# Joint Defra/EA Flood and Coastal Erosion Risk Management R&D Programme

# Developing an evidence base for appraisal guidance TaskA1 Annex and appendices

# R&D Project Record FD2019/PR2











# Joint Defra/EA Flood and Coastal Erosion Risk Management R&D Programme

# Developing an Evidence Base for Improving Appraisal Guidance

R&D Project Record FD2019/PR2 (Task A1) Appendix A1

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# **Executive summary**

#### Aim of Task A1

Task A1 involves a review of the existing published guidance including the priority score arrangements and documents used within the Operating Authorities.

The aims of Task A1 are to:

- identify the extent to which existing flood and coastal erosion risk management guidance reflects the requirements of higher level Government publications; and
- compare flood and coastal erosion risk management guidance with guidance used in other fields.

#### Approach to Task A1

A standard proforma has been used as the basis for Task A1, which is based on key appraisal related questions; this ensures that all guidance reviewed has been assessed in an equal, and where possible, objective manner. In general, the questions included in the proforma are 'closed' (i.e. require a yes or no answer); this approach is used as it allows easy comparison of different guidance documents. A comparison of the current approaches with other guidance has been undertaken, including with higher level Government publications such as the 'Green Book' (HM Treasury, 2003), recent research findings and practice in similar fields or internationally.

#### Conclusions

A total of 53 guidance documents and three approaches to prioritisation have been identified for review. Three methods of prioritising have also been revised (priority scoring system for flood and coastal erosion risk management, prioritisation in the COBA Manual (transport), and the Tir Gofal scoring system (agri-environment scheme qualification)).

Some of the key findings from the review of guidance documents include (note this does not include specific reference to FCERM guidance documents as these are quoted directly in the Final Report):

- many of the guidance documents appear to omit discussion on objectives;
- the conditions on setting a range of options varies between guidance documents;
- few of the guidance documents give thorough consideration to option development as a learning process;
- the majority of guidance documents use do-nothing or do-minimum as the baseline.
- many of the guidance documents do not describe how to estimate costs, because it is not relevant to the appraisal approach or the objectives;

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- few guidance documents made reference to cost adjustment;
- the types of benefits considered vary greatly between documents;
- few guidance documents explicitly mention the need for early sensitivity in the appraisal process;
- the main approach used to value benefits in money terms is willingness-topay (WTP);
- the guidance documents note that not all benefits can be monetised. To
  overcome this, common practice is to employ scoring and weighting
  techniques as a way of including non-monetary benefits;
- the general consensus from the guidance documents is that legally protected items require additional assessments to ensure they can be included and values:
- few guidance documents made reference to distributional impacts;
- most guidance documents recognise the need to update costs and benefits when preparing appraisals;
- in the documents for which it was relevant to include discount rates, it is common practice to have the discount rate set to 3.5% for the first thirty years (i.e. consistent with the Treasury Green Book);
- the main economic adjustments observed in the guidance documents are to account for taxation:
- few guidance documents calculate switching values as part of sensitivity analysis;
- the comparison of options with the baseline is the most common approach to decision-making within the guidance documents; and
- optimisation of options is not recognised as a key component in the guidance documents.

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#### 1. Introduction

#### 1.1 Background to the study

FCDPAG 1 (MAFF 2001) defines Project Appraisal as: "the process of identifying and then evaluating options in order to select the one that most closely satisfies the defined project objectives. In the context of flood and coastal defence strategy and scheme appraisals these objectives include:

- reducing the risks to people and to the developed and natural environment from flooding and coastal erosion;
- identifying a solution that is technically sound and most fit for purpose;
- being environmentally acceptable and sustainable; and
- ensuring best value for money from a national perspective."

The approach to project appraisal in flood and coastal erosion risk management (FCERM) is based on this definition. However, the definition appears to focus on a comparison of defined options and does not *emphasise* the role of developing options through learning and feedback from the appraisal process, although the FCDPAG series does refer to the need to review options both during and at the end of the appraisal process.

Making Space for Water (MSfW) clearly states the Government's aim for flood and coastal risk management as: "to manage the risks from flooding and coastal erosion by employing an integrated portfolio of approaches which reflect both national and local priorities, so as:

- to reduce the threat to people and their property; and
- to deliver the greatest environmental, social and economic benefit, consistent with the Government's sustainable development principles."

It is clear that appraisals are therefore central to achieving and delivering the Government's aim.

This study, through reviewing and analysing existing appraisals and potential improvements, will provide a better understanding of the guidance that supports the appraisal process, how it can be improved to contribute to better decisions and be cost effective, in the quest to reduce risk and be consistent with sustainable development principles.

The study will need to be informed by other projects being carried out under the MSfW delivery programme such as "Identifying the barriers and incentive to the delivery of better environmental and social outcomes", R&D projects such as "Evaluating a Multi-Criteria Analysis Methodology for Application to Flood Management and Coastal Defence Appraisal" and "Integrating Cost-benefit Analysis and Multi-Criteria Analysis of Flood and Coastal Defence Projects" (the Sugden Approach), and Foresight Scenarios.

#### 1.2 Objectives of the study

The aim of the study as set out in the project specification is to:

 explore the potential for improvements to the existing project appraisal guidance (Defra 1999-2001) to reflect the findings of the Foresight Study (OST 2004) and the direction of travel identified in the Government's first response to the Making Space for Water (MSfW) consultation (Defra 2005).

The objective of the project is to:

 develop evidence that will allow Defra and the operating authorities to improve guidance and thus assist practitioners make better decisions.

#### 1.3 Organisation of this report

This report sets out the evidence collected under Task A1 (review of existing guidance). The report is organised around the proforma used when reviewing the guidance documents (a blank version of the proforma is provided in Appendix 1 to this report) as follows:

- Section 2 provides an overview of the approach used in Task A1;
- Section 3 discusses how the range of guidance documents reviewed identify options to be assessed and undertake screening;
- Section 4 describes approaches to estimating option costs;
- Section 5 sets out how the benefits of options are assessed:
- Section 6 covers approaches to discounting and present values;
- Section 7 considers how sensitivity analysis is undertaken;
- Section 8 presents an overview of approaches to comparing options and identifying preferred options; and
- Section 9 provides the references.

#### 1.4 Structure of the Final Report

This report forms one of five Task Reports which provide a summary of the results of each Task to inform the Final Report. Figure 1.1, overleaf, shows how these reports feed into the FR and draw on the evidence collected and reviewed during the study.

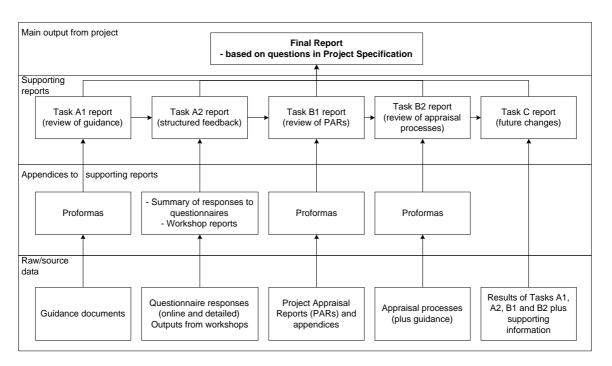


Figure 1.1 Structure of the outputs forming the Final Report

# 2. Task A1: review existing guidance

#### 2.1 Aims and objectives of Task A1

Task A1 involves a review of the existing published guidance including the priority score arrangements and documents used within the Operating Authorities. A comparison of the current approaches with other guidance has been undertaken, including with higher level Government publications such as the 'Green Book' (HM Treasury, 2003), recent research findings and practice in similar fields or internationally.

The aims of Task A1 are to:

- identify the extent to which existing flood and coastal erosion risk management guidance reflects the requirements of higher level Government publications; and
- compare flood and coastal erosion risk management guidance with guidance used in other fields.

#### 2.2 Approach to Task A1

A consistent approach has been used when comparing and contrasting guidance and approaches used for flood defence, both in the UK and internationally, and also with approaches used in other fields (e.g. health where the aim is similar in that it is to reduce risks to people). A standard proforma has been used which is based on key appraisal related questions; this ensures that all guidance reviewed has been assessed in an equal, and where possible, objective manner. In general, the questions included in the proforma are 'closed' (i.e. require a yes or no answer); this approach is used as it allows easy comparison of different guidance documents. A copy of the proforma that has been used is provided in Appendix 1 (proforma for reviewing guidance).

#### 2.3 Guidance reviewed

Table 2.1 presents a summary of the guidance documents that have been reviewed. This list has been derived from the project team's knowledge of existing guidance documents, supplemented with guidance documents referred to in Jacobs (2006). Some of the appraisals reviewed in Jacobs (2006) are considered in Task B2 (consideration of appraisals used in other fields), since guidance is not available in all cases. There is also significant overlap between the requirements of Task A1 (on guidance) on Task B2 (on appraisal processes), such that the results of Task A1 are used to inform Task B2 (as well as feeding into Task C on climate change and scenarios).

#### Table 2.1 Guidance identified and reviewed

Countryside Agency for Wales *et al.* 2004. Strategic Environmental Assessment and biodiversity: a guidance for practitioners.

Defra 2001. An economic analysis to inform the review of the objectives for particles air quality strategy, London: Defra.

Defra 2003. Use of multi-criteria analysis in air quality policy, prepared by Philips & Stock, November 2003.

Defra *et al.* 2004. Catchment Flood Management Plans: Volume I – Policy Guidance and Volume II, July 2004, London: Defra.

Defra 2006. Shoreline management plan guidance, London: Defra.

Department for Transport 2003. Guidance on preparing an economic impact report, prepared by Steer Davies Gleave, London: DfT.

Department for Transport 2001. A project appraisal framework for ports, London: DfT.

Department for Transport 2002. Economic assessment of road maintenance: QUADRO manual, London: DfT.

Department for Transport 2004. Economic assessment of road schemes: COBA11 manual, London: DfT.

Department for Transport 2004. TUBA Guidance, Mott MacDonald, Winchester: DfT.

Department for Transport 2005. Transport Analysis Guidance (TAG), ITEA Department for Transport, London: DfT.

Department for Transport nd. Multi modal transport appraisal investment, London: DfT.

Department for Transport nd-a. Major scheme appraisal in Local Transport Plans: Part 3, London: DfT.

English Nature & Environment Agency nd. Coastal Habitat Management Plans (CHaMPS): An interim guidance to structure and content.

Environment Agency nd. Guidance on economic appraisal in the Environment Agency, Bristol: EA.

Environment Agency 2002. Drought plan guideline, Bristol: EA.

Environment Agency 2003. Assessment of benefits for water quality and water resources schemes in the PR04 environment programme (Benefit Assessment Guidance, BAG), Part Two: Rivers and Groundwater, Bristol: EA.

Environment Agency 2005. Environment Agency Management System Document Guidance Project Appraisal Guidance Note, Version 5 18/2/05, Bristol: EA.

European Chemicals Bureau 2003. Technical Guidance Document (chemical risk management), JRCA-Ispra (VA), Italy.

Federal Environment Agency 2004. Basic principles for selecting the most cost-effective combinations of measures for inclusion in the programme of measures as described in Article 11 of the Water Framework Directive (German Handbook), Berlin.

FHRC 2005a. The benefits of flood and coastal risk management: a manual of assessment techniques (multi-coloured manual), London: Middlesex University Press.

FHRC 2005b. The benefits of flood and coastal risk management: a handbook of assessment techniques (multi-coloured handbook), London: Middlesex University Press.

Görlach, B. & E. Interwies 2003. Economic assessment of groundwater protection: a survey of the literature, Berlin: Ecologic.

Defra 2004. Guidance for the MCA-based element of the current approach to appraisal, Research Report FD2013.

#### Table 2.1 Guidance identified and reviewed

Highways Agency 2004. Short Project Appraisal Report guidance notes, London: DfT.

HR Wallingford 2006. Climate change impacts and adaptation – cross-regional research programme, Project C Water for Defra/Environment Agency.

HSE 2001. Reducing risks, protecting people, HSE's Decision-Making Process, Suffolk: HSE Books.

Institute of Public Health 2006. Health Impact Assessment: A short guide, Ireland.

Jacobs 2006. Guidance on the evidence required to justify disproportionate cost decisions under the Water Framework Directive, Project 3 for the Collaborative Research Project.

MAFF 1992. Environmental procedures for inland flood defence works, London: MAFF (now Defra).

MAFF 1993. A strategic guide for managers and decision makers in the NRA, Local Authorities and other bodies with coastal responsibilities, London: MAFF (now Defra).

MAFF 1999. FCDPAG3 Flood and coastal defence project appraisal guidance – economic appraisal, London: MAFF (now Defra).

MAFF 2000a. FCDPAG4 Flood and coastal defence project appraisal guidance – approaches to risk, London: MAFF (now Defra).

MAFF 2000b. FCDPAG5 Flood and coastal defence project appraisal guidance – environmental appraisal, London: MAFF (now Defra).

MAFF 2001a. FCDPAG2 Flood and coastal defence project appraisal guidance – strategic planning and appraisal, London: MAFF (now Defra).

MAFF 2001b. FCDPAG1 Flood and coastal defence project appraisal guidance - overview, London: MAFF (now Defra).

NRA 1993. Economic appraisal manual, Bristol: EA.

NRA 1992. Manual of investment appraisal, Bristol: EA.

NRA 1993. Flood Defence Management Manual (FDMM), Bristol: EA.

Office of the Deputy Prime Minister 2005. Sustainability appraisal of regional spatial strategies and local development documents: guidance for Regional Planning Bodies and Local Planning Authorities, London: ODPM Publications.

OST nd. Foresight Future Flooding Scotland.

Royal Institute of Technology 2003. Mining impacts on the freshwater environment: technical and managerial guidelines for catchment scale management (ERMITE), European Commission Fifth Framework Programme, Sweden.

RSPB 2002. Wise use of floodplains: guidance on options, EU-Life Environment Project.

Scottish Executive Development Department 2002. Economic assessment of road schemes in Scotland, The NESA manual 1, Edinburgh.

SEERAD 2002. Evaluating the economic impact of irrigation controls, prepared by Macaulay Land Use Research Institute and Cambridge University Farm Potato Agronomy Unit, Aberdeen.

SEPA 2000. Ponds, pools and lochans: guidance on good practice in the management and creation of small waterbodies in Scotland, Stirling.

SEPA 2000a. Watercourses in the community: a guide to sustainable watercourse management in the urban environment, Stirling.

#### Table 2.1 Guidance identified and reviewed

SNIFFER 2004. Management strategies and mitigation measures required to deliver the Water Framework Directive for impoundments (WFD29): Volume 1 – preliminary guidance document, Edinburgh.

SNIFFER *et al.* 2003. Identification and designation of Heavily Modified Water (HMWB) and Artificial Water Bodies (AWB), CIS Working Group 2.2, Copenhagen.

Strategic Rail Authority 2003. A guide to the appraisal of support for passenger and freight rail services, April 2003.

UKCIP 2003. Climate change adaptation, risk, uncertainty and decision-making, UKCIP Technical Report, May 2003.

UKCIP 2004. Strategic Environmental Assessment and climate change, Guidance for Practitioners.

Villa *et al.* 2002. Zoning Marine Protected Areas through Spatial Multiple-Criteria Analysis, in Conservation Biology, Vol.**16**/No.2, April 2002, pp515-526.

#### Priority scoring/ranking schemes:

MAFF (now Defra) FCD Priority Scoring System (see proforma on FCDPAG3)

Department for Transport 2004. Economic assessment of road schemes: COBA Manual (see proforma on COBA Manual), London: DfT.

Welsh (Tir Gofal) Agri-Environment Payment Scheme Scoring System

#### 2.4 Rationale and objectives of guidance reviewed

The guidance documents denote how the basic rationale and objectives of project appraisal guidance have five core areas, each requiring careful consideration. The initial stage is to define or outline any identified problems or problem areas. This is clearly demonstrated in the Strategic Guide for Managers and Decision Makers in the NRA; Local Authorities and other Local Bodies with Coastal Responsibilities; and the MCA-Based Element of the Current Approach to Appraisal guidance. Assessing the current situations and defining the main issues will help with decision-making. This helps develop specific approaches or responses to the prevailing issues.

The Environmental Procedures for Inland Flood Defence Works remarks on the importance of recognizing the perceived problems in order to understand how to address them efficiently. Thus, current management strategies can be updated and readdressed in order to meet the requirements set out by higher-level Government publications such as the WFD. One such guidance where the management endeavours to meet the government objectives is manifested in the SNIFFER *et al.* (2003) guidance. Additionally, a clear statement of the problems, as stated in the Guidance on Economic Appraisal in the Environment Agency states that this also helps justify the final objectives and the likely costs and benefits of a project.

#### 2.5 Use of objectives

Many of the guidance documents appear to omit discussion on objectives. In some cases, this is because the objectives have been set elsewhere, for example, guidance documents prepared for the Water Framework Directive. Other guidance documents such as the UKCIP guidance on climate change (UKCIP 2003), emphasise the importance of understanding the objectives. The Health Impact Assessment guidance states the need to set out objectives, but does not mention that these should be measurable. Only the 'Strategic Environmental Assessment and Biodiversity Guidance for Practitioners' identifies the need to set out objectives that follow the SMART principle. This is in comparison with the TGB which states that 'if an intervention seems worthwhile, then the objectives of the proposed new policy, programme or project need to be stated clearly. The TGB also mentions the need to set targets using the SMART approach (specific, measurable, achievable, relevant and time-bound).

#### 2.6 Hierarchy in decision-making

The decision-making process is best dealt with through the use of implementing a hierarchy of choice. Although the hierarchy structure depends on the types of objectives and options, the DfT (2003) guidance explains how it helps ensure adequacy and synchronisation of the options with guidance objectives and government requirements. The Villa *et al.* (2002) guidance states that through differentiating between higher-level values which represent the characteristics of the set objectives, any rarities in terms of costs and risks are classed at lower levels to reduce complicating the decision-making process.

The Royal Institute of Technology (2003) report demonstrates how hierarchy of choice is used to ensure cost effectiveness and maximisation of net benefits. By basing hierarchy on the cost benefit ratio, the Multi-modal Transport Appraisal Investment guidance denotes that projects must satisfy the ranking criterion in order for a project to be approved. The NRA Manual of Investment Appraisal guidance also bases choice options on the cost benefit ratio. In conclusion, structuring choice options under a hierarchy helps select between alternatives. This is seen as a means of screening measures in order to achieve the desired status, as in the guidance on the Evidence Required to Justify Disproportionate Cost decisions under the Guidance on the Evidence Required to Justify Disproportionate Cost Decisions under the Water Framework Directive.

## 2.7 The appropriate level of detail

Predominantly, if any detail were given within the guidance documents it was based on the structure of the appraisal process. Evidence of this can be found in the Climate Change and Water guidance; DfT (2003); the Use of Multi-Criteria Analysis in Air Quality Policy (Defra 2003); and Görlach & Interwies (2003). Particular attention is required on costing and benefit allocation. By providing instruction on how to account for and estimate costs, decision-makers

using the Multi-Modal Transport Appraisal Investment Guidance could, therefore, fully understand why and how to use the methodology of the appraisal process. The guidance on UKCIP (2003) states that by having a set of values to consider before undertaking a project, different levels of decision-making could be incorporated. Thus, having detail on how to proceed with the appraisal process ensures that all impacts needing measuring, and valuing can be incorporated (Strategic Rail Authority 2003). An alternative way of providing detail is illustrated in the QUADRO manual (DfT 2002), where working examples indicate the level of detail to be expected during project development.

# 3. Options and screening of options

#### 3.1 Consideration of a wide range of options

The conditions on setting a range of options varied between guidance documents. Options were either required to be very site-specific and carefully selected, such as in Görlach & Interwies (2003), or for example in the Benefits Assessment Guidance which only implemented the do-something approach. On the other hand, the UKCIP (2003) document notes 'it is important that a wide range of potential options is considered to avoid the premature rejection of viable options'. In support of this, the Villa et al. (2002) guidance states that a wide variety of options allows for contrasting viewpoints and priorities of the different stakeholders to be integrated and aptly incorporated in project development. Hence, all options should be considered and assessed in an equal and objective manner.

Other guidance documents such as the UKCIP (2004) provide guidance on identifying options, but do not explicitly indicate the need for a wide range of options. In contrast, the Transport Analysis Guidance actually lists a number of viable options to be considered in TAG 3.2 (DfT 2005). The Highways Agency (2004), the SNIFFER *et al.* (2004), and the Countryside Agency for Wales *et al.* (2004) documents base their options on environmental, social and economic impacts. Overall, the general consensus from the documents suggests that option development sets targets, which help mitigate any potential negative effects (Guidance for Coastal Habitat Management Plans).

## 3.2 Screening of options

Very few guidance documents performed any sort of screening of options. Often there was no consideration for screening. Furthermore, from those that did incorporate screening, the majority did not provide any acceptable reasons for screening out. The Villa et al. (2002) guidance notes that the process of reducing the number of options, through screening, will help with option selection. Thus, screening is a form of filtering out between options (UKCIP 2004). One example of screening options, as shown by the Climate Change and Water guidance, is to compare them to the primary objectives. The Economic Appraisal in the Environment Agency provided a sequential description of when screening should be performed in the decision-making process. Article 11 of the Federal Environment Agency (2004) guidance provides the following statement on the basic principles of screening in option development: 'Particular emphasis should be given to the traceability of decisions and general comprehensibility, because the matrix showing combinations of measures serves as an argumentation basis for subsequent discussion processes when implementing the programmes of measures'. Therefore, the general idea behind screening is to allow for thoughtful consideration and comparison to be carried out before options are put into operation.

#### 3.3 Option development and learning

Few guidance documents gave thorough consideration to option development and learning process; however, the following remarks were made by documents that gave guidance on option development. The EA (2002) guidance states that the purpose of option development is to thoroughly analyse each option before implementation. Option development provides a breakdown of each option so that individual measures can be understood (NRA Economic Appraisal Manual).

The Countryside Agency for Wales *et al.* (undated) guidance states that with the constant monitoring of risk factors such as climate change, environmental options can be adapted to changes as they arise. In the NRA Manual of Investment Appraisal guidance option development helps to improve, maintain, sustain, and mitigate risk and maximise benefit. The Economic Appraisal in the Environment Agency guidance indicated that options should be developed as part of the scoping work.

According to the DfT (2003) guidance and the Review of Climate Change and Water, without such analysis, there would be little feedback on whether options are likely to meet the initial objectives of the guidance.

#### 3.4 The baseline

The majority of guidance documents took the baseline as the do-nothing or dominimum option. This was seen in the following documents: QUADRO (DfT 2002); Scottish Executive Development Department (2004); DfT (2004); Environmental Procedures for Inland Flood Defence Works; MCA-Based Element of the Current Approach to Appraisal; NRA Economic Appraisal Manual; UKCIP (2004); and Transport Analysis Guidance (DfT 2005). The latter two provide more explicit explanation on the importance of the baseline and how to assess it.

The baseline for the Institute of Public Health (2005) guidance and Strategic Rail Authority guidance (Strategic Rail Authority 2003) is a description of the current state at which everything would exist if no action was taken. It also exemplifies the state of no change to the level of service so that any possible future trends likely to arise can be identified. As explained in the Environmental procedures for Inland Flood Defence works, the baseline is an option, which should always be considered since it provides a basis against which all other options are measured. The RSPB (2002) guidance explains that this is because the baseline helps when predicting the likely impacts of other scenarios. The Countryside Agency for Wales *et al.* (undated) guidance notes the baseline as being project specific, since different sorts of data sources will be used to establish baseline conditions.

## 3.5 The do-minimum option

Out of all the guidance documents reviewed the majority include a do-minimum option. The guidance on Economic Appraisal in the Environment Agency and

the NRA Manual of Investment Appraisal include it to highlight the consequences of inaction. The Highways Agency (2004) incorporates the dominimum when calculating costs, to see the difference between do-something and do-minimum. However, only two guidance documents, Dft (nd-a) and DfT (2001), explicitly request that all appraisal schemes must be undertaken with a clear definition of the do-minimum option. Other guidance documents such as Strategic Guide for Managers and Decision Makers in the NRA, Local Authorities and Other Local Bodies with Coastal Responsibility Guidance and Environmental Procedures for Inland Floor Defence Works believe it to be a scenario worth considering, but only to ensure the reduction of any residual risks.

