Framework conditions for a sustainable waterway management in Germany

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- Cultural heritage

- Landscape

- Natural habitat and migration corridor

Photos: WSV, River Rhine (rHeinstein (BG)), River Elbe; Haufe (IKSR), Salmon
- Transport infrastructure and mode

Variety of functions and different user requirements
→ Solutions that meet different demands – including environmental issues
→ Integrated and sustainable management approaches

Strategic objectives of the Federal Waterways Administration
- The environmentally friendly waterway as part of an integrated transport policy
- The waterway as an efficient traffic route AND habitat
- High priority for its environmentally friendly design
- Ensure the function of the waterway as economic area and habitat by CONSENSUS

- Economic area

Photos: WSV, River Rhine, River Elbe, Port of Bremerhaven
central part of the European waterway network (EU 30,000 km, GER 7,300 km)
• one of the foundations for the economic growth and international competitiveness of German and European industrial centres
The Federal Waterways…
- 7354 km (4636 river-km)

…and their administration
- Federal Ministry of Transport, Building and Urban Affairs

Federal waterways and shipping administration

institutes for scientific and technical support
(e.g. Federal Institute of Hydrology, Federal Waterways Engineering and Research Institute, Federal Maritime and Hydrographic Institute)
A story of complexity – The German responsibility framework for waterway management

Governmental level - Competences and tasks of the Federal Waterways Administration

- The Federal waterways and shipping administration is owner of the Federal waterways
- Sovereign task for **upgrading and maintenance of waterways for transport purposes**
  - environmental requirements along waterways always have to be considered
- Owner’s responsibility for the **maintenance of waterways for water management purposes**
- Sovereign task of the preservation and restoration of the **longitudinal continuity** of federal waterways (will come into force 01.03.2010)

Regional level – Competences and tasks of the 16 Federal States

- Nature conservation and general environmental management for all waters – including waterways!
- Responsibility for waterway maintenance solely for the purpose of prevention of water pollution
- Responsibility for all measures of flood control
- Responsibility for upgrading measures along waters solely for the purpose of renaturalization

⇒ As far as waterways are affected by measures taken by the Federal States, the consent of the Waterways and Shipping Administration is required.
Joint responsibility ➔ Cooperation and cross-linking is essential!

Other waterway users

Federal Environment Ministry

Legislative body; Representing Germany for all general “water issues“ on international level

Nature Conservation & Water management by Federal States

Shared competence

Exchange of information and data

Federal Waterways Admin

Joint responsibility

Interest groups

Photo: Sommer (WSV), River Moselle
On the way to balance navigational AND environmental requirements in waterway management

Target:
Sustainable management practices that allow for an efficient use of rivers/estuaries as waterways AND for achieving good ecological conditions

Conceptual approach:
- Identifying the technical scope of action with regard to maintenance and development measures
- Develop and implement comprehensive guidance to incorporate environmental regulations in waterway management practice (Ms Sommer)
- Use of practical experience

Principles:
- Creating new (secondary) habitats of high ecological value
- Endeavouring a system-related approach
Some current conceptual steps…

Concept for action concerning maintenance for transport & water management purposes
- elaboration of guidelines
- identification and localization of specific measures
- internal and external cross-linking & communication

Concept for action concerning preservation and restoration of the longitudinal continuity of federal waterways
- prioritizations of measures to be taken
- set-up of a versatile information and data base
- biological and technical foundations
- economic considerations
- inclusion of the requirements given by management plans and programmes of measures according to WFD
- internal and external cross-linking and cooperation
Some practical experience…

Alternative bank protection

Optimisation of groynes

Parallel structure

Connection of old branches

Flood channel on island habitat

Removal of stones

Photo: Bauer (BfG), River Weser

Photo: Sommer (WSV), River Moselle

Photo: Anlauf (BfG), River Elbe

Photo: Schäfer (BMVBS), River Rhine

Photo: WSV, River Elbe

Photo: Schäfer (BMVBS), River Rhine
Conclusion and outlook

There are solutions for balancing environmental AND navigation requirements. An integrated sustainable waterway management is possible.
- Technological, biological and organisational measures
- Transparent planning processes and cooperation

Problem awareness:
- Effective and efficient solutions require a certain extent of time, know how and resources
- Make use of opportunities
- Accept limits
- Be willing to compromise

Key:
- Intensive cooperation, cross-linking, transparency
  - authorities, technical institutions, stakeholders
  - at national and international level
- Target opportunities and common features
Thank you very much for your attention

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Alternative groyn design at the River Elbe (Photo: A. Anlauf, BfG)