

Lyon (FR)

Setting/Problem

The city of Lyon is addressing a problem related to flood control and ecosystem services – namely recreation and cultural activities in the Perrache peninsula. This area was long restricted to industry and transport facilities, but is now undergoing a transformation that aims at its renewal into a downtown district (“Lyon Confluence” project) – including a project of sewer network rehabilitation. The area



faces three major water management problems: maintenance difficulties due to pipes silting or too small infrastructures, nuisances and troubles for river side residents (rats, odor pollution, flooding) and pollution of the receiving bodies during storm events due to overflow devices.

Objective

The “Lyon Confluence” project aims at increasing its population to 25,000 by 2030, and to build new leisure and cultural infrastructures that should create 14,000 new jobs as well as new green/blue space. Concerning water management, the objectives are to improve the natural environmental quality (enhancing the receiving bodies’ water quality and then protect the water resources), to reduce flood risks, to reduce investment and operation costs of technical solutions and to integrate storm water management in the cityscape.

Proposed solutions for the implementation of the “Lyon Confluence” project include:

- The development of urban green/blue space as well as areas for housing, shopping and leisure functions.
- The implementation of those technical options that best fit sustainability criteria among the 13 imagined possibilities for the rehabilitation/requalification of the sewer system. So far, the solution adopted is to build separate sewer systems only in new zones, where a complete sewer network reconstruction is necessary.
- The construction of swales for flood control and green/blue spaces for storm water management.

Expected outputs

The DST is expected to provide spatially explicit information on the (added) value of green/blue space preservation/rehabilitation scenarios, in terms of household welfare, property values and flood control in the peninsula, as well as on the preferred locations and types of urban development needed to house population. A cost-benefit analysis of the different imagined solutions for the sewer system rehabilitation and requalification is also expected from this tool.