



# City Water: Deciding the Future

A decision and information support system to turn visions into strategies  
3<sup>rd</sup> Scientific Meeting – 1<sup>st</sup> December, 2008

## City Water's function

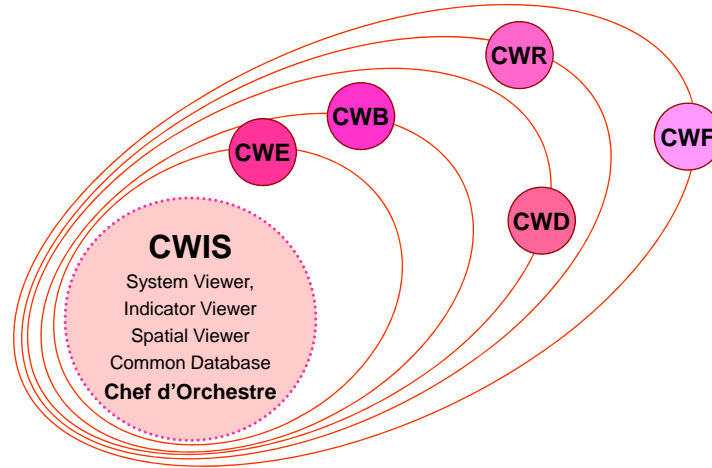
- To help explore and understand the different components of the water system in the city, their inter-linkages and the IUWM opportunities within a city.
- To help explore and understand how water links to aspects of city management – for example in environment, health, transportation, planning, economic activities.
- To help evaluate the future potential impacts of global trends on water systems in a city including climate change, population growth/decay, energy cost increases and renewable energy.
- To help evaluate the technical options that need to be considered now so that global impacts can be addressed and to explore the performance of any strategies through assessments of uncertainty and risk.



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## The City Water System

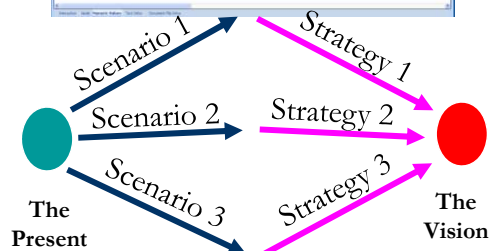


## Key Advances in City Water

- Significant weight is given to the integrated exploitation of the natural environment.
- The knowledge repository is designed to deal with aspects of the regulatory environment, legal frameworks, historical data and stakeholder interactions and responsibilities
- Tools provide for indicators spanning a very broad range of time and space scales
- Can assist the exploration of transitioning impacts across a city

## The Tools for Strategy Framing

- **CWIS** can assist stakeholders in exploring urban water issues
  - To manage all data types
  - To explore the UWS
  - To explore stakeholder connections
  - To review precedent activities and events
  - To understand legal and policy domains
- **CW Futures** aims to provide indicators of future city environments

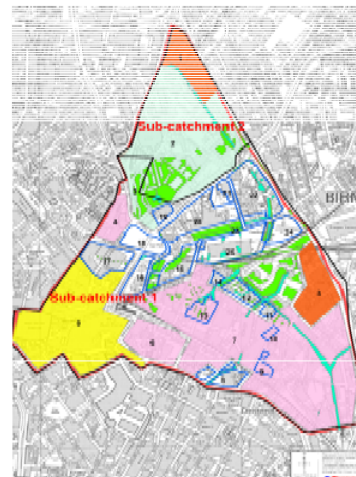


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## The Tools for Strategy Assessment

- **CW Balance and Drain** model water flows and impacts
  - **Balance** assesses strategies w.r.t
    - Water Fluxes
    - Chemical Fluxes
    - Energy Demands
    - Life Cycle Costs
  - **Drain** deals with
    - Flooding and flood risk

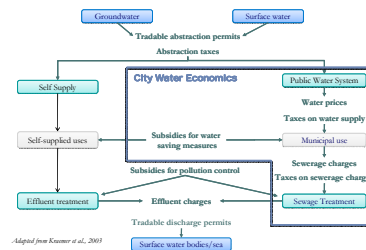


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## The Tools for Strategic Planning

- **CW economics** can be used to explore the potential economic implications and instruments for future strategies
  - Cost recovery options
  - Water saving incentives
  - Equitable financing
- **CW risk examines** the risks of failures of performance objectives based on sustainability, reliability etc. for different strategies



## What are the next steps?

- Marc, Bastien and Colin to complete the initial build of CWIS
- Creation of a template for model implementation through CWIS (using CWB as a test case)
- Introduction of City Water to the Birmingham LA
- Delivery of beta version to the consortium in June
- Component trials using Belo Horizonte, Birmingham and Alexandria ?
- Preparation of user manuals, training materials and hand's on courses

## The missing links

- Embedding SWITCH based innovative technology and policy options in the CW scoping tool set.
- Transferring the Demonstration results into the CW knowledge base.
- Identifying the value for each City of using CW and options for uptake of CW.
- Moving to more general application of CW in the cities

## Closing Remarks

- This is an ambitious project in SWITCH
- It has the potential to provide a lasting contribution to SWITCH based IUWM planning within an LA based process
- But...
  - Integration with the WP's is needed to realise its potential
  - Examination, testing and revision by the Cities is essential to prove its value