# 4. Option costs

#### 4.1 Approach to costing options

Many guidance documents do not include an approach to cost analysis, because it was not relevant to the appraisal approach or the objectives. These include, for instance:

- UKCIP (2003);
- HR Wallingford (2006);
- Evidence Required to Justify Disproportionate Cost Decisions under the Water Framework Directive: and
- UKCIP (2004).

The latter, for example, does not focus on costs but on assessing the risks associated with environmental impacts; similarly with UKCIP (2003) guidance which looks directly at the impacts of climate change.

The information on costs, provided in the Görlach & Interwies (2003) guidance, is structured around the various pollution problems and not the instruments used to calculate costs. However, this guidance does suggest the use of previous studies to determine how to cost schemes.

On the other hand, economic valuations are provided through the use of spreadsheet models in guidance documents such as the Scottish Executive Development Department (2004) and SEERAD (2002). The spreadsheets demonstrate how to model costs for the various types of costs such as operating, maintenance and construction costs. The spreadsheets provide a 'run-through' of how to approach cost analysis, and thus, would enable the appraisal strategy to be repeated.

Guidance on Economic Appraisal in the Environment Agency includes all monetisable and intangible impacts into the costs analysis. Additionally, some guidance documents such as SNIFFER *et al.* (2004) and Strategic Rail Authority (2003) suggest the use of net present values (NPV) to calculate costs.

#### 4.2 Level of detail

Many guidance documents describe the types of costs that are required to perform scheme appraisal. For example, the Scottish Executive Development Department (2004) guidance looks at operating, maintenance and construction costs. This guidance also includes information on how to model these into the cost spreadsheets and how to draw comparisons between them. The Highways Agency (2004) also provides a detail explanation of expressing and calculating costs and includes this information in the annex. The guidance on Project Appraisal for Ports Department for Transport (2001) provides details on how to identify costs.

DfT (2003) and DfT (2002) guidance documents recommend taking into account any associated risks alongside the cost analysis. In place of a risk assessment, DfT (2002) guidance uses optimism bias and SEERAD (2002) guidance takes contingent liabilities into consideration.

The DfT (2005) guidance carefully discusses the process of each strategic objective and compares them by using measures of economic worth such as NPV and C/B ratio. Therefore, similarly to Defra (2003), these guidance documents look at the total cost of each scheme and compared them using one criterion.

#### 4.3 Use of a common time horizon

A number of different time scales were used, depending on the type of scheme in the appraisal process. SNIFFER (2004) states that it is essential to have an agreed timescale as this is needed to ensure the most cost-effective measures are implemented first.

The timeline of 30 years is commonly associated with non-flood or coastal appraisal schemes. This is evident in DfT (2002); the NESA Manual; DfT (2003); Royal Institute of Technology (2003); and the DfT (2005) guidance documents. In the DfT (2005) guidance the time horizon is based on the presumption that discounting will reduce the C/B ratio over a 30-year period. However, the Highways Agency (2004), and the NRA Manual of Investment Appraisal both have a common time horizon of 60 years in which option costing would be performed.

The MCA-Based Element of the Current Approach to Appraisal guidance provides a 100-year time frame and notes, 'it is usually appropriate to consider projects extending over 100 years or reflect the physical life (with maintenance) of the longest-lived asset under consideration'. Further discussion on the appropriate time frame is provided within the document.

The SEERAD (2002) guidance used a timeline of 10 years. The reason for this was because 10 years was the minimum number of years expected for capital investments to take place under conditions of climate change.

As a result of the variety of time horizons presented throughout the different documents, the Defra (2003) guidance states 'if consequences occur in different time periods, criteria should be included that reflect the value of impacts distributed over time, either with discrete criteria or with a single criterion'. In conclusion, it is important to maintain consistency within scheme appraisals and ensure that a clear explanation is given on the type of timeline used and how it was assessed.

#### 4.4 Adjustments to costs

Few guidance documents made reference to cost adjustment. The following statements are the only examples of adjustments to costs found amongst the documents.

Federal Environment Agency (2004) guidance describes present value and discounting and notes the importance of uniform assumptions across different parameters, including interest rates.

Multi-Modal Transport Appraisal Investment guidance provides detail on how to include or exclude adjustments such as depreciation and capital charges into scheme appraisal.

A good example of a guidance which makes extensive reference to cost adjustment is the Transport Analysis Guidance (DfT 2005). This states that discounting and capital charges are attributed exclusively to government expenditure. Present value costs should be set to the baseline year and costs can be discounted then onwards. Furthermore, Major Scheme Appraisal in Local Transport Plans recommends the scaling of costs as an approach to calculating elasticity and being able to forecast future costs.

# 5. Option benefits

#### 5.1 Types of benefits

The examples for the types of benefits considered vary greatly between documents. Some examples given in the HSE (2001) guidance include wellbeing and the value of preventing a fatality (VPF). Highways Agency (2004) guidance considers benefits to be associated alongside safety issues. The DfT (2004) guidance calculates benefits in terms of changes in travel time, and number of accidents within that time frame. The NRA Flood Defence Management Manual, UKCIP (2004) and RSPB (2002) guidance documents focus mainly on environmental benefits including amenity benefits and conservation efforts; and wetland creation, agriculture and the creation or conservation of Special Protection Areas.

The Federal Environment Agency (2004) guidance which is based on costeffectiveness analysis, does not consider benefits as such, except for those related to cost effectiveness measures. The Multi-Modal Transport Appraisal Investment guidance describes the difference between user and non-user benefits.

As explained in the UKCIP (2003) guidance, the approach to identifying and assessing benefits depends on the methodology used. For example, this particular guidance only focuses on where benefits may arise, as oppose to identifying particular types of benefits. The Benefits Assessment Guidance provides a step-by-step approach to estimating benefits, and includes a section for each type of possible benefit that may arise in water quality schemes. The Scottish Executive Development Department (2004) and the Guidance for the MCA-Based Element of the Current Approach to Appraisal documents provide summary tables of the types of benefits, but do not explain how these benefits were identified. In conclusion, the documents demonstrate that the types of benefits recorded are those that are of value to them, with the exception of a few guidance documents. Having a wide variety of benefits was not recognised as the main focus of project appraisal.

## 5.2 Use of early sensitivity to focus effort

There were few guidance documents that explicitly mentioned the need for early sensitivity in the appraisal process. One such guidance was the SEERAD (2002) guidance, which outlined the types of spatial sensitivity assessments needed before performing CBA. It was the general consensus that sensitivity analysis was mainly used on subjective components to ensure transparency (Villa *et al.* 2002) and should be performed when there is conflicting data, variation and uncertainty (ECB 2003). In addition, the Benefits Assessment Guidance refers to sensitivity analysis as 'reality checks', which ensure that the benefits estimated are reasonable. This guidance also provides a section explaining the types of sensitivity tests to be used on the recognised benefits. However, it was noted in SEERAD (2002) that sensitivity analysis may present a bias in the types of issues represented.

#### 5.3 Monetising benefits

The main approach for valuing benefits in monetary terms is the willingness-topay (WTP) approach. This is demonstrated in the following guidance documents:

- HR Wallingford (2006);
- DfT (2004);
- Scottish Executive Development Department (2004);
- SEERAD (2002): and
- Multi-Modal Transport Appraisal Investment guidance.

The DfT (2004) guidance explains how to move from social benefits to ones based on WTP measures. WTP is therefore recognised as a method to convert benefits into monetary values.

The Scottish Executive Development Department (2004) guidance calculates benefits using market values that are then incorporated into the present value of benefits (PVB). The PVB is defined as the change in discounted value of user benefits between the do-minimum and the do-something scenarios. The DfT (2002) guidance refers to the COBA Manual and the webTAG units for valuing benefits in monetary terms. The guidance also makes further reference to valuing benefits in areas of reduced risks.

A step-by-step approach for transforming qualitative estimates to quantitative ones is provided in the Benefits Assessment Guidance. Additionally, a detailed explanation of how to calculate monetised benefits using a spreadsheet model is provided in the DfT (2004) guidance.

#### 5.4 Inclusion of non-monetary benefits

The guidance documents note that not all benefits can be monetised. DfT (2004) and Görlach & Interwies (2003) state that it is very difficult to quantify some types of benefit and, as a result, not all benefits can be quantified. To overcome this aspect, a common practice shown throughout the documents is to employ scoring and weighting techniques as a way of including non-monetary benefits into the appraisal process. Descriptors such as scores and weights allow for non-monetary impacts to be captured. These are further described in the SNIFFER *et al.* (2004) guidance as 'a relative scale of effectiveness on individual measures'. Those using scoring and weighting include:

- Climate Change and Water guidance;
- ECB (2003);
- Guidance for the MCA-Based Element of the Current Approach to Appraisal;
- DfT (2003);
- Highways Agency (2004);
- SNIFFER et al. (2004);
- Major Scheme Appraisal in Local Transport Plans; Multi-Modal Transport Appraisal Investment guidance;

- NRA Manual of Investment Appraisal; Defra (2003); and
- RSPB (2002).

In addition, DfT (2002) guidance requests that areas of risk reduction are quantified in non-monetary terms.

The Guidance for the MCA-Based Element of the Current Approach to Appraisal describes how MCA can be used to allow intangible impacts to be considered in the appraisal process. The guidance explains this by using a step-by-step methodology, which is supported with flowcharts and appraisal summary tables.

#### 5.5 Adjustments to benefits

An explanation of why costs and benefits should be adjusted is included in the Major Scheme Appraisal in Local Transport Plans guidance. The guidance states that adjustments help ensure values can reflect the variation in population structures and dynamics. Furthermore, the DfT (2005) guidance notes that cost and benefits must be adjusted in order to reflect the variety of impacts across different sectors. The types of adjustments made to benefits are identified as subsidies and transfer payments. According to the Scottish Executive Development Department (2004) guidance and the Highways Agency (2004) guidance, all costs receiving government subsidies are valued using factor costs and market price units, which could then be deducted from the total costs incurred. The Multi-Modal Transport Appraisal Investment guidance identifies the types of circumstances where subsidies would or would not be awarded. It is important to note that most guidance documents did not make any adjustments to benefits.

## 5.6 Inclusion of legally protected elements

The general consensus extracted from the documents is that legally protected items require additional assessments to ensure they can be included and values. The Department for Transport (2001) guidance states that as a result of commercial confidentiality, it may not always be entirely possible for legally protected elements to have their monetary values calculated. In such cases, qualitative descriptions are more suitable substitutes for such items. The Royal Institute of Technology (2003) guidance acknowledges the need to place a monetary value on legally protected elements that are yet to be quantified. Similarly, the Scottish Executive Development Department (2004) guidance requests that legal elements are included wherever benefits are assessed, but do not provide further explanation on the methods employed to include such elements.

#### 5.7 Distributional impacts

Few guidance documents made reference to distributional impacts. Only two documents make comments on distributional impacts in project appraisal guidance.

The European Chemicals Bureau (2003) guidance uses distributional impact models to assess the fate of substances on the environment.

The Guidance for the MCA-Based Element of the Current Approach to Appraisal provides an impact category on equity which covers the distributional impacts between different groups, with these including vulnerable groups.

# 6. Present values and discounting

#### 6.1 Updating costs and benefits to today's prices

As stated in the Scottish Executive Development Department (2004) guidance, costs and benefits are brought up to date through discounting of prices. Most guidance documents recognise the need to update costs and benefits when preparing appraisal strategies such as CBA. Costs and benefits need to be expressed in 'real terms' or 'constant prices', where the effect of future inflation is incorporated.

The Defra (2003) guidance recognises the need to update costs according to changes in tax and revenues and to discount all costs and benefits to present values. The DfT (2005) guidance states that the discount rate allows for easier comparison between future and present costs.

A GDP deflator, based on the one from the Bank of England, is also used as a means of updating costs and benefits in the Strategic Rail Authority (2003) and Multi-Modal Transport Appraisal Investment guidance documents.

#### 6.2 Discount rate used

In the documents for which it was relevant to include discount rates, it is common practice to have the discount rate set to 3.5% for the first thirty years (i.e. consistent with the Treasury Green Book). A discount rate of 3.5% is included in the Benefits Assessment Guidance (Environment Agency 2003); DfT (2004); Highways Agency (2004); and the Strategic Rail Authority (2003). However, if future and present costs are discounted over a timeline longer than 30 years a lower discount rate is used, typically 3.0%. This is demonstrated in the DfT (2005) and DfT (2002) guidance documents. When a higher discount rate is used, the timeframe given for discounting is shorter; for example a 7% rate over 7 years is used in the SEERAD (2002) guidance.

#### 6.3 Economic adjustments

The main economic adjustments observed throughout the guidance documents are for taxation. The DfT (2005) guidance explains that taxation (e.g. fuel VAT) needs to be included in transport appraisals because it makes a material difference to the decision. Any changes in indirect and direct tax must be included in the calculation of costs. The DfT (2002) guidance describes how to change values to market prices from the factor prices. However, the DfT (2004) guidance is based on factor prices as opposed to market prices, and thus, makes adjustments for indirect taxes in the economy. This is in line with the approach currently being assessed by Defra FCERM in research project FD2018 (the Sugden approach).

#### 6.4 Adjustments for risk and optimism bias

Adjustments for risk are the main focus of the ECB (2003) guidance. This guidance uses comparable tests and end point values to rectify any optimism bias presented.

In the Scottish Executive Development Department (2004) guidance, optimism bias is not taken into account; an 'accidental rate of change' coefficient is used on data, as a way of being able to forecast any likely risks in future.

The Highways Agency (2004) and the DfT (2005) guidance documents incorporate risk allowance. The Highways Agency (2004) guidance includes it into the costs sheets. An adjustment factor is also incorporated, as this reflects optimism bias; although the adjustment factor was reduced if a risk assessment had been performed.

According to the DfT (2005) guidance, risk allowance must be included in costs estimates as it is required for assessing optimism bias. Risk assessment is performed at each key stage in the development of proposals for projects costing more than £5m. All proposals must allow for optimism bias. The guidance states 'the aim of the approach is to provide better estimates of the final cost of a proposal from the earliest stages of development'. The size of optimism bias adjustment will depend on project definition and/or risks identified.

# 7. Sensitivity analysis

#### 7.1 Use of sensitivity analysis

Sensitivity analysis is described in the DfT (2001) guidance as an important component for exploring the extent to which the results of the investigation may change (for example, if a different interest rate is chosen).

Guidance on the Evidence required to Justify Disproportionate Cost Decisions under the Water Framework Directive suggests that it is used only in cases of conflicting data such that it will help recognise key variables in terms of uncertainty surrounding the data. Examples of how sensitivity analysis was performed using a variety of factors are identified in HR Wallingford (2006), EA (2002), DfT (2004) and DfT (2002). In these examples, low, mid and high estimates are used to help identify the main uncertainties. Sensitivity analysis can also be used to govern decision-making on any key changes required to one or more of the factors included, this can be seen in the Benefits Assessment Guidance. The Guidance for the MCA-Based Element of the Current Approach to Appraisal explains how it is used to test for robustness of choice. It considers the impact of alternative scenarios and changes in key variables. Sensitivity analysis should always be used where uncertainty affects the estimation of benefits and costs.

# 7.2 Use of switching values

Few guidance documents calculate switching values as part of sensitivity analysis. The DfT (2002) guidance discusses its merits in terms of maintenance costs, but never explains how or why it should be used. This guidance does however include optimism bias. HR Wallingford (2006) discusses how changing some of the scores or weights could affect the rank order of options, from best to worst.

#### 7.3 Use of scenarios

The guidance documents demonstrate that scenarios can be used as alternatives to the baseline, as seen in the DfT (2004) guidance, which compensates for errors in the result to capture a variety of plausible outcomes. The DfT (2005) guidance states that scenarios are an alternative to complex modelling of risk assessments, which are time consuming and costly.

The appraisal scheme in the Scottish Executive Development Department (2004) guidance is carried out under high and low growth scenarios, which incorporate the economy's performance and the rise and fall in prices for commodities. They are then ranked in order of most feasible option. Scenarios that are thought of as credible are ranked in the HSE (2001) guidance from 'most likely' worst-case scenario to 'worst case possible', depending on the degree of uncertainty. The UKCIP (2003) guidance briefly discusses the use of scenarios to investigate uncertainty.

In certain guidance documents, such as Multi-Modal Transport Appraisal Investment, SNIFFER *et al.* (2003), Guidance on Economic Appraisal in the Environment Agency, and Institute of Public Health (2005), the appraisal method only compares the do-minimum and the do-something scenarios. However, the DfT (2004) guidance requires that any differences from the average data be explained through the use of scenarios. The Major Scheme Appraisal in Local Transport Plans Guidance includes a tabular summary of scenario outcomes to compare between them and find the 'best' option.

Probability ratings are used as scenarios in the DfT (2005) guidance document. Pessimistic (low growth), central and optimistic (high growth) scenarios are used and are based on risk analysis. They also take into account any dependencies between factors. Therefore, throughout the guidance documents, there is a variety of approaches to using scenarios in project appraisal.

# 8. Comparing options

#### 8.1 Approach to decision-making

Comparing options with the baseline is the most common approach to decision-making within the guidance documents. For example, the Highways Agency (2004) guidance summarises the value of costs and benefits of all options from which the final audit assesses whether the costs and benefits match those predicted in the objectives. The DfT (2005) guidance compares the values from scenarios using supply and demand curves. The Scottish Executive Development Department (2004) guidance uses a network model (using NESA), which updates information for each option, but leaves the baseline option unchanged. This allows alternative schemes to be directly compared against the baseline. The Guidance for the MCA-Based Element of the Current Approach to Appraisal describes how to compare options, including how to bring monetised impacts together using scores and weights. Thus, the analysis of project appraisal is commonly denoted through the comparison of scenario values to investigate which one meets the original objectives.

#### 8.2 Optimisation

Optimisation of values is not recognised as a key component in the guidance documents. The Görlach & Interwies (2003) guidance does not highlight how to maximise benefits or minimise costs. Instead, it states that the working examples provided do not consider an optimal mix of different instruments, but rather investigate the optimal use of individual instruments. Both the DfT (2004) guidance and the Guidance for the MCA-Based Element of the Current Approach to Appraisal recognise that optimisation may have some merit in economic appraisal in terms of revealing additional options needing assessment. Additionally, the latter document states that 'sensitivity analysis may help to identify ways in which the option could be improved, maximising its benefits'. Neither the Görlach & Interwies (2003) nor the NRA Flood Defence Management Manual guidance documents include optimisation in a way that is transparent. In the Villa et al. (2002) guidance document, the final stage incorporates the essential components of the project appraisal and focuses on maximising benefits.

#### 8.3 Consultation

The use of consultation differs drastically throughout the guidance documents. An illustration of this is seen when comparing the Guidance for the MCA-Based Element of the Current Approach to Appraisal, which uses consultation when defining objectives and OST (nd), or Dft (nd-a) guidance documents, where consultation does not appear to take place during the appraisal process.

In documents that include consultation, four main uses are identified:

- to define the objectives (e.g. Guidance for the MCA-Based Element of the Current Approach to Appraisal);
- to ensure that all relevant impacts are fully incorporated into scheme appraisal (e.g. SNIFFER et al. 2004);
- to collect and analyse data (e.g. RSPB 2002); and
- to incorporate stakeholder perspectives into the appraisal process (this is the predominant reason in most guidance documents for including consultation in project appraisal).

As stated in the DfT (2004) guidance, a communications plan is integral to the overview of project development, such that stakeholders, the public and the EA are informed and involved with the discussion every step of the way. Furthermore, the Guidance on the Evidence Required to Justify Disproportionate Cost Decisions under the Water Framework Directive states that if a 'component' of the plan is of concern, the competent authorities/industry should be consulted for further information and testing. This guidance also ensures that consultees receive a copy of the evaluation of the project. Some examples of the types of stakeholders involved are employers, businesses and the labour force (DfT 2003); and local government, interest groups and regional planning bodies (Highways Agency 2004). Thus, stakeholders are consulted to minimise conflict during the decision-making process. The DfT (2005) guidance makes recommendations that project proposals and draft appraisal reports are made available to the public authorities for them to express their opinions before plans are adopted.

## 8.4 Presenting the results of the appraisal

An illustration of how to present the results of the appraisal is done through the use of worked examples, or case studies. The Highways Agency (2004) Guidance, the MCA-Based Element of the Current Approach to Appraisal, and SNIFFER *et al.* (2004) include detailed examples of BCR results for demonstration purposes. Furthermore, the Highways Agency (2004) guidance includes worksheets in the annex. Summary tables are used in the DfT (2004) guidance, Strategic Rail Authority (2003) and DfT (2005), as well as supply and demand curves (DfT 2005) and control curves (DfT 2004). These provide a way of obtain a structured and consistent approach to presenting the results of the appraisal.

To facilitate presentation, the Guidance for the MCA-Based Element of the Current Approach to Appraisal includes an entire section of the guidance on how to present worksheets and how to set up tables and graphs. A series of data sheets in the EA (2002) guidance is created as a core component of the guidance such that consistency is ensured for collating, interpreting, analysing and presenting evidence. Presentation of results is also deemed to be an essential form of communicating with public authorities, and thus, tables and figures need to be easily comprehensible and accessible to a wide variety of audiences.

#### 9. References

References to the guidance documents themselves are provided in Table 2.1. Other references are given below.

HM Treasury 2003. The Green Book - Appraisal and evaluation in Central Government, London: TSO.

Jacobs 2006. Consistent Economic Appraisal Approaches with Respect to the WFD River Basin Management Plans, Project 1b, Contract Number 29/2005.

Task A1 Report

Appendices

# Appendix 1 Proforma used in Task A1

Guidance being reviewed: Strategic Environmental Assessment and Biodiversity: Guidance for Practitioners June 2004	Y/N	Comments/Description/Reference
Is the aim of the guidance given?		
Is the intended audience stated?		
Is the guidance officially endorsed?		
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?		
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?		
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?		
Does the guidance highlight the need to set out SMART objectives?		
Is there a clear structure to the decision-making process defining any hierarchy in choice?		
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?		
Does the guidance give examples or types of options that could/should be included?		
Does the guidance indicate how a long-list may be reduced to a short-list of options?		
Does the guidance indicate the need for option development through a learning process as part of screening?		
Is guidance given (e.g. examples) of acceptable reasons for screening out?		
Does the guidance request that the do-minimum option always be included?		
Is there clear guidance on the importance of the base case and how to assess it?		
Option Costs		
Is guidance given on how to cost each option?		
Is guidance given on the level of detail that is required?		
Does the guidance explain how to express costs in opportunity costs?		

	Questions for Review of Guidance (A1/B2)		
	Does the guidance explain different types of costs and how they can be combined?		
	Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?		
	Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?		
	Does the guidance explain where residual values should/should not be included?		
	Does the guidance explain where contingent liabilities should/should not be included?		
	Option Benefits		
	Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?		
	Does the guidance set out an approach to valuing benefits in money terms?		
	Does the guidance propose early sensitivity to focus effort?		
	Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?		
	Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?		
	Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?		
	Does the guidance explain why and how to adjust for subsidies, etc.?		
	Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?		
	Distributional Impacts		
	Does the guidance explain why and how to adjust costs and benefits for distributional impacts?		
_	Present Values and Discounting	r	
_	Does the guidance explain how to update all costs and benefits to today's prices?		
	Does the guidance explain why and how to undertake discounting of all costs and benefits?		

	Questions for Review of Guidance (A1/B2)	
	Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	
	Economic Adjustments	
	Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	
	Does the guidance explain why and how to adjust for risk?	
	Does the guidance explain why and how to adjust for optimism bias?	
	Sensitivity Analysis	
	Does the guidance explain why and how to undertake sensitivity analysis?	
_	Does the guidance explain why and how to calculate switching values?	
	Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	
	Comparing Options	
	Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	
	Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	
	Does the guidance highlight the importance and need for consultation at the decision-making stage?	
	Presentation of Results	
	Does the guidance set out instructions on how to present the results of the appraisal?	
	Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	
	Does the guidance request that all major costs and benefits are described, together with the values attached to them?	
	Does the guidance request that the results of sensitivity/scenario analyses are included?	
	Does the guidance provide a good practice template or a proposed list of contents?	 

Questions for Review of Guidance (A1/B2)	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	
Other Reviews of the Guidance	
Has a review been made of the guidance? If so, what were the findings of the review?	

