Hydropower and Fish
Research and Innovation in the context of the European Policy Framework

Joint Workshop
IEA Hydropower TCP– European Commission DG RTD

29-30 May 2017
Brussels, Place Madou 1
31 May 2017
Field visit to the Ham Hydropower Plant at the Albert Canal

DRAFT AGENDA

Monday 29th of May – 14:00h

Welcome introduction

- András Siegler, European Commission, Director DG RTD G
- Torodd Jensen, International Energy Agency, Chair of Executive Committee, Hydropower TCP
- Thomas Schleker, European Commission, Policy Officer DG RTD G.3; Hans-Petter Fjeldstad, Operating Agent IEA Hydropower TCP Annex XIII: *Introduction to the workshop*

Session 1 - The EU Water Framework Directive- the Legislative Context

- Raimund Mair, European Commission, Policy Officer, DG ENV: *Environmental requirements for fish in regulated rivers in the context of the WFD*
- Christina Pantazi, European Commission, Policy Officer, DG ENV: *Natura 2000 in relation to hydropower*
- Jonathan Bonadio, European Commission, Policy Officer, DG ENER: *Hydropower in the context of the Energy and Climate Package and the Renewable Energy Directive (tbc)*

Coffee break

Session 2 - The EU Water Framework Directive -National legislations and implementation

- Veronika Koller-Kreimel, Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management, Deputy Head of Department : *Strategic planning approach for new hydropower development in Austria*
- Jukka Muotka, Fortum/IEA Senior Adviser: *Implementation of the EU WFD in Finland*
- Steffen Schweizer, KWO, Head of Department: *Implementation of the Swiss regulatory context from an operator perspective*
- Roy Langåker, Norwegian Environment Agency: *The implementation of the WFD in Norway*
- Andrea Casolaro, ENEL, Head of Unit: *Implementation of the EU WFD in Italy*

Session 3 - Hydropower and Fish in the context of Research and Innovation

- Piotr Tulej, European Commission, Head of Unit DG RTD G.3: The *Horizon 2020 Energy Work Programme on Hydropower in the context of Energy Union, SET-Plan and ACEI*
- Hans-Petter Fjeldstad, Operating Agent IEA Hydropower TCP Annex XIII Hydropower and Fish: *Hydropower and Fish*
- Panagiotis Balabanis, European Commission, Deputy Head of Unit DG RTD I2: *Research on Hydropower and Fish in the WP on Climate action, environment, resource efficiency and raw materials*

Networking event around 18:30h

Tuesday 30th of May – 08:30h

Session 4 - Hydropower, Fish Technology

- Peter Rutschmann, Technical University of Munich, Professor: *Hydropower and Fish in the project FITHydro (Horizon 2020)*
- Matthias Schneider, SJE, Executive Director: *Monitoring fish passes with new tools (lateral line probe), assessment of the location of fish pass entrances via modelling approaches (CASiMiR migration, attraction flow) and new ideas for using the approach also for downstream migration.*
- François Avellan, EPFL-LMH, Professor: *Fish-friendly turbines and The Hyperbole Project (Horizon 2020)*
- Harald Rosenthal, World Sturgeon Conservation Society, President: *Title tbc*
- Franz Greimel, BOKU, University of Vienna: *Mitigation of hydropower impacts on fish(tbc)*

Coffee break

Session 5 - Fish habitat in regulated rivers

- Gerd Frik, VERBUND Hydro Power GmbH: *Existing hydropower facilities: Strategic planning for ecological restoration*
- Detlef Fisher, Association of the Bavarian Energy and Water Industry (VBEW): *Integrative approach to combine connectivity, river restoration, sediment management, spawning grounds, fish habitats and the interaction of river and oxbows.*
- Christian Haas, IAmHydro: *Unmanned Aerial Systems (UAS) - New opportunities for measuring, mapping and modelling rivers and lakes*
- Jörg Freyhof, IGB-Berlin: *The BioFresh project: Critical sites for freshwater biodiversity in Europe*
- Helmut Habersack, BoKu – University of Natural Resources and Life Sciences Vienna: *SedNet - Effective river basin management needs to include sediment (tbc)*

Lunch

Session 6 – Migration and River connectivity

- Willem Schreurs, International Meuse Commission, Secretary General: *Master plan for Migratory Fish in the Meuse basin*
- Martin Wilkes, Coventry University: *FISH-Net: Prior probabilities to support sustainable hydropower planning, design and monitoring*
- Hans-Petter Fjeldstad, SINTEF: *The Mandal Project - Efficient two-way fish migration past hydropower plants in Norway*
- Wouter Van de Bund, European Commission JRC, Scientific/Technical Project Manager,: *Innovative approaches to Adaptive Barrier Management - Hydropower and Fish in the Horizon 2020 project AMBER*
- Piotr Parasiewicz, S. Sakowicz Inland Fisheries Institute: *Defining impacts of dams on fish migration and habitat connectivity in AMBER project*

Coffee break

Session 7 - Energy and ecology

- Atle Harby, SINTEF Energy: *Environmental design of hydropower to meet requirements in the EU Water Framework Directive*
- Martina Bussettini, ISPRA - Italian National Institute for Environmental Protection and Research: *A process-based hydro-morphological assessment approach to support river management*
- Isabel Boavida, CERIS - Civil Engineering Research and Innovation for Sustainability, University of Lisbon: *Structural mitigation measures for hydro peaking downstream hydropower dams*
- Peter Matt, Engineering Services Vorarlberger Illwerke AG: *Implemented Measures of Austrian Hydropower*
- Agnar Aas, Statkraft: *Implementation of the WFD – long term operation of our flexible hydro power; balancing between environmental improvements and the need for more renewable energy, flexible operations and flood control*

- Angelo Salsi, European Commission, Head of Unit, EASME: *Research on Hydropower and Fish in the LIFE programme (tbc)*

Panel Discussion

Open questions to Research and Innovation in the context of implementation of the WFD

- Veronika Koller-Kreimel, Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management, Deputy Head of Department
- Willem Schreurs, International Meuse Commission, Secretary General
- Jukka Muotka, EURELECTRIC/Fortum
- Harald Rosenthal, World Sturgeon Conservation Society, President
- Isabel Boavida, CERIS - Civil Engineering Research and Innovation for Sustainability University of Lisbon (tbc)
- Further participants (tbc)

Wrap-up and conclusions

- Hans-Petter Fjeldstad, Operating Agent IEA Hydro Annex XIII

Foreseen end: 18:30

Wednesday 31st of May 09:00h-14:00h

Field visit tour to Ham HPP on the Albert canal

09:00	Departure from Brussels by bus.
10:15	Arrival at HPP Ham - coffee
10:30	Presentation of the HPP and pumping station of Ham in the Albert canal - Werner Dirckx (De Vlaamse Waterweg)
11:00	Effect of the HPP and pumping station of Ham on the fish populations in the Albert canal - Johan Coeck (INBO)
11:30	Archimedes screws in hydropower production – Franz Greimel (BOKU)
12:00	Guided visit to the HPP Ham - Werner Dirckx (De Vlaamse Waterweg)
13:00	End of the visit and return to Brussels

Registration via: RTD-IEA-HYDRO-2017@ec.europa.eu