
Water Framework Directive *Cost Effectiveness Analysis Preliminary Results*

Introduction

12 July 2007

Aim of introduction

- Quick overview of the purpose and process of the pCEA
- Method and issues
- Role of and composition of working groups
- Process of synthesis and nature of chapters

Introduction to the pCEA

- **Aim:** to identify the most cost effective package of measures across sectors to achieve WFD requirements
- **Context:**
 - pCEA is a step in the River Basin Planning process
 - Identify national measures and national frameworks for local implementation
 - Streamline the RBP process and ensure consistency as far as possible
- **Outputs:** Synthesis Report will inform:
 - Ministerial guidance/statement to the EA on the implementation of the full CEA.
 - Outputs will be available during the consultation on the Summary of Significant Water Management Issues.

Key message

- **MINIMISE** the amount of new cost-effectiveness analysis by relying as far as possible on existing information, and the outputs of existing planning processes.
- **MAXIMISE** the amount of cost-effectiveness analysis that can be done at the national level and therefore minimise the amount that needs to be done at RBD or sub district level.

pCEA Structure

**Technical
Coordination
Group**

Sector Groups

Cross-cutting Groups

Navigation & Ports	Flood Risk, Coastal Defence & Planning		Water Resources	Nutrients
Water Industry	Industry	Fisheries, Alien Species & Biodiversity		
Agriculture	Non-agricultural diffuse			

Methodology

- Identify the gap
 - Standards (and supporting standards/triggers)
 - ‘Low reference case’ – only measures currently agreed and funded
 - Information on other policies, trends
- Source apportionment and role of sectors
 - PPP + ‘a bit more than’ and ‘a bit less than’
- Consider full range of measures, including uncertain, innovative approaches
- National assessment, ranges reflect uncertainty
- Qualitative information on:
 - Effectiveness, uncertainty, non-water benefits

Issues

- Effects of other policies
- Climate change
- Market based instruments
- Heavily modified water bodies
- Consistency in costings

Navigation and Ports Group

- Chaired by Defra MCEU
- Support and inputs from Jan Brooke
- Participation from inland and coastal stakeholders
- Inputs from:
 - British Waterways
 - Broads Authority
 - Environment Agency
 - Ports of Harwich and Poole
 - ABP Mer
- Scope/exclusions:
 - Marine alien species – covered by FAB group
 - Contaminated sediment issues – ABP Mer provided specific inputs for Chemicals synthesis

Flood Management, Coastal Defence and Planning

- Led by Defra EPE (Environment Policy Economics) – Nigel Miller
- Key inputs from Environment Agency
- Inputs from DCLG, TCPA, commissioned work from Haskoning
- Looked separately at:
 - Flood Risk Management – focused on main rivers
 - Coastal Defence
 - Planning – focused on ‘WFD-proofing’ the planning process
 - Reviewed land drainage issues

Water Industry

- Led by Ofwat – Rowena Tye
- Key inputs from Environment Agency
- Cost information provided by Water Companies
- Scope/exclusions:
 - Focus on cost estimates for P, N, Ammonia & Water Resources
 - Priority substances covered in Chemicals synthesis with inputs from Atkins and Entec

Industry

- Led by DTI – Sasha Maguire
- Key inputs from Environment Agency
- Also involving representatives from Energy, Chemicals and other industries and commissioned work from Entec
- Scope/exclusions – focus on point sources (excludes diffuse, picked up by NADIP)

Agriculture

- Led by Defra CSF (Catchment Sensitive Farming) – Russell Todd
- Key inputs from Environment Agency
- Also involving NFU, CLA, PSD and commissioned work from ADAS
- Scope/exclusions: Focused on measures to reduce P and ammonia and extending analysis already being done for CSF
- Water resources, morphology and chemicals (pesticides) issues taken forward in respective synthesis chapters

Non-Agriculture Diffuse Pollution

- Led by Defra WQ (Water Quality) – Catherine Pike
- Key inputs from EA
- Also involving Local Authorities, DCLG, DfT, UKWIR, and commissioned work from Haskoning
- Scope/exclusions: Prioritised list of measures based on series of pre-consultation stakeholder workshops.