### Appendix 2

Completed proformas for Task A1 (review of guidance documents)

Guidance documents	Page
Countryside Agency for Wales et al. 2004: Strategic Environmental Assessment and biodiversity: a guidance for practitioners	4
Defra 2001. An economic analysis to inform the review of the objectives for particles air quality strategy, London: Defra	8
Defra 2003. Use of multi-criteria analysis in air quality policy, prepared by Philips & Stock, November 2003	12
Defra et al. 2004. Catchment Flood Management Plans: Volume I – Policy Guidance and Volume II, July 2004, London: Defra	17
Defra 2004. Guidance for the MCA-based element of the current approach to appraisal, Research Report FD2013	21
Defra 2006. Shoreline management plan guidance, London: Defra Defra	25
Department for Transport 2003. Guidance on preparing an economic impact report, prepared by Steer Davies Gleave, London: DfT	29
Department for Transport 2001. A project appraisal framework for ports, London: DfT	33
Department for Transport 2002. Economic assessment of road maintenance:  QUADRO manual, London: DfT	37
Department for Transport 2004. Economic assessment of road schemes: COBA11 manual, London: DfT	42
Department for Transport 2004. TUBA Guidance, Mott MacDonald, Winchester: DfT	47
Department for Transport 2005. Transport Analysis Guidance (TAG), ITEA Department for Transport, London: DfT	51
Department for Transport nd. Multi modal transport appraisal investment, London: DfT	57
Department for Transport nd-a. Major scheme appraisal in Local Transport Plans: Part 3, London: DfT	61
English Nature & Environment Agency nd. Coastal Habitat Management Plans (CHaMPS): An interim guidance to structure and content	65
Environment Agency nd. Guidance on economic appraisal in the Environment Agency, Bristol: EA	69
Environment Agency 2002. Drought plan guideline, Bristol: EA	73
Environment Agency 2003. Assessment of benefits for water quality and water resources schemes in the PR04 environment programme (Benefit Assessment Guidance, BAG), Part Two: Rivers and Groundwater, Bristol: EA	77
Environment Agency 2005. Environment Agency Management System Document Guidance Project Appraisal Guidance Note, Version 5 18/2/05, Bristol: EA	82
European Chemicals Bureau 2003. Technical Guidance Document (chemical risk management), JRCA-Ispra (VA), Italy	86
Federal Environment Agency 2004. Basic principles for selecting the most cost- effective combinations of measures for inclusion in the programme of measures as described in Article 11 of the Water Framework Directive (German Handbook), Berlin	90
FHRC 2005a. The benefits of flood and coastal risk management: a manual of assessment techniques (multi-coloured manual), London: Middlesex University Press.	96
FHRC 2005b. The benefits of flood and coastal risk management: a handbook of assessment techniques (multi-coloured handbook), London: Middlesex University	
Press	101

Guidance documents
Görlach, B. & E. Interwies 2003. Economic assessment of groundwater protection: a survey of the literature, Berlin: Ecologic
Highways Agency 2004. Short Project Appraisal Report guidance notes (PAR 3.3), London: DfT
HR Wallingford 2006. Climate change impacts and adaptation – cross-regional research programme, Project C Water for Defra/Environment Agency
HSE 2001. Reducing risks, protecting people, HSE's Decision-Making Process, Suffolk: HSE Books
Institute of Public Health 2006. Health Impact Assessment: A short guide, Ireland
Jacobs 2006. Guidance on the evidence required to justify disproportionate cost decisions under the Water Framework Directive, Project 3 for the Collaborative Research Project
MAFF 1992. Environmental procedures for inland flood defence works, London: MAFF (now Defra)
MAFF 1993. A strategic guide for managers and decision makers in the NRA, Local Authorities and other bodies with coastal responsibilities, London: MAFF (now Defra)
MAFF 2001b. FCDPAG1 Flood and coastal defence project appraisal guidance - overview, London: MAFF (now Defra)
MAFF 2001a. FCDPAG2 Flood and coastal defence project appraisal guidance – strategic planning and appraisal, London: MAFF (now Defra)
MAFF 1999. FCDPAG3 Flood and coastal defence project appraisal guidance – economic appraisal, London: MAFF (now Defra)
MAFF 2000a. FCDPAG4 Flood and coastal defence project appraisal guidance – approaches to risk, London: MAFF (now Defra)
MAFF 2000b. FCDPAG5 Flood and coastal defence project appraisal guidance – environmental appraisal, London: MAFF (now Defra)
NRA 1992. Manual of investment appraisal, Bristol: EA
NRA 1993. Economic appraisal manual, Bristol: EA
NRA 1993. Flood Defence Management Manual (FDMM), Bristol: EA
Office of the Deputy Prime Minister 2005. Sustainability appraisal of regional spatial strategies and local development documents: guidance for Regional Planning Bodies and Local Planning Authorities, London: ODPM Publications
OST nd. Foresight Future Flooding Scotland
Royal Institute of Technology 2003. Mining impacts on the freshwater environment: technical and managerial guidelines for catchment scale management (ERMITE), European Commission Fifth Framework Programme, Sweden
RSPB 2002. Wise use of floodplains: guidance on options, EU-Life Environment Project
Scottish Executive Development Department 2002. Economic assessment of road schemes in Scotland, The NESA manual 1, Edinburgh

Guidance documents	Page
SEERAD 2002. Evaluating the economic impact of irrigation controls, prepared by Macaulay Land Use Research Institute and Cambridge University Farm Potato Agronomy Unit, Aberdeen	190
SEPA 2000. Ponds, pools and lochans: guidance on good practice in the management and creation of small waterbodies in Scotland, Stirling	194
SEPA 2000a. Watercourses in the community: a guide to sustainable watercourse management in the urban environment, Stirling	198
SNIFFER <i>et al.</i> 2003. Identification and designation of Heavily Modified Water (HMWB) and Artificial Water Bodies (AWB), CIS Working Group 2.2, Copenhagen	202
SNIFFER 2004. Management strategies and mitigation measures required to deliver the Water Framework Directive for impoundments (WFD29): Volume 1 – preliminary guidance document, Edinburgh	206
Strategic Rail Authority 2003. A guide to the appraisal of support for passenger and freight rail services, April 2003	210
UKCIP 2003. Climate change adaptation, risk, uncertainty and decision-making, UKCIP Technical Report, May 2003	214
UKCIP 2004. Strategic Environmental Assessment and climate change, Guidance for Practitioners	219
Villa et al. 2002. Zoning Marine Protected Areas through Spatial Multiple-Criteria Analysis, in Conservation Biology, Vol. 16/No.2, April 2002, pp515-526	223

The views and comments included in the proformas are those of the project team and not of Defra and/or the Environment Agency.

## Review of Strategic Environmental Assessment and Biodiversity: Guidance for Practitioners, June 2004

Guidance being reviewed: Strategic Environmental Assessment and Biodiversity: Guidance for Practitioners June 2004	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	Pg 2: This guidance aims to ensure that biodiversity considerations are appropriately addressed in Strategic environmental assessments.
Is the intended audience stated?	Y	Pg 2: it will assist people and organisations in England, Wales, Scotland and Northern Ireland to prepare plans and programmes in a wide range of sectors, carry out SEA, prepare SEA reports, and comment on biodiversity issues in SEA.
Is the guidance officially endorsed?	Y	Endorsed by Countryside Council for Wales, English Nature, Environment Agency, Royal Society for the Protection of Birds
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	Linkages to EU SEA Directive (Pg 2)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	N	
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Partly	The level of detail should correspond with the plan and its the proposed actions (Pg 41). SEAs of programmes are therefore likely to require more detailed information than SEAs for plans, as the former generally include site-specific actions
Does the guidance highlight the need to set out SMART objectives?	Y	Pg 35-36 describes process to set objectives and notes that they should ideally be formulated following the SMART principle
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Y	Sequential approach to option selection
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Partly	Guidance is given to identify option but the need for a wide range of options is not spelled out
Does the guidance give examples or types of options that could/should be included?	Y	Including flood and coastal defence options as an illustration (Box 10; pg 45)
Does the guidance indicate how a long-list may	Υ	Sequential approach proposed for

be and the advertible of surface (ATBZ)	1	The state of the AA
be reduced to a short-list of options?	<u> </u>	option selection (Pg 44)
Does the guidance indicate the need for option development through a learning process as part of screening?	Y	Mitigation is proposed (S 4.6; Pg 44; S 4.8; pg 57)
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Y	Based on cumulative impacts, secondary impacts, etc (S 4.7)
Does the guidance request that the do-minimum option always be included?	Partly	(Pg 39) Baseline conditions are those that would be expected under the 'no action' or 'minimum action' alternative. Thus, do minimum could be included but is not 'requested'
Is there clear guidance on the importance of the base case and how to assess it?	Y	Pg 39 The SEA report must describe the relevant aspects of the current state of the environment in the study area and how these would be expected to change in the absence of the proposed plan. Information requirement are given
Option Costs		
Is guidance given on how to cost each option?	N	Focus not on costs but on assessing environmental impacts
Is guidance given on the level of detail that is required?	N	Although guidance notes the need to scope the process, including the level of detail needed (Pg 29)
Does the guidance explain how to express costs in opportunity costs?	N	
Does the guidance explain different types of costs and how they can be combined?	N	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	N	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	N	
Does the guidance explain where residual values should/should not be included?	N	
Does the guidance explain where contingent liabilities should/should not be included?	N	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Partly	Focus on environmental benefits throughout the guidance (e.g. Pg 56), but not any other type although economic benefits from biodiversity are mentioned
Does the guidance set out an approach to valuing benefits in money terms?	N	
Does the guidance propose early sensitivity to focus effort?	N	

Does the guidance explain how to include nonmonetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?  Does the guidance include and explain approaches for valuing these benefits in nonmoney terms (e.g. scoring and weighting)?  Does the guidance explain why and how to adjust for subscissand benefits (and if so, how to)?  Does the guidance explain why and how to adjust costs and benefits for distributional impacts?  Does the guidance explain why and how to adjust costs and benefits for distributional impacts?  Does the guidance explain why and how to undertake discounting of all costs and benefits to today's prices?  Does the guidance explain how to update all costs and benefits to today's prices?  Does the guidance explain why and how to undertake discounting of all costs and benefits to today's prices?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Does the guidance explain why and how to adjust for material differences in tax?  Does the guidance explain why and how to adjust for optimism bias?  Sensitivity Analysis  Does the guidance explain why and how to adjust for optimism bias?  Sensitivity Analysis  Does the guidance explain why and how to adjust for optimism bias?  Sensitivity Analysis  Does the guidance explain why and how to adjust for prime and does not explain it in detail.  Does the guidance explain why and how to another reference and does not explain it in detail.			
approaches for valuing these benefits in nonmoney terms (e.g. scoring and weighting)?  Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?  Does the guidance explain why and how to adjust for subsidies, etc.?  Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?  Distributional Impacts  Does the guidance explain why and how to adjust costs and benefits for distributional impacts?  Present Values and Discounting  Does the guidance explain how to update all costs and benefits to today's prices?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Economic Adjustments  Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?  Does the guidance explain why and how to adjust for optimism bias?  Sensitivity Analysis  Does the guidance explain why and how to adjust for optimism bias?  Sensitivity Analysis  Does the guidance explain why and how to undertake sensitivity analysis?  Does the guidance explain why and how to adjust for optimism bias?  Sensitivity Analysis  Does the guidance explain why and how to undertake sensitivity analysis?  Nanalysis as a key tool used in identifying, predicting, evaluating and mitigating strategic-level impacts on biodiversity but refer the reader to another reference and does not explain it in detail.	monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be	N	
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adjust for subsidies, etc.?  Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?  **Distributional Impacts**  Does the guidance explain why and how to adjust costs and benefits for distributional impacts**  **Present Values and Discounting**  Does the guidance explain how to update all costs and benefits to today's prices?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?  **Economic Adjustments**  Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?  Does the guidance explain why and how to adjust for optimism bias?  **Does the guidance explain why and how to adjust for optimism bias?**  **Sensitivity Analysis**  Does the guidance explain why and how to undertake sensitivity analysis as a key tool used in identifying, predicting, evaluating and mitigating strategic-level impacts on biodiversity but refer the reader to another reference and does not explain it in detail.  **Does the guidance explain why and how to another reference and does not explain it in detail.	issues based on sensitivity and does it avoid valuation of what is easily valuable to the	N	
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calculate switching values?		Partly	analysis as a key tool used in identifying, predicting, evaluating and mitigating strategic-level impacts on biodiversity but refer the reader to another reference and does not explain
Does the guidance explain how and why different Partly Scenario and sensitivity analysis		N	
	Does the guidance explain how and why different	Partly	Scenario and sensitivity analysis

scenarios would be used, and how they could be taken into account?		included (S 6.7; Pg 83) but not in great detail
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	N	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	N	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	Consultation proposed before decision is made (S 4.10; Pg 61)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	N	
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Y	Pg 74 notes the need to record assumptions
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	N	
Does the guidance request that the results of sensitivity/scenario analyses are included?	N	
Does the guidance provide a good practice template or a proposed list of contents?	Partly	Good practice overall but focus on environmental impacts only
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	N	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	N	Not known

## Review of An Economic Analysis to Inform the Review of the Air Quality Strategy Objectives for Particles – version 1

Guidance being reviewed:	Y/N	Comments/Description/Reference
An Economic Analysis to Inform the Review of the Air Quality Strategy Objectives for Particles	1,11	
Defra (2001)		
Is the aim of the guidance given?	Y	Executive Summary (Pg 2): The purpose of this report is to present the economic analysis undertaken to assess the costs and benefits of potential additional measures to reduce emissions and concentration levels of particles beyond those reductions which are forecast to result from measures embodied in current and planned legislation.
Is the intended audience stated?	N	
Is the guidance officially endorsed?	Y	Endorsed by Defra; this is however not a guidance but a report on the economic appraisal of air quality related policies.  Refer to B2.
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?		
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?		
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?		
Does the guidance highlight the need to set out SMART objectives?		
Is there a clear structure to the decision-making process defining any hierarchy in choice?		
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?		
Does the guidance give examples or types of options that could/should be included?		
Does the guidance indicate how a long-list may be reduced to a short-list of options?		
Does the guidance indicate the need for option development through a learning process as part of screening?		

	Questions for Review of Guidance (A1/B2)	
	Is guidance given (e.g. examples) of acceptable reasons for screening out?	
	Does the guidance request that the do-minimum option always be included?	
	Is there clear guidance on the importance of the base case and how to assess it?	
	Option Costs	
	Is guidance given on how to cost each option?	
	Is guidance given on the level of detail that is required?	
	Does the guidance explain how to express costs in opportunity costs?	
	Does the guidance explain different types of costs and how they can be combined?	
_	Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	
_	Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	
	Does the guidance explain where residual values should/should not be included?	
	Does the guidance explain where contingent liabilities should/should not be included?	
	Option Benefits	
	Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	
	Does the guidance set out an approach to valuing benefits in money terms?	
	Does the guidance propose early sensitivity to focus effort?	
_	Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	
	Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	
	Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	
	Does the guidance explain why and how to adjust for subsidies, etc.?	

Questions for Review of Guidance (A1/B2)	
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	
Distributional Impacts	
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	
Present Values and Discounting	
Does the guidance explain how to update all costs and benefits to today's prices?	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	
Economic Adjustments	
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	
Does the guidance explain why and how to adjust for risk?	
Does the guidance explain why and how to adjust for optimism bias?	
Sensitivity Analysis	
Does the guidance explain why and how to undertake sensitivity analysis?	
Does the guidance explain why and how to calculate switching values?	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	
Comparing Options	
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	
Presentation of Results	
Does the guidance set out instructions on how to present the results of the appraisal?	

Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	
Does the guidance request that the results of sensitivity/scenario analyses are included?	
Does the guidance provide a good practice template or a proposed list of contents?	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	
Other Reviews of the Guidance	
Has a review been made of the guidance? If so, what were the findings of the review?	

# Review of the Use of Multi-Criteria Analysis in Air Quality Policy

Guidance being reviewed: Use of Multi-Criteria Analysis in Air Quality Policy	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Y	Section 2, page 6
Is the intended audience stated?	Υ	Assumes most readers of the report are familiar with CBA
Is the guidance officially endorsed?	Υ	Defra report
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Partly	This report reviews and compares the benefits of MCDA and CBA techniques and how these might inform Air Quality Strategy work (p.5, p.15)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Y	Monetary values and costs are estimated for CBA analysis but not for MCDA (p.6)
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Y	The guidance includes a summary of all the steps and techniques necessary for MCDA (p.7) and CBA (p.8), which include the level of detail for costs and benefits
Does the guidance highlight the need to set out SMART objectives?	Х	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Υ	This is briefly covered in the summary tables for MCDA (p.7) and CBA (p.8)
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Х	
Does the guidance give examples or types of options that could/should be included?	Y	The guidance identifies 5 possible options that could be considered, however, they are not very broad ranging, they only consider different levels of toxic emissions (p. 17)
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Х	
Does the guidance indicate the need for option development through a learning process as part of screening?	Y	The guidance suggest conducting an MCDA group with key players in order to accommodate, revise and learn from participants; and through their presence ensure transparency and effective screening of options (p.30)
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	

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Does the guidance request that the do-minimum option always be included?	Y	The do-nothing approach is included to ensure everything is equal and level in all sectors of the project (p.36)
Is there clear guidance on the importance of the base case and how to assess it?	Υ	The options need to be appraised to consider the impacts on the Base Case (p.8)
Option Costs		
Is guidance given on how to cost each option?	Partly	Guidance is given on what kind of costs are given to both MCDA and CBA techniques (p.13)
Is guidance given on the level of detail that is required?	Х	
Does the guidance explain how to express costs in opportunity costs?	Partly	The guidance refers to the Green Book for how to express opportunity costs (p.36)
Door the guidance explain different types of		There are three different types of costs (road transport, domestic,
Does the guidance explain different types of costs and how they can be combined?	Y	and industry costs) and the total costs of these is compared against one criterion (p.37)
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Partly	The guidance states that 'if consequences occur in different time periods, criteria should be included that reflect the value of impacts distributed in time, either with discrete criteria or with a single criterion' (p.38)
Does the guidance explain where residual values should/should not be included?	Х	
Does the guidance explain where contingent liabilities should/should not be included?	Х	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Υ	Costs and benefits are defined as the inputs and the outputs respectively of MCDA and CBA portfolios
Does the guidance set out an approach to valuing benefits in money terms?	Y	Benefits are given a value through weighted (p.41)
Does the guidance propose early sensitivity to focus effort?	Partly	Sensitivity analysis is recommended as the final stage of weighting and scoring costs and benefits (p.9, 12, 25)

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Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Y	An explanation of how these are to be included is on p.17-19
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Y	This is covered in terms of scoring and weighting on p.7, 12, 15, 16, 19, and in terms of willingness to pay/buy/accept terms on p. 11
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Partly	The guidance recommends, in terms of sensitivity analysis, that new options as well as existing options are compared through the means of weights and advantages and disadvantages of options (p.7)
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Partly	The guidance recommends calculating elements at risk but does not seem to state how to do this (p.34)
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Partly	On p.8 the guidance makes a statement about the need to adjust for distributional impacts, and 'progressivity' is used as a measure of the distributional impacts of the policy measures(p.37)
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Partly	The guidance recognises the need to update costs according to changes in tax and revenues (p. 37) and discount all costs and benefits to present values (p.10) but there is no mention on how these should be updated
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Х	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Y	These should be considered as negative outputs and treated as dis-benefits; additionally, lost revenue should be treated as a cost or a difference between c & b, rather than including it as a ratio (p. 38)

Does the guidance explain why and how to adjust for risk?	Partly	It mentions that risk criteria should be used to adjust for any at risk elements, but nothing is mentioned about how this should be done (p.8-10, 18-19). In addition, the guidance requires that a number of sites that remain at risk are also considered (p. 18-20)
Does the guidance explain why and how to adjust for optimism bias?	Partly	Similarly to the previous question on risk, there is a statement requesting that optimism bias is adjusted for, but no mention on how this should be done (p.8-10)
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Y	The guidance makes the statement to 'consider the impact of alternative scenarios and changes in key variables' (p. 9). An example of how to perform sensitivity analysis is given on p. 25-26
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Partly	Alternative scenarios should be used for sensitivity analysis (p.9) and as past of the value tree (p.10).
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Partly	This is covered in the discussion section on p. 50
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Х	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	The guidance is based on the need for key-partner's participation, input and judgement. Therefore it is a major component of how to perform the appraisal (p. 11, 12, 13,17)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Υ	This is explained through the use of exemplary tables, graphs and results (p.23 – 28)
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Partly	An audit trail of all the assumptions help indicate how the results are presented (p.11)
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Y	See results section on p.23-28
Does the guidance request that the results of sensitivity/scenario analyses are included?	Y	The guidance states that sensitivity analysis helps to resolve any remaining sense of unease about the results and

		the analysis should be done at the end to help with further modifications of the model (p.14, 23, 25)
Does the guidance provide a good practice template or a proposed list of contents?	Х	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Υ	An Air Quality model is included at the end of the guidance (p. 32-51_
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?		None known

### **Review of CFMP Volumes 1 and 2**

Guidance being reviewed: CFMP Volumes 1 and 2	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Y	P1: To inform practitioners on concept and scope and provide guidance on production and development
Is the intended audience stated?	Υ	As above
Is the guidance officially endorsed?	Υ	Prepared by Environment Agency, Defra and Welsh Assembly
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	Section 1.2 and Section 2 of Vol.1 provide clear aims and objectives for the CFMP.
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	х	All catchments are to have a CFMP. CFMPs do not look at costs of responses at all, this falls to strategies and schemes.
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Y	Section 5.3.3 of Volume 1 highlights the need to use high level techniques. Section 6.6 and Ch 8 of Volume 2 provide further details. CFMPs do not calculate costs.
Does the guidance highlight the need to set out SMART objectives?	Y	Volume 2 details the setting of draft objectives in section 10.7. It talks about setting targets (Timescale) and indicators (Measurable), it allows objectives to be generic or Specific. The objectives are Agreed with the steering group.
Is there a clear structure to the decision-making process defining any hierarchy in choice?	х	The guidance is not clear about who makes decisions. Recently statements from the Agency suggest that while they are consulting with others, the CFMP is their document and they make the final decisions.
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Y	The guidance requires that 6 policy options be considered S 5.4.6 Vol. 1. In addition a range of generic responses are to be considered App C4 of Vol. 2.
Does the guidance give examples or types of options that could/should be included?	Υ	The policy options and broad responses are defined, but quite poorly so
Does the guidance indicate how a long-list may be reduced to a short-list of options?	X	Volume 2 Ch 12.3 suggests that all 6 generic policy options are tested using MDSF. In practice this requires excessive analysis and is curtailed. It is difficult to assess policy options in a quantitative manner. Inclusion of more qualitative methods would be better.
Does the guidance indicate the need for option development through a learning process as part of screening?	Y	Volume 2 S 12.3.1.b
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	Could be better

Does the guidance request that the do-minimum	X	Do minimum is not defined and will vary
option always be included?	^	within the catchment.
Is there clear guidance on the importance of the base case and how to assess it?	Х	No base case is defined. In practice the existing situation is used as the base for the appraisal process.
Option Costs		
Is guidance given on how to cost each option?	Х	Policies are not priced. One of the objectives added to my CFMP was for the policies to be economically feasible. An assessment is required as to whether polices are likely to achieve funding based on an understanding of the risk, broad responses and the likely scale of the response.
Is guidance given on the level of detail that is required?	Х	Policies are not priced.
Does the guidance explain how to express costs in opportunity costs?	Х	Policies are not priced.
Does the guidance explain different types of costs and how they can be combined?	Х	Policies are not priced
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	Policies are not priced.
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Х	The guidance is not clear as to whether a 50 year or 100 year time horizon is required.
Does the guidance explain where residual values should/should not be included?	Х	Residual values are not calculated.
Does the guidance explain where contingent liabilities should/should not be included?	Х	No guidance provided.
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Partly	Vol2 Section 8.7 gives some limited guidance.
Does the guidance set out an approach to valuing benefits in money terms?	Y	Through the use of MDSF flooding to businesses and agriculture is valued.  Other benefits are not valued.
Does the guidance propose early sensitivity to focus effort?	Х	Only in the latter stages.
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Y	Benefits to be identified using an Objective led Appraisal process.
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Partly	Volume 2 12.1.1. Use of IPA recommended although no advice on what weightings to use is provided.
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Y	
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	Not relevant.
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	х	

Questions for Review of Guidance (A1/B2)	ı	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Partly	For social flood vulnerability impact, but the benefits are not adjusted.
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Х	No, but development of some CFMPs have followed PAG3 principles for this.
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х	No.
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Х	No, but this has been used by some developers of CFMPs
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	
Does the guidance explain why and how to adjust for risk?	Х	No although risk is included in determining economic losses through MDSF.
Does the guidance explain why and how to adjust for optimism bias?	Х	No. Policies are not priced.
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?		Vol. 2 Chapter 7 discusses Scenarios. The guidance on climate change is confusing. The guidance on development is difficult to implement due to lack of data and possibly wrong. The concept that "The past is a guide to the future development" is questionable.
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Υ	It explains why and how, although suggests use of MDSF. Some practitioners have found other methods more useful.
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Х	Unsuccessful attempts in Vol. 1 4.3.8 and Vol. 2 S 12.3.2 and 12.4. Some practitioners have developed decision trees for the same purpose.
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	х	No, However the CFMP is to consider integrated policies. In practice we have larger policy units that already contain a mix of policies for different types of watercourses. Fluvial flood risk is different to Coastal in that there are multiple sources of flooding, surface water, storm water, minor and major watercourses, drains and Groundwater. It is challenging to develop a single policy per policy unit, the appraisal process becomes unwieldy.

