

Conference program

5th International SedNet conference 27th-29th May 2008 Oslo, Norway

Urban Sediment Management and Port Redevelopment & Sediment in River Basin Management Plans

Hosted and co-organised by NGI Oslo, Norway

Sediment in rivers, harbours and marine coastal zones in urban areas is often historically contaminated. Contamination originates from industrial activities, dockyard and harbour operations as well as discharges of municipal wastewater and urban surface water run-off. This 'legacy of the past' complicates the redevelopment of harbour areas and the waterfront of cities for housing or commercial purposes. A proper sediment management strategy is required that takes into account environmental risks associated with contaminated sediment as well as the identification of appropriate remediation options for use in the urban environment. Furthermore, European legislation increasingly requires the involvement of stakeholders, who may have conflicting viewpoints and concerns. How to manage such complexity? What challenges with regard to the management of contaminated sediments have been met and what experiences gained in port redevelopment cases in urban areas?

This will be the topic for the first half of the SedNet Conference.

The second half of the conference will be dedicated to the state-of-the-art on sediment management in river basin management planning. What recent, scientific sediment related findings may (or should) find their way into river basin management plans or their future updates? Presentations are scheduled from, amongst others, ongoing, major EC projects, such as MODELKEY and RISKBASE. Also a report back will be given of the 4th SedNet Conference on sediment management as essential element of River Basin Management Plans, which took place in Venice in 2006. What are recent developments in European River Basins, are sediments considered in management plans? What are the experiences and challenges? Are there needs towards European policy?

Posters

A poster session, divided in 7 areas, will be open during coffee and lunch breaks.

EC Best Paper 2008 Award

The Environment Commission (EC) of the Central Dredging Association, CEDA, will present its 2008 Award for a contribution to the literature on dredging and environment at the SedNet conference. CEDA EC has established this award to stimulate the dissemination of good quality information related to dredging and the environment, including technical, regulatory and managerial aspects of dredging operations and dredged material management. The Prize is 1000 Euro in cash and the publication of the full paper in Dredging and Port Construction Magazine.



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Day 1 Tuesday 27th May 2008 Managing Contaminated Sediments

08:30 - 09:30 Registration

09:30 - 10:00 Opening and welcome

- Axel Netzband, Hamburg Port Authority, Germany / chairman SedNet
- Ellen Hambro, Director of the Norwegian Pollution Control Authority

Introduction/Setting the scene

Chairman: Axel Netzband, Hamburg Port Authority, Germany / chairman SedNet

10:00 - 10:40 Challenges in remediation of contaminated sediments in Norway

Gijs Breedveld, Norwegian Geotechnical Institute/University of Oslo, Norway

10:40 - 11:05 Lessons about sediment management learned from case studies:
Result of the meetings of DGE-plus

Piet den Besten, Centre for Water Management, The Netherlands

11:05 - 11:30 The Oslo Harbour Remediation Project

Torild Jørgensen, Oslo Port Authority, Norway

11:30 - 11:45 Discussion

11:45 - 12:15 Opening poster session

12:15 - 13:30 Lunch and poster session

Parallel sessions

Surveys

Chairman: Aivo Lepland, Geological Survey of Norway

13:30 - 13:50 A comparison of environmental sedimentology in four harbours (Bergen, Göteborg, Ventspils and Port San Luis)

Rodney Stevens, Göteborg University, Sweden

13:50 - 14:10 Innovative use of remote sensing in combination with chemical borehole data results in superior insights in the spread of contaminated sediments

Fred de Haan, Waternet, The Netherlands

14:10 - 14:30 PCB-anomalies in the sediments of the harbour basin of Zadar (Croatia) as a consequence of war action and/or industrial contamination

Martin Kralik, Umweltbundesamt, Austria

Solutions

Chairman: Audun Hauge, Norwegian Geotechnical Institute

Capping for management of contaminated sediments and dredging residuals

Tom Borrowman on behalf of Carlos E. Ruiz, US Army Eng. Research & Development, USA

Opticap, thin layer capping of sediments using reactive and non-reactive materials; field studies

