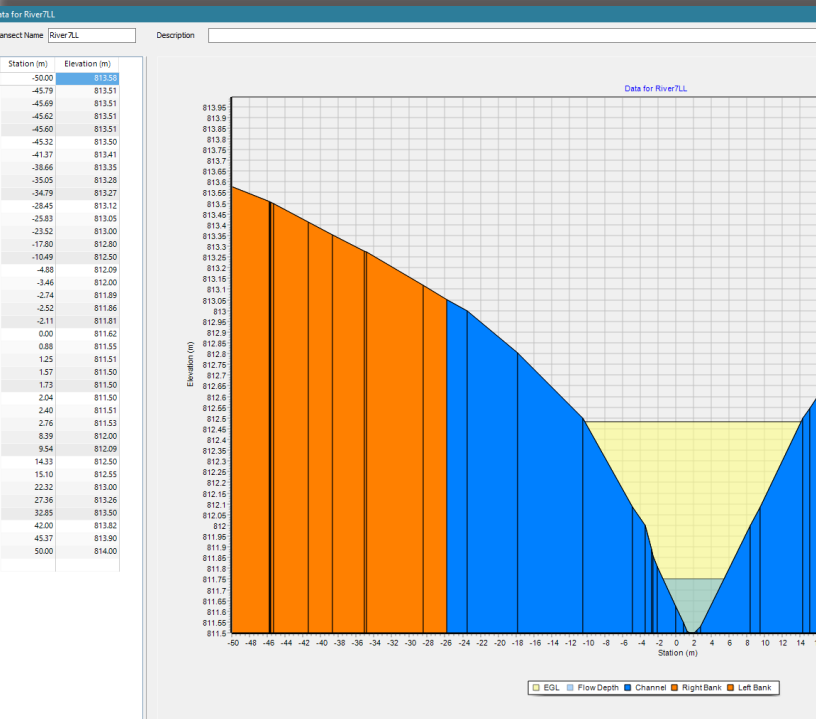
Vast amounts of information are available on the Internet. Accessing Internet based resources through web services, allow HydroSWMM to display background maps from sources like Google™, Mapbox™, Bing™ or OpenStreetMap™. In addition Street View is now integrated in the software.

Providing the modeller with access to powerful user customizable GIS based themes and an extensive model reporting system, ensures productivity.

## Summary of features of HydroSWMM

- Models live in GIS
- Interaction with web services
- Simplified model building
- Customizable GIS based themes
- Extensive model reporting system

Editing cross-sections



For more information, please contact us  
 +27 21 880 0388, software@gls.co.za  
 GLS Consulting  
 Stellenpark Block D North, Stellenbosch, 7600, South Africa  
[www.gls.co.za](http://www.gls.co.za)