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Does the guidance highlight the importance and need for consultation at the decision-making stage?	Υ	Consultation is undertaken at scoping and draft plan stage plus a steering group.
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Y	A spreadsheet was provided in Vol. 2 which has had to be simplified by some practitioners to enable utility. A model plan has been produced and this is more useful than the guidance notes in this respect.
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Y	Included within the spreadsheet as notes.
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Х	
Does the guidance request that the results of sensitivity/scenario analyses are included?	Х	
Does the guidance provide a good practice template or a proposed list of contents?	Υ	Yes both contents in a template plus a model plan.
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Partly	Suggests broad scale, without any clarity about what that means.
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Y	Yes by EA. Volume 2 may be replaced by an Agency AMS

#### **Review of MCA Guidance**

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Guidance being reviewed: MCA methodology for application t flood management and coastal defence appraisals G	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Y	P1: To provide a methodology to complement the current economic approach.
Is the intended audience stated?	N	Not stated explicitly but for FCERM appraisers
Is the guidance officially endorsed?	Υ	Issued by Defra 2005
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	The guidance describes the need to outline the problem (Section 3.1.1, pg 11). It also notes that a clear statement of the problem being appraised is required as an output of the ;'define' stage of project appraisal (Section 3.1.3, pg 12)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Х	
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Х	
Does the guidance highlight the need to set out SMART objectives?	Partly	The guidance notes the need 'to make explicit the objectives of the assessment' (Section 3.1.1, pg 11)
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Y	The guidance notes the need to co- ordinate with high level plans (Section 3.1.2, pg 11)
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Partly	The guidance notes the need 'to identify all reasonable and significant options to address the problem' (Section 3.1.1, pg 11).
Does the guidance give examples or types of options that could/should be included?	Х	This is not the primary objective of the guidance
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Partly	The guidance discusses screening out of options, including using the project objectives (Section 3.2.2, pg 12)
Does the guidance indicate the need for option development through a learning process as part of screening?	Х	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Υ	Sections 3.2.1 and 3.2.2, pg 12

Х	
Y	Section 3.1.2, pg 11, bullet 5 stresses the importance of the do nothing option. Section 4.2 sets out the approach to assessing the do nothing option
Х	
Х	
Х	
Х	
Х	
Y	The establishment of an appropriate time frame is discussed in Section 3.1.2, pg 11 stating that 'it is usually appropriate to consider the projects extending over 100 years or reflect the physical life (with maintenance) of the longest-lived asset under consideration'
Х	
Х	
Y	The guidance proposes the use of Appraisal Summary Tables to identify which types of benefits may occur (Section 2.4.1, pg 6). Details of what is covered under each benefit category is given in Table 2.3, pg 9 and the type of data and information to be included is given in Table 4.1, pg 15
Partly	The guidance explains how to describe the benefits qualitatively and quantitatively so they can be monetised, as appropriate (e.g. Table 4.1, pg 15). Links are made with FCDPAG3 and FCDPAG5, but an indication of monetary valuation techniques is given for some of the impact categories
Y	The use of Appraisal Summary Tables means that impacts are described, before being taken forward for monetary estimation or scoring and weighting (Section 2.4.1)
	Y  X  X  X  Y  Partly

Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Y	The focus of the guidance is explaining how MCA can be used to allow intangible impacts to be considered in the appraisal process
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Y	A step-by-step methodology is proposed supported by flowcharts, with the use of Appraisal Summary Tables. Full details on scoring is given in Section 5.3, pg 33 and on weight elicitation in Section 5.4, pg 53
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	х	
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Х	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Partly	There is an impact category on equity which covers the distribution of impacts between different groups, particularly vulnerable groups (Table 5.8, pg 48)
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Х	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	X	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	х	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	X	
Does the guidance explain why and how to adjust for risk?	Х	
Does the guidance explain why and how to adjust for optimism bias?	Х	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Υ	Section 5.6, pg 74 explains how to test the robustness of the choice
Does the guidance explain why and how to calculate switching values?	Υ	Section 5.6, pg 74 also discusses the importance of switching values

Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Partly	Section 5.6.3, pg 75 discusses the use of different scenarios as the output of sensitivity analysis
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Y	Section 5.5, pg 63 describes how to compare options, including how to bring the monetised impacts together with the scores and weights
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Υ	Section 5.6.3, pg 75 notes that 'sensitivity analysis may help to identify ways in which the option could be improved, maximising its benefits'
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Partly	The guidance notes the importance of consultation when defining the project objectives (Section 3.1.2, pg 12)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Y	The outputs of the ASTs are described, with examples, e.g. Section 4.2.3, pg 17
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Y	Completing the ASTs as described in the guidance ensures that all assumptions are recorded
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Y	Completing the ASTs as described in the guidance ensures that all major costs and benefit are recorded
Does the guidance request that the results of sensitivity/scenario analyses are included?	Y	Section 5.6.3, pg 75
Does the guidance provide a good practice template or a proposed list of contents?	Y	The ASTs provide a good practice template
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Partly	Worked examples are given showing what level of detail may be considered appropriate. The guidance also suggests use of a Summary AST given the potential length of the full ASTs
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Х	
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# Review of Defra: Shoreline Management Plan Guidance

Guidance being reviewed: Shoreline Management Plan Guidance 2006	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Y	P4: Aimed at people responsible for defining and managing the production of SMPs and those carrying work to produce the plans
Is the intended audience stated?	Υ	See above
Is the guidance officially endorsed?	Y	Jointly prepared by Defra, WAG, Environment Agency, Natural England and LGA
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Partly	2.4, to develop sustainable shoreline management policies
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	x	Policy level appraisal, identifying where subsequent detailed appraisal may be required.
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Y	Appendix C, high level and solely on preferred option
Does the guidance highlight the need to set out SMART objectives?	Υ	Tasks 2.3, 2.4 and Appendix G.
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Partly	Nominally based appraisal of policy options and scenario building.
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	х	No. Objective led policy assessment, Limited scenario testing with design of improvement scenarios.
Does the guidance give examples or types of options that could/should be included?	Y	Appendix H. Nominally four policy options only. In reality these are interpreted with reference to location.
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Υ	Appendix H Scenario testing
Does the guidance indicate the need for option development through a learning process as part of screening?	Υ	Appendix H
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	No
Does the guidance request that the do-minimum option always be included?	Х	Not applicable
Is there clear guidance on the importance of the base case and how to assess it?	Υ	Section 3. No active intervention and with present management scenarios.

Ontion Costs		
Option Costs		
Is guidance given on how to cost each option?	Υ	Appendix C. not always practical
Is guidance given on the level of detail that is required?	Υ	Appendix C
Does the guidance explain how to express costs in opportunity costs?	Х	No economic comparison of policy options
Does the guidance explain different types of costs and how they can be combined?	Х	Reference made to PAG 3
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	Reference made to PAG 3
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Y	Section 2. Three epochs 2025, 2055, 2105
Does the guidance explain where residual values should/should not be included?	Х	Not applicable
Does the guidance explain where contingent liabilities should/should not be included?	Х	Not applicable
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Y	Appendix H, objective appraisal
Does the guidance set out an approach to valuing benefits in money terms?	Х	Not appropriate
Does the guidance propose early sensitivity to focus effort?	Х	Sensitivity assessment is inherent in development of policies.
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Y	Appendix H, different approaches to objective assessment
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Y	Appendix H, different approaches to objective assessment
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Υ	Inherent throughout process
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	Not appropriate
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Х	Not appropriate
Distributional Impacts		
	l	

Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	No
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Y	Reference to PAG
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Y	Reference to PAG
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Y	Nominally
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	No
Does the guidance explain why and how to adjust for risk?	Υ	Inherent throughout process
Does the guidance explain why and how to adjust for optimism bias?	Y	Reference to PAG
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Y	Inherent throughout process
Does the guidance explain why and how to calculate switching values?	Х	No
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Y	Sections 2 and 3
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Y	Appendix H Provides options for objective analysis
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Partly	Through development of alternative options.
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	Section 1
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Х	only guidance
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Y	Throughout the process for transparency
Does the guidance request that all major costs	Υ	Appendix C

and benefits are described, together with the values attached to them?		
Does the guidance request that the results of sensitivity/scenario analyses are included?	Υ	Appendix I
Does the guidance provide a good practice template or a proposed list of contents?	Y	yes
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Υ	Guidance provided
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Y	Ongoing through pilot SMPs

# Review of the Guidance on Preparing an Economic Impact report

Guidance being reviewed: Highways Agency - Short Project Appraisal Report Version 3.3 Guidance Notes 2004	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Υ	Mandatory for all highway improvement projects
Is the intended audience stated?	N	
Is the guidance officially endorsed?	Υ	Issued by Highways Agency
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	The guidance states that it intends to provide practical advice(sect. 1.11) for measuring economic impacts, in the form of employment, for transport (sect. 1.2)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Partly	The guidance recognises the fact that schemes must be identified to solve particular problems, but nothing specific is mentioned about cost and benefits (sect. 1.4)
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Y	The structure of the EIR is given in Chapter 8 and in appendix A
Does the guidance highlight the need to set out SMART objectives?	Х	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Υ	Hierarchy is related to accessibility of three economic sectors to transport (sect. 2.11)
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Х	
Does the guidance give examples or types of options that could/should be included?	Y	The guidance suggests that some or all of 6 options should be included. These are listed in sections 5.4 and 5.5
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Х	
Does the guidance indicate the need for option development through a learning process as part of screening?	Υ	The guidance suggests using training to support the expansion of activities (sect. 5.18)
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	
Does the guidance request that the do-minimum option always be included?	Y	The guidance states that the dominimum scenario be included within any changes in accessibility in the transport scheme (sect. 6.2, 7.33)

Is there clear guidance on the importance of the base case and how to assess it?	Х	
Option Costs		
Is guidance given on how to cost each option?	Х	
Is guidance given on the level of detail that is required?	Х	
Does the guidance explain how to express costs in opportunity costs?	Х	
Does the guidance explain different types of costs and how they can be combined?	Х	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Y	The time horizon for calculating CBAs of this type is between 25 to 30 years (sect. 7.32)
Does the guidance explain where residual values should/should not be included?	Х	
Does the guidance explain where contingent liabilities should/should not be included?	Y	The guidance recommends taking into consideration any risks associated by considering a number of points about schemes (sect. 7.40 to 7.47)
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Х	
Does the guidance set out an approach to valuing benefits in money terms?	Partly	The guidance states the importance of quantitative analysis to assess the scheme's expected role in the economy (sect. 3.6), and the approach is stated in section B1. 20.
Does the guidance propose early sensitivity to focus effort?	Х	
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	х	
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Y	Changes in accessibility are calculated for each mode and then weighed using the methods in section B1.26
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Х	

- Questions for Neview of Guidance (A1/B2)	ı	
Does the guidance explain why and how to adjust for subsidies, etc.?	Partly	The guidance makes reference to the use of an audit to adjust to existing employment levels in regions (sect. 5.1)
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Х	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Y	The guidance uses a formula to calculate the cost of travel in terms of private and public transport (sect. B1.20, B1.22, B1.23)
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	x	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	х	
Does the guidance explain why and how to adjust for risk?	Х	
Does the guidance explain why and how to adjust for optimism bias?	Х	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Х	
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Х	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Х	

Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	Surveys are carried out on a variety of stakeholders, including employers(Sect. 5.7), businesses (sect. 6.3, D1.16), and the labour force (sect. D1.19)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Y	Section B1.37 to B1.52 explains how the worksheets must be presented and how tables and graphs are to be prepared
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Х	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Х	
Does the guidance request that the results of sensitivity/scenario analyses are included?	Х	
Does the guidance provide a good practice template or a proposed list of contents?	Partly	Template questionnaires are included in Appendix C
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Х	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?		None Known

# **Review of A Project Appraisal Framework for Ports**

Guidance being reviewed: A Project Appraisal Framework for Ports	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Y	P2: To assist promoters of port developments, those affected by port developments and those required to make decisions about port development and others who may wish to make representations
Is the intended audience stated?	Υ	See above
Is the guidance officially endorsed?	Υ	By DfT
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Partly	The guidance states that promoters of port projects need to compare projects in order to determine the amount of resources that should be devoted to them (p. 4 section 1.8-1.11)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Partly	Capital cost and benefits of port facilities are considered in the objectives in order to help justify the project (p. 7 section 2, and p.8 section 3.1)
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Partly	The guidance indicates which objectives require costs and benefits estimation (p. 8 section 3.1), but there is no further information
Does the guidance highlight the need to set out SMART objectives?	Х	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Х	
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Y	The framework for port policy is based on the 'Modern Ports: a UK Policy' and this states that promoters of port developments have to show they considered a wide range of options (p. 37 sect 3)
Does the guidance give examples or types of options that could/should be included?	Υ	See table 1 in section 3.1 p.8
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Х	
Does the guidance indicate the need for option development through a learning process as part of screening?	Х	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	

Y	The guidance makes a clear statement that all projects contain a do-minimum option (p.11 section 3.14)
Partly	The framework for port policy is based on the 'Modern Ports: a UK Policy' framework and this states that promoters of port developments have to include a base case in their options which covers current infrastructure (p. 37 sect 3)
Х	
Y	The level of detail in terms of identification and appraisal of options are described in section 4 p. 13-28
Х	
Х	
Х	
Y	Section 1.14 p.5 states that "an appraisal () should ideally be prepared at the same time as any Environmental Statement required for an Environmental Impact Assessment or Appropriate Assessment for the Habitats Regulations is being prepared."
Х	
Х	
Partly	This guidance only identifies the types of benefits as listed in Table 3 pp.8-9
Partly	Although the guidance uses indicators which are in monetary terms, physical units, and non-quantifiable elements, it does not mention how these indicators were valued (p. 10 section 3.4)
Х	
Y	Following the example from the DfT, the guidance uses multi-modal studies to include non-monetised benefits (p. 18 section 4.25)
	Partly  X X X X  Y  X A A A A A A A A A A A A

Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Partly	Weights are not attached to any particular objective (p.29 section 5.1) and any weights used in the comparison of various indicators depends on the decision maker (p.29 section 5.1)
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	x	
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Partly	As a result of commercial confidentiality the guidance states that it may not be possible to calculate monetary values of cargo owners or ports and therefore qualitative and quantitative descriptions are suitable substitutes. (p. 17 section 4.20)
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Х	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	X	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	
Does the guidance explain why and how to adjust for risk?	Partly	In terms of risk, the guidance refers to chapter 4 of the 'Modern Ports' framework. The guidance gives an overview of the issue of risks (p. 13-14 section 4.6 to 4.10)
Does the guidance explain why and how to adjust for optimism bias?	Х	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Х	
Does the guidance explain why and how to calculate switching values?	Х	

Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Х	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Х	
Does the guidance highlight the importance and need for at the decision-making stage?	Y	Consultation with a range of stakeholders is needed for the decisions making process (p.10 section 3.2) and "English Nature also recommends early consultation between project promoters and other agencies in order to define the likely significance of effects" (p. 5 section 1.11)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Y	See the Appraisal Summary table pp.29-31
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Х	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Х	
Does the guidance request that the results of sensitivity/scenario analyses are included?	Х	
Does the guidance provide a good practice template or a proposed list of contents?	Y	The Appraisal Summary table is provided on pp. 29-31 and includes a list of objectives to consider
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Partly	The guidance suggests that level of detail and the significance of effects depends upon individual projects (p.21 section 4.37)
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?		None known

# **Review of QUADRO**

Guidance being reviewed: Economic Assessment of Road Maintenance  - The Quadro manual	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Υ	Manual used to describe the QUADRO computer program, whose purpose is to provide a method for assessing the total cost of major road maintenance works. QUADRO is used to estimate the cost to road users while the roadworks are being carried out (s2.1, Part 0)
Is the intended audience stated?	Y	Designed primarily for the use of the Department and its agents but may also be of value to local authorities (s2.8, Part 0).  The second group of users comprises
		engineers assessing new road schemes (s2.9, Part 0)
Is the guidance officially endorsed?	Y	Department for Transport, Scottish Executive Development Department, Welsh Assembly Government, Department for Regional Development Northern Ireland
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Partly	QUADRO is used to appraise individual maintenance tasks or maintenance strategies
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	N	
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Partly	Worked examples give an indication of level of detail required as does Section 7 of Part 3
Does the guidance highlight the need to set out SMART objectives?	N	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	N	
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Υ	Section 2.2 (Part 1) notes to 'start with the cheapest possible option consistent with minimum maintenance requirements then compare this with higher cost solutions'. S1.5, Part 3 notes that 'it is important that the full range of feasible options is examined'

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Does the guidance give examples or types of options that could/should be included?	Partly	Section 1.2 (Part 1) gives some examples and definitions of options. Section 2.4 discusses do-minimum and do-something options
Does the guidance indicate how a long-list may be reduced to a short-list of options?	N	The focus is on areas where there are likely to be significant changes in traffic flow
Does the guidance indicate the need for option development through a learning process as part of screening?	N	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	N	
Does the guidance request that the do-minimum option always be included?	Y	Section 1.2 (Part 1) describes the dominimum option and also includes a dominimum maintenance profile
Is there clear guidance on the importance of the base case and how to assess it?	N	There is no mention of the baseline case, which may be do-minimum (described in Section 1.2 of Part 1 as 'the existing road(s) that exist without the scheme'
Option Costs		
Is guidance given on how to cost each option?	Partly	Section 4 (Part 2) gives maintenance profiles for new roads, by road type
Is guidance given on the level of detail that is required?	Υ	S5, Part 2 sets out the information that needs to be included when estimating maintenance costs. S6, Part 2 gives details on items of works costs
Does the guidance explain how to express costs in opportunity costs?	N	
Does the guidance explain different types of costs and how they can be combined?	Partly	Sections 4 and 5 of Part 2 describe different maintenance cost types and how to input them
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	N	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Y	A time horizon of 30 years is used (S4, Part 1)
Does the guidance explain where residual values should/should not be included?	N	
Does the guidance explain where contingent liabilities should/should not be included?	Υ	Section 5, Part 2 discusses risks in terms of maintenance costs and requires a detailed risk assessment or the use of optimism bias
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Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Υ	Details are given on how to estimate the costs of maintenance programmes.  These are referred to as costs rather than dis-benefits (Part 2). Section 5.2 (Part 3) notes that 'QUADRO does not assess the benefits to road users of road maintenancebecause the necessary empirical relationships have not yet been established'
Does the guidance set out an approach to valuing benefits in money terms?	Y	Links are given to the COBA Manual and WebTAG units for converting time values to money values (s1, Part 2). Fuller details are provided in s2 of Part 2 for vehicle operating costs and s3 (Part 2) for accidents
Does the guidance propose early sensitivity to focus effort?	Partly	QUADRO include low and high growth values associated with the economic parameters (s4.1, Part 3)
Does the guidance explain how to include non-monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Y	Section 5, Part 3 requests that benefits to road users (e.g. reduced wear and tear on vehicles, reduced accidents from better road surfaces) are quantified as far as possible in non-monetary terms and set against the monetary QUADRO results. Section 5.3, Part 3 discusses inclusion of environmental benefits (e.g. noise)
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Partly	It is suggested (s5, Part 3) that they be quantified as far as possible and offset using the implicit valuation approach proposed in the COBA manual
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	N	
Does the guidance explain why and how to adjust for subsidies, etc.?	N	
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	N	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	N	

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Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Partly	QUADRO uses a base year of 1998, therefore all costs and benefits have to be discounted back to 1998 and then have to be updated to the present year using the RPI (s3, Part 1) [Note Part 6 suggests the default base year may be 2002]
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Y	Section 3 (Part 1) describes how to undertake discounting and includes worked examples
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Y	QUADRO uses the discount rate of 3.5% reducing to 3.0% '30 years after the current year' (s3, Part 1), although the usual time horizon used for maintenance schemes is 30 years (s4, Part 1)
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Partly	Sections 3.7 and 3.8 (Part 1) describe how to change values to market prices (from factor prices)
Does the guidance explain why and how to adjust for risk?	Partly	Need for risk assessment in terms of costs is included in s5 of Part 2
Does the guidance explain why and how to adjust for optimism bias?	Y	Section 5, Part 2 discusses how to assess risks in terms of costs and adjust for optimism bias
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Y	Low and high factors for traffic growth are included as a default in the QUADRO program (s4.2, Part 1). Section 4.7 (Part 3) notes the importance of sensitivity tests on key variables in terms of uncertainty surrounding input data from the user. Cross-references are also required (S6, Part 3) for QUADRO validation
Does the guidance explain why and how to calculate switching values?	Y	Section 5, Part 2 discusses risk in terms of maintenance costs and also covers optimism bias
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Υ	The approach uses and low and high growth scenarios for traffic
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	N	Done by the QUADRO program?

