

CONVENTION ON LONG-RANGE TRANSBOUNDARY AIR POLLUTION

Working Group on Effects

International Cooperative Programme on Assessment and Monitoring of Acidification of Rivers and Lakes

MINUTES

of the twenty-fourth meeting of the Programme Task Force
held in Budapest, Hungary October 6-8, 2008

1. The meeting of the International Cooperative Programme on Assessment and Monitoring of Acidification of Rivers and Lakes (ICP Waters) was attended by 35 experts from the following Parties to the Convention on Long-range Transboundary Air Pollution (LRTAP): Canada, Croatia, the Czech Republic, Estonia, Finland, France, Germany, Hungary, Italy, Latvia, the Netherlands, Norway, Poland, Russian Federation, Spain, Sweden, Switzerland, the United Kingdom, and the United States of America. In addition two members of the Bureau of the Working Group on Effects (WGE) and a representative for ICP Integrated Monitoring participated. A member of the United Nations Economic Commission for Europe (UNECE) secretariat also attended. The list of participants is attached as **Annex I**.

Introductions

2. Ms. Zsuzsa Steindl, Ministry of Environment, (Hungary), welcomed the participants to Budapest, on behalf of the host country. She gave a presentation of Hungarian water sources and the work done by Hungarian Ministry of Environment. Hungarian water legislations are harmonized to the EU Water Framework Directive (WFD) and the implementation is in progress. Hungary has been participating in ICP Waters since the late 80s. She also gave her greetings to all authors for the paper published in Nature last autumn.
3. Ms. B. Kvaeven (Norway), Chairwoman of the Programme Task Force, thanked the host country for the warm welcoming words, and then welcomed all participants to the 24th Task Force Meeting of ICP Waters in Budapest. She in particular welcomed Croatia and the representative from the UNECE secretariat, and the two representatives of the Extended Bureau of the WGE. The Task Force adopted the agenda of the meeting (**Annex II**).
4. Mr. Baláz Lázlaó, Hungary, welcomed all to the meeting on behalf of the Hungarian Focal Centre.
5. Mr. K. Bull (UNECE Secretariat), reported on the work of the Working Group on Effects (WGE) and its Bureau. He presented a summary from the meetings of the WGE Bureau and Extended Bureau in Geneva in August 2008 and gave a short update of scientific and technological knowledge in particular topics relevant for ICP Waters; acidification, eutrophication/nutrient N, heavy metals and POPs. He provided relevant information on the LRTAP Convention as well as the meetings of its Executive Body and some of its

subsidiary bodies held over the past year. He noted in particular the completion of the first review of the Gothenburg Protocol and the start of negotiations on a revision. The Working Group on Strategies and Review (WGSR) and the Task Force on Integrated Assessment Modelling (TFIAM) had acknowledged the importance of taking into account the new knowledge on effects in the negotiations and the need for policy-relevant indicators for integrated assessment monitoring, such as biodiversity. Mr. Bull highlighted that TFIAM was inviting ICP Focal Points to contact their National Integrated Assessment Modelling (NIAM) Focal Point listed on the NIAM website (www.niam.scarp.se). He drew attention to the Executive Body's encouragement to Convention bodies to promote activities in Eastern Europe, the Caucasus and Central Asia (EECCA), as well as to develop outreach to countries outside the UNECE region by sharing information and experience. He also noted the new Task Force on Reactive Nitrogen (TFNR), which operates under WGSR and that several ICPs attended its first meeting, the guidelines for effects monitoring, which were aimed at strengthening the reporting of data to ICPs, and the need for the Working Group on Effects to amend its long-term strategy.

6. Mr. J. Vuorenmaa (Programme Centre ICP Integrated Monitoring, Finland) reported from ICP Integrated Monitoring of Air Pollution Effects on Ecosystems. Priorities and activities were presented. The ICP IM 17th Annual Report 2008 can be downloaded from <http://www.environment.fi/syke/im>

