

EurAqua Conference 2008

# How can climate change be incorporated in river basin management plans under the WFD?

Thursday 23 - Friday 24 October 2008  
Oslo, Norway

A scientific conference on the topic climate change and river basin management is organised by EurAqua back-to-back with the 31st EurAqua Management board Meeting hosted by NIVA in Oslo in October 2008.

The EurAqua conference will focus on the science-to-application interface related to river basin management, climate change and implementation of the Water Framework Directive (WFD).

## Key issues addressed at the conference include:

- Climate scenarios for the future.
- What are the requirements of WFD and how do climate changes scenarios influence the processes of implementing the WFD?
- Operational aspects of climatic changes: water scarcity and droughts in Europe and the WFD.
- Biological effects in water systems.
- Integrated modelling as a part of river basin management and planning in the future.
- Integrated and Adaptive Water Resources Management.
- Uncertainties across all environmental aspects and in decision-making.
- Using WFD for mitigation of climate effects; possible adverse impacts of WFD implementation measures on greenhouse gases emissions.
- WFD decision support systems currently under development or in use in European countries.

# Programme - EurAqua Conference 2008

## Thursday 23 October 2008

### **12:00-13:00**      ***Lunch and registration***

13:00-13:30      Opening of the conference and practical information.  
*Merete Ulstein (NIVA)*  
*Per Backe-Hansen (Research Council of Norway)*

### **13:30- 16:30**      **Session 1: Climate change and WFD - current status and uncertainties**

Chair: *Willy Bauwens (VUB)*. Rapporteur: *João Rocha (LNEC)*

13:30-13:50      Current practice in including climate change in river basins and water resource assessments - an overview  
*Peter Kristensen (EEA)*

13:50-14:10      Perspectives from the WFD Common Implementation Strategy working group on Climate Change  
*Peeter Nöges and Giovanni Gidoglio (JRC)*

14:10-14:30      Climate change impacts on water quality /freshwater ecology and implications for the WFD implementation.  
*Anne Lyche Solheim (NIVA / JRC)*

### **14:30-15:00**      ***Coffee break***

15:00-15:20      Impacts of climate change on aquatic biodiversity and biological indicators cf. the WFD.  
*Peeter Nöges (JRC)*

15:20-15:40      How to improve the quality and usefulness of model simulations for RBM plans.  
*Tuomo Saloranta (NIVA)*

15:40-16:00      Transnational challenges in implementation of WFD - example from Slovenia.  
*Lidija Globevnik (IWRS)*

16:00-16:30      Session 1 discussion

### **16:30 - 18:30**      ***Poster social with refreshments***

### **19:00**              ***Conference Dinner at CIENS***



# Programme - EurAqua Conference 2008

## Friday 24 October 2008

### 09:00- 11:50 Session 2: Modelling, tools and technology – uncertainty and future challenges

Chair: Michiel Blind (Deltares). Rapporteur: Michele Vurro (IRSA)

- 09:00-09:20 Modelling of river basins: scenarios - highlights from SCENES project.  
*Juha Kämäri (SYKE)*
- 09:20-09:40 Integrated modelling of climate change effects - Nitrogen from mountains to fjord  
*Øyvind Kaste (NIVA)*
- 09:40-10:00 Uncertainties associated to responses of fish bio-indicator to environmental factors and human disturbances in rivers - consequences of global warming on good ecological status.  
*Didier Pont, Pierre Bady and Maxime Logez (Cemagref)*
- 10:00-10:20 Reference conditions in WFD - is the concept still valid under climate change? Lessons from coastal systems.  
*Daniel Conley (Univ. of Lund) and Carlos Duarte (IMEDEA)*

### 10:20-10:50 **Coffee break**

- 10:50-11:10 Reference conditions - ecological lessons from the past.  
*Rick Battarbee (UCL)*
- 11:10-11:30 The WFD Explorer: planning kit to support implementation of WFD.  
*Joost Icke and Harm Duel (Deltares)*
- 11:30-11:50 Session 2 discussion

### 11:50- 15:30 Session 3: Adaptation to climate change – bringing science into policy

Chair: Christos Makropoulos (NTUA). Rapporteur: Sam Ekstrand (IVL)

- 11:50-12:10 Water scarcity and drought: Defining the framework of a European WS&D Information Platform (WSDIP) – implementation in RBM plans?  
*Christos Makropoulos (NTUA)*
- 12:10- 12:30 Water scarcity and drought: the ongoing process to link science and policy.  
*Romano Pagnotta (IRSA)*

### 12:30-13:20 **Lunch**

- 13:20-13:40 Climate change and floods: adaptation/mitigation options and implementation in RBM plans  
*Luc Feyen (JRC-IES)*
- 13:40-14:00 Science-policy interactions for adapting to climate change: national adaptation strategies and their water dimension  
*Robbert Biesbroek and Rob Swart (WUR / PEER)*

### 14:00-14:30 **Coffee break**

- 14:30-14:50 Challenges of implementing climate change policy-driven legislation; risk of not meeting policy demands.  
*Alan Jenkins (CEH)*
- 14:50-15:10 The science-policy interface: WISE-RTD, ongoing initiatives, information sources  
*Michiel Blind (Deltares)*
- 15:10-15:30 Session 3 discussion: does science outrun policy implementation?