N	
N	
Partly	Sections 6 and 7 of Part 3 sets out what is needed for the results to be validated. This includes all of the information that is required but not the format of how to present it
Partly	S6, Part 3 lists out the information that is required when sending the outputs of the QUADRO model for validation
Partly	Part of the information required is details of the derivation of cost estimates
Partly	Full QUADRO printouts for both the low and high growth scenarios are required
Y	An Appraisal Summary Table is required in the list of information to be sent for validation of results
Y	Section 7 of Part 3 highlights how to validate the results, which could be used as a checklist of what is required (i.e. level of detail)
Partly	The guidance is updated, and highlights where text has been updated by a line in the margin. Some of the key assumptions are also under constant review
	N Partly Partly Partly Y

# **Review of COBA11 Manual (COsts Benefit Analysis)**

Guidance being reviewed: DfT COBA Manual (2002)	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Y	P2/1: User manual for COBA computer programme
Is the intended audience stated?	Y	P2/1: Overseeing organisations officials and their agents.
Is the guidance officially endorsed?	Υ	Published by DfT
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	No	
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	No	
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	No	
Does the guidance highlight the need to set out SMART objectives?	No	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	No	
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Partly	The minimum number of options to be assessed is two (do-minimum and do-something). In most cases, there will be several do-something options
Does the guidance give examples or types of options that could/should be included?	Yes	Different types of the do-minimum option, and different do-something options are discussed throughout the guidance, sometimes as examples
Does the guidance indicate how a long-list may be reduced to a short-list of options?	No	
Does the guidance indicate the need for option development through a learning process as part of screening?	Partly	The guidance states that 'The number and nature of the 'Do-Something' options will change as the planning of the road scheme proceeds. At early stages in scheme planning, a wide range of different options may be considered. At later stages, the range will be narrower but 'Do-Something' options may be refined to highlight more detailed differences such
Is guidance given (e.g. examples) of acceptable reasons for screening out?	No	as junction design or link standards'

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Does the guidance request that the do-minimum option always be included?	Yes	The do-minimum is defined as 'the base road and traffic network against which alternative improvements can be assessed'
Is there clear guidance on the importance of the base case and how to assess it?	Partly	The do-minimum option is fully explained, including occasions when it may differ from the do-nothing option
Option Costs		_
Is guidance given on how to cost each option?	Yes	Volume 13, Section 1, Part 2, Chapter 7  Maintenance costs are covered in Chapter 9
Is guidance given on the level of detail that is required?	Yes	Volume 13, Section 1, Part 2, Chapter 7
Does the guidance explain how to express costs in opportunity costs?	No	
Does the guidance explain different types of costs and how they can be combined?	Yes	Volume 13, Section 1, Part 2, Chapter 7 An example is given in Chapter 8
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	No	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Partly	The guidance discusses the need to estimate all cost items as Present Value Costs
Does the guidance explain where residual values should/should not be included?	Partly	The guidance discusses 'bygone' and 'retrievable' costs
Does the guidance explain where contingent liabilities should/should not be included?	No	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Yes	Benefits are calculated for changes in travel time, vehicle operating costs (fuel and non-fuel) and number of accidents
Does the guidance set out an approach to valuing benefits in money terms?	Partly	The guidance is supported by a model that calculates the benefits; details are given on how to value each key benefit type
Does the guidance propose early sensitivity to focus effort?	No	
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Partly	The guidance notes that not all benefits can be monetised
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	No	

Questions for Neview of Galdanies (A1/B2)		
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	No	
Does the guidance explain why and how to adjust for subsidies, etc.?	Partly	The guidance explains how to adjust for indirect taxation
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	No	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	No	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Yes	The use of the Retail Price Index and Relative Price Factor is discussed in Volume 13, Section 1, Part 2, Chapter 7
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Yes	Discounting is discussed in detail in Volume 13, Section 1, Part 1, Chapter 4
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Partly	The guidance explains how to calculated discount rates, including a reducing discount rate (but the time horizon proposed is 30 years)
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Yes	The guidance is based on factor prices rather than market prices, hence, adjustments must be made for indirect taxes in the economy
Does the guidance explain why and how to adjust for risk?	Yes	Risk (e.g. of accidents) is an important part of the appraisal process
Does the guidance explain why and how to adjust for optimism bias?	Yes	Volume 13, Section 1, Part 2, paras 6.19 to 6.22
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Partly	The guidance includes reference to low/high estimates (e.g. high/low traffic growth)
Does the guidance explain why and how to calculate switching values?	No	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Partly	The guidance requires any differences from average data to be explained
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Partly	Guidance includes calculation of incremental BCR, where this considers a cut-off IBCR. This allows A v C to be considered, even where A v B does not exceed the IBCR cut-off

Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Partly	The guidance identifies that the economic appraisal may reveal further options to be assessed, where these are built upon previous options
Does the guidance highlight the importance and need for consultation at the decision-making stage?	No	
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Yes	Appraisal Summary Tables are proposed in Volume 13, Section 1, Part 3, Chapter 9
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Partly	Output tables are shown, which include key assumptions and input data as well as results. These are supported by Appraisal Summary Tables
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Yes	The presentation of results, using Appraisal Summary Tables, includes all of the key information and is continually evolving to allow more/clearer information to be included
Does the guidance request that the results of sensitivity/scenario analyses are included?	Partly	Validation of the appraisal is required, with scrutiny on all phases of the appraisal. All error and warning messages included in the model must be printed
Does the guidance provide a good practice template or a proposed list of contents?	Yes	The outputs of the appraisal are based on the COBA model, with contents required in the COBA Appraisal report given in Volume 13, Section 1, Part 3, Chapter 10
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Partly	The outputs of the appraisal are based on the COBA model, hence, follows the level of detail required for each parameter
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Not know n	The manual is reviewed periodically to reflect recent changes in Government policy, etc.

# Review of approach to determining priority

Extract from COBA Manual (Section 4)

4.8 The second problem is to decide which section in the preferred strategy of A + C + D should be built first, although it should be noted that the `best' phasing may be to complete the strategy all at once. That component which offers the highest NPV should be undertaken first. It is therefore necessary to test each scheme independently against the base `Do-Minimum' network that excludes all the other elements of the strategy to establish that section which delivers the highest NPV.

4.9 If it is established that scheme A should be given priority then clearly it will form part of the network before other schemes in the strategy become operational. A is, therefore, added to the `Do-Minimum' network against which C and D are tested respectively in order to establish which one of these schemes takes precedent over the other.

# **Review of TUBA Guidance**

Guidance being reviewed: DfT TUBA Guidance (2004)	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Υ	P1: Guide to demonstration data
Is the intended audience stated?	Υ	P!: TUBA Users
Is the guidance officially endorsed?	Υ	Published by DfT
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Х	
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	X	
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Х	
Does the guidance highlight the need to set out SMART objectives?	Х	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Х	
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Х	
Does the guidance give examples or types of options that could/should be included?	Х	
Does the guidance indicate how a long-list may be reduced to a short-list of options?	X	
Does the guidance indicate the need for option development through a learning process as part of screening?	Х	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	X	
Does the guidance request that the do-minimum option always be included?	Х	
Is there clear guidance on the importance of the base case and how to assess it?	Х	
Option Costs		
Is guidance given on how to cost each option?	Y	Scheme costs need to be adjusted to market prices
Is guidance given on the level of detail that is required?	Х	
Does the guidance explain how to express costs in opportunity costs?	Х	

Does the guidance explain different types of costs and how they can be combined?	Х	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	X	
Does the guidance explain where residual values should/should not be included?	Х	
Does the guidance explain where contingent liabilities should/should not be included?	Х	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Y	Guidance is focused on how to assess benefits
Does the guidance set out an approach to valuing benefits in money terms?	Y	The guidance explains the move from social costs and benefits to one based on willingness to pay, and from factor costs to market prices
Does the guidance propose early sensitivity to focus effort?	Х	
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	x	
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Х	
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	X	
Does the guidance explain why and how to adjust for subsidies, etc.?	Υ	The focus of the guidance is on how to move to benefits assessment based on market prices
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Х	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Х	Guidance does cover annualisation

Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Х	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Y	
Does the guidance explain why and how to adjust for risk?	Х	
Does the guidance explain why and how to adjust for optimism bias?	Х	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Х	
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Х	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Х	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Х	
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Х	
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Х	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Х	
Does the guidance request that the results of sensitivity/scenario analyses are included?	Х	
Does the guidance provide a good practice template or a proposed list of contents?	Х	

Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Х	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Not know n	

# **Review of Transport Analysis Guidance**

Guidance being reviewed:	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	The guidance is written as an insurance that transport appraisals are carried out effectively, are able to deal with competing proposals, can maintain even-hand across modes and take into account wide range of effects to help achieve objectives and ensure value for money (§ 1.2.2, TAG 1.1 p. 1)
Is the intended audience stated?	Y	The guidance is designed specifically for transport schemes (1.2.2 p.1) and will be followed by the Local Authorities and any teams conducting multi-modal studies for the Government (TAG 1.2.1, § 1.1.2 p,1) and Regional Planning bodies involved in the regional transport strategy (§1.1.11 TAG 1.2.2 p. 3)
Is the guidance officially endorsed?	Υ	TAG is endorsed by DfT from central government (§ 1.2.2 TAG 1.1 p.1)
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	A number of factors triggered the study (covered in detail in Annex D), but whatever the initial stimuli, a sharper focus was needed to in order to effectively meet and translate the requirements of local or study-specific objectives (§1.2.3 TAG 2.1 p.3)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	N	Not taken into account
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Partly	TAG 3.1.2 gives an intricate overview on how to and what sort of details needed to calculate costs in transport models
Does the guidance highlight the need to set out SMART objectives?	N	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Partly	'Choice models' provide some conditioning in selecting between alternatives. Choice models "predict the proportions of an overall total demand which will be allocated to each alternative." (§2.3.11 p.6 TAG 3.1.2)
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Partly	A number of options are suggested in TAG 3.2
Does the guidance give examples or types of options that could/should be included?	Y	There are four main types of objectives (Government; local and regional; targets; and problems) under which are

		more specific objectives protruding to each case. These are discussed in section 1.2 to 1.6 TAG 2.2 p.1 to p.9
Does the guidance indicate how a long-list may be reduced to a short-list of options?	N	Not taken into account
Does the guidance indicate the need for option development through a learning process as part of screening?	N	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	N	
Does the guidance request that the do-minimum option always be included?	Y	Transport intervention assessments include a comparison between a situation without intervention (dominimum) and a with an intervention (do-something) (TAG 2.1§ 1.4.5 p. 7)
Is there clear guidance on the importance of the base case and how to assess it?	Y	Do-minimum: used only when genuine committed changes are made to the existing schemes, if there are any expected trends in the level of service to be expected, and if there is no change to the level of service (§1.4.7 -1.4.8 TAG 2.1 p. 7)
Option Costs		
Is guidance given on how to cost each option?	Partly	The guidance explains how to calculate costs by example of supply and demand curves (Chapter 2 TAG 3.1.2)
Is guidance given on the level of detail that is required?	Y	Each process of strategic objectives is discussed step by step covering why, how and what needs to be taken into account (Chapter 1 TAG 2.2)
Does the guidance explain how to express costs in opportunity costs?	N	Not taken into account
Does the guidance explain different types of costs and how they can be combined?	Y	An appraisal summary table lists all the different costs, which are then summarised using measures of economic worth such as NPV, CBR (section 6 p.11 TAG 3.5.4 & p. 30 TAG 3.1.2)
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Y	The guidance states that discounting and capital charges will be attributed exclusively to government expenditure and the PVC should be in 1998 market price and discounted to 1998 (section 3.6 p. 7 TAG 2.6). The methodology is explained on p.5 section 5 TAG 3.5.4
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Y	The choice of a 30 year period for appraisals was based on the presumption that discounting will reduce costs and benefits beyond that period. But the Department is now considering changing the time period as this no longer applies to all transport appraisals

adestions for Neview of Guidance (A 1752)		(§1.7.4.p.7 TAG 2.7.1)
Does the guidance explain where residual values should/should not be included?	Y	They should be included in projects with finite lives of less than 60 years (§5.3 p.8 TAG 3.5.4 & §5.3.2. p.8 TAG 3.5.4)
Does the guidance explain where contingent liabilities should/should not be included?	N	Not taken into account
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	N	Not taken into account
Does the guidance set out an approach to valuing benefits in money terms?	N	Not taken into account
Does the guidance propose early sensitivity to focus effort?	N	Not known
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Y	The guidance aims at extending the quantification of terms (§1.2.4, 1.2.5 p. 1,2 TAG 2.7.1) which are currently not valued by using an assessment score for the appraisal summary tables (TAG 3.3 to 3.7)
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Y	An Appraisal Summary Table, which provides the framework for assessing particular strategies without giving predominance to monetary or nonmonetary terms, uses a scoring system for quantifying impacts (§ 1.2.8 p.5, 6 TAG 2.5)
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	N	Not known
Does the guidance explain why and how to adjust for subsidies, etc.?	Partly	Section 1.5 p. 4 TAG 3.5.9 mentions grants and subsidies but no clear statement is made on how to adjust for them, except for just including them in the description of the option.
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Partly	The guidance states that all values should be transformed into monetary terms wherever possible. However, there is no specific mention on placing monetary values on legally protected items (§2.1.2 TAG 3.5.4. p.1)
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Y	Costs and benefits must be adjusted to reflect distributional impacts from different income groups. The DfT is currently reviewing the treatment of distributional impacts, so until then, the GOMMMS and related approaches should be used (§1.9.2 p.9 TAG 2.7.1)

Questions for Neview of Galdance (A1/B2)			
Present Values and Discounting			
Does the guidance explain how to update all costs and benefits to today's prices?	Y	Net Present Value is used to update all costs (§1.3.5 p.2 TAG 2.7.1)	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Y	The guidance states that the discount rate allows for easier comparison between future and present costs. Costs and benefits need to be expressed in 'real terms' or 'constant prices', where the effect of future inflation is incorporated (§1.7.2. p.6 TAG 2.7.1)	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Y	The recommended rate is 3.5 %, and if discounting anything over thirty years, a lower rate should be used (§1.7.3 p.6 TAG 2.7.1)	
Economic Adjustments	•		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Partly	Taxation (e.g. fuel VAT) needs to be included in transport appraisals since it makes a material difference to the decision. Therefore changes in indirect and direct tax are included in the calculation of costs to public accounts (§1.4.2. p.4 TAG 2.7.1)	
Does the guidance explain why and how to adjust for risk?	Partly	Risk allowance must be included in costs estimates and it is required for assessing optimism bias. Risk assessment is performed at each key stage in the development of proposals for projects costing more than £5m (§1.8.3, 1.8.5 TAG 2.7.1 p.7)	
Does the guidance explain why and how to adjust for optimism bias?	Partly	All proposals must include an allowance for optimism bias. The guidance states "the aim of the approach is to provide better estimates of the final cost of a proposal from the earliest stages of development". The size of optimism bias adjustment will depend on project definition and/or risks identified. DfT is reviewing the approach to include optimism bias (§1.8.3, 1.8.4 p. 7 TAG 2.7.1)	
Sensitivity Analysis			
Does the guidance explain why and how to undertake sensitivity analysis?	Partly	Sensitivity analysis should be used where uncertainty affects the estimation of benefits and costs (§1.8.8 p. 8 TAG 2.7.1). There is no explanation as to how this is carried out	
Does the guidance explain why and how to calculate switching values?	N	Not taken into account	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Y	Pessimistic (low growth), central and optimistic (high growth) scenarios have been used and are based on risk	

Questions for Review of Guidance (A 1/b2)		
		analysis. They also take into account any dependencies between factors.  Scenarios are alternatives to continuously carrying out complex modelling for risk assessments each time, because it is time consuming and costly (§1.8.10 p. 8 TAG 2.7.1)
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Y	This is done using the supply and demand curves as indicated in TAG unit 3.5.3
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	N	Not known
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	The environmental reports, project proposals and draft appraisal reports must be made available to public authorities for them to express their opinions before the plans are adopted (§6.3.1 p.22 TAG 2.11)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Partly	The guidance uses appraisal summary tables and supply and demand curves TAG 3.5.3
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Y	The guidance states that a complete record of all assumptions relating to the assessment must be included (Table A3.1 p.31 TAG 2.11)
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Partly	The guidance presents a table on p. 12- 13 TAG 3.5.4 which summarises all monetised costs and benefits with their values attached to them
Does the guidance request that the results of sensitivity/scenario analyses are included?	Y	Scenarios are used to forecast different possible alternatives of the predictor variables and a re therefore needed to decided which project plan to carry out, and sensitivity is used to ensure that responses to unpredictable changes are taken into consideration (§2.3.6. p.5 TAG 3.1.2)
Does the guidance provide a good practice template or a proposed list of contents?	Y	TAG 3.3 to 3.7 provide the methodology for carrying out strategies and provide a list of proposed options to consider
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Y	The level of detail for the appraisal of options must be decided upon by the Steering group, ensuring they are respectful of all dimensions and size of the strategy, the development phases and planning (§1.5.10 p.8 TAG 3.2). Additionally, a checklist (TAG 3.3 to 3.7)

		is provided to ensure all issues are considered (1.5.12 TAG 3.2 p.8)
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Y	None known

# **Review of the Multi-Modal Transport Appraisal Investment**

Guidance being reviewed:	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	N	
Is the intended audience stated?	N	
Is the guidance officially endorsed?	Υ	Published by DETR
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	As a result of the perceived inconsistencies (listed on p.2) in CBA methods, this report illustrates a new approach for appraisals
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Y	The new appraisal methods takes into account both quantitative and qualitative measures of cost and benefit data (p.5, sections 2.3, 2.4)
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Y	Sect. 3 describes in detail why and how to proceed in the methodology of the appraisal framework selected for transport guidance; sect. 4 describes which unit of account to use for costs (either factor costs, or indirect tax correction factor) and how to estimate them
Does the guidance highlight the need to set out SMART objectives?	Х	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Partly	Projects have a ranking criterion which is based on the conventional cost-benefit ratio (Sect 6.14 p.16)
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Х	
Does the guidance give examples or types of options that could/should be included?	Х	
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Х	
Does the guidance indicate the need for option development through a learning process as part of screening?	Х	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	
Does the guidance request that the do-minimum option always be included?	Y	The new and altered CBA for rail transport is designed to compare the dominimum and the do-something approach (Sect 9.2 p.22)

Х	
Υ	An example is given on how to cost for one option (the trunk road project) (p.25)
Х	
Х	
Y	There are social costs, factor costs (tax) (sect 4.8, p. 8), perceived and resource costs (sect 5.2 p. 11)
Y	This is covered in detail in Sections 4 and 5
Partly	Time is an important factor in calculating the costs and benefits for users, thereby it is included in the formula for CBA as the behavioural values of time (Sect 7.3.p. 18)
Х	
Х	
Partly	The guidance explains the difference between non-user benefits and user benefits (section 6 p. 14-17)
Υ	Benefits are calculated on the basis of 'willing to pay' (section 3 p.7-8)
Х	
Partly	There is no explicit explanation as to how non-monetary benefits are included, however their inclusion is considered to be the main advantage of the new appraisal method (sect. 12. 2, p.35)
Υ	Time is included as a travel weighted values (sect7.1 p.18)
х	
	Y X X Y Y Partly X X Partly Y X

Does the guidance explain why and how to adjust for subsidies, etc.?	Partly	The guidance indicates which cases would or would not be awarded (sect 6.7. p. 14, sect 6.10 p.15, sect.6.13 p.15)
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Х	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Partly	Section 10.13 p.32 states "the net present value of the project () should not be interpreted as a description of the distributional effects of the project"
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Υ	Market price changes are included in the unit of account of the appraisal method. This is covered throughout section 4, but more specifically in sect. 4.6. Additionally, section 8.2 p.20 makes reference to updating accident costs with GDP/yr
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Y	See section 4.10 p. 9; discounting of costs and benefits is explained using indirect tax correlation factor and factor cost unit
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	x	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Y	See Section 4
Does the guidance explain why and how to adjust for risk?	Y	Covered in detail under Section 8
Does the guidance explain why and how to adjust for optimism bias?	Х	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Х	
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Y	The appraisal method compares the dominimum and do-something scenarios; the guidance explains under which circumstances they can be used and how to use them (Sect 9.2 p.22)

Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Х	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Х	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	The appraisal methodology was amended after a consultation exercise was carried out by the Office of Passenger and Rail Franchise (OPRAF) (sect. 1. 5, p.3)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Y	Section 10.6 -10.15, p.28-32 goes into detail about the CBA analysis formula
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Partly	The guidance does not directly stress that all assumptions and constraints are included in the calculations, but they are included in the exemplarily calculations p.22 - 26
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Partly	Although it is not directly implied, section 10.8 p. 29 describes which values of the appraisal formula corresponds to costs, and to benefits
Does the guidance request that the results of sensitivity/scenario analyses are included?	Y	The appraisal model is designed to compare two scenarios the do-minimum and the do-something scenario (sect. 9.2 p.22)
Does the guidance provide a good practice template or a proposed list of contents?	Y	The practice template provided on p.29- 31 is very detailed and clearly explained and laid out
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Y	This is covered in sect 10.12 and10.13 on p.32
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Х	None known
	· ·	

# Review of the Major Scheme Appraisal in Local Transport Plans: Part 3

Guidance being reviewed: Major Scheme Appraisal in Local Transport Plans: Part 3	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Υ	P2: Procedures to be followed in developing forecasting models
Is the intended audience stated?	N	
Is the guidance officially endorsed?	Υ	Published by DfT
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Х	
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Х	
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Х	
Does the guidance highlight the need to set out SMART objectives?	Х	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Y	Hierarchical choice is used in reference to the generalised cost of options (19)
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Х	
Does the guidance give examples or types of options that could/should be included?	Х	
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Х	
Does the guidance indicate the need for option development through a learning process as part of screening?	х	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	
Does the guidance request that the do-minimum option always be included?	Y	The Guidance states that no appraisal scheme should be undertaken without a clear definition of the do minimum option (p.2)
Is there clear guidance on the importance of the base case and how to assess it?	Partl y	The guidance makes reference to the base situation as a means of valuing changes, but there is no explicit guidance directly which directly relates to assessing it

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Option Costs		
Is guidance given on how to cost each option?	Х	
Is guidance given on the level of detail that is required?	Х	
Does the guidance explain how to express costs in opportunity costs?	Х	
Does the guidance explain different types of costs and how they can be combined?	Х	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Partl y	The guidance recommends the scaling of fuel prices and fares as an approach to calculate elasticity of costs (p. 26) and the forecasting of GDP per head (p.31)
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Partl y	Time periods are assessed depending on different journey purposes, and mainly refers to time of day (p.21, 34, 35)
Does the guidance explain where residual values should/should not be included?	Х	
Does the guidance explain where contingent liabilities should/should not be included?	Х	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	х	
Does the guidance set out an approach to valuing benefits in money terms?	Х	
Does the guidance propose early sensitivity to focus effort?	Partl y	The guidance does emphasise the need for sensitivity testing, but does not make any mention as to when this should be carried out (p.35)
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Х	
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Y	This is done in terms of weighting walk time and waiting time in relation to invehicle time (p.21)
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Х	
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	х	

Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Y	The guidance explains why costs should be adjusted, mainly to ensure that values reflected the variations in the population (p.21), and the procedure is referenced back to Section 9.9.4 of Ortúzar & Willumsen (p.22)
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Х	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Х	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	
Does the guidance explain why and how to adjust for risk?	Х	
Does the guidance explain why and how to adjust for optimism bias?	Х	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Partl y	Sensitivity analysis is defined as providing "guidance on the recommended approach to calculate induced traffic"(p.35). Six sensitivity test types are listed (p.36)
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Х	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Х	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Х	

Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Х	
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Y	Assumptions are to be provided in the appraisal process and assessments (Annex G, pp.37-38)
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Partl y	Cost Benefit Analysis is a prerequisite to traveller and non-traveller benefits, and costs of investment, maintenance and operations (p.7). However, no values are included
Does the guidance request that the results of sensitivity/scenario analyses are included?	Y	The results and a description of the sensitivity tests are required (p.27)
Does the guidance provide a good practice template or a proposed list of contents?	Х	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Х	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?		None known

# Review of English Nature/Environment Agency: Coastal Habitat Management Plans (CHaMPs): An Interim Guidance to Structure and Content.

Guidance being reviewed: English Nature/Environment Agency: Coastal Habitat Management Plans (CHaMPs): An Interim Guidance to Structure and Content.	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Y	To provide a framework for managing European and Ramsar sites located on the coast
Is the intended audience stated?	N	
Is the guidance officially endorsed?	Υ	By Defra and Environment Agency
Rationale and Objectives	1	
Is the need for a clear rationale for intervention highlighted?	Х	The function is to provide an accounting system for assessment of impact and to guide acceptable outcomes of other plans
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	x	Policy guidance
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Partly	Section 4. In term of environmental benefit and detriment (cost), detail is required to the level at which judgement may be made with respect to integrity of designated sites.
Does the guidance highlight the need to set out SMART objectives?	Partly	Requires a statement of conservation objectives.
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Partly	the CHaMP is seen as part of the hierarchy of decision making.
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Х	No, only those options necessary to mitigate impact and principally in setting targets for avoidance of adverse affect
Does the guidance give examples or types of options that could/should be included?	Х	No
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Х	No
Does the guidance indicate the need for option development through a learning process as part of screening?	Х	No
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	Not applicable
Does the guidance request that the do-minimum option always be included?	Х	Not applicable

•		
Is there clear guidance on the importance of the base case and how to assess it?	Υ	Baseline case is no adverse impact on designated sites.
Option Costs		
Is guidance given on how to cost each option?	Х	No
Is guidance given on the level of detail that is required?	Х	Not applicable
Does the guidance explain how to express costs in opportunity costs?	Х	Not applicable
Does the guidance explain different types of costs and how they can be combined?	Х	Not applicable
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	Not applicable
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	х	Not applicable (nominally 100 years)
Does the guidance explain where residual values should/should not be included?	Х	Not applicable
Does the guidance explain where contingent liabilities should/should not be included?	Х	Not applicable
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Х	Only in relation to avoidance of adverse impact.
Does the guidance set out an approach to valuing benefits in money terms?	Х	No. Legal responsibility to mitigate adverse impact.
Does the guidance propose early sensitivity to focus effort?	Х	No
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Х	Not applicable
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Х	No, assessment made against legal responsibility
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Х	Not applicable
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	Not applicable
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Х	Based on legal responsibilities

Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	×	Not applicable
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Х	Not applicable
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х	Not applicable
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	х	Not applicable
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	х	Not applicable
Does the guidance explain why and how to adjust for risk?	Х	Not applicable
Does the guidance explain why and how to adjust for optimism bias?	Х	Not applicable
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Х	No
Does the guidance explain why and how to calculate switching values?	х	No
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	Not applicable
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Х	Not applicable
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	х	Not applicable
Does the guidance highlight the importance and need for consultation at the decision-making stage?	X	Does not include consultation
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Х	No
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Х	Not applicable

Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Х	No
Does the guidance request that the results of sensitivity/scenario analyses are included?	Х	No
Does the guidance provide a good practice template or a proposed list of contents?	Х	No
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Х	No
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Υ	Pilot CHaMPs undertaken highlighting the need for detailed procedures to be developed based on the need for individual areas.

