Waterplan Antwerp
Towards a water-sensitive city

Making Climate Services a Reality in Europe

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Sealed soil
Water scarcity and drought
Floods
Team

De Urbanisten (NL)
- Office for urban and landscape design

Witteveen + Bos (NL&BE)
- Engineering office

Common Ground (BE)
- Communication & participation

Het Waterplein in Rotterdam.
Antwerp, 3 water cities

The artificial water city + The historic water city + The natural water city
The historic water city
The historic water city
The historic water city
The natural water city
The natural water city
The artificial water city
The artificial water city
Analysis
Flooding
Risks for drought

City pond - 2018

Ground water depth as a results of impervious areas and drainage
Towards a water-sensitive city

The artificial water city

The natural water city

The historic water city

= a water sensitive city
Urban typologies
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Urban typologies
Water building blocks

02 Increase pervious area
High infiltration / little space

13 Swale
High infiltration / much space

11 Water robust building
Low infiltration / little space

30 Surface storage
Low infiltration / much space
Water toolbox

Urban typologies

Water building block
Citywide vision

1. Blue Green Valleys
2. Ring Park
3. Mineral City
4. Green Triangle
5. Local & Radical
Rain water cascade
Cases
3 exemplary case-studies
Case 1 – Blue Green Valleys

1. Private area
   - 15.465 m²

2. Public area
   - 16.969 m³
Case 1 – Blue Green Valleys

Building blocks with green inner area

Building blocks with harder inner area

10% is needed as area for water buffer
Case 1 – Blue Green Valleys

Impression, Principal cross-section and plans of the water sensitive Kerkpleintje Te Boelaerlei

Total water buffer: 293 m²

Sensitive construction materials:
- Rain wetland (75 cm deep)
- Water buffer under parking (50 cm deep)
Case 1 – Blue Green Valleys

2050

2050 with water plan measures
In practice?
Garden streets
The Zuiderdokken

AG VESPA, TRACTEBEL – ADR Architects – Georges Descombes with Les Eclairistes Associés & Erik De Waele