Reports from the ICP Waters Programme activities 2007/2008

7. Ms. B.L. Skjelkvåle (Programme Centre) reported on recent achievements from the ICP Waters activities in 2007/2008. She gave a résumé of the main results from the last TF meeting, showed the aims of the Programme and described its main activities. The status of participation and data collection as of October 2008 was shown (**Annex III**). The participation is stable.
8. Ms. B.L. Skjelkvåle (Programme Centre) provided information on the most important 2007 and 2008 publications presenting the results of ICP Waters. The following documents were mentioned:
 - **ICPW report 91:** Biological intercalibration: Invertebrates 1107
 - **ICPW report 92:** Proceedings of the 23rd meeting of the ICP Waters Programme Task Force in Nancy, France, October 8 – 10, 2007
 - **ICPW report 93:** Intercomparison 0721: pH, Cond, HCO₃, NO₃-N, Cl, SO₄, Ca, Mg, Na, K, Fe, Mn, Cd, Pb, Cu, Ni, and Zn
 - Monteith, D.T., J.L. Stoddard, C.D. Evans, H.A. de Wit, M. Forsius, T. Hogasen, A. Wilander, B.L. Skjelkvåle, D.S. Jeffries, J. Vuorenmaa, B. Keller, J. Kopacek, and J. Vesely. 2007. Dissolved organic carbon trends resulting from changes in atmospheric deposition chemistry. *Nature* 450:537-540.
9. Ms. B.L. Skjelkvåle mentioned current work, which is the biological intercalibration, the 20-year report, the Hg-report, revision of the manual, and revision and update of the web-page of ICP Waters, which is now to be found at www.icp-waters.no.
10. Ms. B.L. Skjelkvåle reported on representation of ICP Waters in other bodies/meetings under the Convention.
 - WS on CL for heavy metals, Windemere UK, 21-22 November 2007
 - Extended Bureau meeting, Geneva, 5-6 February
 - CCE WS and M&M TF, Bern, 21-23 and 24-25 April
 - TF IM, Pamplona, Spain, 14-16 May

- TF on Reactive Nitrogen, Wageningen, 21-23 May
- WGE and its Extended Bureau, Geneva, 23-25 September,

Chemical intercomparison

11. Ms. S.B. Ranneklev (Programme Centre) reported from the 22nd chemical intercomparison (**ICPW report 93**). 74 laboratories from 29 countries participated, including 7 laboratories from Asia. Two natural samples were used in the intercomparison. Results were particular poor for pH, Cu, and alkalinity. 69% of all results were according to the target accuracy of $\pm 20\%$. One reason for the poor results was the low concentrations levels of the analysed elements in the samples. The Task Force concluded that the intercomparison should continue with samples with low concentrations of elements, as this is the most relevant water quality for the work in the ICP Waters monitoring programme. The Task Force also agreed that TOC should be included in the next intercomparison. It was also mentioned that the manual should be updated on recommendations for analytical methods.

Biological Intercalibration

12. Mr. A. Fjellheim (Programme Subcentre) reported from the 11th biological intercalibration of invertebrates. The goal is to evaluate the quality and harmonize the taxonomic work. Two test samples were sent to the participating laboratories. The Quality Index (Qi) is used to characterise the performance of the laboratories, and includes criteria on correct identification of species, genus and individuals. Five laboratories from four countries participated. Identification of the individuals and species was good, the Qi was above 80% for all laboratories. The taxonomic quality was sufficient for calculation of an acidity index. Ten laboratories participate on a regular basis in the intercalibration. Each laboratory participate on average every third year in the intercalibration exercise. A report from the 11th biological intercalibration will be finished 1. December 2008.

Presentation of the 20-year report

13. Ms. B.L. Skjelkvåle presented the 20-year report which is finished but not yet printed. The 20-year report gives a summary of the main findings of the ICP Waters programme and also points to future challenges for the programme. The aim of the report is to reach a wider audience than usual - scientists and policymakers.
14. The Task Force meeting congratulated the report and mentioned in particular that the report gave a very good overview of the achievements within ICP Waters over the last 20 years.

The Hg-report

15. Ms. S. Ranneklev presented the draft Hg-report. The outline of the report and main results were presented. Several participants announced their interest in contributing with results from their own countries. A draft will be finalized by 1. February 2009 and sent out to all Task Force members for comments. Comments on the report must be submitted to the Programme centre by 1. March 2009. A reference group was appointed; Mr. Jens Fölster, Sweden, Mr. Ton de Nijs, The Netherlands and Mr. Bjørn O. Rosseland, Norway. This group will have a special responsibility for reviewing the report.