# Review of Guidance on Economic Appraisal in the Environment Agency

Guidance being reviewed:	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	Stated in introduction on p1. – Reasons for carrying out econ. appraisal, services can draw on, how to select level appropriate, Agency's present position on economic appraisal
Is the intended audience stated?	Υ	Senior Managers in the Environment Agency p1
Is the guidance officially endorsed?	Y	Distribution instructions and approval signature on cover page
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	Identifies that economic appraisal should be "incorporated at the start in a scoping study to identify the objectives, the main options for achieving them and their impacts that are most likely to be significant" p.7 Also on p.7 refers to the need to develop indicators
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Partly	Flow diagram Figure 2 on p10 identifies need to make assessment if there is a clear cut best option and if so, not to go through appraisal system
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Y	As above. Flow diagram indicates progressively higher levels of detail/consultation required according to level of complexity/disagreement  Table 2 on p.9 and Annex II p.17 gives instructions as to which level of economic analysis/procedure to take in different circumstances
Does the guidance highlight the need to set out SMART objectives?	Partly	Identifies that economic appraisal should be "incorporated at the start in a scoping study to identify the objectives, the main options for achieving them and their impacts that are most likely to be significant" p.7
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Y	Flow diagram Figure 2 on p.7 clearly shows the decision making process and at what stages and on what information decisions are made
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Partly	Refers to "options" on numerous occasions (p.6 in flow diagram., p.7 bullets 1 and 2 etc) but never the need for a wide range.

Does the guidance give examples or types of options that could/should be included?    Suidance is not for a specific type of options that could/should be included?   Suidance is not for a specific type of options that could/should be included?   Suidance of types of appraisal process. Does give examples of types of appraisal techniques can use (CBA, CEA, MCA, MAT on p.12)		1	1
be reduced to a short-list of options?    Does the guidance indicate the need for option development through a learning process as part of screening?   Is guidance given (e.g. examples) of acceptable reasons for screening out?   Does the guidance request that the do-minimum option always be included?   Does the guidance on the importance of the base case and how to exsess it?   Directs to include monetable and intangible impacts, be comprehensive, identify and considering NET costs projects with "comparing public expenditures" p.12   Directs to include monetisable and intangible impacts, be comprehensive, identify main components of the costs. Brief sentence on avoiding double counting and considering NET costs p.14   Does the guidance explain how to express costs in opportunity costs?   Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?   Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?   Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance explain where contingent in the need to place the guidance explain where residual values should/should not be included?   Does the guidance explain where residual values should/should not be included?   Does the guidance explain where contingent   N		N	initiative, but covers general economic appraisal process. Does give examples of types of appraisal techniques can use
development through a learning process as part of screening?  Is guidance given (e.g. examples) of acceptable reasons for screening out?  Does the guidance request that the do-minimum option always be included?  Does the guidance on the importance of the base case and how to assess it?  Option Costs  Is guidance given on how to cost each option?  Is guidance given on the level of detail that is required?  Does the guidance explain how to express costs in opportunity costs?  Does the guidance explain different types of costs and how they can be combined?  Does the guidance explain the need for a common time horizon and how there residual values should/should not be includede?  Does the guidance explain where residual values should/should not be includede?  Does the guidance explain where residual values should/should not be includede?  Does the guidance explain where contingent  N read to the salection of apprapriate of scoping work p.7 last paragraph  N read to tearly a baseline against which each option is compared normally the 'do nothing' or 'business as usual' scenario of what would happen if no action is taken' p.8 1° para.  N Not in any detail. Statement above refers.  Partly  Directs to include monetisable and intangible impacts, be comprehensive, identify main components of the costs. Brief sentence on avoiding double counting and considering NET costs p.14  N But does provide brief guidance for the selection of appropriate appraisal techniques p.12  Does the guidance explain how to express costs in opportunity costs?  Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?  N Brief explanations of money and intangible costs p.14  N common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?		Partly	decision points where options might be
reasons for screening out?  Does the guidance request that the do-minimum option always be included?  Is there clear guidance on the importance of the base case and how to assess it?  Option Costs  Is guidance given on how to cost each option?  Is guidance given on the level of detail that is required?  Does the guidance explain how to express costs in opportunity costs?  Does the guidance explain different types of costs and how they can be combined?  Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?  Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance sylain where residual values should/should not be included?  Does the guidance explain where residual values should/should not be included?  Does the guidance explain where residual values should/should not be included?  Does the guidance explain where residual values should/should not be included?  Does the guidance explain where residual values should/should not be included?  Does the guidance explain where contingent  N   "set out clearly a baseline against which each option is compared — normally the 'do nothing' or 'business as usual' scenario of what would happen if no action is taken" p.8 Is para.  Not in any detail. Statement above refers.	development through a learning process as part	Y	developed as part of scoping work p.7
option always be included?  which each option is compared – normally the 'do nothing' or 'business as usual' scenario of what would happen if no action is taken" p.8 1st para.  Is there clear guidance on the importance of the base case and how to assess it?  **Option Costs**  Is guidance given on how to cost each option?  Is guidance given on the level of detail that is required?  Is guidance given on the level of detail that is required?  Does the guidance explain how to express costs in opportunity costs?  Does the guidance explain different types of costs and how they can be combined?  Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?  Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?  Does the guidance explain where residual values should/should not be included?  Does the guidance explain where residual values should/should not be included?  Does the guidance explain where contingent  N  **Not in any detail. Statement above refers.  **Not in any detail. Statement above		N	
base case and how to assess it?  Option Costs  Is guidance given on how to cost each option?  Is guidance given on how to cost each option?  Is guidance given on the level of detail that is required?  Is guidance explain how to express costs in opportunity costs?  Does the guidance explain different types of costs and how they can be combined?  Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?  Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance explain where residual values should/should not be included?  Does the guidance explain where residual values should/should not be included?  Does the guidance explain where contingent  N		Y	which each option is compared – normally the 'do nothing' or 'business as usual' scenario of what would happen if
Is guidance given on how to cost each option?  Partly  Directs to include monetisable and intangible impacts, be comprehensive, identify main components of the costs. Brief sentence on avoiding double counting and considering NET costs p.14  Is guidance given on the level of detail that is required?  Is guidance explain how to express costs in opportunity costs?  Does the guidance explain how to express costs in opportunity costs?  Does the guidance explain different types of costs and how they can be combined?  Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?  Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?  Does the guidance explain where residual values should/should not be included?  Does the guidance explain where residual values should/should not be included?  Does the guidance explain where contingent  N  Does the guidance explain where contingent  N		N	
intangible impacts, be comprehensive, identify main components of the costs.  Brief sentence on avoiding double counting and considering NET costs p.14  Is guidance given on the level of detail that is required?  Does the guidance explain how to express costs in opportunity costs?  Does the guidance explain different types of costs and how they can be combined?  Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?  Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?  Does the guidance explain where residual values should/should not be included?  Does the guidance explain where contingent  Intangible impacts, be comprehensive, identify main components of the costs.  Brief sentence on avoiding double counting and considering NET costs  Purtly  Brief explanations of money and intangible costs p.14  No exclude them?	Option Costs		_
required?  Does the guidance explain how to express costs in opportunity costs?  Does the guidance explain different types of costs and how they can be combined?  Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?  Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance explain where residual values should/should not be included?  Does the guidance explain where contingent  N  Selection of appropriate appraisal techniques p.12  N  Only a small reference to comparing projects with "competing public expenditures" p.15  Brief explanations of money and intangible costs p.14  N  N  N  N  Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?  Does the guidance explain where residual values should/should not be included?  Does the guidance explain where contingent  N	Is guidance given on how to cost each option?	Partly	intangible impacts, be comprehensive, identify main components of the costs.  Brief sentence on avoiding double counting and considering NET costs
in opportunity costs?  Does the guidance explain different types of costs and how they can be combined?  Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?  Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?  Does the guidance explain where residual values should/should not be included?  Does the guidance explain where contingent  N  Partly  Brief explanations of money and intangible costs p.14  N  N  N  N  N  Does the guidance explain the need for a common time horizon for all appraisals of that type)?		N	selection of appropriate appraisal
Costs and how they can be combined?  Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?  Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?  Does the guidance explain where residual values should/should not be included?  No intangible costs p.14		N	projects with "competing public
depreciation and capital charges and how to exclude them?  Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?  Does the guidance explain where residual values should/should not be included?  N  Does the guidance explain where contingent  N		Partly	
common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?  Does the guidance explain where residual values should/should not be included?  Does the guidance explain where contingent N	depreciation and capital charges and how to	N	
should/should not be included?  Does the guidance explain where contingent N	common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that	N	
		N	
iiabiiities stionid/stionid tiot be iticiided.	Does the guidance explain where contingent liabilities should/should not be included?	N	

Option Benefits	1	
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	N	Only done in very general terms p.14
Does the guidance set out an approach to valuing benefits in money terms?	N	
Does the guidance propose early sensitivity to focus effort?	N	
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Y	But not in great detail. Refers to Multi- Criteria Analysis p.14
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Y	In context of MCA p.14
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Partly	Refers on number of occasions to need to consider non-monetary costs and benefits
Does the guidance explain why and how to adjust for subsidies, etc.?	N	
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	N	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	N	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	N	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	N	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	N	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	N	
Does the guidance explain why and how to adjust for risk?	N	Only really mentions risk in Annex II p.17 and 18, but no information on how to adjust.
Does the guidance explain why and how to adjust for optimism bias?	N	

Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Partly	Only refers to it as an available technique p.8 end of section 6
Does the guidance explain why and how to calculate switching values?	N	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	N	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	N	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	N	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	N	Figure 1 on p.6 identifies stakeholder involvement at the beginning and consultation during the appraisal process, but not at the point of decision making.
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Y	Refers to Pro-forma forms and Project Initiation Document on p.17-18. Assumption these are standard documents within the agency?
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	N	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	N	
Does the guidance request that the results of sensitivity/scenario analyses are included?	N	
Does the guidance provide a good practice template or a proposed list of contents?	N	But Annex II "Level of Economic Analysis Needed for Different Types of Decisions" p.17-18 does summarise types of information to include at different levels.
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Y	Annex II "Level of Economic Analysis Needed for Different Types of Decisions" p.17-18 does summarise types of information to include at different levels.
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	?	

# **Review of Drought Plan Guidance**

Guidance being reviewed: Review of Drought Plan Guidance	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	"The drought plan needs to list the actions or measures that the company intend to deploy during the various stages of a drought" (p.2 sect.2.1)
Is the intended audience stated?	Υ	Water companies (p.2 §3)
Is the guidance officially endorsed?	Partly	The drought plan should be agreed upon by the Agency (p.2 sect.2.1 § 2)
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Partly	The drought plan is a means of getting water companies to take further consideration in water storage, groundwater levels, recession of river flows, current levels of demand, time of year and management strategies (p.3 sect.2.2.2)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	N	Not known
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	N	
Does the guidance highlight the need to set out SMART objectives?	N	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Partly	The management structure of the company and the drought plan must be included alongside with a detailed report on hierarchy of responsible parties (p.6 sect. 2.2.7)
Options and Screening of Options	•	
Does the guidance highlight the need for a wide range of options to be considered?	Partly	Option develop is tailored to the individual water companies and the drought plans. Options should generally include demand and supply objectives and environmental objectives (p.3-4)
Does the guidance give examples or types of options that could/should be included?	Y	The guidance suggests a number of demand and supply options that need to be considered as part of drought plans (p.3-4 sect. 2.2.3)
Does the guidance indicate how a long-list may be reduced to a short-list of options?	N	
Does the guidance indicate the need for option development through a learning process as part of screening?	Partly	A detailed study is needed on each option before they can be implemented (p.4)

Questions for Review of Guidance (A1/b2)		
Is guidance given (e.g. examples) of acceptable reasons for screening out?	N	
Does the guidance request that the do-minimum option always be included?	N	
Is there clear guidance on the importance of the base case and how to assess it?	N	The baseline should be included in the drought plan (p.6 sect 2.2.5; p.1) and that normal conditions should be made comparable to drought conditions (p.3 sect.2.21)
Option Costs		
Is guidance given on how to cost each option?	N	
Is guidance given on the level of detail that is required?	N	
Does the guidance explain how to express costs in opportunity costs?	N	
Does the guidance explain different types of costs and how they can be combined?	Partly	They types of costs to be included are direct costs of the affected abstraction, costs to customers affected by any supply restriction and any compensation liability (p.10 DP7). There is no mention as to how to combine these
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	N	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Partly	The drought management options require an implementation timetable, which includes the dates, actions and dependencies(p.11,12 Table 1,2), but there is no mention of actual time line
Does the guidance explain where residual values should/should not be included?	N	
Does the guidance explain where contingent liabilities should/should not be included?	N	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Partly	Benefits are related to the environmental damage prevented (p.10 DP7). The guidance makes further reference to the UKWIR reports for additional benefits (p.4)
Does the guidance set out an approach to valuing benefits in money terms?	Partly	There is an example trigger curve demonstrating the rate of how cost minimisation should change to take into account water conservation (p.14 fig.1)
Does the guidance propose early sensitivity to focus effort?	N	
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Y	The guidance makes reference to the UKWIR research reports (p.4)

additions for herical of Saldance (A1/BZ)		
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Partly	Drought plans are only accepted if the environmental factors can be weighed against water supply issues and a balance is reached between objectives (p.9 DP5)
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	N	Not known
Does the guidance explain why and how to adjust for subsidies, etc.?	N	Not taken into account
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?		Not taken into account
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	N	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	N	The guidance does suggest that drought plans should be updated on a yearly basis (p.9 DP4)
Does the guidance explain why and how to undertake discounting of all costs and benefits?	N	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	N	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	N	
Does the guidance explain why and how to adjust for risk?	Partly	Discharges, abstractions and mitigations against uncertainties are based on the companies who would devise drought plans (p.9 DP3). Any risks that are considered must be balanced between possible risks to the environment and those affect water supply (p.9 DP5)
Does the guidance explain why and how to adjust for optimism bias?	N	
Sensitivity Analysis	•	
Does the guidance explain why and how to undertake sensitivity analysis?	N	
Does the guidance explain why and how to calculate switching values?	N	
Does the guidance explain how and why different scenarios would be used, and how they could be	Partly	The drought plan is based on control curves (Fig 1 p.14) which are flexible enough to meet the needs and

taken into account?		requirements of different companies and drought plan
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Partly	The drought plan must indicate in what form, and how water is used in order to accept the appropriate option(p.9 DP5)
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Partly	See control curves on p.14 fig.1
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Partly	A communications plan is integrated into the overview of the drought plan, which involves informing with stakeholders and the public and discussing every step with the Agency (2.2.6 p.6)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Partly	Control curves are a way of illustrating this as these are designed to ensure long term responsibility of water supply and are a form of protecting different water requirements (p.3 sect 2.2.2)
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	N	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	N	
Does the guidance request that the results of sensitivity/scenario analyses are included?	N	
Does the guidance provide a good practice template or a proposed list of contents?	Partly	Option tables are presented on p. 11-13, these include all the basic mandatory sections a drought plan should encompass
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	N	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?		None known

## **Review of Benefits Assessment Guidance**

Y/X	Comments/Description/Reference
Y	P2-1: to support the work instructions specifying the steps that should be taken to asses the environmental and social costs and benefits for PRO4 programme
N	
Υ	Environment Agency Guidance
X	The guidance is intended to be used on schemes that have already been identified elsewhere
x	The guidance is aimed at assessing benefits only; costs are to be provided by Ofwat
Partly	The guidance notes that the number of schemes to be assessed restricts the amount of time that can be spent on assessing schemes. Thus, the guidance relies on the use of standardised assessment approaches and readily available data.  There is also a point within each section where it is necessary to consider if the quantitative information suggests that it
X	may be worthwhile spending time monetising the benefit estimates  The guidance assumes that the scheme
	is described elsewhere
Х	The guidance is used to estimate benefits only
	1
Х	The guidance is used to assess schemes that have been described elsewhere, hence, there is only one dosomething option
Х	Not relevant
Х	Not relevant
	Y N Y X X A X X

Does the guidance indicate the need for option development through a learning process as part of screening?	Х	Not relevant
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	Not relevant
Does the guidance request that the do-minimum option always be included?	Х	Not relevant
Is there clear guidance on the importance of the base case and how to assess it?	Y	Section 1.5 (Setting the Baseline)
Option Costs		
Is guidance given on how to cost each option?	Х	Not relevant, the guidance is intended for use when assessing benefits only
Is guidance given on the level of detail that is required?	Х	Not relevant
Does the guidance explain how to express costs in opportunity costs?	Х	Not relevant
Does the guidance explain different types of costs and how they can be combined?	Х	Not relevant
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	Not relevant
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	х	Not relevant
Does the guidance explain where residual values should/should not be included?	Х	Not relevant
Does the guidance explain where contingent liabilities should/should not be included?	Х	Not relevant
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Y	The guidance sets out step-by-step approaches to estimating benefits, with one section for each benefit type
Does the guidance set out an approach to valuing benefits in money terms?	Y	The guidance includes a step-by-step approach from qualitative through quantitative to monetary estimates
Does the guidance propose early sensitivity to focus effort?	Partly	The guidance includes 'reality checks; to verify that benefit estimates are reasonable and a section on sensitivity analysis for each benefit type giving suggested sensitivity tests

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Does the guidance explain how to include non-monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Y	The guidance moves from qualitative through quantitative and then to monetary estimates. Monetary estimates are not proposed for all benefit types (e.g. heritage, biodiversity) and descriptors are given that allow non-monetary impacts to be captured
Does the guidance include and explain approaches for valuing these benefits in nonmoney terms (e.g. scoring and weighting)?	Y	Descriptors are used from large beneficial impact to large adverse impact to encourage consistent assessment
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Partly	The guidance places responsibility on the user to determine where/when it is appropriate/not appropriate to assess benefits at all through the use of 'key questions' that determine whether further assessment is likely to be required
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	Although all benefits are assumed to be in economic terms
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Х	The guidance was to be applied to non- statutory schemes only (statutory schemes were assessed elsewhere), hence, this was not an issue to be covered
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	Distributional issues are not discussed, although potential for regeneration benefits is included
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	х	Not relevant – all assessments were undertaken over a short time period and updates of benefits transfer values was undertaken by the authors of the guidance
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Y	Section 10.2 (Part 2) discusses the timing of costs and benefits and discounting
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Partly	The discount rate is given as 3.5%
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	Not discussed
Does the guidance explain why and how to adjust for risk?	Х	Not discussed
Does the guidance explain why and how to adjust for optimism bias?	Х	Not discussed – guidance only covers assessment of benefits

Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Υ	Each section has its own section on sensitivity analysis, with key sensitivity tests identified and worked examples given
Does the guidance explain why and how to calculate switching values?	Х	For each scheme, only one option was assessed, therefore, switching values are not relevant
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	Scenarios are not discussed
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	х	For each scheme, only one option was assessed, therefore, not relevant
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Х	Not relevant – guidance covers benefits only
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Х	Consultation was not relevant for the PR04 schemes
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Partly	The guidance provides worked examples and is supported by ASTs
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Υ	The ASTs include columns specifically for recording assumptions
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Partly	The guidance requests that all workings are shown in the ASTs
Does the guidance request that the results of sensitivity/scenario analyses are included?	Partly	The ASTs include a column for results of sensitivity
Does the guidance provide a good practice template or a proposed list of contents?	Х	The guidance proposes that the ASTs supported by spreadsheets form the output of the appraisal
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Y	The guidance includes questions, checks, etc. to ensure that focus is placed on the most significant benefit areas and that the full approach (monetisation) is only undertaken where benefits are expected to be significant

Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Partly	The guidance was applied to over 200 schemes by non-economists with appraisals completed on time and to a high standard. Concerns have been raised about some of the benefits transfer values included, but the guidance seemed to have helped ensure that robust appraisals were undertaken

# Review of Environment Agency Management System Document Guidance Project Appraisal Guidance Note (Version 5 18/2/05)

Guidance being reviewed: Environment Agency Management System Document Guidance Project Appraisal Guidance Note (Version 5 18/2/05)	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Y	Intro: To produce a PAR to provide a summary to contain all relevant information and facts for a reader with no knowledge of the project to make correct investment decision.
Is the intended audience stated?	N	
Is the guidance officially endorsed?	Υ	An Environment Agency document
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	Introduction to the PAR Template
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	х	No the PAR presents the business case and would follow earlier feasibility studies.
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Y	Sections 2.4 and 2.5 describe costs and benefits. Reference is made to PAG3 and Revision s to economic appraisal procedures arising form the new HM Treasury Green book. Costs to include Optimism bias and a Monte Carlo risk assessment 95% confidence interval to be used. Benefits to be quantified or qualified if not quantifiable.
Does the guidance highlight the need to set out SMART objectives?	Partly	SMART Objectives are not discussed, description of problem and business objectives are requested.
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Х	Refers to PAG3.
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Х	The guidance does not detail how wide the range of options needs to be considered.
Does the guidance give examples or types of options that could/should be included?	Y	Section 2.3 specifies that Do Nothing and Do minimum must be considered. Section 2.3 also gives examples of different forms of construction, barrier, raised banks, a range of standards of protection, various types of responses, flood warning and retreat.

	In agetion 2.2 entions can be discounted
Y	In section 2.3 options can be discounted with a justification and do not need further consideration. The limits on the number of options needs to be stated and the reasons given.
Х	
Х	No but says that "too expensive" or "not acceptable" are insufficient.
Y	Section 2.3
Y	Base Case must always be "Do Nothing" as per PAG3.
Partly	Section 2.4 covers what to include, but not how to cost
Х	
Х	
Y	Guidance says that environmental mitigation and enhancement works need to be identified. Table given showing how costs should be broken down. All costs combined together at present value. Base date for information should be no older than 2 quarters.
х	Guidance states need to inflate future costs for Environment Agency approval.
Х	No time period stated.
Х	No mention of residual values.
Х	Allows quantification of recreational/amenity/environmental benefits but method must be stated.
Partly	Does not explain how but gives examples (e.g. environmental/recreational enhancements, agricultural enhancements), (e.g. flood/erosion alleviation).
	X X Y Y Partly X X X X

Does the guidance set out an approach to valuing benefits in money terms?	Х	Only through compliance with PAG3.
Does the guidance propose early sensitivity to focus effort?	Х	The guidance includes sensitivity testing but does not describe when this should happen.
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Partly	Allows quantification or qualification. If quantified, needs to explain method. If not quantified, describe in terms of relative importance
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Partly	Only that they should be described in terms of relative importance.
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	x	Allows avoidance of valuing difficult/ intangible benefits. Uses decision rule. Includes sensitivity testing to check decision but not for coverage of issues.
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	Refers to PAG3.
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Y	In the introduction the guidance allows use of a cost-effectiveness analysis for legally protected elements.
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Partly	Refers to PAG 3 and states that the base date must be no more than 2 quarters old, and values should be in present value.
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х	No doesn't explain why or how to discount although it requires whole life costs and present value.
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	х	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	
Does the guidance explain why and how to adjust for risk?	Y	Requires identification and support of contingencies. Use of optimism bias and Monte Carlo risk assessment required.
Does the guidance explain why and how to adjust for optimism bias?	Х	Doesn't explain why but requires it. Doesn't explain how but refers to other docs.

Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Partly	Explains why in 2.7 but not how.  It states that we need to check sensitivity of this choice against variations in costs and benefits. This needs to demonstrate that the correct option has been chosen and what change in costs/benefits would change the option.
Does the guidance explain why and how to calculate switching values?	Х	No mention of switching values.
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	No
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Х	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Х	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Х	Only in so much as the approvals needed.
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Υ	This is its main purpose of this document.
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Х	The guidance stresses the importance of including only what's necessary to explain the decision with other essential data in the appendices. Appendices are only submitted on request.
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Partly	Costs yes, Benefits no
Does the guidance request that the results of sensitivity/scenario analyses are included?	Partly	Sensitivity yes.
Does the guidance provide a good practice template or a proposed list of contents?	Υ	Both
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Υ	Yes
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	?	Unknown but as this is version 5 I guess it has been reviewed internally at some point.

