Objectives:

- Define the material fluxes in a site of construction
- Describe methods and strategies in order to decrease the environmental impact of the water consumption in a site of construction.
- Propose methods to improve the consumption/reuse of wastewater in a site of construction

Methodology:

1. Define a detailed material flux
2. Optimize water fluxes
3. Implement treatments and applications to Genève case

MATERIAL FLUXES

For a general case where Construction perimeter > Excavation Perimeter

Concrete/ Reinforcement
Wooden Framework
Embarkments
Bricks and cement
Pipelines and networks

Conclusions:

1. The optimization of waste water flux helps reuse water and hence reduces the dependency on fresh water.
2. The methods explained are site specific and may or may not be applied to all sites.
3. A thorough investigation is needed before implementing them to any site (water quality required, possible sources of water, resources available).

SWISS LAW

"Ordonnance sur les substances étrangères et les composants, OSEC, RS 817.021.23"

APPLICATIONS

Some possible applications of wastewater flux in construction