



FLASH FLOODS AND PLUVIAL FLOODING



ISPRA
Istituto Superiore per la Protezione
e la Ricerca Ambientale



**REGIONE AUTONOMA
DELLA SARDEGNA**



**MINISTERO DELL'AMBIENTE
E DELLA TUTELA DEL TERRITORIO E DEL MARE**

Working Group F Thematic Workshop

Detention of Heavy Rain on an Extensive Norwegian Sedum Roof; July 3rd 2009

Bent C. Braskerud

The Norwegian Water Resources and Energy
Directorate



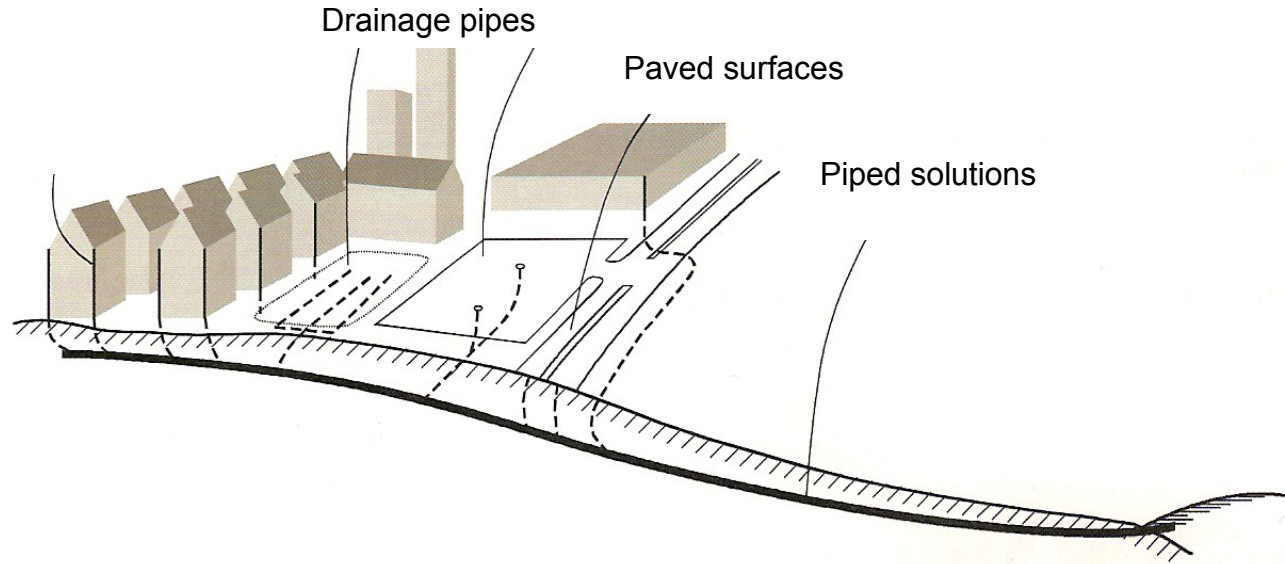
26th-28th May 2010, Cagliari, Italy



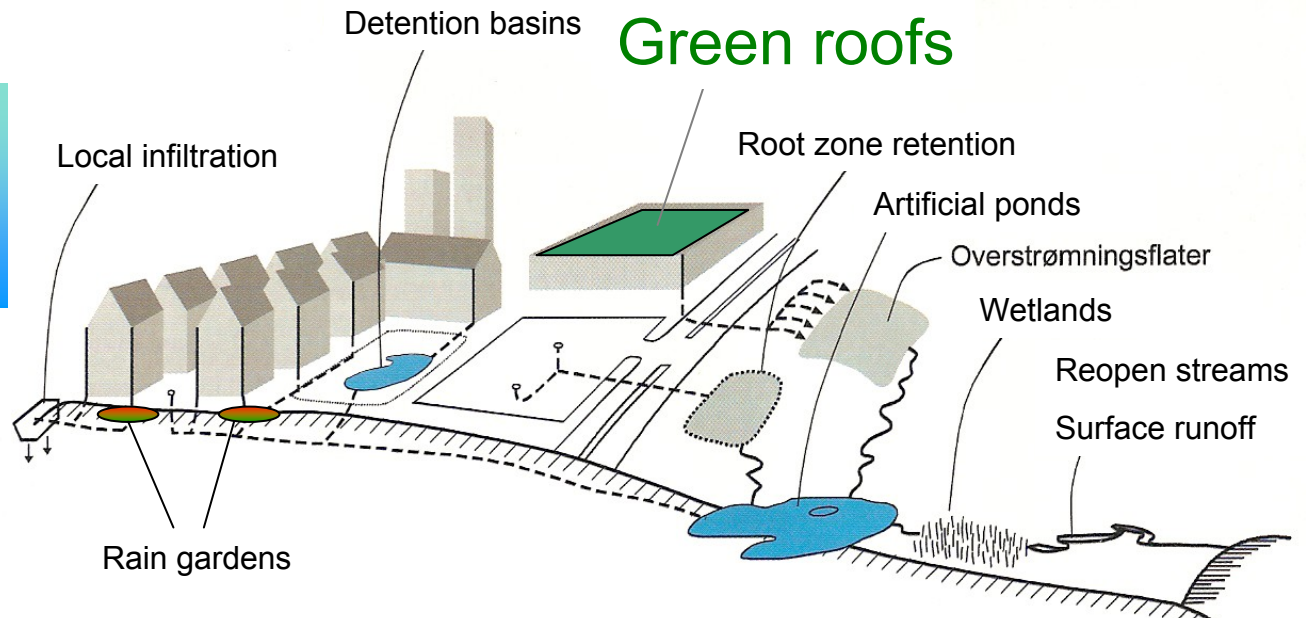
Sustainable Urban Drainage Systems

SUDS

Gray solutions



Green solutions





8 m²

8 m²



AWA



The Interreg IVB
North Sea Region
Programme

Established summer
2009

Extreme precipitation on a dry sedum roof

July 3rd 2009

- First rain absorbed (9 mm)
- Runoff peak delayed a little
- Runoff intensity lowered (26 %)
- Runoff distributed over a longer time.

