AWA

Strategic Alliance for integrated Water management Actions

Final Conference

Synergetic Flood Retention for the River Wandse

HafenCity University Hamburg (1/4)

Identifying Synergetic Measures

Synergetic measures allow for reduction of flood risk and help to improve ecological status (potential).

Approach

Analisys of flooding dangers in the River Wandse catchment and existing ecological deficits. Screening for measures that meet best the demands for flood reduction and ecological amelioration.

Results

In the River Wandse catchment the risk of flooding is moderate, mainly the ecological status necessitates measures:

» **Stormwater management** using Sustainable Urban Drainage Systems reduce effective precipitation, hydraulic stress and sediment / nutrient / pollutant load.
» Establishment of near-natural **secondary floodplains** allow for reconstitution of habitat structure and flatten discharge waves and slow down run-off.
» **Optimisation of** existing **ponded sections** help to break run-off peaks effectively and can be combined with restoration of aquatic animal passage.

Contribution to SAWA

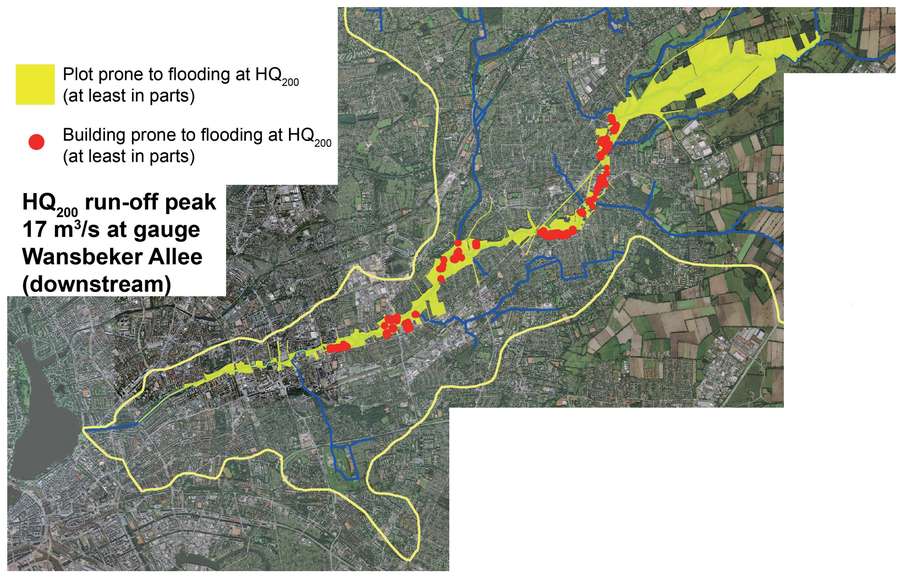
The measures identified as synergetic measures were investigated closer with regards to technical realisation potentials. Their effectiveness to attenuate severe floods was estimated (see posters 2-4) as well as partially quantified by the project partner TUHH using a run-off-model . Technical potentials and effectiveness were discussed in the pilot scheme to set up a flood risk management plan for the River Wandse catchment (WP1), testing for the acceptance of the measures in integrated water management.

Partners

HCU HafenCity Universität Hamburg

Landesbetrieb Straßen, Brücken und Gewässer

TUHH Technische Universität Hamburg-Harburg



Plots and buildings prone to flooding along the River Wandse main course in a flood event, that statistically occurs one time in 200 years.

Fast run-off from the rainwater canalisation dominates the flooding events following short and intense rainfall, and is associated with considerable sediment, nutrient and pollutant loads.

Ponded sections in the River Wandse network are not consequently optimized to retain severe floods and pose demand for restoration of aquatic animal passage.

EUROPEAN UNION
European Regional Development Fund

Investing in the future by working together for a sustainable and competitive region

The Interreg IVB North Sea Region Programme

www.sawa-project.eu