Results Synthesis

- Output of the pCEA
- Report structured:
 - By Pressure
 - By Sector – Summary of the costs
- Combinations of pressures for different scenarios reflecting:
 - Different phasing
 - Different levels of certainty about meeting objectives

Pressures	Water resources Nutrients Chemicals Sanitary (Ammonia/BOD) Morphology& Biodiversity Direct Biological Pressures & Alien species Sediment Microbiology Planning
Sectors	Water industry Industry Agriculture Navigation & ports Other private sector Flood risk management & coastal defence Government

Scenarios

<p>1</p> <p>No Phasing/ High Certainty</p>	<p>2</p> <p>No Phasing/ Lower Certainty</p>
<p>3</p> <p>Phasing/ High Certainty</p>	<p>4</p> <p>Phasing/ Lower Certainty</p>

Water Resources

- Led by Dave Burgess (EA)/Mike Walker (Defra)
- Key inputs from water industry
- Scope/exclusions - Links with existing water resource management processes

Nutrients

- Led by Russell Todd (Defra)/Simon Leaf (EA)
- Key inputs from water industry, agriculture and non-ag diffuse groups
- Commissioned work from WRc (SIMCAT modelling); extension of work through EA national SIMCAT models
- Scope/exclusions: coverage of Nitrates

Chemicals

- Led by Kevin Andrews (Defra)/Nick Cartwright (EA)
- Key inputs from Industry Group, NADIP group
- Commissioned work from Atkins, Entec
- Scope/exclusions – Priority List Daughter Directive substances negotiations

Sanitary

- Led by Judith Harris (Defra) & Chris Chubb (EA)
- Key inputs from water industry group
- Scope/exclusions
 - Focus on ammonia
 - No standard yet for TRAC/lakes
 - Uncertainty about apportionment
- Measures likely to be cost effective in RBP1
 - Tighten consents – action mainly for the water industry
 - Innovative measures: performance or system management – action for all sectors
- Measures to reduce uncertainty – develop new modelling techniques, research on diffuse sources
- *** Not reporting today *** Chapter will be circulated on 19 July

Morphology and Biodiversity Benefits

- Led by Alice Baverstock (Defra)/Jane Rawson (EA)
- Key inputs from Flood, Coastal Defence and Planning Group, Navigation & Ports Group, FAB Group
- Scope/exclusions: HMWB designations not yet available, based on best current view

Fisheries and Alien Species

- Led by Rob Hitchen (Defra)/Mark Diamond (EA)
- Key inputs on fisheries from Defra Fisheries, Marine, fisheries sector
- Key inputs on Alien Species from EA, Natural England, WWF
- Scope/exclusions: Covers direct biological pressures from fisheries - morphology measures related to fisheries management covered in Morphology chapter

Sediment

- Led by Susan Casper (EA) with Olivia Jensen (ICF)
- Key inputs from Environment Agency
- Distinguish between sediment quantity and sediment quality issues
- Current limitations in data and understanding
- Nature of environmental standards for sediment
- Measures taken to reduce other pressures likely to have a positive impact on sediment:
 - Agriculture: Water Protection Zones
 - NADWP: Misconnections/Misuse of sewers/Site management/SUDS
- Measures likely to be cost effective:
 - Integrated approach to sediment management
- Measures to reduce uncertainty – research on effectiveness of measures
- *** Not reporting today *** Report to be circulated 18 July

Planning

- Led by Martin Townsend (EA)
- Inputs from EA, DCLG
- Build on work commissioned for FLP group
- Scope/exclusions:
 - Focus on the planning process; bring report up to date to reflect recent policy developments
 - Indications of how planning could help to achieve objectives over the longer term
- Difficult to estimate costs to developers without more information on what requirements will be
- ***Not reporting today***

Microbiology

- Led by Joe Bonsall (Defra)
- Key inputs from EA and from agriculture group
- Forthcoming RIA for revised Bathing Waters Directive will generate more information on costs
- No microbiology standard in Good Ecological Status
- Microbiology standards in Bathing Waters and Shellfish Waters Directives
- Measures taken under these Directives will have limited geographical scope
- Measures taken to reduce other pressures are likely to reducing microbiology pollution
- ~~***Not reporting today*** Chapter made available 11 July~~

Introduction over....any questions?

- Next session will preview findings and policy implications
- Detailed discussions on chapter – opportunity to provide detailed feedback
- Round up at end of day for general issues