

Heavily Modified Water Bodies

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Working Group I

Hydropower

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eco
logic

GEP biological approach - Reference conditions

- Few, if any, have established biological reference conditions for HMWB. Finland is an exception.
- Bavaria: Biological approach (using fish-based and macroinvertebrate-based types)
- UK: Biological method possible, but not for HP so far

GEP Prague approach - Checklists for mitigation measures

- Widespread use of such lists (AU, UK, FI, NO...)
- Based on experience from the industry, water management and experts. Lot of research is done on the topic world wide and tonnes of reports are available.
- Will the mitigating measures be the same with both methods?
- **Ecological continuity**
 - AT & DK: "No fish, no continuum" (Koller-Kreimel postulat)

Prague vs CIS approach

- Most MS use some kind of Prague approach, adapted to their own conditions
 - NO: Case study on the regulated river Aura showed:
 - Prague less time consuming and needs less info
 - Hard to find relevant reference WB for CIS#4
 - Both approaches resulted in the same set of mitigating measures
 - Prague familiar to water managers (mitigating measures defines the env-objective)
 - WWF: Prague might miss out certain measures

Classes for HMWB

- Two classes used by DE, AT:
 - Good or better – moderate or worse
- Intercalibration of GEP:
 - Why? Is there a need?
 - COM: Show comparability between countries
 - UK: More important at this time is common understanding on key terms, e.g. continuity and “GEP without water”

Stakeholder involvement

- EEB: Would like to participate before RBPM is clear
- WWF-IT: Very little involvement of stakeholders
- EURELECTRIC (DE): Very satisfied with the process
- NO: Involvement on the local level in an analysis of possible measures and objectives

Stakeholder feedback

- EURELECTRIC:

The definition of GEP crucial

The alternative approach seem to be a chance, because the importance of the hydropower - use must be taken into account

- ESHA:

Definitions of fundamental terms (Significant, less stringent, GEP), is still too different from MS to MS

Choice of different approaches must lead to the same conclusions

Harmonisation of approaches and of thresholds needed

- EEB

Verification of GEP with ecological data

Objectives - Use of exemptions

- The use of Art 4.5.
 - Will be the case in NO
 - Possible in UK
- In most cases, Art 4.4 is used (UK, AT)

List of ecologically efficient measures for all uses?

- OK, for HP - HMWB in general
- Might be too challenging for all uses

Ecological functionality of measures - Criteria

- DE: Guideline on fish ladders coming up
- WWF: Should think of the whole system. E.g lateral connectivity
- Minimum flow release
 - FR: MFR based on scientific method
 - Moving from strict hydrological criteria to biological verification/monitoring

Eurelectric - Conclusions

- Production losses must be minimized
- It is important that the quality of hydropower generation must be maintained

ESHA - Conclusions

- Definition of measures and measurement of their effectiveness must be univocal
- Final question: in which extent the implementation of new hydro is possible within HMWBs?

EEB - Statement

Functioning fish ladders

Restoring spawning habitats for rheophilic species (gravel)

Enough and dynamic residual water

Reduce impact of hydropower generation on entire river system

Restoration priorities from larger rivers or important species populations