# **Review of European Chemical Bureau Technical Guidance Document**

Guidance being reviewed:	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	The aim is to provide guidance on technical hazard identification, response and exposure assessment, and risk characterisation (p. 7 Part I)
Is the intended audience stated?	Y	The guidance is intended for use by Member States Competent Authorities, and other bodies outside the EU that may be interested in risk assessment (Leaflet p.2)
Is the guidance officially endorsed?	Y	The European Commission, Joint Research Centre, Institute for Health and Consumer Protection, and the European Chemicals Bureau (Leaflet p.2)
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	The guidance states the need for a revision of technical assessments on new and existing substances with particular reference to human health risk assessment and environmental risk assessment (Leaflet p.2)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	N	There is no estimation of costs or benefits
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	N	
Does the guidance highlight the need to set out SMART objectives?	N	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Partly	To reduce the margin of error, data must go through a stepwise regression that ensures their adequacy and representativeness (p.17, sect 2.2, Part II)
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	N	Option screening is not considered in this guidance
Does the guidance give examples or types of options that could/should be included?	N	
Does the guidance indicate how a long-list may be reduced to a short-list of options?	N	
Does the guidance indicate the need for option development through a learning process as part of screening?	N	

Aucations for Mevicin of Odidance (A1/DZ)		
Is guidance given (e.g. examples) of acceptable reasons for screening out?	N	No mention of screening out
Does the guidance request that the do-minimum option always be included?	N	
Is there clear guidance on the importance of the base case and how to assess it?	N	No mention of the base case
Option Costs		
Is guidance given on how to cost each option?	N	
Is guidance given on the level of detail that is required?	N	
Does the guidance explain how to express costs in opportunity costs?	N	
Does the guidance explain different types of costs and how they can be combined?	N	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	N	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Y	Calculating the environmental exposure and risk assessment of substances involves a number of time scales, i.e. hydraulic retention time when referring to slowly absorbing substances (p. 47 Sect 2.3.5.3 Part II); additionally tests for biodegradability look at the substance within a 10 day time frame (p.52 Table 6 part II);
Does the guidance explain where residual values should/should not be included?	N	Not taken into account
Does the guidance explain where contingent liabilities should/should not be included?	N	Not taken into account
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	N	
Does the guidance set out an approach to valuing benefits in money terms?	N	Monetary values not taken into account
Does the guidance propose early sensitivity to focus effort?	Partly	Sensitivity analysis is performed when there is conflicting data, variation and uncertainty (p.23 Sect 2.3.1. Part II)
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	N	
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Partly	'Weighted evidence' is employed by using the data from pseudo-replicate tests when the benefits and risks are unknown (p.48 Sect 2.3.6 Part II)

Questions for Neview of Guidanoe (A1/DZ)		
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?		Not known
Does the guidance explain why and how to adjust for subsidies, etc.?	N	Not taken into account
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	N	Monetary values are not discussed
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Partly	Distributional impact models are used to assess the fate of substances on the environment (p. 22, sect 2.3.1. part II)
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	N	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	N	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	N	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	N	
Does the guidance explain why and how to adjust for risk?	Υ	Adjusting for risk is the main component of the ECB guidance
Does the guidance explain why and how to adjust for optimism bias?		Comparable tests and endpoint values are used to rectify any bias (p. 147, 4.3.1.2.part II)
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Partly	The guidance explains why sensitivity analysis should take place (i.e. for identifying individual parameters which are relevant and could influence the outcome) p. 317 part II
Does the guidance explain why and how to calculate switching values?	N	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Y	Different exposure scenarios are used to calculate Predicted Environmental Concentrations /Predicted No-Effect Concentrations testing strategy p. 317, emission scenarios chapter 7

Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	N	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	N	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	If the substance is 'of concern' the competent authorities/ industry will be consulted for further information or testing (Sect. 3.2.2 p.14 Part I).  Additionally, a copy of the evaluation of substances will be sent out to consultees for the recommendation of inclusion (p. 16, sect 3.3.3 Part I)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Y	Parts II and III include numerous examples of how the results should be presented for each type of test
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	N	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	N	
Does the guidance request that the results of sensitivity/scenario analyses are included?	Y	Sensitivity analysis is only applied in cases of conflicting data (p.23 Sect 2.3.1. Part II)
Does the guidance provide a good practice template or a proposed list of contents?	Y	Appendix IV p. 91-104 Part III provides guidance on how to present and format a risk assessment report
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Y	A thorough explanation to the level of detail is given in appendix IV part III
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?		None known
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## Review of Basic principles for selecting the most costeffective combinations of measures for inclusion in the programme of measures as described in Article 11 of the Water Framework Directive HANDBOOK

adestions for Neview of Guidance (A1/DZ)		
Guidance being reviewed:  Basic principles for selecting the most cost- effective combinations of measures for inclusion in the programme of measures as described in Article 11 of the Water Framework Directive HANDBOOK	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	Section 1.1 (pg 1) sets out the objectives and purpose of the guidance which is to set out 'an approach for the systematic derivation of cost-effective combinations of measures with due regard for the requirements of the Water Framework Directive, and hence serves as a basis for decision-making when preparing the programmes of measures'
Is the intended audience stated?	Y	Section 1.1 (pg 1) states that 'This Handbook is aimed at decision-makers in the water management authorities and independent planning offices entrusted with the tasks of the Water Framework Directive'
Is the guidance officially endorsed?	Partly	The guidance has been proposed to assist decision-making under the Water Framework Directive but 'the Handbook does not purport to provide instructions which must be followed to the letter, but instead represents a proposed methodology based on experiences in the preparation of programmes of measures and the requirements pertaining to the practical application thereof' (S1.1, pg 2)
Rationale and Objectives	•	
Is the need for a clear rationale for intervention highlighted?	Y	Intervention is required when a waterbody is at risk of not meeting good status
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Partly	The Handbook notes that 'based on the experiences from the pilot projects for the initial characterisation and identification of significant pressures, it can be assumed that preparation of the programmes of measures will need to be gradually adapted, supplemented and precisely defined' (S5, pg 24)

Questions for Neview of Suldance (A1/B2)		
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Partly	The Handbook includes a preliminary assessment and a detailed assessment, when assessing the costs which require different levels of detail (pg 55)
Does the guidance highlight the need to set out SMART objectives?	N	The objective is set by the Water Framework Directive as 'good status'
Is there a clear structure to the decision-making process defining any hierarchy in choice?	N	
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Y	The Handbook notes that 'as there are many different theoretical combinations for the 17 relevant measures cited as
		examples (as well as other relevant measures at local level), the decision must be restricted by the practical aspects of river basin management.' (pg 35)
Does the guidance give examples or types of options that could/should be included?	Y	As noted above, the Handbook gives example measures and instruments by which the measures can be implemented
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Y	'Stage 2 includes a prioritisation of those measures within the sectors which meet the individual situation of the water body based on the cause/effect matrix' (pg 35)
Does the guidance indicate the need for option development through a learning process as part of screening?	Partly	'Particular emphasis should be given to the traceability of decisions and general comprehensibility, because the matrix showing combinations of measures serves as an argumentation basis for subsequent discussion processes when implementing the programmes of measures' (pg 35)
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Partly	The approach is to add additional measures where a combination would not meet the target
Does the guidance request that the do-minimum option always be included?	N	
Is there clear guidance on the importance of the base case and how to assess it?	N	
Option Costs		
Is guidance given on how to cost each option?	Partly	Stage 5 (pg 51) sets out the approach to determination of costs
Is guidance given on the level of detail that is required?	Y	Stage 5 (pg51-52) requests that local/specific information be used alongside the generic cost estimates
Does the guidance explain how to express costs in opportunity costs?	N	

Does the guidance explain different types of costs and how they can be combined?	Y	Stage 5 (pg 51) sets out definitions of different types of cost (direct and indirect). Pg 54 sets out how to estimate operating costs, with economic costs discussed on pg 55
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Partly	The Handbook sets out how to take account of depreciation (pg 54-55)
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Y	Present value and discounting are described on pg 54. The Handbook notes the importance of uniform assumptions across different parameters, including the interest rate used (pg 55)
Does the guidance explain where residual values should/should not be included?	Y	The Handbook notes that 'Only if the depreciation period of an investment exceeds the period of time under consideration will the (discounted) residual value of the installation at the end of the period under consideration be deducted from the initial investment' (pg 54)
Does the guidance explain where contingent liabilities should/should not be included?	N	
Option Benefits	1	
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	N	The guidance is based on cost- effectiveness analysis, therefore, does not consider 'benefits' except in terms of effectiveness of measures
Does the guidance set out an approach to valuing benefits in money terms?	N	Not relevant
Does the guidance propose early sensitivity to focus effort?	N	Not relevant
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	N	Not relevant
Does the guidance include and explain approaches for valuing these benefits in nonmoney terms (e.g. scoring and weighting)?	N	Not relevant
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	N	Not relevant
Does the guidance explain why and how to adjust for subsidies, etc.?	N	Not relevant
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	N	Not relevant

Quodiono for Review of Galacines (71752)		
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	N	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Partly	Stage 5 (pg 54) discusses the approach to estimating present values but does not set out in detail how to do it
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Partly	The Handbook sets out why it is necessary to discount but not how
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	N	The discount rate to be used is not stated, but it is noted that it must be uniform (pg 54)
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Partly	Taxes are included within the costs of a measure
Does the guidance explain why and how to adjust for risk?	N	Risk is used in terms of a waterbody being 'at risk' of not meeting good status
Does the guidance explain why and how to adjust for optimism bias?	N	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Y	Pg 55 notes that 'Finally, a sensitivity analysis should also be included as part of the cost comparison; it is important to investigate the extent to which the result of the investigation may be altered by a slight change to one of the parameters (for example, if a different interest rate is chosen). If this causes the result to change, this means that the meaningfulness of the study is limited, or the results are very close together'
Does the guidance explain why and how to calculate switching values?	N	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Partly	The Handbook notes that 'for more complex cases, the use of more time-consuming, more structured assessment methods may prove expedient, e.g. on the basis of a multi-criteria analysis or via the development and analysis of scenarios' during options appraisal (pg 57)

Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Partly	Combinations of measures are compared based on their relative costefficiency. This is done by weighing up the various options against one another. 'The aim of this process is not so much to determine a theoretically conceivable "ideal solution" with the lowest costs, but rather to depict the various criteria in a uniform way which must be weighed up against one another within the context of the process. (Stage 6, pg 57). 'When selecting the most cost-effective combinations of measures, a trade-off processes should be implemented between the following criteria:  (A) Probability of target achievement by 2015  (B) Ecological effectiveness of the measure/instrument  (C) Time scale until effectiveness of the combination  (D) Direct costs  (E) Indirect economic costs' (pg 57)
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	N	( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( ) ( )
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	'The weighting of the individual criteria in the trade-off process should be coordinated with affected interest groups within the context of subsequent public participation' (pg 57)
Presentation of Results	•	
Does the guidance set out instructions on how to present the results of the appraisal?	Y	The Handbook includes tables and matrices throughout for recording the results of each stage of the appraisal
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	N	In most cases, the tables and matrices include only the results and there is no space for assumptions (although the importance of uniform assumptions and sensitivity is noted in the Handbook)
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Partly	The Handbook requests that costs be presented, usually as a range to highlight uncertainty. Information on benefits is only included in terms of effectiveness of measures
Does the guidance request that the results of sensitivity/scenario analyses are included?	Y	Pg 55 notes that 'Finally, a sensitivity analysis should also be included as part of the cost comparison'
Does the guidance provide a good practice template or a proposed list of contents?	N	

Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Partly	The approach follows a preliminary assessment first, with a more detailed approach used where 'the results of the preliminary assessment indicate that significant economic costs are anticipated, a detailed investigation is needed' (pg 56)  Similarly, it is proposed that economic costs only be assessed if a number of conditions are met (pg 55)  The Handbook suggests that 'To begin with, primarily those combinations which are highly likely to attain the target of good ecological status by 2015 should be examined in greater detail'
Other Reviews of the Guidance	<u> </u>	
Has a review been made of the guidance? If so, what were the findings of the review?	N	Not known

## **Review of Multi-Coloured Manual**

Guidance being reviewed: FHRC Multi- Coloured Manual	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Υ	S1.1.1 To improve decision making
Is the intended audience stated?	N	Does not define user
Is the guidance officially endorsed?	Υ	Developed by FHRC for Defra/Environment Agency
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	The MCM states that 'there are three basic reasons for undertaking formal project appraisals: firstly, to make better choices; secondly, because of the need for accountability; and thirdly, to engage with the different stakeholders in making decision' (Ch2, pg 18)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Partly	The MCM states that 'sensitivity analysis is a crucial step and should be undertaken at the start of the appraisal process, not at the endif the value of a parameter makes no difference to the choice between the options available, then there is not point considering that parameter in detail (Ch 2, pg 20)
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Partly	The MCM gives an indication of the level of detail and data that may be required at different levels of appraisal (Ch 1, pg 14)
Does the guidance highlight the need to set out SMART objectives?	Х	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Partly	The need to consider appraisal at different levels is discussed in Section 1.6.3, pg 13. Also, Figure 3.3, pg 40 highlights where generality/detail may be selected
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Partly	The MCM states that 'all project appraisal methods involve the comparison of at least two options' (Ch 1.4, pg 11)
Does the guidance give examples or types of options that could/should be included?	Partly	The MCM notes the need for do-nothing, do something and gives examples of different options throughout (without giving a comprehensive list of option types)
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Х	

` ,		
Does the guidance indicate the need for option development through a learning process as part of screening?	Y	The MCM states that 'appraisals should drive the design process, with the identification and specification of project options evolving through the appraisal process' (Ch 2, pg 17)
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	
Does the guidance request that the do-minimum option always be included?	Х	
Is there clear guidance on the importance of the base case and how to assess it?	Y	The MCM notes that 'there should be proper consideration of the 'do nothing' option. The assumption that "something must be done" is to be avoided, as it can lead to the introduction of non-sustainable regimes of flood risk management and coastal erosion management work.' (Ch1, S1.3.3, pg 8)
Option Costs		
Is guidance given on how to cost each option?	х	The MCM is 'predominantly concerned with the estimation of benefits of flood risk management and coastal erosion management plans and schemes.' However, the MCM does provide references to other guidance on the assessment of costs. (Ch 1, S1.8, pg 15)
Is guidance given on the level of detail that is required?	Х	
Does the guidance explain how to express costs in opportunity costs?	Partly	The MCM explains what opportunity costs are (Section 2.5.4, pg 23)
Does the guidance explain different types of costs and how they can be combined?	Х	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	x	
Does the guidance explain where residual values should/should not be included?	Х	
Does the guidance explain where contingent liabilities should/should not be included?	Х	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Υ	Chapter 3 covers the theory and practice behind flood alleviation benefits

Does the guidance set out an approach to valuing benefits in money terms?	Y	The MCM explains how values are measured in Section 2.7, pg 27. Actual benefit values are given in subsequent chapters/on the CD
Does the guidance propose early sensitivity to focus effort?	Y	The MCM states that 'sensitivity analysis is a crucial step and should be undertaken at the start of the appraisal process, not at the endif the value of a parameter makes no difference to the choice between the options available, then there is not point considering that parameter in detail (Ch 2, pg 20)
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Partly	The MCM includes discussion on intangible benefits, and includes in Section 4.5 a section on intangible benefits
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Y	The MCM explains in Chapter 2 the economic principles behind appraisal
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Y	The MCM highlights on numerous occasions the need to consider the significance of benefits before spending a lot of time and resources of quantifying them
Does the guidance explain why and how to adjust for subsidies, etc.?	Partly	The impact of subsidies is discussed in Section 2.7.2, pg 28 and in Chapter 9 (agriculture)
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Partly	The MCM discusses the use of Environmental Assessment in Section 10.4.3, pg 212
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Partly	The MCM notes that the Treasury Green Book recommends the use of income weightings (Section 2.5.6, pg 25)
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Υ	Section 1.9, pg 16 discusses updating and the data to use when updating costs and benefits. The use of growth factors is discussed in Section 2.6, pg 26-27
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Y	Section 2.5.7, pg 25 discusses discounting, including how to do it and why it is used
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Partly	The MCM notes that 'the latest version of the 'Green Book' uses a discount rate which decreases with time' (Ch 2, pg 25)
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Υ	The MCM discusses the need to remove the effect of indirect taxes (e.g. Section 2.7.2, pg 28)

adestions for Neview of Caldanoe (A1702)		
Does the guidance explain why and how to adjust for risk?	Partly	The MCM discusses changes in risk in Section 2.6, pg 26
Does the guidance explain why and how to adjust for optimism bias?	Partly	The MCM discusses cost over-run and that 'Treasury guidance now provides advice about the use of factors to correct for 'optimism bias' by increasing anticipated costs in case there are systematic cost over-runs in the future.'  (Ch 1, S1.8, pg 16)
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Y	Section 2.4 stresses the importance of sensitivity analysis while Section 2.8.2, pg 31 discusses robustness analysis
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Y	Decision criteria are discussed in Section 2.8.1, pg 30. Section 3.7, pg 51 discusses the decision rules in more detail
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Partly	The MCM notes that 'the appraisal process needs to be iterative, with appraisal results informing planning and design, which in turn inform the extent of post-scheme flooding or the extent of erosion delay.' (Ch 1, S1.6, pg 14)
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	The MCM highlights the important of consultation in various locations, e.g. 'critical to the achievement of a 'just' process and a 'right' decision is stakeholder involvement (Ch 2, pg 19) and 'this involvement needs to be included in the definition of the problem through to identification of options and the assessment of the relative importance that should be given to achieving the different objectives (Ch 2, pg 20)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Partly	The MCM states that 'when other people read the project appraisal report, it should be clear to them both why the particular option chosen was chosen and that this choice was made through a logical and rigorous process (Ch 2, pg 18)

Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Y	The MCM notes the importance of an audit trail, robustness and transparency
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Partly	The MCM focuses on benefits
Does the guidance request that the results of sensitivity/scenario analyses are included?	Y	The MCM highlights the importance of sensitivity analysis throughout
Does the guidance provide a good practice template or a proposed list of contents?	Х	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Y	The MCM highlights the need to consider the significant of benefits before spending a lot of time and resources quantifying them
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Y	Comments have been made on previous versions and on the accompanying handbook

## Review of Comments on MCM Handbook – Implications for Guidance

The Handbook needs to speak to its principle audience. It still fails to do this and this is a major flaw. Part of the audience is 'those people who really should use PAG/MCM, but won't bother because they want to force the scheme through' rather than those 'who can make as good a decision on the basis of the handbook as with PAG/MCM'.

The purpose of the Handbook needs to be clear.

### Guidance needs to be clear about its purpose, who should use it and when

The Handbook proposes a more traditional view on the outcomes expected from investment and as such does not provide practitioners with the tools that enable the evaluation of more holistic and strategic flood risk management solutions against the increasingly sophisticated outcomes required.

## Guidance should try and allow flexibility such that future advances can be incorporated

The Handbook offers evaluation techniques and outlines the decision framework for scheme selection. The combining of these two different components of the appraisal process into one handbook is not particularly appropriate when changes to the decision framework are already evolving.

### Guidance should stick to its main purpose with links to other guidance as appropriate

It would be better if more of the technical language were explained in simpler terms.

### Guidance needs to explain everything in as simple terms as possible

There is a worry that the Handbook simplifies the process of CBA too greatly, which could result in an inexperienced user applying the Handbook techniques without the appropriate knowledge and understanding.

## Guidance needs to emphasise that it is not a mechanical process – thinking is required!

The level of economic assessment in the Handbook is generally divided into pre-feasibility, intermediate and full scale. However, this does not necessarily follow the categorisation of studies generally undertaken for the Environment Agency and Defra, which are: CFMP/SMP, strategy, pre-feasibility and feasibility/PAR.

## Guidance needs to use consistent terminology with other relevant guidance

I'd appreciate some more fundamental guidance on the use of economics within decision making as a tool to help us compare options in particular, rather than a mechanical process.

## Guidance needs to link to or provide introductory text covering key principles

The text does not differentiate between the elements that it would be 'usual' to concentrate on and those areas where analysis would be undertaken in specific circumstances, if benefits were thought to be significant for that particular project.

### Guidance needs to highlight on the 'usual' case, as well as providing information on what to do in more unusual situations

As a 'how to do it' guide, this document on its own would not allow me to complete a benefit analysis for a straightforward situation. I would need to refer to other documents.

## Guidance needs to be fit for purpose – this can only really be achieved by road testing

A link to where information can be found would be useful.

## Guidance needs to provide information on where data can be obtained from if the approaches within it are to be followed

Appraisal process appears very intense/time consuming.

Guidance needs to be clear about appropriate levels of detail to use at the different levels

## Review of Economic Assessment of Groundwater Protection – Lit Review

Guidance being reviewed:	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	N	This is not really set out as a guidance volume, rather including some "How to do's" within a literature review.
Is the intended audience stated?	N	
Is the guidance officially endorsed?	?	Unknown
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	N	Paper is a literature review that sets out techniques, rather than providing specific guidance in response to a particular site/issue. No indication of when intervention might be required/how that decision might be reached
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	N	Paper is a general presentation of techniques in an economic overview of experience with different measures, rather than specific step-by-step guidance. But does state on p.65, "Cost comparisons and preliminary assessments should be used to assess whether a full CBA is justified in the first place. Only if there is substantial doubt whether the costs of a measure are in line with the expected benefits, a full Cost-Benefit-Analysis should be considered.
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	N	Gives some examples of different measures but no detailed costings and generalised benefits. Paper is a summary of other studies so is not detailed
Does the guidance highlight the need to set out SMART objectives?	N	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	N	
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Partly	A number of options for groundwater protection and remediation are presented. References made throughout the document that the choice in any given situation will be site – specific.
Does the guidance give examples or types of options that could/should be included?	Y	Documents broad range of options for groundwater protection and restoration from literature review throughout

		document. P. 21-34. Instrument mix
Does the guidance indicate how a long-list may be reduced to a short-list of options?	N	Section 4.3.2 p.34-35  Other than saying decision on options will be site-specific
Does the guidance indicate the need for option development through a learning process as part of screening?	N	Presents list of options that have been implemented in various places throughout the document. Also states that site specific aspects in relation to restoration/protection of groundwater bodies will need to be considered.
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Y/N	Makes generalised statements e.g. "As a general result, it will almost always be less expensive to prevent groundwater contamination than to clean it up". p32, or "However, the choice for any particular containment option will have to be made depending on local hydrogeological conditions and on the kind of pollution;" p32.
Does the guidance request that the do-minimum option always be included?	N	Not intended as guidance for selection of options, but presenting measures for dealing with groundwater pollution prevention and restoration
Is there clear guidance on the importance of the base case and how to assess it?	N	Only a general statement – "In exceptional cases, it might even be economically rational to suffer the damage from contaminated groundwater, rather than taking action to clean it. Whether such a solution is preferable depends not only on the extent of contamination and its expansion over time, but also or on the current and future uses of the groundwater, including the effects of groundwater pollution on groundwater-dependent ecosystems. And, in must consider that economic rationality is only basis among several on which decisions can be based, and that it depends on the currently available knowledge" p.33
Option Costs	1	
Is guidance given on how to cost each option?	Y	Presentation of information on costs is structured around the various pollution problems rather than by instruments. But only done in broad general terms providing some information from previous studies. P.36-39
Is guidance given on the level of detail that is required?	N	

N	
Y	Explains the different cost aspects of various protection and restorative measures but not really how to go about calculating them P. 36-39
N	
N	But does say "The uncertainty about the possible effects of groundwater contamination increases with the length of the time frame considered, therefore the estimate itself will become less reliable. From the consumer's point of view, uncertainty about the extent of contamination and possible future dangers leads to increased anxiety, which can be seen as an economic cost. At the same time, the travel times and spread of contaminants become increasingly difficult to model, which reduces the accuracy of any prediction of the damage avoided through groundwater protection. Therefore the choice of the time frame and discounting factor has a strong impact on the outcome of the analysis." p. 73
N	
N	
Y	Does so for water protection options p.21-30 and for remediation options p.30-33
Y/N	Broadly identifies a number of approaches to valuing groundwater resources, but highlights the complexity of doing this and questionable robustness of the results
N	
Y	But only under the 4-account model p.67. Otherwise, concentrates on providing money value of benefits in different ways. Concludes however that it is very difficult to quantify benefits.
N	
	Y N N Y Y/N N

Questions for Neview of Galdance (A1/DZ)		
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	N	But does highlight the difficulty in valuation of benefits under whichever technique is used
Does the guidance explain why and how to adjust for subsidies, etc.?	N	But does mention fact that agricultural subsidies will skew ground water value data
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	N	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	N	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	N	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	N	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	N	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	N	
Does the guidance explain why and how to adjust for risk?	N	Provides some examples of risk-based approaches to groundwater management p. 68-70
Does the guidance explain why and how to adjust for optimism bias?	N	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	N	
Does the guidance explain why and how to calculate switching values?	N	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	N	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Y	But only to limited extent. Section 7.1 p.64 identifies Cost Benefit Analysis, Cost –Effectiveness Analysis and Multicriteria analysis as means to compare costs and benefits, but only brief guidance on how to use them.
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Doos the guidenes highlight how to mavimies	N	But refers to the fact that examples
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	IN	provided in Chapter 7 do NOT consider the optimal mix of different instruments, but rather investigate the optimal use of particular instruments.
Does the guidance highlight the importance and	N	
need for consultation at the decision-making stage?	IN	
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	N	No information provided on presenting results at all.
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	N	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	N	
Does the guidance request that the results of sensitivity/scenario analyses are included?	N	
Does the guidance provide a good practice template or a proposed list of contents?	N	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	N	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	?	

