

Implementation of the European Water Framework Directive: What does taking an ecosystems services-based approach add?

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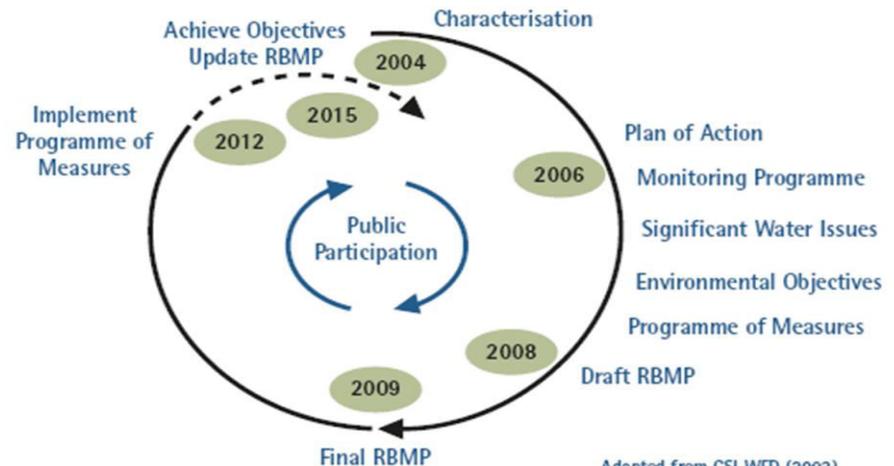
Water Framework Directive

- Step-change in European approach to water management
- Integration of water policies, economic instruments & public engagement
- Focus on good ecological status (GES) – more systemic approach
- Implemented through River Basin Management Plan Cycle (RBMP)

- State of the system
- Pressures on the system
- Actions to be taken

- **Ambition yet to be fulfilled:**

- Many water bodies still at risk
- Managing a system is difficult
- Socio-economics adds complexity



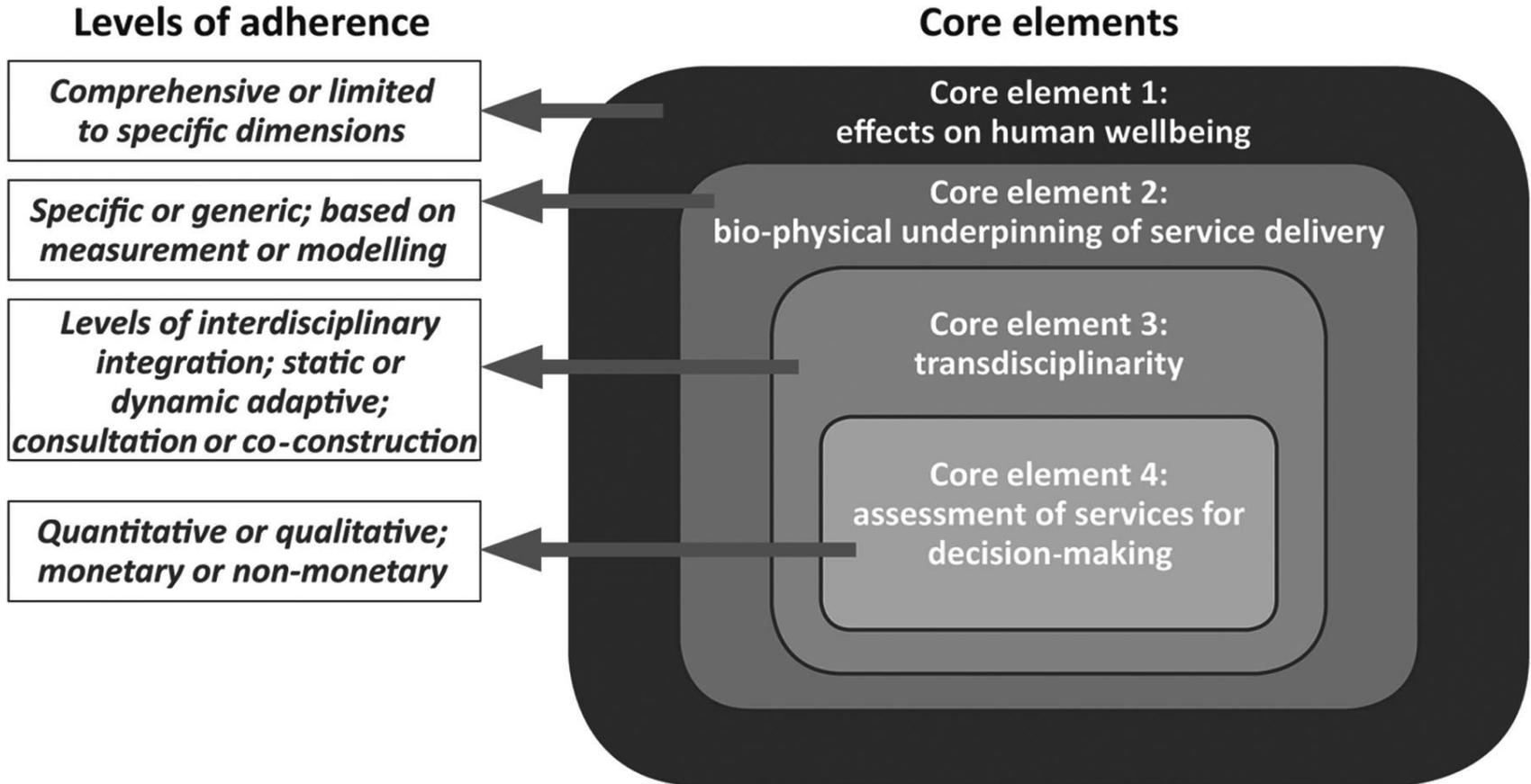
Adapted from CSI WFD (2003)
*Best practices in river basin planning,
guidance on the planning process*



