

Exemplary water management at DWR Headquarters, Amsterdam

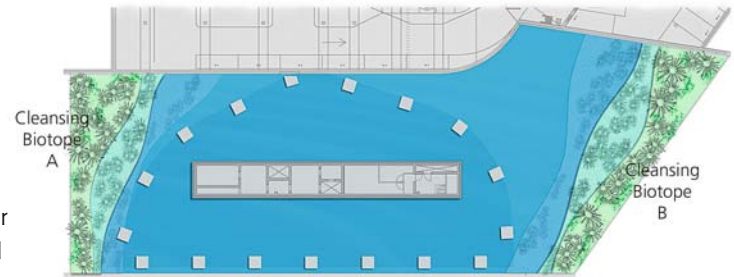
For a dyke control and sewerage utility company in Amsterdam, expectations are high in regards to the stormwater management of its own sites, plants and buildings. DWR Amsterdam intended to meet and exceed these expectations with the design and construction of its new headquarters on the River Amstel, setting an example for excellent water practice.

The new building is fronted by a large water basin, with one of the two high-rise towers propped directly above the water. The basin is multifunctional. On one hand, it detains stormwater runoff from the site before slowly releasing it to the river Amstel. On the other, without a liner or artificial sealing, it is open to ground water and acts as a collection reservoir for water to be used for toilet flushing, cleaning and air-conditioning. The water level of the basin can fluctuate significantly. All of these variables necessitate the maintenance of sufficiently high water quality.

Atelier Dreiseitl designed the detailed operation system and shaped the aesthetic character of the water basin. Form, depth and water flow patterns were analysed, so that an optimised functional system could be seamlessly integrated into the aesthetic fine-tuning of the basin. In terms of the aesthetic handling of the basin edges and the overall cleansing requirements, the 30 centimetre fluctuating water level posed a particular challenge. Two different types of cleansing biotopes were installed at opposing sides of the basin, and terraced down from maximum to minimum water levels. Different plants reflect different cleaning functions, give the basin scenic variety and intimacy, and ensure that the water remains sufficiently clean at all times and water levels.

The main entrance to the building is tantalizingly suspended over the water.

Although visually evident, a more sensual connection is made by a proposed indoor water curtain, which through sound, light and a cooling sensation brings an awareness of water inside the building. Visitors are bathed in the impression of cool, fresh water. For DWR, it is a celebration of the achievement of large-scale sustainable water management reflected within the microcosm of their new headquarters.



A detailed circulation concept was developed responding to the challenge of varying water levels.



Cleansing biotopes with flowering wetland plants ensure good water quality.



A rainwater concept for the administrative headquarters of DWR is to set an example in Amsterdam for sustainable rainwater management.