Gerard Cornelissen, Norwegian Geotechnical Institute, Norway

Design and implementation of an erosion protection barrier for mercury-contaminated sediments at Tollare

Andrew Petsonk, WSP Environmental, Sweden

14:30 - 14:50	Modeling of dredging-induced sediment resuspension: remaining questions and progress toward answers <i>Thomas Borrowman, Engineer Research and Development Center US Army, USA</i>	'Non-Conventional' capping remedies for risk-based management of contaminated sediments in shallower inner-harbour areas <i>Joe Jersak, Biologge AS, Norway</i>
14:50-15:10	Coffee break / poster session	
15:10 - 15:30	Modeling environmental impact caused by spreading of dredged material during dredging and deposition <i>Henrik Rye, SINTEF, Norway</i>	Stabilisation/solidification of sediments and soils - overview of technologies and experience <i>Stany Pensaert, DEC, Belgium</i>
15:30 - 15:50	Contamination of fjords by urban run-off <i>Arne Pettersen, Norwegian Geotechnical Institute, Norway</i>	Development of Mass Stabilisation Technique for Contaminated Sediments <i>Pentti O. Lahtinen, Ramboll, Finland</i>
15:50 - 16:10	Sediment quality assessment by Sediment Profile Imaging (SPI) in contaminated Norwegian harbours and fjords <i>Hans C. Nilsson, Norwegian Institute for Water Research, Norway</i>	Mechanical and chemical factors influencing the success of stabilisation/solidification of contaminated Norwegian marine sediments for use in land reclamation <i>Magnus Sparrevik, Norwegian Geotechnical Institute, Norway</i>
16:10 - 16:30	Definition of the natural sediment dynamics before the dredging of the port of Genoa (Italy) <i>Marco Capello, University of Genoa, Italy</i>	Usage of mud in the land reclamation of harbor areas - building a handling area for automobile export in Bremerhaven, Germany <i>Dirk Lesemann, consultant for Land Recycling and Construction Works in Ports, Germany</i>
16:30 - 17:00	Discussion and closure day 1	Discussion and closure day 1
18:00 - 20:00	Reception Oslo City	

Poster sessions, divided in 7 areas, open during all breaks:

1. Urban sediment management
2. Surveys
3. Solutions
4. Case studies
5. Sediment quality and risk
6. Emerging issues
7. River Basin Management



Day 2 **Wednesday 28th May 2008** **Managing Contaminated Sediments – continued**

09:00 - 09:05 Opening and welcome to day 2
Gijs Breedveld, Norwegian Geotechnical Institute, Norway

09:05 - 09:40 In-place treatment of persistent contaminants in sediments: through addition of activated carbon sorbent. *Richard G. Luthy, Stanford University, USA*

Parallel Sessions

Case Studies

Chairman: Marc Eisma, Port of Rotterdam Authority, the Netherlands

09:40 - 10:00 Dumped ammunition - an environmental problem for sediment management?
Jens Laugesen, Det Norske Veritas, Norway

10:00 - 10:20 Management of metal contaminated sediments in Sorfjorden, West Norway - an internationally known site
Jens Skei, Norwegian Institute for Water Research, Norway

10:20 - 10:40 Thea Foss Waterway Remediation Project: An example of the risk-based, multi-technology approach to contaminated sediment management
Philip A. Spadaro, Arcadis US Inc, USA

10:40 - 11:00 Coffee break / poster session

11:00 - 11:20 Innovative methods to determine efficiency of remediation by sediment capping
Espen Eek, Norwegian Geotechnical Institute, Norway

11:20 - 11:40 The Norwegian Grenland fjord dioxin story - sediment remedial options and consequences
Kristoffer Naes, Norwegian Institute for Water Research, Norway

11:40 - 12:00 Including contaminant budget principles in the monitoring program for sediment remediation efforts in Oslo harbour, Norway
Amy Oen, Norwegian Geotechnical Institute, Norway

Sediment Quality Standards & Triad (SQS/SQT)

Chairman: Piet den Besten, Centre for Water Management, the Netherlands

The Water Framework Directive and setting Environmental Quality Standards (EQS) for priority substance in sediments
Dorien ten Hulscher, Centre for Water Management, the Netherlands

