

**Setting GEP and identifying  
measures using the 'alternative  
approach' in port water bodies  
in England and Wales**

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# Background

- WFD recognises and accommodates physical modifications necessary for use
- Accepts that Good Ecological Status cannot be achieved
- 'Alternative approach' agreed at EU level
- Good Ecological Potential (GEP): the best you can do for ecology given the use
- Assessment of mitigation measures to classify water body
- Use assessment to set GEP

# Cross-sector UKTAG project

- Develop methodology to apply 'alternative approach' to classifying GEP at water body level for heavily modified and artificial water bodies
- Broadly similar approaches developed for ports, inland navigation, flood defence, water resources and hydropower
- UKTAG guidance prepared

# UK ports MEP-GEP project

- Ports' workshop to promote ownership
- Identified potential hydromorphological 'pressures' associated with dredging, disposal, historic structures/reclamation or capital dredging, vessel movement
- Agreed range of generic measures
- Highlighted importance of cause-and-effect; understanding site-specific influences

# UK methodology for setting GEP

- Method uses a series of questions:
  - ❖ is the pressure present?
  - ❖ is there evidence of a significant impact on quality elements?
  - ❖ what are practicable mitigation measures given impacts, site-specific characteristics?
  - ❖ are measures already in place and adequate?
  - ❖ if not, would measures adversely affect use or the wider environment?

# Overview

- Method uses a standard spreadsheet
- Aims to classify water body as 'at or above GEP' or 'moderate or below'
- Evidence-based approach
- Focus on measures where there is high confidence in both the cause of the problem and effectiveness of the solution
- Recognise significant uncertainties

# First steps in process

- Start by confirming the presence of the pressure(s) for which water body is heavily modified
- Identify associated significant impacts on WFD quality elements or
- Confirm whether there would be a significant impact if mitigation were not already in place

# WFD quality elements

- Composition and abundance of:
  - ❖ phytoplankton
  - ❖ aquatic flora
  - ❖ benthic invertebrates
  - ❖ fish
- Morphological supporting elements:
  - ❖ coastal processes
  - ❖ water depth
  - ❖ quantity/structure/substrate of seabed
  - ❖ structure of intertidal
  - ❖ tidal regime

Then .....

from agreed list, identify measures which are potentially appropriate to the site-specific water body characteristics and the significant impacts identified

# Measures (dredging/disposal)

- Flow manipulation to avoid need to dredge
- Prepare dredging/disposal strategy
- Reduce area, depth, etc. of dredging
- Reduce sediment resuspension
- Timing of dredging or disposal
- Disposal site selection
- Sediment management

## **Measures (vessel movement)**

- Modify channel
- Modify vessel design
- Vessel management (eg. speed limits, passage planning)

## **Measures (structures/reclamation)**

- Remove obsolete structure
- Modify structure/modification
- Flow manipulation

# Assessment process

- Screen out identified measures which are:
  - ❖ already in place and adequate
  - ❖ likely to adversely affect use or wider environment
- Classify waterbody, noting remaining measures which may:
  - ❖ result in only a slight ecological benefit
  - ❖ be considered for inclusion in RBMP
  - ❖ prove disproportionately costly, etc.

# GEP process: issues raised

- Real vs. perceived impacts? How to deal with uncertainty?
- Recognise other contributory pressures
- Defining in place and adequate (eg. licence requirement; enforced byelaws; monitoring review by regulators' group; etc.)
- Defining adverse effect on use: regulatory responsibilities; safety; practicality
- Understanding adverse effect on wider environment: Habitats regulations; roost sites

# Outcomes of GEP process

- GEP measures include dredging strategy preparation; sediment management initiatives; removal of obsolete structures
- Many other measures already in place as licence conditions, for cost/safety reasons, to meet Birds and Habitats Directive requirements
- Transparency/auditability are vital
- Essential to substantiate response



**Thank you  
for your attention**

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