Revision of the programme manual

16. Ms. B. Wathne (Programme Centre) introduced a plan for revision of the ICP Waters Programme Manual. The Manual was written over 10 years ago and it is therefore due time for revision and updating. The Task Force decided to organise the revision work up to the next Task Force meeting in 6 working groups that will communicate by email. Names of the groups and members are listed in **Annex IV**. The work will be organised by Ms. B. Wathne.
17. Mr. B.O. Rosseland (Programme Centre) presented a manual for sampling and analysing heavy metals and POPs in fish. This was an improved version of a manual developed under the EU-project EMERGE. He emphasised the importance of educating people that are supposed to use this manual.

Water chemistry – trends and status of S and N

18. Ms. A.C. LeGall, France, gave a presentation on “Effects of nitrogen on ecosystems - some examples”. She mentioned in particular that nitrogen, phosphorous and potassium additions increase the biomasses of vegetation. Effects on vegetation composition are observed at experimental sites, at both low and high depositions. Effects are linked to soil and water chemistry, which are used to define thresholds. Models are depicting this picture very well.
19. Ms. G. Oelsner (USA) gave a presentation on “Nitrate trends and patterns in the Northeastern United States, 1990 – 2007”. She presented long-term trends in nitrate in lakes and streams from two areas in the Northeastern United States; Adirondack and Catskill mountains. There where no consistent pattern in the N-trends, and the variability was not possible to explain with differences in watershed characteristics, climate variables or changes in other water chemical variables such as e.g. TOC.
20. Ms. N. Gashkina, Russia, gave a presentation on “Change in C-N-P content in Kola lakes through surveys 1995 – 2005”. Results from a survey of 100 lakes showed that TOC and nitrogen had increased over this 10-year period. The limiting factor for primary production was phosphorous in 1995 and 2000, but in 2005 nitrogen was the limiting factor.
21. Mr. J. Fölster, Sweden, presented the major results from a recent PhD dissertation in Sweden by Martin Erlandsson; Credible acidification assessment in a changeable environment. For evaluation of current states of the environment – relevant for acidification but also under the European WFD – reference values are needed but estimating these with process-based models demands too much information. A simpler approach in this thesis is suggested, i.e. a metamodel based on MAGIC modelling results. Preindustrial water chemistry (pH, ANC, TOC) was successfully estimated with this metamodel. It was also shown that increased TOC in preindustrial times (due to absence of suppression of TOC solubility related to acid deposition) could have had a significant impact on pH.

Biological response

22. Mr. G. G. Raddum, Programme subcentre, gave a presentation on “Nitrogen leaching - some recorded effects on biology”. He focused on the linkage between nitrogen (N) - saturation stages and N-leaching. Nitrate is often the main growth limiting factor in forests. Recent studies have, however, shown that limitation caused by phosphate (P) has increased and even extreme P-limitation is observed. P-limitation increase soil

acidification due to less use of nitrate for growth. In worst case this will contribute to a self forcing oligotrophication process. Limitation by P in the soils will allow leaching of N to surface waters. The effect of N on invertebrates is related to acidification or secondary by changes in the trophic status of the sites. The hypothesis was that the ICP Waters database contains sites that probably are both N- or P- limited. He concluded that the status regarding N- or P-limitation must be analyzed before a proper evaluation of N-leaching/cycling can be done.

Heavy metals and POPs

23. Mr. B. O. Rosseland reported from the Workshop on Critical Loads for heavy metals in Windermere, United Kingdom, November 2007. Dynamic modelling, setting thresholds (critical limits) for different effects, methods for calculating critical loads, and identification on uncertainties were in particular discussed. Report from the workshop can be downloaded from www.unece.org/env/documents/2008/EB/WGE/ece.eb.air.wg.1.2008.14.e.pdf.
24. Ms. B. L. Skjelkvåle presented “Results from the Norwegian lake survey (2004-2006) on metals and POPs in surface waters and lake sediments”. 300 lakes were sampled during a 3 years period, in lakes considered as pristine and only influenced by pollution through deposition from air. Most elements included in the analysis such as e.g. lead and cadmium showed decrease in concentrations since from 1995 to 2005. Mercury showed only very slight decreases in southern Norway, while tin, telluric and wolfram showed an increase over the last 10 years, probably due to increased use of these elements in the production of modern technological devices.

