

M³ Workshop

Monitoring and data evaluation under the Water Framework Directive – Achievements, deficits and new horizons
June 16-17, 2010 in Luxembourg-Kirchberg

Call for abstracts for oral and poster presentations

The following sessions featuring keynote speakers are planned:

Session 1: WFD and monitoring implementation: a critical appraisal

- Monitoring strategies
- Targeted sampling
- Representativeness of samplings

Session 2: Monitoring and evaluation of emissions in catchments – pollutant source characterization

- Monitoring of steadily flowing emission sources
- Limit of quantification issues
- Substance flow calculation

Session 3: Monitoring and evaluation of the immission situation in surface waters – chemical water quality

- Characterizing diurnal and seasonal variability in pollutant exposure
- Monitoring flood waves
- Online monitoring techniques

Session 4: Monitoring surface water ecology & investigating impairment

- Methodological aspects of monitoring ecological status
- Appropriateness of current methods to characterize ecological stress
- Ecotoxicological evaluation of biomonitoring data

Session 5: Sediment monitoring – budgets, contamination & ecotoxicology

- Monitoring sediment mass flows and budgets
- Sediment contamination and bioavailability
- Assessing the effect of sediment pollution on ecological status

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Modelling Monitoring Management



Application of integrative modelling and monitoring approaches for river basin management evaluation

Workshop

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Deadlines:

Pre-call registration: January 31, 2010

Abstract submission: March 1, 2010

Final programme: April 15, 2010

Registration: May 31, 2010

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M³ Partners

CRP Henri Tudor (Luxembourg)
The Resource Centre for Environmental Technologies (CRTE) is an applied research institute that assists public administrations and private companies in applying best available environmental techniques and implementing environmental policies. CRTE is currently running projects in waste water sanitation, groundwater protection, surface water monitoring concepts and risk analysis at the catchment scale. Furthermore CRTE is the REACH helpdesk for Luxembourg.

The catchments in Luxembourg are characterized by strong urban pressures in the southern part of the country as well as widespread excess nutrient inputs due to agriculture. Luxembourg as a small country faces a major conceptional and logistical challenge with the WFD implementation.

Erftverband (Germany)
The Erftverband is a regional water association which deals with all matters concerning water. The association was founded in 1959 by legislation of North Rhine-Westphalia. It is financed through fees paid by its approximately 260 members, which are local authorities, trade and industry which use ground or surface water or discharge wastewater within this region.

The core operation region of the Erftverband is the 1.918 km² catchment area of the river Erft. The entire operation area extends over an area of 4.216 km² covering the region affected by the brown coal mines of the Rhineland. The association plans, builds and operates groundwater measurement facilities, sewage treatment plants, storm water basins, flood water retention reservoirs and surface water monitoring stations.

Delfland (The Netherlands)
Delfland is one of the Netherlands' twenty-six water boards. The area in which Delfland operates is bordered by the North Sea, the Nieuwe Waterweg and the Berkel en Rodenrijs line, Zoetermeer and Wassenaar. In an area of 41.000 hectares/410 km² some 1.4 million people live and work, and approximately 40.000 businesses are established in the region.

Delfland has three key tasks: maintenance of flood defences, water level control and water quality control. Proper execution of the key tasks, including cooperation and consideration for nature, are the directives of Delfland's policy.

M³ Scope

The Water Framework Directive (WFD) schedule has set the definition of the programmes of measures (POM) in 2009 as a milestone in the endeavour of achieving good ecological status of waters by 2015. The definition of the POM for achieving good ecological status in water bodies should ideally be the optimized combination of measure implementation costs and ecological effects. In practice, the POM will be influenced by political decisions and the level of detail in the planning as well as the arguments or the data that support the choice of a specific measure will be highly variable. Hence, there is a need for accompanying scientific actions that will guide and benchmark the intended measures in the course of their realization. This is especially true for the less obvious environmental pressures on water bodies. However, so far there are only very few tools for evaluating measures with respect to their effect on the ecological status of surface water bodies.

M³ will apply latest developments in monitoring and modelling concepts to specific river basin management measures in the three partner regions. The case studies will be extensively documented and made available to the public over the project's website. Furthermore, M³ will create a space for reflection on the challenges and conceptional shortcomings in the implementation of the WFD. This will be achieved by publications, four workshops on the project's main actions and a summarizing book. Further information on content and activities are available on the project website. >> www.life-m3.eu

M³ Actions and timetable

| | 2009 | | | | 2010 | | | | 2011 | | | | 2012 | | | |
|--|------|--|--|--|------|--|--|--|------|--|--|--|------|--|--|--|
| Analysis of existing immission data | | | | | | | | | | | | | | | | |
| Design & execution of exemplar monitoring programmes | | | | | | | | | | | | | | | | |
| Application of loading models | | | | | | | | | | | | | | | | |
| Application of water quality models | | | | | | | | | | | | | | | | |
| Uncertainty analysis of models & scenarios | | | | | | | | | | | | | | | | |
| Dissemination (Workshops) | | | | | | | | | | | | | | | | |

M³ Objectives

1. Characterization of emission source and load through modelling and monitoring
2. Uncertainty assessment in river basin mass flow modelling and monitoring
3. Best practice guideline for monitoring design
4. Evaluation of accuracy and cost-efficiency of modelling and monitoring approaches
5. Characterization of immission situation through water quality modelling
6. Scenario building and effect prediction for river basin management measures