Overview of the recommendations of WG-EG-EQS concerning environmental quality standards for metals in sediments
Katrien Delbeke, Eurocopper, Denmark

Environmental Quality Standards for (organic) priority substances in sediments: the Water Framework Directive challenging science, and vice versa
Marc Babut, Cemagref, France

Development of sediment quality criteria in Norway
Torgeir Bakke, Norwegian Institute for Water Research, Norway

The use of the Sediment Quality Triad for quality assessment of freshwater sediments in Northern Spain
Pilar Rodriguez, University of Basque Country, Spain

Discussion

12:00 - 12:45 Poster session
 12:45 - 13:30 Lunch and poster session

Parallel Sessions

Emerging Issues

Chairman: Jos Brils, Deltares, the Netherlands

13:30 - 13:50 Sediment management and stakeholder involvement
Michael Mery, Tomales Bay Watershed Council, USA

13:50 - 14:10 Sustainable urban and environmental management restoration applications using sediment treatment systems with beneficial use
Eric A. Stern, US Environmental Protection Agency, USA

14:10 - 14:30 Valuing the benefits of remediating contaminated marine sediments - a case study from Grenlandsfjorden, Norway
David N. Barton, Norwegian Institute for Water Research, Norway

14:30 - 14:50 Coffee break / poster session

14:50 - 15:10 Sediment management from a resilience perspective
Adriaan Slob, TNO, The Netherlands

15:10 - 15:30 A systems' approach to water(soil) management: resilience as a challenge to organizations and innovation processes
Gerald Jan Ellen, TNO, The Netherlands

15:30 - 16:00 Discussion and closure day 2

17:00 - 20:00 Cruise in Oslo fjord

20:00 - 23:00 Dinner at Holmen Fjord hotel
 23:00 - 23:30 Back by bus to Oslo city centre

Science for River Basin Management

Chairperson: Susanne Heise, BIS TU Hamburg-Harburg, Germany

Origins and causes of river basin sediment degradation and available remediation and mitigation options (RISKBASE)
Corinne Merly, BRGM, France

Marching forward or flying blind? Ensuring that sediment management strategies and frameworks meet our objectives
Sabine E. Apitz, SEA Environmental Decisions Ltd., UK

A decision-making methodology for the management of dredged sediments on the basis of chemical and toxicological data
Alexandra Katsiri, Dept. of Water Resources and Environment – NTUA, Greece

Are polluted sediments a source of contaminants for the water column?
Philippe Bataillard, BRGM, France

Impact of shape and land use on sedimentation in green flood retention reservoirs
Sven Wurms, University of Stuttgart, Germany

Discussion and closure day 2

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Day 3 Thursday 29th May 2008 River Basin Management

09:00 - 09:05 Opening and welcome to day 3
Peter Heininger, Federal Institute of Hydrology, Germany

09:05 - 09:40 Global geochemical mapping and the particle bound flux of major world rivers
Rolf Tore Ottesen, Geological Survey of Norway, Norway

Fundamentals

Chairman: Peter Heininger, Federal Institute of Hydrology, Germany

09:40 - 10:00 Sustainable management of sediment resources: Sediment management at the river basin scale
Philip N. Owens, University of Northern British Columbia, Canada

10:00 - 10:20 Where River Basin Management meets the European Marine Strategy
Diana Slijkerman, IMARES, The Netherlands

10:20 - 10:40 Risk assessment in risk-based management of European river basins
Michaela Hein, Helmholtz Centre for Environmental Research – UFZ, Germany

10:40 - 11:00 Coffee break / poster session

River Basin case studies

Chairman: Hans-Peter Nachtnebel, University of Vienna, Austria

11:00 - 11:20 Management of sediment quality and quantity in the Danube River Basin
Igor Liska, International Commission for the Protection of the Danube River (ICPDR), Austria

11:20 - 11:40 Recent developments in the ICPR sediment management activities in the Rhine basin
Martin Keller, Federal Institute of Hydrology, Germany

11:40 - 12:00 A basin-wide analysis identifying areas of risk in the Elbe watershed
Susanne Heise, BIS/TU Hamburg-Harburg, Germany

