

Dipl.-Ing. Ralf Steeg

Abstract

Nowadays, the domestic water management services in highly industrialised countries have to deal with matters that go far beyond the "original" tasks of a few decades ago. Whereas, in the past, the domestic water utilities were primarily concerned with the technical aspects of water supply and disposal, they are now forced to focus on urban development matters, for instance the improvement of the quality of life, the development of tourism and the maintenance of resources.

Residents no longer look upon their communities as purely administrative entities or economic areas, but rather as their areas of life that have to be developed and maintained. Towns and cities must present themselves as service providers for the inhabitants. They must attract companies, moneyed newcomers and tourists. This increases the attention that must be devoted to water management. Clean and ecologically sound rivers and lakes have become important areas of activity for this branch of science and an elementary precondition for a high quality of life. Yet, until now, the condition of many waters must be regarded as very unsatisfactory.

One of the principal sources of urban water pollution is the introduction of waste water from the combined sewage system where domestic waste water is conducted off together with the rain water that has drained off the streets. During severe rainstorms the sewage system becomes flooded on account of its limited capacity resulting in untreated sewage being swept into open waters.

In Germany this manner of pollution accounts for 40% of water contamination. In Berlin, alone, up to seven million cubic meters of waste water are introduced into the River Spree every year.

There are many proven systems to diminish this form of contamination. They include planning-intensive decentral measures such as roof landscaping and seepage systems or centralised solutions such as cost-intensive underground rainwater-collecting overflow basins.

The LURITEC System

This is where LURITEC offers a new, cost-effective technology that can be rapidly implemented. Collecting containers made of plastic and steel are positioned directly in front of pipeline outlets that lead into open waters. The technical equipment of "conventional" storage systems (e.g. pumps and computer technology) takes on a model function that can be combined with the new storage system which is supplied ex works as a modular kit for rapid and easy installation eliminating elaborate preparations and prolonged planning.

In addition to waste-water storage, these containers with their surfaces above water level can fulfil numerous other functions. They can be used as public parks and biotopes, or for bars, cafés and exhibition pavilions. Moreover, these newly created "islands in the water" can be let or leased and thus help finance the storage system. Innovative environment protection does not entail any losses, but rather contributes to the direct addition of value to urban quality: The proper and effective use of urban areas helps to finance the protection of the waters.

Now that a team of architects, town planners, creative artists, biologists and water scientists have confirmed the technical, economic and architectural feasibility of this project, it is planned to set up a pilot installation alongside Berlin's River Spree in 2007.