

# WFD Hydro-morphology: A Challenge for Policy Integration

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# An overview

- **Legal obligations of the WFD,**
- **Good Ecological Status (GES) and hydro-morphological modification,**
- **Gaps in the Draft Mandate,**
- **Goals of Policy Integration,**
- **Technical challenges for the CIS process,**
- **The opportunities provided by the WFD.**

*We know we've heard it all before but.....*

# The Purpose of the WFD

## Article 1

- Prevent further deterioration, protect and enhance aquatic ecosystems and, with regard to their water needs, terrestrial ecosystems and wetlands
- Promote sustainable water use based on a long-term protection of water resources
- Contribute to the mitigation of the effects of floods & droughts.

# WFD Article 4 – Environmental Objectives

Member States shall:

“Implement the necessary measures to **prevent deterioration** of the status of all bodies of surface waters and **protect, enhance and restore** all bodies of surface water with the aim of achieving **good surface water status**”

# Hydro-morphology & Good Ecological Status

**“In reality, good ecological status is unlikely to be achieved where there are substantial changes to the flow and velocity of a river, the depth and residence time of a lake, or the tidal patterns of an estuary;”.**

Wetland CIS Guidance

**This poses a major challenge to Member States in managing hydro-morphological pressures.**

# WFD & Sustainable Development

- Many EU (& other policies) lead to infrastructure projects that may not be compatible with the WFD's GES (e.g. **transport**/navigation, **energy**/hydropower, **funding** for flood defence).
- The WFD will not stop or reverse truly sustainable development BUT:
  - **Obligation is protection and restoration.**
  - There is no assumption for status-quo or new development.
  - There is a clear presumption **AGAINST**:
    - \* *HMWB designation (Art 4.3)*
    - \* *Deterioration for sustainable development (Art 4.7)*
    - \* *Other exemptions.*

**UNLESS VERY CLEAR CRITERIA ARE MET**

# HMWB Designation Criteria

- HMWB designation is a exemption not an “observation” on the state of a water body.
- HMWB may only be designated when:  
*“...the **beneficial objectives** served by the artificial or modified characteristics of the water body cannot, for reasons of **technical feasibility** or **disproportionate costs**, reasonably be achieved by other means.....”*

**Preliminary designation of HMWB appear broadly applied and poorly justified.**

**Is this a HMWB?**



# The Draft Mandate

## *Scope*<sub>(1)</sub>

- The CIS Mandate should cover the hierarchy of legal obligations:
  - *Avoidance*
  - *Restoration*
  - *Mitigation*

**Current draft over-emphasises “mitigation”, of status-quo/new development.**

# The Draft Mandate

## *Scope*<sub>(2)</sub>

- Mandate should encompass all significant pressures and infrastructures.
- Cases studies should include agriculture, land drainage and land use planning.
- Requirements for coastal and transitional waters should be explicitly recognised.