Ecosystems services-based approach



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Bringing them together

- Helps us understand why environmental protection matters – well-being & biophysical underpinnings
- Draws attention to wider range of stakeholders - transdisciplinarity
- Helps with trade-off and synergy analyses – decision making



Implementing the WFD...

Stakeholders

- Fundamental and relevant to every stage
- Draws attention to those who benefit from water (e.g. water recreationalists) and those who conserve, not pollute, water env.
- Moves debate away from environmental to ecological economics including more room for social justice and human well-being objectives

Characterisation

- Adds a new dimension to WFD characterisation of pressures and impacts
- Opens up debate on values beyond single monetary metrics
- Helps move to a more systemic understanding through linking function, services and benefits
- Increases of the visibility of land-water interfaces

Implementing the WFD...

Setting objectives

- Potentially could widen objectives from narrow focus on return to ecological reference conditions to retaining or improving current benefits provided by existing ecosystem
- Opens up debate about the vision and purpose of the water environment
- Might provide route to better align WFD objectives with other policies

Measures

- Reinforces the need to involve local knowledge in option appraisal
- Widens basis of Cost-effectiveness analysis from measures for GES to providing existing and potential range of services
- Could help with voluntary measures e.g. payments for ecosystem services in individual catchments

Implementing the WFD...

Disproportionality

- Improve cost-benefit analysis through making less tangible benefits more visible
- Including 'wider' benefits may shift results of cost-benefit calculations
- Could help to make visible the affordability and opportunity costs of choices
- Could help to draw attention to the distribution of costs and benefits across water users

Monitoring & Evaluation

- Expands WFD monitoring from environmental parameters to services, values and use of the services
- Stimulates new methods and indicators for services and benefits, which may support spatial planning decision-making
- Delivery of principles such as improved decision making and transdisciplinarity should also be evaluated

Challenges:

- Involving stakeholders is not a quick fix – will make decision making more complex and controversies visible
 - Is shift from GES is possible under current legislation?
- Valuation is a contested process – debates over methods, data requirements and the morality of monetising nature
- Draws attention to spatial mis-matches in bio-physical, cultural and institutional boundaries in space
- Often a lack of data & methods to represent the full range of ES; and a single map may hide multiple perceptions
- Stimulates consideration of changes over time but often lack data or modelling to assess these
- Procedural and substantive changes will increase the need for resources when implementing agencies face austerity cuts



Benefits:



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- Rescue WFD from its technocratic tendencies and restore its focus on sustainability and societal benefits
- Locates WFD in a global framework and dialogue linking natural capital to human well-being
- Strengthens the WFD focus on systems not individual parameters
- Can help connect people to their water environments and build an appreciation for the need to protect and restore our water bodies
- Overcoming the challenges may stimulate greater interest in spatial planning (collaboration, integration & engagement)

Key Messages

- We are still learning how to do this - for 3rd cycle of RBMP
- Can help with some of the problems encountered in 1st cycle
 - Widen and deepen stakeholder engagement
 - Attention to the benefits that aquatic ecosystems provide
 - Enhance the role of economic instruments in decisions
- But it is challenging
 - Requires a systemic, transdisciplinary approach
 - Valuation is difficult and expensive
 - Reconciling space and time needs new data and methods
- Can deliver sustainability, integration and subsidiarity
- Can show how GES is linked to societal goals
- Requires all core elements to be implemented





Thanks!

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- The work was also enriched by the discussions with SEPA on implementing RBMP – see <http://www.crew.ac.uk/call-down/optimising-wfd-delivery-rbmp-using-ecosystem-services-approach> and FP7 REFRESH PROJECT: Adaptive Strategies to Mitigate the Impacts of Climate Change on European Freshwater Ecosystems www.refresh.ucl.ac.uk