### 15:30- 16:15 Summary discussion and closing of conference

- 15:30-16:00 Summary of sessions and discussion: Research needs and challenges for EurAqua.  
Led by *Merete Ulstein (NIVA)*
- 16:00-16:15 Closing remarks. *Merete Ulstein (NIVA)*

## Background information

The Water Framework Directive (WFD) is an important legal instrument with enough flexibility to allow adaptation to climate change and climate change-related issues. The WFD uses the River Basin District (RBD) as the main unit for the management of River Basins (RBs). WFD-compliant management of River Basins requires the adoption of a cross-sectoral approach (agriculture, land use, water supply and sanitation, urban planning, transport and energy production). The River Basin level is also suitable for coping with extreme events. Therefore, the RB is the unit that can be used to apply climate change adaptation measures. Moreover, the WFD already involves economic aspects by putting a price on water use that will affect decisions on water use.

A challenge for EU member states is how to handle the impacts of climate change in their implementation of the Water Framework Directive, in particular the planning of river basin management (WFD Article 13; Appendix VII).

The points below summarise the workshop discussions from the EC workshop [1] in 2006 on climate change, impacts and policy:

- The WFD encourages stakeholder involvement.
- The WFD might be a tool for climate change adaptation purposes, but a procedure should be identified in the very near future. The WFD provides a framework for considering climate change as one of the pressures. MS should therefore incorporate climate change adaptation measures into their River Basin Management Plans (RBMPs) to ensure that the larger programme of measures is sufficient to achieve the WFD objectives (good status of water bodies). However, MS are not ready to incorporate climate change in the first programme of measures, since this action would require more knowledge on how climate change affects the ecological and chemical thresholds used to identify the ecological target status.
- Climate change should be taken on board within the Common Implementation Strategy (CIS), e.g. as a separate, horizontal activity, and also be linked to existing activities dealing with eco-logical status assessments (such as intercalibration and monitoring). This will enhance the frame for discussions between MS, and will help to adjust both the target values and the design for monitoring and reporting.
- Access to information: It will be important to consider the availability of information from science results and from policy input.

The EurAqua conference 2008 will continue the discussion and focuses on the science-to-application interface related to river basin management, climate change and implementation of the WFD.

## Reference:

[1] European Commission International Workshop Climate Change Impacts on the Water Cycle, Resources and Quality. Research-Policy Interface 25 - 26 September 2006. Scientific and policy report edited by Marta Moren-Abat, Philippe Quevauviller, Luc Feyen, Anna-Stiina Heiskanen, Peeter Noges, Anne Lyche Solheim and Elisabeth Lipiatou.

### Location:

NIVA at CIENS. Address:  
Gaustadalléen 21, NO-0349 Oslo, Norway

### Registration:

See [www.euraqua.org](http://www.euraqua.org) for practical information.  
All EurAqua partners are invited to participate and to invite up to three representatives from their country (maximum capacity of the conference is 100 participants).

### Organising committee:

NIVA (Jannicke Moe, [jmo@niva.no](mailto:jmo@niva.no))  
Deltares (Michiel Blind, [michiel.blind@deltares.nl](mailto:michiel.blind@deltares.nl))  
CEH (Neil Runnalls, [nrr@ceh.ac.uk](mailto:nrr@ceh.ac.uk))  
NTUA (Maria Mimikou, [mimikou@chi.civil.ntua.gr](mailto:mimikou@chi.civil.ntua.gr);  
Christos Makropoulos, [cmakro@mail.ntua.gr](mailto:cmakro@mail.ntua.gr))  
VUB (Willy Bauwens, [wbauwens@vub.ac.be](mailto:wbauwens@vub.ac.be))



EurAqua is the European Network of Freshwater Research Organisations. The aim of EurAqua is to contribute substantially to the development of European freshwater science and its dissemination on a European scale, thus having a significant input on the development of the scientific basis of European water management.

Secretariat Address (2007-2009):

Norwegian Institute for Water Research – NIVA. Gaustadalléen 21, 0349 Oslo, Norway

Tel: +47 22 18 51 00, Fax: +47 22 18 52 00 E-mail: [eur aqua@niva.no](mailto:eur aqua@niva.no) Web: [www.euraqua.org](http://www.euraqua.org)