

The costs and benefits of improving England's water environment

Impact assessment and use of disproportionate cost exemptions

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Context setting: implementation of WFD in England

- ➔ The Environment Agency is the competent authority for producing river basin management plans
- ➔ The plans cover 8 river basin districts, 4,950 water bodies within 117 management catchments
- ➔ Preventing deterioration is a key focus
- ➔ Government Ministers need to approve the updated plans
- ➔ 100 local catchment partnerships
- ➔ Privatised, regulated water supply and sewage treatment sector
- ➔ Very engaged environmental stakeholders

Economic analysis in England

- ➔ Robust evidence base to:
 - ➔ Identify cost beneficial measures
 - ➔ Support decisions on disproportionate costs and use of exemptions
 - extend deadlines
 - set less stringent objectives
 - ➔ Help Ministers understand the implications for different sectors and the environment
- ➔ Considerable stakeholder interest in measures and their costs and effects

Economic analysis in England

All water
bodies at
good status

→ Clear and transparent

→ Drinking waters
Bathing waters
Set up a... analysis where possible

Improvements limited by
natural conditions or
technical infeasibility

Additional benefits do
not justify extra cost

Government

- Local government
- Central government (including funding to the Environment Agency for flood and coastal erosion risk management and other environmental management)

Rural land management

- Agriculture and farming
- Forestry

Industry, services and infrastructure

- Industry, manufacturing and other business (including chemicals)
- Angling and conservation
- Non-Governmental Organisations
- Recreation
- Mining and quarrying
- Urban and transport
- Navigation (including ports)
- Internal Drainage Boards
- Waste treatment, transfer, storage and disposal
- Domestic/general public

Water industry

- Water Industry

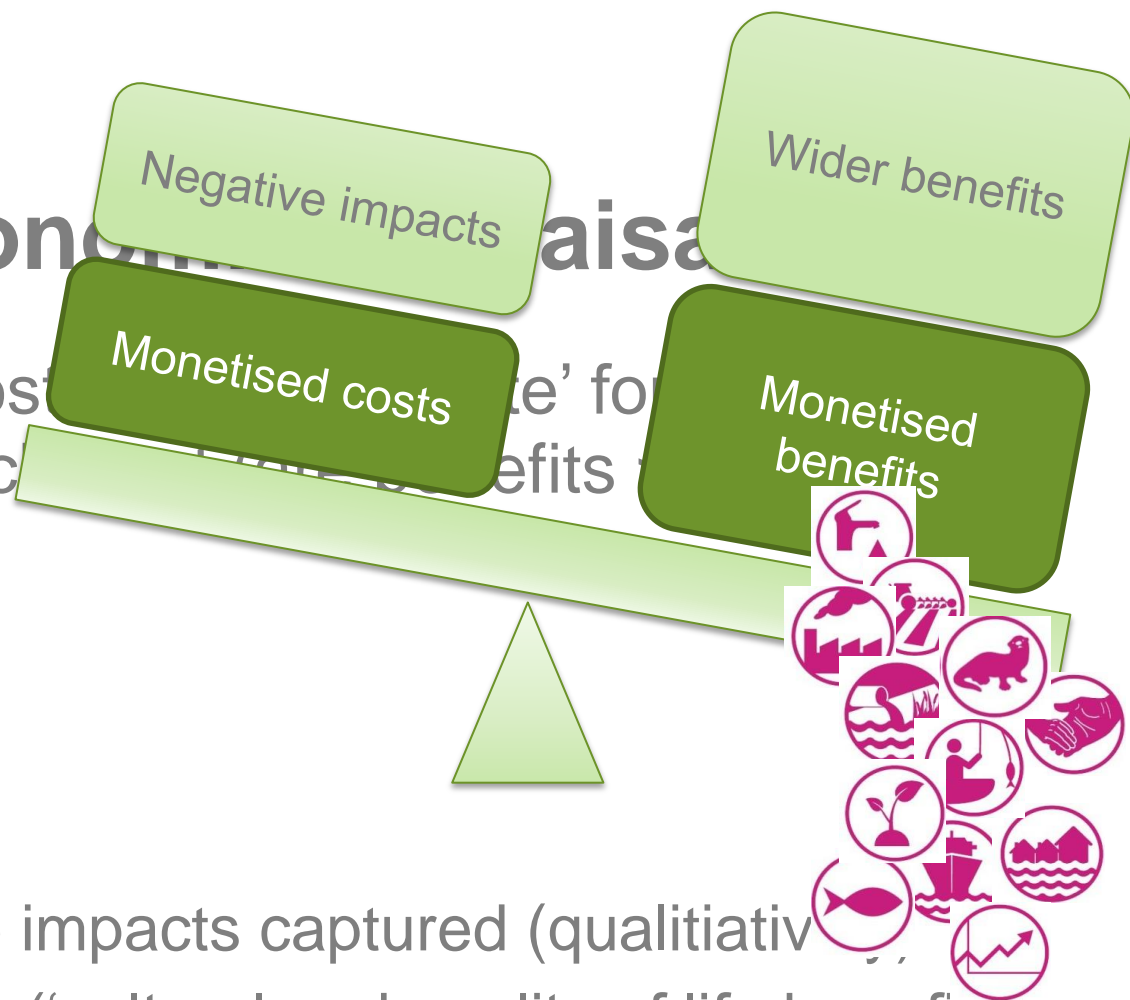
option
2015-21

Data and method

- ➔ **Nationally held information** - programmes of measures, costs and benefits for protected area and no deterioration measures
- ➔ **Catchment economic appraisals** - aggregated cost and benefits of getting to/towards good status
- ➔ **Known and reasonably secure funding** - realistic short term funding profile – **used to inform the 6 years of the proposed option (2015 – 2021) only**

Catchment economic appraisal

- ➔ Determine if the 'costs' outweigh the 'benefits' for a catchment
- ➔ Costs:
 - ➔ Local (preferably)
 - ➔ National estimates
- ➔ Benefits:
 - ➔ Ecosystem service impacts captured (qualitative)
 - ➔ Monetised benefits ('cultural and quality of life benefits')
- ➔ Uncertainty
 - ➔ Sensitivity analysis



Scale and resources

- ➔ Over 300 (draft and updated)
- ➔ Most detailed assessment of the costs and benefits on proposed environmental improvements in England that has ever been undertaken
- ➔ Guidance and analysis tools for use by non-economists
- ➔ Super user network (2013 = 7, 2015 = 20)
- ➔ Quality assurance programme of 10% appraisals
- ➔ Built staff capacity
- ➔ €1.5m – €2m in staff time

Thoughts...

- ➔ Significant step forward to encompassing ecosystem services (multiple benefits) in the evaluation of the water environment
- ➔ Evidence will support the political judgement and decisions about overall funding
- ➔ Local level analysis provides greater detail and promotes ownership (vs. data quality/consistency)
- ➔ Early engagement promotes buy-in

Questions

England's impact assessment to support the updated plans will be published at the end of October 2015