12:00 - 12:20 Sediment transport in Norwegian rivers and antropogenic impacts. Case studies of importance to sediment management plans
Jim Bogen, Norwegian Water Resources and Energy Administration, Norway

12:20 - 13:30 Lunch and poster session

Aspects of sediment quality

Chairman: Igor Liska, ICPDR, Austria

13:30 - 13:50 Sediment in the urban Mersey river basin, northwest UK: implications for basin-scale management and sustainability
Kevin G. Taylor, Manchester Metropolitan University, UK

13:50 - 14:10 From monitoring to measures: Historical contaminated sediments in the Elbe river basin
Ulrich Förstner, TU Hamburg-Harburg, Germany

- 14:10 - 14:30 WSV-Lab - an expert and management system for dredged material quality assessment in German Federal Waterways
Peter Heininger, Federal Institute of Hydrology, Germany
- 14:30 - 14:50 Coffee break / poster session
- Aspects of sediment quantity**
Chairman: Axel Netzband, Hamburg Port Authority, Germany
- 14:50 - 15:10 River Danube - Danube Delta - Black Sea geosystem
Nicolae Panin, National Institute of Marine Geology and Geo-ecology, Romania
- 15:10 - 15:30 Sediment transport: a key issue for transboundary water management in the Danube basin
Hans-Peter Nachtnebel, University of Vienna, Austria
- Closure session**
- 15:30 - 15:45 Final presentation: highlights, conclusions, how to proceed
Axel Netzband, Hamburg Port Authority, Germany / chairman SedNet
- 15:45 - 16:00 EC Best Paper 2008 Award
Anders Jensen of the Environment Commission of CEDA
- 16:00 Closure and adjourn

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Friday 30th May 2008: Extra workshop 'Sustainable Sediment Management'

organised by the Dutch project-team of 'Living with Sediments'

On Friday 30th May 2008 the 'Living with Sediments' project team organises an extra session that will focus on a system approach to sustainable sediment management. To make this system approach more clear the perspective will be used of the concept of resilience, which is 'the capacity of a system, like a society or an ecosystem, to deal with change and continue to develop'. In this context, 'a resilience perspective provides a new way of addressing and analysing issues of governance and management of social-ecological systems'.

For more information on the concept see the website of the Stockholm Resilience Centre: <http://www.stockholmresilience.su.se/>.

Venue of this event is NGI, Sognsveien 72, Oslo.

For detailed workshop contents and/or registration for this workshop we refer to the separate program on www.sednet.org

Conference fee and Registration

The fee for participation is:

- SedNet conference 27th-29th May 2008: Euro 300
- Workshop "Living with Sediments" on 30th May 2008:
 - * for participants of the SedNet conference: Euro 50
 - * for others: Euro 100

The fees include coffee/tea breaks, lunches, reception on day 1, excursion to the Oslo fjord and conference dinner on day 2. VAT is not included. The conference fee must be paid to the SedNet Secretariat upon receipt of an invoice.

Venue

UBC, Ullevaal Stadion, Oslo

Hotel accommodation

Thon Hotel Astoria

Dronningsgate 21, 0154 Oslo

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Organising Committee

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Gijs Breedveld, Norwegian Geotechnical Institute, Norway

Jos Brils, Deltares, The Netherlands

Marc Eisma, Port of Rotterdam Authority, The Netherlands

Audun Hauge, Norwegian Geotechnical Institute, Norway

Susanne Heise, TU Hamburg-Harburg, Germany

Peter Heininger, Federal Institute of Hydrology, Germany

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For more information please contact

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Reception at the Oslo City Hall on
27 May 2008
from: 18:00 - 20:00 hrs.

SedNet is the European network aimed at incorporating sediment issues and knowledge into European strategies to support the achievement of a good environmental status and to develop new tools for sediment management. Its focus is on all sediment quality and quantity issues on a river basin scale, ranging from freshwater to estuarine and marine sediments.

SedNet brings together experts from science, administration and industry. It interacts with the various networks in Europe that operate at national or international level or that focus on specific fields (such as science, policy making, sediment management, industry, education).