Dynamic modelling / Critical Loads

25. Ms. Duska Sasa, Croatia, presented results from a Croatian-Norwegian project on Calculating and mapping of critical loads on surface waters for selected sites in the Republic of Croatia (2007/2008). In the project three sites were selected for investigation and possible inclusions in the ICP Waters programme. Several chemical compounds were analysed and diatoms, macrozooplankton and fish were collected. Chemical monitoring results were classified according to the National Water Classification system. Based on the chemical and biological parameters, most of the chemical compounds classified into Class I and II (in a system where I is very good water quality and IV is bad quality). The streams were classified as mesosaprobic, with medium to high levels of nutrients, and from no to medium level of eutrophication. Acidification scores were I in all sites, which means that the selected sites are not acidified. Calculations of Critical loads (CL) and their exceedances (CLex), showed high CL and no exceedance.

ICP Waters and EU Water Framework Directive (WFD)

26. Mr. G.G. Raddum, gave a presentation of “The Biological database and its use for the Water Framework Directive”. He compared the Acidification Index used in the ICP Waters programme, with the biological indices BMWP, ASPT and EQR, used by the EU Water Framework Directive (WDF). The aim of all indices is to describe an ecological status based on the invertebrate fauna. The Acidification index (AI) is very well suited to describe the acid status of a site, while the other indices are better for describe effects of organic pollution. A low value for ASPT, may have high value for AI, while fauna in acid sites (low AI) can obtain good ecological status by ASPT (high ASPT). Use of one method is therefore not sufficient for evaluation of the ecological status. The biological

database of ICP Waters is well suited for evaluation of the ecological status of watersheds for the WFD. The ICP Waters database probably is one of the best databases for use to evaluate the indices used in the WFD, especially the long time series, which already cover several environmental changes, can be used as correctives for the WFD.

27. Ms. B. Wathne presented a draft position paper on “Links, complementarities and common interests between LTRAP convention and the EU Water Framework Directive”. Both the directive and the convention have the same overarching goal, even if procedures and methods are not identical. She presented the complementarities between WFD and CLTRAP, with respect to monitoring. WFD is aimed to cover all human impacts on water bodies. Initiatives should be taken on a national level, to approach the RB/management. Initiatives from the ICP-representatives should be taken on national level to approach RB management/authorities and draw their attention to data available on small water bodies in headwater ecosystems.
28. The position paper will be reviewed by Mr. D. Monteith, Mr. J. Schaumburg and Mr. T. de Nijs before publishing at the ICP Waters web page (www.icp-waters.no).

New name for ICP Waters?

29. The Task Force discussed if ICP Waters should change the name from:
- the International Cooperative Programme on Assessment and Monitoring of *Acidification* of Rivers and Lakes; to:
 - the International Cooperative Programme on Assessment and Monitoring Effects of *Air Pollution* on Rivers and Lakes;
30. The change was approved.

Results of the 2008 workplan

31. Ms. B.L. Skjelkvåle (Programme Centre) summarized the results for the 2008 Convention workplan items:

Workplan item	Deliverable
Annual chemical intercomparison (in collaboration with all ICPs)	Reported as described above.
Annual biological intercalibration (in collaboration with all ICPs)	Reported as described above.
Report on 20 years of surface water monitoring	Reported as described above.
Twenty-fourth meeting of the Programme Task Force, to be held from 6 to 8 October 2008 in Budapest.	Task Force minutes.

32. She also presented contributions from ICP Waters on the three work-plans items common to all WGE programmes:

Workplan item	Deliverable
Updated review of the robustness of monitored and modelled air pollution	No activities in 2008.

impacts.	
Updated compilation of observed parameters, monitoring methodologies and intensities of effects-oriented activities.	Updates to WGE 2008 Joint Report table.
Updated summary of effects-oriented activities in countries of Eastern Europe, Caucasus and Central Asia.	Different members and their activities towards ICP Waters were presented.

33. Finally, she presented the drafting monitoring guidelines from the WGE.

Workplan 2009 and onwards

34. A detailed work-plan, including timetable and inputs needed from NFCs, and common items for all ICPs, was presented and attached as **Annex V**. The work-plan was approved.
35. According to K. Bull the Executive Body will in a short time require 10-years strategy plans from the WGE. ICP Waters will contribute to this. Ms. B. Kvaeven invited the Task Force members to send ideas to a new strategy to the Programme Centre by 15 February 2009.