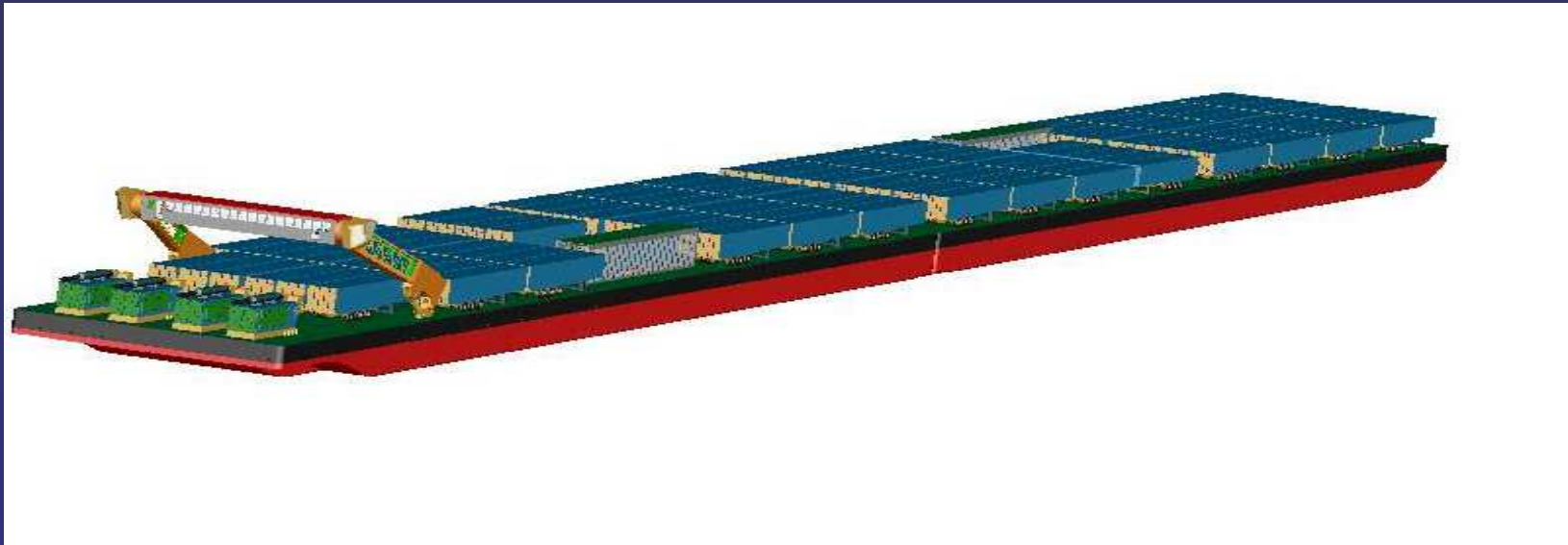


# The Draft Mandate

## *The Gaps*<sub>(1)</sub>

- Establishing hydromorphological reference conditions.
- Providing indications how to PREVENT damage, the legal obligations of Articles 1 & 4.
- Developing economic and scientific basis for assessing:
  - *The “do nothing” option,*
  - *Alternative technologies or designs that are compatible with GES while maintaining water use.*
  - *The necessity & justification of ecosystem modification.*

# Alternatives to ecosystem modification



Modern Fleet keeps cargo capacity without deepening the river by making the vessel wider (22.8m width, 1.7m max. depth)

# The Draft Mandate

## *The Gaps<sub>(2)</sub>*

- How to RESTORE hydromorphology to achieve good ecological status:
  - *What deviation from reference conditions will support GES?*
  - *Techniques for restoring morphology to support consistent with GES,*
  - *Designing & Implementing PoM's for restoration e.g.*
- Developing understanding of how morphology and modifications interact with status and other uses.

# What reference conditions?



photo: A.Mohl - WWF A

**Tagliamento river (North-East Italy), Natura 2000 site**

# The Draft Mandate

## *“Good Practice” Exchange*

- Article 5 reports suggest little “Good Practice” exists.
- Current best practice was not designed with the legal obligations of the WFD in mind.
- WFD will require a re-definition of “Good Practice” not a reiteration of the status-quo.

# Example of Good Practice



greenhydro ●●

Umweltgerechte Wasserkraftnutzung  
nach EAWAG-Verfahren

**star**  
naturemade



*Private Sector:  
Criteria for ecologically  
sound hydropower production*

*Accepted by producers,  
providers and NGOs*

# The Draft Mandate

## *Policy Integration*

- WFD has the potential to touch all areas of EU policy.
- EU policy/laws, funding instruments as well as guidelines must align with WFD objectives.
- Emphasis should be on developing synergies not conflict at the earliest stage of policy, programme, plan and project development.
- Awareness and capacity must be developed in MS and all EC DGs.

# Conclusions

- The process starts from an assessment of hydromorphological reference conditions and must encompass all significant pressures/infrastructures.
- Preventing deterioration is a primary objective,
- WFD objectives and exemption tests must be respected.
- It is unlikely that the number of preliminary HMWB designations can be justified.
- Today's "Best Practice" cannot be assumed to be WFD compliant. Quality Control must be applied.
- There must be coherence among the EU policies and consistency of EU funding with the WFD objectives.
- Must build capacity in sectors/areas of government and EU institutions not currently engaged.



photo: A.Mohl - WWF A

**Thank you for your attention**