



NATURAL WATER RETENTION MEASURES RESTORING ECOSYSTEMS PROVIDING MULTIPLE BENEFITS

Chris Baker and Paul Brotherton Wetlands International



Session aims

- Raise awareness of Natural Water Retention Measures (NWRM) amongst the river restoration community
- Explore the opportunities that NWRM provides for river restoration
- Discuss and identify the pre-conditions to deliver NWRM

SESSION 02 NATURAL WATER RETENTION MEASURES RESTORING ECOSYSTEMS PROVIDING MULTIPLE BENEFITS

ORAL PRESENTATIONS

- **Natural Water Retention Measures explained**, Chris Baker, Wetlands International [10 minutes]
Questions and clarifications [5 minutes]
- **Brief introduction to facilitated breakout groups**. Pierre Strosser (ACTeon) [5 minutes]
- **Good enough? Evidence on multiple benefits of NWRM from EU's NWRM Pilot Project**. Gonzalo Delacámara, IMDEA [10 minutes]
Questions and clarifications [5 minutes]
- **Natural retention as a part of integrated water resources management - experience from Central and East Europe**. Tomasz Okruszko, Warsaw University of Life Sciences [15 minutes]
Questions and clarifications [5 minutes]
- **NWRM in Spain: successes and challenges for future implementation**. Josu Elso, Iberian Centre for River restoration [15 minutes]
Questions and clarifications [5 minutes]
- **Ready to go? Preconditions to implementing NWRM**. Pierre Strosser, ACTeon [10 minutes]

16: 30 – 17:00 Coffee Break

BREAKOUT DISCUSSION

- **Round table discussion groups to discuss NWRMs** [55 minutes discussion, including short report back from group work]
- **Closing remarks, summary by the Chair** [5 minutes]

EU Policy

Blueprint to Safeguard Europe's Waters

- 2012 review to
 - improve implementation of current water legislation
 - integration of water policy objectives into other policies
 - fill the gaps in relation to water quantity and efficiency
- River restoration & green infrastructure directly support aims of WFD, but guidance not enough to stimulate action - no obligation
- Blueprint highlights the benefits of green infrastructure as a solution to water-related challenges of land use, reduction of flood & drought risk

Natural Water Retention Measures Explained

Definition

Natural Water Retention Measures are multi-functional measures that aim to protect water resources and address water-related challenges by restoring or maintaining ecosystems as well as natural features and characteristics of water bodies using natural means and processes.

The main focus of applying NWRM is to enhance the retention capacity of aquifers, soil, and aquatic and water dependent ecosystems with a view to improve their status. Appropriate application of NWRM supports green infrastructure, improves the quantitative status of water bodies as such, and reduces the vulnerability to floods and droughts. It positively affects the chemical and ecological status of water bodies by restoring natural functioning of ecosystems and the services they provide. The restored ecosystems contribute both to climate change adaptation and mitigation.

Natural Water Retention Measures

What are they?

Type	Class	Non-exhaustive list of examples
Direct modification in ecosystems	Hydro-morphology (Rivers, Lakes, Aquifers, connected wetlands)	Restoration and maintenance of rivers, lakes, aquifers and connected wetlands; Reconnection and restoration of floodplains and disconnected meanders, elimination of riverbank protection...
Change & adaptation in land-use & water management practice	Agriculture	Restoration and maintenance of meadows, pastures, buffer strips and shelter belts; Soil conservation practices (crop rotation, intercropping, conservation tillage...), green cover, mulching...
	Forestry and Pastures	Afforestation of upstream catchments; targeted planting for "catching" precipitation; Continuous cover forestry; maintenance of riparian buffers; urban forests; Land-use conversion for water quality improvements...
	Urban development	Green roofs, rainwater harvesting, permeable paving, swales, soakaways, infiltration trenches, rain gardens, detention basins, retention ponds, urban channel restoration...

Promotion of uptake and implementation

- Guidance
 - To maximise the use of Natural Water Retention Measures (Green Infrastructure) CIS Guidance by 2014
- Financing
 - Structural & Cohesion Funds
 - European Investment Bank loans to support Natural Water Retention Measures.
- NWRM pilot initiative

EU level guidance

- Short policy document (for policy and decision-makers, 15 -20 pages)
- Aim:
 Explain policy relevance of NWRM, stimulate uptake
- Target Group:
 - Water Directors and decision-makers at the National Competent Authorities for WF/FD - persuade other policy makers for joined action
 - Local and regional catchment-scale decision-makers.
- Guidance document to be reviewed and approved by WFD Common Implementation Strategy Steering Committee Group & Water Directors in Nov-Dec 2014
- WG Programme of Measures Drafting team - DG ENV, DE, FR, IT, NL, UK, EEB, WWF, WI, NWRM PP and WFD CIS support consultants

Natural Water Retention Measures

Pilot Project

Main deliverables

- **knowledge base** on NWRM that can easily be accessed by all within the Water Information System for Europe (WISE);
 - Case studies and experiences
 - Technical background and practical guidance tools
- Development of an active **European “community of NWRM practitioners”**,
- Website: <http://nwrn.eu/>
- Guidance document for policy makers approved by SCG & Water Directors in Nov-Dec 2014

How to Implement from here, what are the obstacles and opportunities?



Enjoy the session!

Chris Baker: chris.baker@wetlands.org

Paul Brotherton: paul.brotherton@wetlands.org

 [Wetlands International](#)

 [@WetlandsInt](#)

 [Wetlands International](#)