Other Business

36. Ms. B. Kvaeven (Programme Centre) thanked the organizing committee, especially Mr. Baláz Lázlaó, for a splendid organisation of the Task Force meeting. She also thanked the Ministry of Environment for hosting the meeting. The Programme Centre was thanked for the preparation of the scientific programme of the meeting. The representative from the Secretary and WGE were thanked attending the meeting and giving their constructive comments. All participants were thanked for attending the meeting and contribute to the discussions.
37. The Task Force expressed its appreciation to the Programme Centre for its scientific and coordinating work and acknowledged its important contribution to the programme's successful implementation. It again stressed the importance of the continuing contributions of the National Focal Centres and cooperating institutes and the essential role in ensuring the high quality of the overall programme results.
38. Next meeting will probably take place third week of October 2009. Location and exact time will be announced later.
39. The decisions in the ICP Waters meeting as written in the minutes were adopted by task Force.

Annex I Participants at the ICP Waters 24th Task Force meeting**Canada**

Mr. **Dean Jeffries**
 Environment Canada
 National Water Research Institute
 P.O.Box 5050, 876 Lakeshore Rd.
 Burlington, Ontario,
 Canada L7R4A6
 dean.jeffries@ec.gc.ca

Croatia

Ms. **Duska Sasa**
 EKONERG – Energy Research and Environmental Protection Institute, Ltd.
 Koranska 5
 10000 Zagreb
 Croatia
 duska.sasa@ekonerg.hr

Czech Rep.

Ms. **Ireana Skorepova**
 Czech Geological Survey - Dept. Geochemistry
 Geologicka 6,
 152 00 Prague 5
 Czech Republic
 irena.skorepova@geology.cz

Mr. **Jaroslav Skorepa**
 Czech Geological Survey - Dept. Geochemistry
 Geologicka 6,
 152 00 Prague 5
 Czech Republic
 jaroslav.skorepa@geology.cz

Estonia

Ms. **Reet Talkop**
 Ministry of the Environment of Estonia
 Narva mnt 7a
 15172 Tallinn
 Estonia
 reet.talkop@envir.ee

Finland

Mr. **Jussi Vuorenmaa**
 Finnish Environment Institute (SYKE)
 P.O. Box 140
 FIN-00251 Helsinki
 Finland
 jussi.vuorenmaa@ymparisto.fi

France

Ms. **Anne Christine Le Gall**
 INERIS
 Economy and Decision for the Environment Unit
 Chronic Risk Division
 Parc Technologique ALATA, Bp. No 2.
 60 550 Verneuil en Halatte
 France
 anne-christine.le-gall@ineris.fr

Germany

Mr. Joachim Wieting
 Umweltbundesamt FG III 2.3
 Postfach 1406
 D-06884 Dessau - Roßlau
 Germany
 Joachim.Wieting@uba.de

Mr. Jochen Schaumburg
 Bayerisches Landesamt für Umwelt
 Demollstrasse 31
 82407 Wielenbach
 Germany
 Jochen.schaumburg@lfu.bayern.de

Hungary

Mr. István Licskó
 Budapest University of Technology and Economics
 Department of Sanitary and Environmental
 Engineering
 H-1111 Budapest, Műegyetem rkp. 3-5,
 Hungary
 e-mail: licsko@vkkt.bme.hu
 Tel: +36 1 463-2142
 Fax: +36 1 463-3753

Mr. Balázs László
 Budapest University of Technology and
 Economics
 Department of Sanitary and Environmental
 Engineering
 H-1111 Budapest, Műegyetem rkp. 3-5,
 Hungary
 e-mail: balazs@vkkt.bme.hu
 Tel: +36 1 463-4223
 Fax: +36 1 463-3753

Mr. Ferenc Szilágyi
 Budapest University of Technology and Economics
 Department of Sanitary and Environmental
 Engineering
 H-1111 Budapest, Műegyetem rkp. 3-5,
 Hungary
 e-mail: szilagyi@vkkt.bme.hu
 Tel: +36 1 463-1535
 Fax: +36 1 463-3753

