INSTALL WATER SENSITIVE URBAN DESIGN (WSUD)

OBJECTIVE

To minimise hydrological impacts of urban development on the environment.

DESCRIPTION

To minimise the hydrological impacts of urban development on the environment, the following actions could be undertaken: (i) design of plans for water conservation (i.e. optimise water distribution and its uses, investigate potable water conservation, wastewater reuse and stormwater harvesting opportunities); (ii) improvement of quality of stormwater (including stormwater treatment measures to reduce pollutants); and (iii) integration with elements of urban design.
Institutional aspects such as collaboration with watershed authorities, alternative approaches to community involvement, and ways to drive innovation are equally important and should frame the whole process of WSUD implementation.

EXPECTED RESULTS

Protect existing natural features and ecological processes;
maintain natural hydrologic behaviour of catchments;
protect water quality of surface and ground waters;
minimise demand on the reticulated water supply system;
minimise wastewater discharges to the natural environment;
integrate water into landscape planning to enhance visual, social, cultural and ecological values.

RESULT INDICATORS

Water availability for distribution [L]
Catchment size [m^2]
Area available for best management practices [m^2]
Runoff flow [m^3/s]

INVOLVED ACTORS

Watershed administration and community.

EXPECTED TIMELINE FOR ACTION

- Medium term (5-10 years)
- Long term (> 10 years)

BEST PRACTICES

- London – UK
- Hamburg – Germany
- Madrid – Spain

- Växjö – Sweden
- Bremen – Germany
- Rouen – France
- Veneto Region – Italy
- Amsterdam – Netherlands
- Bratislava – Slovakia
- Lodz – Poland
- Berlin – Germany
- Malmö – Sweden
- Bilbao – Spain
- Madrid – Spain
- Friuli Venezia Giulia Autonomous Region – Italy
- Friuli Venezia Giulia Autonomous Region – Italy
- Marche Region – Italy
- Marche Region – Italy
- Šibensko-Kninska County
- Apulia Region – Italy

CRITICALITIES

Collaboration and different interests.

SCOPE OF THE ACTION

- Adaptation

TYPE OF PROPOSED ACTIONS

- Grey
- Green

SECTOR OF ACTION

- Urban settlement
- Water resource management
- Other

CLIMATE IMPACTS

- Extreme temperatures
- Floods
- Other

IMPLEMENTATION SCALE

- Municipality

SOURCE

https://climate-adapt.eea.europa.eu/metadata/adaptation-options/water-sensitive-urban-and-building-design