

## The Combined Water Information System

- A** The system module directly reflects the systemic structure of the database. It allows to navigate the information elements based on their system logics: elements, that may have a spatial dimension or not, are displayed as a graph of interconnected nodes and further information such as associated values, texts, geometries, images, etc. may gravitate around them. Beyond pure system representations, the system module enables one to build fluxes' views, problem trees, causal loops diagrams, etc.
- B** The "active report" module allows to build, display and navigate pages that document the system elements. Moreover, the attributes of these elements (values, text, images...) can be incorporated into the pages and therefore provide reports that are updated dynamically. This module also provides access to the various attributes of these elements, including for edition, in a "catalog" of data.
- C** The geographic module allows to navigate the information on a spatial basis. It can also be used to create thematic maps based on indicators.
- D** The charts view displays charts of numeric value series. It supports any kind of traditional chart types (e.g. column, line, scatter, pie, histograms, radar plots) and also some more advanced formats (e.g. Gantt charts).
- E** The import/export - model linkage module allows to import and export data, and to exchange data (provide inputs and get outputs) with simulation models, for instance hydrological or economic models.
- F** The indicators' module's purpose is to summarize indicators results in a synthetic way, in order to easily compare different scenarios or simulation results.
- G** Users can create, save and retrieve projects that contain views (module instances) and workspaces (a set of views in a given layout) .
- H** CWIS offers various access modes and layouts, and can connect to multiple data sources.

## The Linked Screening Models

### City Water Balance

A city-scale scoping model to assess alternative options for IUWM. Indicator outputs allow users to examine dynamic water and wastewater stresses, pollutant loads and lifecycle costs and energy consumption.



### City Water Drain

A model for assessing the interactions between elements of the urban drainage system on a sub-daily time basis: catchment runoff, sewers, treatment plants and receiving waters.



### City Water Economics

A model to explore the potential economic implications of future strategies on urban water management by analyzing scenarios for cost recovery & economic drivers for change (financing, pricing and subsidies).



## Getting involved ?

The **Combined Water Information System** has been developed so far at the Swiss Federal Institute of technology (EPFL).



This development will be taken over by an engineering company based in Switzerland, IPOGEE.

To learn more, get in touch or simply post a comment, go to :

[www.ipogee.ch](http://www.ipogee.ch)

or visit this blog :

[www.b-map.ch](http://www.b-map.ch)



# CITY WATER

**A knowledge and information sharing platform to support global and integrated urban water planning**

offering

## A Combined Information System,

- Generic Database
- Geographic Viewer
- Reporting tool
- Systemic Viewer
- And more...

## Linked to a Set of Screening Models

- City Water Balance
- City Water Economics
- City Water Drain
- And more...

**Mode Manager**

Consultation  
Edition

Layout Manager  
Single Window  
Four Windows  
Six Windows  
Eight Windows

Data Sources  
Switch Open  
Lausanne Open  
Settings  
Projects  
City water balance Open  
Demo Project Open  
CWB Brummy Open  
Name: CWB Brummy  
Description:  
Workspaces  
Views  
-Test Mini Data  
-NewGis  
-NewArt

Help

**Minworth Wastewater treatment plant**

Report

Minworth is the main sewage treatment work in Birmingham. It is owned by Severn Trent Water Ltd. The sewage equivalent total load represents 1429000 inhabitants. But Minworth stw treats the sludge produced from 2.5 million people due to tankered imports. 6 Storm tanks have the capacity of 68Ml of water. The discharge goes to the River Tame.

**City Water Balance**  
Export data sheet  
Export Data

Indicators	Scenario 1 (business as usual)	Scenario 2 (best case)	Target
Proportion of population with sustainable access to an improved water source, urban and rural	60 %	80 %	80 %
Proportion of urban population with access to improved sanitation	50 %	90 %	80 %
Water consumption per inhabitant (m3/year)	?	?	?
Proportion of population in malaria risk areas using effective malaria prevention and treatment measures	?	?	?

**Minworth Wastewater treatment plant** (Map)

x: 409 241.99 y: 288 694.43  
VirtualEarthMap

**City Water Balance** (Chart)

Chart1

Y-Value: 0, 3, 6, 9, 12, 15, 18, 21, 24  
X-Value: -1, 0, 1, 2, 3, 4, 5, 6

LINK TO SIMULATION MODELS