Italy

Mr. Aldo Marchetto
 CNR Institute of Ecosystem Study
 L.go Tonolli 50
 I 28922 Verbania Pallanza
 Italy
 a.marchetto@ise.cnr.it

Latvia

Ms. Marina Frolova
 Latvian Environment, Geology and Meteorology Agency
 165 Maskavas str.
 LV-1019 Riga
 Latvia
 Epoc@lvgma.gov.lv

Norway

Mr. Arne Fjellheim

Stavanger Museum
 Musegt. 16
 N-4010 Stavanger
 Norway
 arne.fjellheim@stavanger.museum.no

Mr. Bjørn Olav Rosseland

Norwegian Institute of Water Research (NIVA)
 Gaustadalléen 21
 N-0349 Oslo
 Norway
 bjorn.rosseland@umb.no

Mr. Gunnar G. Raddum

LFI - University of Bergen
 Thormøhlensgt. 49
 N-5006 Bergen
 Norway
 gunnar.raddum@zoo.uib.no

Ms. Berit Kvaeven

Norwegian Pollution Control Authority (SFT)
 P.O. Box 8100 Dep
 N-0032 Oslo
 Norway
 berit.kvaven@sft.no

Ms. Brit Lisa Skjelkvåle

Norwegian Institute of Water Research (NIVA)
 Gaustadalléen 21
 N-0349 Oslo
 Norway
 brit.skjelkvaale@niva.no

Ms. Sissel Ranneklev

Norwegian Institute of Water Research (NIVA)
 Gaustadalléen 21
 N-0349 Oslo
 Norway
 Sissel.ranneklev@niva.no

Ms. Bente Wathne

Norwegian Institute of Water Research (NIVA)
 Gaustadalléen 21
 N-0349 Oslo
 Norway
 Bente.wathne@niva.no

Poland

Mr. Adam Worsztynowicz

Institute for Ecology of Industrial Areas
 6 Kossutha str
 40-833 Katowice
 Poland
 worsz@ietu.katowice.pl

Ms. Dorota Rzychon

Institute for Ecology of Industrial Areas
 6 Kossutha str
 40-833 Katowice
 Poland
 rzychon@ietu.katowice.pl

Russia

Mr. Vladimir Abakumov

Institute of Global Climate and Ecology
 Glebovskaia 20b
 Moscow, 107258
 Russia

Ms. Tatyana Moiseenko

Institute of Water Problems RAS
 Gubkina 3
 Moscow GSP 1, 119333
 Russia
 tatyana@aqua.laser.ru

Ms. Natalia Gashkina

Institute of Water Problems
 Russian Academy of Sciences,
 3 Gubkina
 Moscow GSP-1, 119333
 Russia
 gashkina@aqua.laser.ru

Sweden

Mr. Jens Fölster

Swedish University of Agricultural Sciences
 Dep. of Aquatic Sciences and Assessment
 P.O.Box 7050 – S-750 07 Uppsala
 Sweden
 Jens.Folster@ma.slu.se

Mr. Lars Eriksson

Swedish University of Agricultural Sciences
 Dep. of Aquatic Sciences and Assessment
 P.O.Box 7050 – S-750 07 Uppsala
 Sweden
 Lars.Eriksson@ma.slu.se

Switzerland

Mr. Luca Colombo

Ufficio protezione aria, Sezione protezione aria, acqua e suolo
 Via S. Salvioni 2A
 6500 Bellinzona
 Switzerland
 luca.colombo@ti.ch

Spain

Mr. Luis Camarero

Centre d'Estudis Avançats de Blanes - CSIC
 C/ Accés Cala St. Francesc 14
 17300 Blanes Girona
 Spain
 camarero@ceab.csic.es

The Netherlands

Mr. Ton de Nijs

Nat. Inst. For Public Health and Environment
 RIUM/LER
 P.O. BOX 1
 3710 BA Bilthoven
 The Netherlands
 Ton.de.nijs@RIUM.NI

UNECE

Mr. Keith Bull

United Nations Economic Commission for Europe (UNECE)
 Bureau 346, Palais des Nations
 CH-1211 Geneva 10
 Switzerland
 Keith Bull@unece.org

United Kingdom

Mr. Don Monteith

Centre for Ecology and Hydrology
 Lancaster Environment Centre
 Library Avenue
 Bailrigg, Lancaster
 LA1 4 AP
 UK
 donm@ceh.ac.uk

