

	
Content	
1. Introduction	<ul style="list-style-type: none"> • water in cities and conventional stormwater management • stormwater in different climates zones around the world
2. WSUD	<ul style="list-style-type: none"> • definition „Water Sensitive Urban Design“ & „Sustainable Stormwater Management“ • state of the art of technical solutions • legislation
3. Principles	<ul style="list-style-type: none"> • principles for a successful WSUD
4. Case Studies	<ul style="list-style-type: none"> • large scale (city level)), medium scale (district level) and small scale (site level)
5. Conclusion	<ul style="list-style-type: none"> • summary • overall recommendations • outlook



10th IASTED Scientific Conference
Sustainable Water Management Improves Tomorrow's Cities' Health:
achievements and way forward
10th IASTED Scientific Conference, 10-12 June 2006



WSUD-solutions should.....

Principles

Principle	Short form	Topic
1) use decentralised methods to bring urban water management closer to the natural water cycle.	Water sensitivity	WATER SENSITIVITY
2) be used to provide an aesthetic benefit where possible.	Aesthetic benefit	AESTHETICS
3) be adapted to the design of the surrounding area.	Integration in surrounding area	FUNCTIONALITY
4) be used in an appropriate way, adapted to the local basic conditions and the intended use.	Appropriate design	FUNCTIONALITY
5) consider the corresponding maintenance requirements	Appropriate maintenance	FUNCTIONALITY
6) consider possibilities for adaptation to uncertain and changing basic conditions.	Adaptability	FUNCTIONALITY
7) be used to create places that are usable for recreation and/or nature conservation purposes.	Appropriate usability	USABILITY
8) consider the demands of all stakeholders and involve them in the planning process.	Public involvement	PUBLIC PERCEPTION & ACCEPTANCE
9) costs should be comparable to the costs of conventional solutions.	Acceptable costs	PUBLIC PERCEPTION & ACCEPTANCE

In order to meet the demands of all the different topics, it is necessary to integrate the principles 1 - 9.

Therefore WSUD solutions should.....

10) combine function, aesthetics and cost	Integration of demands	INTEGRATIVE PLANNING
11) be planned in interdisciplinary co-operation of urban planning, urban design, landscape architecture and water management.	Interdisciplinary planning	INTEGRATIVE PLANNING
12) be designed in an aesthetic, well-functioning and usable way in order to improve the public perception and acceptability of WSUD.	Impact on public perception	INTEGRATIVE PLANNING

Sustainable Water Management Improves Tomorrow's Cities' Health: achievements and way forward

10th SWITCH Scientific Conference
16-18 November 2021, Lodz, Poland

Case Studies

LARGE SCALE

- Portland, Oregon, USA: From Grey to Green
- Rotterdam, Netherlands: Waterplan 2
- Lodz, Poland: Blue-Green Network

Lodz

Rotterdam

MEDIUM SCALE

- Tanner Springs Park, Portland, Oregon, USA
- Trabrennbahn Farmsen, Hamburg, Germany
- Hohlgrabenäcker, Stuttgart, Germany

Portland

Hamburg

SMALL SCALE

- Potsdamer Platz, Berlin, Germany
- 10th@Hoyt Apartments, Portland, Oregon, USA
- Prisma Nürnberg, Nürnberg, Germany

Berlin

Portland

Sustainable Water Management Improves Tomorrow's Cities' Health: achievements and way forward

10th SWITCH Scientific Conference
16-18 November 2021, Lodz, Poland

Guidance Table

Principles	Water Sensitivity	Aesthetic Benefit	Integration in Surrounding Area	Appropriate Design	Appropriate Maintenance	Adaptability	Appropriate Usability	Public Involvement	Acceptable Costs	Integration of Demands	Interdisciplinary Planning	Impact on Public Perception
	1	2	3	4	5	6	7	8	9	10	11	12
Project												
From Grey to Green Portland	*	*		*			*	*	*	*	*	*
Waterplan 2 Rotterdam	*	*	*	*		*	*	*		*	*	*
Blue-Green Network Lodz	*	*	*	*	*	*	*	*	*	*	*	*
Tanner Springs Park		*	*	*	*		*	*	*	*		*
Trabrennbahn Farmsen	*	*	*	*	*	*	*			*	*	*
Hohlgrabenäcker Stuttgart	*			*					*	*	*	*
Potsdamer Platz Berlin	*	*	*	*	*	*	*			*	*	*
10@Hoyt Apartments		*	*	*			*			*	*	*
Prisma Nürnberg	*	*	*	*		*	*			*	*	*

Audience_Dissemination_Cooperation

Audience

all stakeholders involved in the planning, design and maintenance of stormwater management in urban areas, such as:
civil engineers, planners, landscape designers, project managers, architects,
administrative officers and policymakers

Dissemination

- Publication in form of a book (available worldwide) and online available for download
- Publication sent to all SWITCH partners
- Presentation on international conferences (IPWE 2011)

Cooperation

Manual has been elaborated in coordination with WP 2.2