Policy best practice and recommendations for sustainable and integrated stormwater management

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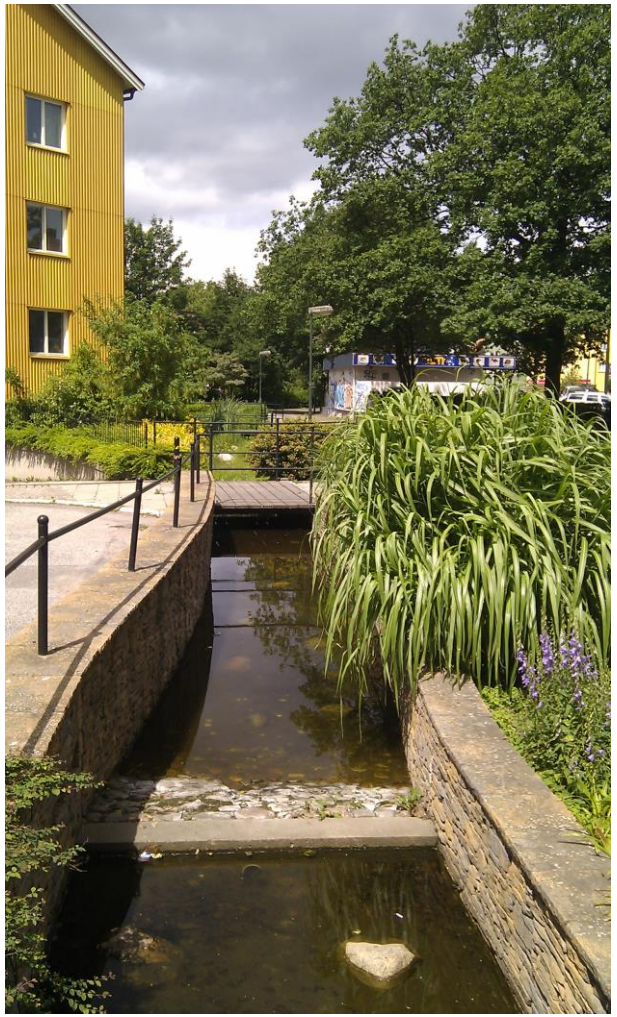

Objectives I

Medlock, California, USA

- Decreasing damages from urban floods associated with extreme precipitation events
- Decreasing water pollution and ensuring good ecological status of urban streams, rivers and other recipient water bodies
- Enhancing urban biodiversity and value of ecosystem services

Objectives II

- Achieving, where practical, natural water balance
- Ensuring combination of grey and green infrastructure that is most cost-effective and brings greatest mix of benefits
- Creating multi-functional, socially inclusive and integrated urban spaces

Qunli Stormwater Wetland Park, China

Drivers for Stormwater Regulation I

Seattle, USA, Public Utilities

- Development pressure in the urban areas and increasing intensity of the extreme storm events
- More stringent legislation at the EU and national level
- Competition for public space between different uses

Drivers for Stormwater Regulation II

- Overall sustainability agenda, including European Green Deal
- Worldwide recognition of ecosystem services and stormwater as a resource, a shift from cost effectiveness to cost-benefit paradigm

Qunli, China: Stormwater Wetland Park

Drivers for Stormwater Regulation III

- Increasing prevalence of polluter-pays and cost recovery principle, influencing introduction of a stormwater fee
- Water utilities competence and their increasing role in stormwater management processes
- Science-practice collaboration

Challenges and Measures I

Challenge	Measures and policy instruments to tackle the challenge
Limited space and capacity in dense historical parts	Planning, promotion and financing for integrated public space reorganisation projects, combining with sustainable mobility initiatives
Lack of finance	Promoting solutions with multiple benefits, shift from cost effectiveness to cost-benefit approach Valuing ecosystems services benefits Stormwater fee to finance solutions (both connection and running fee) Property tax incentives if property switches to the decentralised solutions Disconnection subsidy

Challenges and Measures II

Challenge	Measures and policy instruments to tackle the challenge
Lack of finance	Runoff restrictions/requirements for decentralized management in new developments to decrease pressure on the system Including stormwater features into planning permits via GAF or similar tools
Low priority of the stormwater management political agenda	Building solutions with multiple benefits emphasis on integrated management and integrated projects with the aim to create high-value multi-functional urban space More data on water quality and damage caused by stormwater

Challenges and Measures III

Challenge	Measures and policy instruments to tackle the challenge
Lack of a good collaboration model among different city departments and with other stakeholders	Promotion of integrated management and cross-sectoral work groups Agile/SCRAM approach in policy development
Lack of knowledge	Strategic HR development Effective collaboration between knowledge holders, local competence development

Recommendations at the National Level I

Spice Home Shopping Centre, Riga, Latvia

- General principles and priorities of sustainable stormwater management defined in spatial planning and water management legislation
- Principles of ISWM included in the acts and other relevant regulation on spatial planning

Recommendations at the National Level II

- Drainage basin planning principle explicitly included in the spatial planning and water management regulation
- Cost recovery principle for stormwater management infrastructure and multi-functional solutions defined in national law

Spice Home Shopping Centre, Riga, Latvia

Recommendations at the National Level III

Green River, Rūjiena, Latvia

- Specify integrated approach to stormwater management, including the mechanism how an entity involved in stormwater management may invest and include in stormwater fee the cost of investing into other entity's property (e.g., water utility investment into city's parks or street infrastructure)

Recommendations at the National Level IV

- Stormwater treatment mandated in legislation related to environmental permitting, spatial planning and planning and design of stormwater systems
- **Specify treatment and water quality requirements based on local specifics of stormwater drainage basins**

City Park, Rūjiena, Latvia

Recommendations at the National Level V

National level guidance documents should be developed for the local implementation on the following aspects:

- Guidelines on natural, holistic, sustainable urban stormwater management approaches and techniques and stormwater treatment
- Guidelines on the elaboration of stormwater drainage basin plans
- Guidelines on the establishment of the ISWM system in the local municipalities

Recommendations at the Local Level I

- Local stormwater management programme and plan (as a part of climate adaptation plan or self-standing)
- Stormwater drainage basin management plans
- Stormwater management guidance for developers and landowners
- Regulation (roles, responsibilities, decision making procedure etc.) for the ISWM and the local task force present

Recommendations at the Local Level II

- Local requirements for emission limit values and monitoring of stormwater quality, based on the water status of the receiving water, as per custom water drainage basin management plans or, where limit values are not practical, treatment guidelines for specific land uses (e.g., residential, commercial or industrial areas)
- Local financial incentives and building control tools (e.g., GAF tool)

Full report is available at the Baltic Water Hub

http://www.bsrwater.eu/news/publication-recommendations-stormwater-management

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