USA

Mr. John Stoddard

U.S. Environmental Protection Agency

200 SW 35th Str.

Corvallis, Oregon 97333

USA

stoddard.john@epa.gov

Ms Gretchen Oelsner

U.S. Environmental Protection Agency

200 SW 35th Str.

Corvallis, Oregon 97333

USA

oelsner.gretchen@epa.gov

Annex II Agenda

1. Introductions

- Opening address and presentation of Hungarian monitoring activities, *Mr László Kóthay, Ministry of Environment, Hungary*
- Adoption of the agenda, *Berit Kvaeven, ICP Waters Chairperson*
- General information about the meeting and the excursion, *Balázs László and István Licskó, Hungary*
- Reports from the Executive Body, Working Group on Effects and work undertaken by the Bureau of Working Group on Effects, *Keith Bull, the UNECE Secretariate*
- Reports from other ICPs

2. Reports from the ICP Waters Programme activities 2007/2008

- Status of the ICP Waters programme, *Brit Lisa Skjelkvåle, Programme centre*

3. Intercalibration/intercomparison

- Chemical intercomparison, *Sissel Ranneklev, Programme centre*
- Biological intercalibration *Arne Fjellheim, Programme subcentre*

4. Presentation of the 20-year report

- Presentation of the 20-year report, *Brit Lisa Skjelkvåle, Programme centre*

5. Presentation of the Hg-report

- Presentation and discussion of Hg-report, *Sissel Ranneklev, Programme centre*

6. Revision of the programme manual

- Discussion of content, *Bente Wathne, Programme centre*
- Presentation of the EMERGE Manual for preparing fish for analysis of heavy metals and POPs, *Bjørn Olav Rosseland, Programme centre*

7. Water chemistry – trends and status of S and N

- Nitrate trends and patterns in the Northeastern United States, 1990 - 2007, *Gretchen Oelsner, USA*
- Change in C-N-P content in Kola lakes through surveys 1995 - 2005, *Natalia Gashkina, Russia*
- Credible acidification assessment in a changable environment, *Jens Fölster, Sweden*
- Effects of nitrogen on ecosystems some examples, *Anne Christine Legall, France*

8. Biological response

- Nitrogen leaching - some recorded effects on biology, *Gunnar Raddum, Programme subcentre*

9. Heavy metals and POPs

- Results from the Norwegian 2004-2006 lake survey on metals and POPs in surface waters and lake sediments, *Brit Lisa Skjelkvåle, Programme centre*

10. Dynamic modelling / Critical Loads

- Calculating and mapping of critical loads on surface waters for selected sites in the Republic of Croatia, *Duska Sasa, Croatia*

11. Common work for all effect-oriented programmes

- Presentation of results from the common workplan items *Brit Lisa Skjelkvåle, Programme centre*

12. ICP Waters and the EU Water framework Directive (WFD)

- The Biological database and its use for the Water Framework Directive, *Gunnar Raddum, Programme Subcentre*
- Position paper about the relation between the ICP Waters monitoring programme and the EU Water Framework Directive, *Programme centre*

13. New name for ICP Waters?

- ICP Waters should consider to change its name from:
 - the International Cooperative Programme on Assessment and Monitoring of *Acidification* of Rivers and Lakes to
 - the International Cooperative Programme on Assessment and Monitoring effects of *Air Pollution* of Rivers and Lakes

14. Workplan

- Draft 2009 Workplan, *Programme centre*

15. Other Business

- *TF meeting 2009*

16. Adoption of the minutes

Annex III Status of participation in the ICP Waters programme as of October 2006

	Chemical data	Biological data	Participating in chemical intercomparison	Participating in biological intercalibration	Participation in TF meeting 2005-2008
Austria		< 2000	•		
Belarus	2005				•
Belgium			•		
Bulgaria					•
Canada	2004	< 2000	•		•
Croatia				2008	•
Czech Rep.	2007	< 2000	•	2008	•
Estonia	2007		•	2006	•
Finland	2007		•		•
France			•		•
Germany	2006	2002	•	2007	•
Hungary	2004				•
Ireland		< 2000	•	2002	•
Italy	2007	< 2000	•		•
Latvia	2007	2000	•	2008	•
Lithuania			•		
Netherlands			•		•
Norway	2007	2007	•	2008	•
Poland	2007	< 2000	•		•
Portugal			•		
Romania			•		
Russia			•		•
Slovakia		< 2000			
Slovenia			•		•
Spain		< 2000	•		•
Sweden	2007	2007	•	2008	•
Switzerland	2007	2007	•	2007	•
UK	2006	2005	•	2007	•
Ukraine					•
USA	2006		•		•
Total	15	14	24	10	24

Country	Labs
Austria	4
Belgium	2
Canada	3
Czech Republic	3
Estonia	6
Finland	5
France	2
Germany	5
Ireland	1
Italy	5
Latvia	1
Lithuania	1

Country	Labs
Netherlands	1
Norway	1
Poland	7
Portugal	1
Romania	1
Russia	7
Slovenia	3
Spain	2
Sweden	3
Switzerland	1
United Kingdom	2
USA	2

Country	Labs
China	2
Indonesia	2
Japan	1
Malaysia	1
Thailand	1
Total	76

Annex IV Programme manual – working groups

Reference Group	Topics to be covered	Participants
1	Acidification - Water Chemistry and general parts	John Stoddard, Dean Jeffries, Jens Fölster, Aldo Marchetto, Jussi Vuorenmaa, Iraida Lyulko
2	Acidification - Biology and general parts	Arne Fjellheim, Lars Eriksson, Bjørn Olav Rosseland, John Stoddard, Don Montieth, Jochen Schaumburg, Chiara Pradella, Iraida Lyulko
3	Trace metals - Water Chemistry and general parts	Iraida Lyulko, Dean Jeffries, Jens Fölster, Bjørn Olav Rosseland, Sandra Steingruber, Lluis Camarero, Jaakko Mannio (has to be asked)
4	Trace metals - Biology and general parts	Iraida Lyulko, Bjørn Olav Rosseland
5	POPs - Water Chemistry and general parts	Jens Fölster, J aakko Mannio (has to be asked), Iraida Lyulko, Anne Christine Le Gall
6	POPs - Biology and general parts	Bjørn Olav Rosseland

Annex V ICP Waters workplan for 2009–2010

2009

1. *Items common for all ICPs (draft 2009 WGE workplan)*
 - a) Status report on airborne nitrogen impacts on the environment (in collaboration with the Task Force on Reactive Nitrogen and the Task Force on Integrated Assessment Modelling);
 - b) Compilation report on selected key monitored and modelled parameters, tentatively based on the guidelines on reporting of monitoring and modelling of air pollution effects;
 - c) Report on the update of the strategy of the effects-oriented activities
 - d) Explore merits of the different options for target setting in 2020 and non-binding aspirational targets for the year 2050, in collaboration with the Task Force on Integrated Assessment Modelling and the Centre for Integrated Assessment Modelling;
 - e) Further quantification of policy-relevant effects indicators such as biodiversity change, and to link them to the integrated modelling work.

2. *Items for ICP Waters scientific work (draft 2009 WGE workplan)*
 - a) Finalize the 20-year report on monitoring effects of air pollution on surface waters in Europe and North America since 1985, including acidification, heavy metals and persistent organic pollutants;
 - b) Interim report on assessment of mercury in surface waters, with a focus on mercury from air pollution;
 - c) Interim report on nutrient effects of nitrogen deposition to surface waters;
 - d) Annual chemical intercomparison (in collaboration with all ICPs);
 - e) Annual biological intercalibration (in collaboration with all ICPs);
 - f) Twenty-fifth meeting of the Programme Task Force, tentatively scheduled to be held in autumn 2009, and its report.

3. *Further items for ICP Waters scientific work*
 - a) Prepare for a revision of the manual.

4. *Items for maintenance of the programme*
 - a) Run the Programme Centre in Oslo and the Subcentre in Bergen, including database management, maintenance of web-pages, participating in meetings of relevance for the programme and reporting to WGE.
 - b) Maintaining ICP Waters database. All Focal centres should submit data to the Programme Centre by **June 15th 2009**.
 - c) Maintain and update ICP Waters web-page.
 - d) Participate in meetings of relevance for the ICP Waters programme

2010

- a) Finalize the revised and updated programme Manual
- b) Finalize report on Nutrient N
- c) 22-year draft report: Update acidification trends up to 2008