### **Review of Highways Agency PAR 3.3**

Guidance being reviewed:	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	The guidance starts with "the PAR is a key summary document in which the need for a project, its costs and benefits (including those that cannot be quantified in money terms) are brought together to aid the decision maker in judging the worth and priority of the project" (p.3, sect. 1.3)
Is the intended audience stated?	Y	The PAR is mandatory for all Highways Agency improvement projects (p. 3 sect. 1.4)
Is the guidance officially endorsed?	Y	Approval signatures are required from the Highway's Agency Project Sponsor and the Local Business Management Team the at the commitment of work stage (p. 4 sect. 1.5)
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Partly	The PAR 3.3 is an updated version of the PAR 3.2 with changes made by the DfT and Transport Economics Note.
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Y	Costs are identified to assess whether to perform a short or a full PAR (Sect. 1.10 p.4) and the benefits are assessed against the Government's five objectives before the PAR is performed (p.3 sect. 1.3)
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Partly	Appendix C includes a description of how to fill out a cost worksheet, which also includes worked examples.  However, little detail is given on the benefits
Does the guidance highlight the need to set out SMART objectives?	N	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Partly	Cost is the main decision factor for the PAR. In addition, the PAR is divided into stages, each of which is explained in detail. The full PAR has 6 steps (p. 8 - 19) and the short PAR has 4 steps (p.9 - 16).
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Y	Five main objectives are listed (sect. 2.7, p.10 short PAR), environment, social, economic

Does the guidance give examples or types of options that could/should be included?	Y	A list of project types is included (i.e. safety, economy, environment noise, environment other, accessibility, integration, and pilot) (p.8 sect. 2.7 full PAR)
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Y	The guidance provides both a short PAR and a long PAR depending on project costs (Sect. 1.8 to 1.12 p.4)
Does the guidance indicate the need for option development through a learning process as part of screening?	N	Not taken into account
Is guidance given (e.g. examples) of acceptable reasons for screening out?	N	Not taken into account
Does the guidance request that the do-minimum option always be included?	Y	When calculating costs, the difference between the do-something and the do-nothing options should be added and quantified accordingly (C10 of the short PAR and C8 of the full PAR)
Is there clear guidance on the importance of the base case and how to assess it?	N	Not taken into account
Option Costs		
Is guidance given on how to cost each option?	Partly	There is no explicit mention on how to cost individual options
Is guidance given on the level of detail that is required?	Y	Appendix C provides a detailed explanation on how to perform cost analysis
Does the guidance explain how to express costs in opportunity costs?	N	Not taken into account
Does the guidance explain different types of costs and how they can be combined?	Partly	There are four different costs (Work, Land, Other and Current Costs); they are combined together to provide the total cost in the costs worksheet
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	N	Capital charges are included in the costs estimates as capitalisation factors (p.37 C14)
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Y	Time horizon is 60 years, which was doubled from the previous PAR 3.2 to take account of the new lower discount rate introduced in the Treasury Green Book (p.3 sect. 1.2)
Does the guidance explain where residual values should/should not be included?	N	Not taken into account
Does the guidance explain where contingent liabilities should/should not be included?	N	Not taken into account
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	N	Safety and journey times are used as indicators for identifying benefits (C19 p.39 to C28 p.41)
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Does the guidance set out an approach to valuing benefits in money terms?	Y	The guidance uses an economics worksheet to calculate the monetised benefits resulting from changes to accident rates or journey times (C15 p.37)
Does the guidance propose early sensitivity to focus effort?	N	Not taken into account
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Y	If non-monetised impacts are identified in the PAR, a higher final year rate of return than usual (~2%) is needed to offset these impacts (Sect 2.54, p. 18)
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Y	Options are scored as 'beneficial', 'adverse', or 'neutral' basis, more detail is provided in Appendix B (p.12 sect. 2.20 to 2.22)
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	N	Not taken into account
Does the guidance explain why and how to adjust for subsidies, etc.?	Υ	Subsidies from Public Transport sector are included and deducted from the total costs incurred (p.34 C6)
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	N	Not taken into account
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	N	Not taken into account
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Y	The DfT is responsible for bringing all the values and data up to date (p.32 C24 Full Par)
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Y	To find the first year rate of return the short PAR does not discount costs or benefits as it is assumed that the first year of project benefits will follow immediately after the project costs are incurred (p.35 C9)
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Y	The guidance uses a 3.5% and discounts back to 2002 (p.35 C8)

Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Y	The difference between non-recoverable and recoverable VAT when calculating costs depends on whether the construction is inside or outside the existing highway boundary. For further advice the guidance refers to HAFI 9/2000
Does the guidance explain why and how to adjust for risk?	Y	A mean risk allowance is incorporated into the PAR costs sheet (p.30 C5)
Does the guidance explain why and how to adjust for optimism bias?	Y	An adjustment factor, which takes into account costs uncertainty, reflects the
		optimism bias, and this reduces if a risk assessment has been carried out (p.31 C5)
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	N	Not taken into account
Does the guidance explain why and how to calculate switching values?	N	Not taken into account
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	N	a
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Y	The value of costs and benefits of the base year is summarised in the costs worksheet, and an audit is performed to assess whether the costs and benefits match those predicted (sect. 1.13 p.6 full PAR)
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	N	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	Consultation is carried out with the Regional Planning Body, local authorities, interest groups, landowners, developers, and any concerns or changes consultees suggest need to be taken into account (p.12 sect. 2.38 of the full PAR)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Y	Worked examples on how to costs options and worksheets are available in Appendix C of the PAR
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Partly	Although it is not explicitly mentioned, the worksheets and the working examples both include the assumptions alongside the calculations

Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Y	All worksheets include the values and what they represent for each calculation (appendix C)
Does the guidance request that the results of sensitivity/scenario analyses are included?	N	No sensitivity analysis is taken into account
Does the guidance provide a good practice template or a proposed list of contents?	Y	The PAR procedure is described on p.8- 19 for the full PAR and p.9-16 for the short PAR and a practice template is included for both PARs
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Partly	The worksheets provide a very detailed documentation of the PAR (sect. 1.38 p.8)
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?		None known

## Review of HR Wallingford (2006): Climate change and water

Guidance being reviewed: Climate Change and Water	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Y	P1: to provide approach to assessment of impact of CC
Is the intended audience stated?	N	
Is the guidance officially endorsed?	?	
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	Requires objectives to be set as the appraisal is undertaken against these objectives
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	x	
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Partly	Appraisal process is based on multi- criteria analysis
Does the guidance highlight the need to set out SMART objectives?	Y	Measurable objectives are essential as the appraisal requires options to be assessed according to how they meet the objectives
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Х	
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Partly	The guidance includes approaches for screening of options
Does the guidance give examples or types of options that could/should be included?	Partly	The guidance gives worked examples
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Υ	The guidance explains how to screen against primary objectives
Does the guidance indicate the need for option development through a learning process as part of screening?	Y	The guidance highlights the need of feedback between options and how options that do not meet the objectives can be revised
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Y	Worked examples are given
Does the guidance request that the do-minimum option always be included?	Х	Guidance relates to water resources (supply-demand options)
Is there clear guidance on the importance of the base case and how to assess it?	х	Options are compared against objectives and the extent to which they meet those objectives rather than a base case

Option Costs		
Is guidance given on how to cost each option?	Х	The guidance is focused on appraisal of options against objectives and does not cover the cost of options
Is guidance given on the level of detail that is required?	Х	
Does the guidance explain how to express costs in opportunity costs?	Х	
Does the guidance explain different types of costs and how they can be combined?	Х	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Х	
Does the guidance explain where residual values should/should not be included?	Х	
Does the guidance explain where contingent liabilities should/should not be included?	Х	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Partly	The benefits of an option are measured in terms of the extent to which it meets objectives, rather than against benefit categories. These objectives can be set to meet the specific requirements of a local area, particular organisation, etc.
Does the guidance set out an approach to valuing benefits in money terms?	Х	The appraisal process uses scoring and weighting techniques
Does the guidance propose early sensitivity to focus effort?	Partly	The guidance suggest careful selection of options and objectives to minimise the time and resources that is required to undertake the appraisal
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Partly	All benefits are measured against objectives so are not monetised,
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Y	The guidance explains how to use scoring and weighting techniques when used an objectives-based appraisal process
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Partly	The guidance encourages breaking down objectives where they cover more than one issue, but only where this would improve the decision and not disproportionately increase the amount of time and resources required

Questions for Neview of Guidance (A1/D2)		
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Х	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Partly	The guidance includes worked examples of objectives that can include particular distributional issues (if desired)
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Х	Not relevant – benefits are not monetised
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х	Not relevant
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	x	Not relevant
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	
Does the guidance explain why and how to adjust for risk?	Х	
Does the guidance explain why and how to adjust for optimism bias?	Х	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Y	Low, mid and high estimates are used and Section 3.6 considers the use of sensitivity analysis to assess key uncertainties (e.g., in scoring and weighting)
Does the guidance explain why and how to calculate switching values?	Partly	The guidance discusses how changing some of the scores/weights could affect the rank order of options (best to worst)
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Y	The guidance includes consideration of the Foresight scenarios and how decisions may change under the different scenarios. This includes whether there is a need to take action now to ensure that options are feasible under future scenarios (e.g. legislation)

Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Υ	Section 4 discusses how the objectives are used to develop combinations. There is also discussion on how the rank order (and hence combinations selected) may vary under the sensitivity analysis
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Partly	The guidance focuses on identifying the 'least regrets' combination of options and how to combine different options together to get win-win situations
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Х	
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Х	Worked examples are given showing how the results could be presented
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Y	The guidance suggests the use of Appraisal Summary Tables to record all assumptions
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Υ	Costs form an important part of the decision-making process and need to be considered alongside the scores and weights
Does the guidance request that the results of sensitivity/scenario analyses are included?	Y	The guidance highlights the importance of sensitivity analysis through worked examples
Does the guidance provide a good practice template or a proposed list of contents?	Х	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Partly	The guidance notes that the appraisal process can be very time consuming where there are a lot of options, objectives and scenarios to consider
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Х	Only recently developed as part of Defra's Climate Change and Adaptation programme

## Review of Reducing risks, protecting people HSE's decision-making process 1

Guidance being reviewed: Reducing risks, protecting people HSE's decision-making process	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	Part 1 sets out the aims of the document: the document is aimed at explaining the decision-making process in HSE rather than providing guidance to individual duty-holders on what they need to do.
Is the intended audience stated?	Y	Pg 1: This document is aimed primarily at stakeholders who want to know more about HSE's philosophy for securing the health, safety and welfare of persons at work and for protecting others against risks to health and safety []
Is the guidance officially endorsed?	Y	Endorsed by HSE
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	Pg vi and vii
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Partly	When proposing options, the guidance notes that costs and benefits should be borne into consideration (Pg 35) but does not indicate the need for an estimate
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	N	
Does the guidance highlight the need to set out SMART objectives?	N	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Partly	There is clear structure to decision- making, including a step to decide whether the issue is one for HSE, and a mention to a preferred risk control hierarchy promoted by HSC/E and the EU in the guidance; although this is not described (Pg 27)
Options and Screening of Options	_	
Does the guidance highlight the need for a wide range of options to be considered?	Partly	Stage 3 of the process consists of Identifying options. The Guidance notes that these can range from doing nothing to introducing measures (whether non-regulatory or regulatory) to get rid of the cause of the problem altogether and some other but does not highlight the need to consider a wide range of options
Does the guidance give examples or types of options that could/should be included?	Y	Stage 3 (Pg 32)

Questions for Neview of Galdance (A1/B2)		
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Y	Criteria given to look/examine options, e.g. uncertainty, costs and benefits, etc (Pg 34-35)
Does the guidance indicate the need for option development through a learning process as part of screening?	N	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Y	Criteria given to look/examine options, e.g. uncertainty, costs and benefits, etc (Pg 34-35)
Does the guidance request that the do-minimum option always be included?	N	
Is there clear guidance on the importance of the base case and how to assess it?	N	
Option Costs		
Is guidance given on how to cost each option?	Partly	Pg 66 provides a list of costs that are normally taken into account in regulating, but does not provide too much detail on how to costs options
Is guidance given on the level of detail that is required?	N	
Does the guidance explain how to express costs in opportunity costs?	N	
Does the guidance explain different types of costs and how they can be combined?	Partly	Guidance explains different types of costs (Pg 66) but not how to combine them
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	N	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	N	
Does the guidance explain where residual values should/should not be included?	N	
Does the guidance explain where contingent liabilities should/should not be included?	N	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Partly	Some types of benefits are given, non monetary such as wellbeing (Pg 36) and others monetary units, such as value of preventing a fatality (VPF); but Guidance does not explain how to identify the benefits
Does the guidance set out an approach to valuing benefits in money terms?	N	Examples of monetary valuation for health related benefits are given, based on for instance DoT's VPF (Pg 65); but an approach for this is not given

Y	Sensitivity analysis for risk assessments to prioritise further research and action (Pg 28).
Partly	The Guidance highlights the possibility of qualitative assessments but does not describe an approach
N	
N	
N	
N	
	_
N	Although Guidance notes that its has become a matter of course to take into account consideration of matters such as distributional impacts (Pg 14)
•	
N	
Partly	Guidance notes that when preparing formal CBAs, it is customary to discount future costs and benefits and explains why but does not explain how (Pg 66)
N	
N	
N	
N	
Partly	Guidance mentions sensitivity analysis (Pg 28) but does not explain how to undertake it
	Partly  N  N  N  N  N  N  N  N  N  N  N  N  N

,		
Does the guidance explain why and how to calculate switching values?	N	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Partly	Guidance notes that uncertainty can be overcome by constructing credible scenarios on how the hazards could be realised and thereby making assumptions about consequences and likelihood. The credible scenarios can range from a 'most likely' worst case to a 'worst case possible' depending on the degree of uncertainty.
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	N	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	N	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Partly	The documents notes that occasionally, when there are significant gap between those that benefit and those bearing the costs, there may be need for public debate (Pg 23)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	N	
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Partly	The Guidance highlight the need to assess assumptions and their plausibility but does not stress the importance of including/spelling them out
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	N	
Does the guidance request that the results of sensitivity/scenario analyses are included?	N	
Does the guidance provide a good practice template or a proposed list of contents?	N	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	N	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	N	Not known
	L	l

### **Review of Health Impact Assessment Guidance**

1	T
Y/N	Comments/Description/Reference
Y	S 1 (Pg 4): This document describes Health Impact Assessment (HIA) and the steps involved in HIA. It gives advice based on the experience of HIA practitioners and provides tools to help carry out these steps and to adapt HIA to local circumstances.
Y	S 1 (Pg 4): [] not only policy makers but those developing specific proposals through the HIA process and to enable them to undertake a HIA
Y	On behalf of the Ministerial Group on Public Health
Y	S 1 (Pg 4): Wider policy framework and rationale given
N	
N	
Partly	The Guidance notes the need to set the objectives (S 3.2.1; Pg 9) at a screening but does not mention the need for these to be SMART
N	
N	
N	
N	
N	
N	Screening is with regard to impacts rather than options
N	
	Y Y Y N N N N N N N N N

Is there clear guidance on the importance of the base case and how to assess it?	Partly	The Guidance notes the importance of profiling the population and identifying potentially vulnerable groups to establish a baseline against which possible future health impacts can be assessed
Option Costs		
Is guidance given on how to cost each option?	N	
Is guidance given on the level of detail that is required?	N	
Does the guidance explain how to express costs in opportunity costs?	N	
Does the guidance explain different types of costs and how they can be combined?	N	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	N	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	N	
Does the guidance explain where residual values should/should not be included?	N	
Does the guidance explain where contingent liabilities should/should not be included?	N	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	N	
Does the guidance set out an approach to valuing benefits in money terms?	N	
Does the guidance propose early sensitivity to focus effort?	N	
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	N	Guidance notes that qualitative evidence is important and that the HIA should focus on the quality of the evidence regardless of whether it is quantitative or qualitative (Pg 14).
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	N	
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	N	
Does the guidance explain why and how to adjust for subsidies, etc.?	N	

Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	N	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	N	The Guidance notes however the importance on considering different distributional impacts on different sectors of the population (Pg 14)
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	N	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	N	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	N	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	N	
Does the guidance explain why and how to adjust for risk?	N	
Does the guidance explain why and how to adjust for optimism bias?	N	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	N	
Does the guidance explain why and how to calculate switching values?	N	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	N	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	N	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	N	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	N	Although guidance highlights the importance of consultation for assessing impacts

Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Partly	Annex 6 suggests a reporting format
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	N	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	N	
Does the guidance request that the results of sensitivity/scenario analyses are included?	N	
Does the guidance provide a good practice template or a proposed list of contents?	Y	Annex 6
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	N	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	N	Not known

# Review of Guidance on the evidence required to justify disproportionate cost decisions under the Water Framework Directive

Guidance being reviewed:	Y/N	Comments/Description/Reference	
Guidance on the evidence required to justify disproportionate cost decisions under the Water Framework Directive –Draft Guidance			
Is the aim of the guidance given?	Y	S 1.1 (Pg 1): This draft guidance document sets out the proposed methodology for collating and presenting evidence for disproportionate cost assessments (DCA) in England, Scotland, Wales and Northern Ireland under the EU Water Framework Directive (WFD).	
Is the intended audience stated?	Y	S 1.1 (Pg 1): to be used by the relevant UK regulators and co-regulators who will be carrying out the DCAs	
Is the guidance officially endorsed?	Y?	No info on the current status of guidance but as commissioned by Defra this is likely to be endorsed	
Rationale and Objectives			
Is the need for a clear rationale for intervention highlighted?	Y	S 1.1. and S 1.2 (Pg 1)	
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Partly	First screening, qualitative description of impacts, to see whether the measures are likely to be disproportionately costly.  Only detailed assessment when decision is unclear	
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Y	Depending on the clarity of the case; from qualitative to quantitative and monetary valuation	
Does the guidance highlight the need to set out SMART objectives?	N		
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Y	Process may conclude that combination of measures to achieve good water quality status are disproportionately costly so second set of measures should be investigated	
Options and Screening of Options			
Does the guidance highlight the need for a wide range of options to be considered?	N	Measures to be investigated should be determined at an earlier stage. The Guidance only applied to those measures already selected	

Does the guidance give examples or types of options that could/should be included?	Partly	The Guidance includes annexes with case studies and potential measures; but list of measures are not the focus of this Guidance
Does the guidance indicate how a long-list may be reduced to a short-list of options?	N	
Does the guidance indicate the need for option development through a learning process as part of screening?	N	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Y	Based on costs deemed to be disproportionate in comparison with benefits
Does the guidance request that the do-minimum option always be included?	N	
Is there clear guidance on the importance of the base case and how to assess it?	Partly	Options are compared against current situation; but its importance is not stressed in the Guidance
Option Costs		
Is guidance given on how to cost each option?	Partly	The Guidance has a focus on benefits; costs should be determined at an earlier stage
Is guidance given on the level of detail that is required?	N	
Does the guidance explain how to express costs in opportunity costs?	N	Costs are not the focus of the Guidance
Does the guidance explain different types of costs and how they can be combined?	N	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	N	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	N	
Does the guidance explain where residual values should/should not be included?	N	
Does the guidance explain where contingent liabilities should/should not be included?	N	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Y	S 2.2.1 (Pg 4) and accompanying spreadsheets lists types of benefits
Does the guidance set out an approach to valuing benefits in money terms?	Y	Set of questions under each benefit category (spreadsheets)
Does the guidance propose early sensitivity to focus effort?	Partly	Low, medium and high bounds are given as a possibility from start of the process

Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Y	The Guidance is accompanied by a database of possible values for benefit transfer
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Y	The Guidance is accompanied by a database of possible values for benefit transfer
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	N	Valuation is left to the decision of the assessor but guidance encourages the valuation of a wide range of impacts when considered appropriate
Does the guidance explain why and how to adjust for subsidies, etc.?	N	Adjustment are part of the process of estimating costs but these are not the focus of this Guidanec
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	N	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Y	The Guidance includes distributional analysis; based on elasticities
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	N	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Partly	The Guidance provides in the spreadsheets a proforma for discounting; but this is not discussed in the Guidance
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	N?	The discounting process is left to the assessor (NB: this might have changed though since the Draft Guidance was produced in April 2006)
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	N	Focus of Guidance on benefits rather than costs
Does the guidance explain why and how to adjust for risk?	N?	Probabilities to achieve objectives are included in calculations but not detailed guidance given on this
Does the guidance explain why and how to adjust for optimism bias?	N	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Y	Lower, medium and upper bounds suggested to check sensitivity of results
Does the guidance explain why and how to calculate switching values?	N	
·		

N			
N	The original objective is achieving good environmental status and the set of measures under investigation are assumed to meet so.		
N			
Partly	The process of assessing disproportionate costs could be triggered by opposition from stakeholders; consultation is also suggested as a source of data; but uncertain about the role of consultation at the decision making stage		
Y	A series of data proformas have been developed as a core component of this guidance (as excel worksheets) for collating, interpreting, analysing and presenting the evidence.		
Y	Sources of data are to be included in the spreadsheets		
Partly	Depending on the type of decision; when it is clear that set of measures are not disproportionately costly; the user may not need to value benefits		
Partly	Again, this depends on the type of decision		
Partly	Spreadsheets are a good method to record outcomes but guidance may benefits from a more user-friendly reporting format (base don results from spreadsheets)		
Y	Very detailed guidance, including spreadsheets and database of values for benefit transfers. Examples of application in case studies		
Other Reviews of the Guidance			
N			
	N N Partly Y Partly Partly Partly		

## **Review of Environmental Procedures for Inland Flood Defence Works**

Guidance being reviewed: Environmental Procedures for Inland Flood Defence Works (MAFF 1992)	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Υ	P1: highlights environmental procedures in srep by step approach
Is the intended audience stated?	N	
Is the guidance officially endorsed?	Υ	Published by MAFF
Rationale and Objectives	•	
Is the need for a clear rationale for intervention highlighted?	Partly	The guidance begins by stating that 'it is important at the outset to be fully aware of how to address the perceived problem'
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	x	
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Х	The guidance refers the reader to the FCDPAG series
Does the guidance highlight the need to set out SMART objectives?	Partly	The guidance sets out essential questions to answer in the preliminary thinking (Step 1)
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Х	
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Υ	Step 2
Does the guidance give examples or types of options that could/should be included?	Υ	Step 2 sets out four types of flood defence option
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Partly	Section 2.3 states 'consider all possibilities within each of these options and discard those that are either not technically feasible or would cause unacceptable damage to the environment'
Does the guidance indicate the need for option development through a learning process as part of screening?	Х	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	
Does the guidance request that the do-minimum option always be included?	Х	The four flood defence options include 'reduce: the option of maintaining flood defences at a lower standard of protection'

Is there clear guidance on the importance of the base case and how to assess it?	Y	The guidance states that do nothing 'is an option which should always be considered since it provides a baseline against which all other options are measured'
Option Costs		
Is guidance given on how to cost each option?	Х	The guidance refers the reader to the FCDPAG series
Is guidance given on the level of detail that is required?	Х	
Does the guidance explain how to express costs in opportunity costs?	Х	
Does the guidance explain different types of costs and how they can be combined?	Х	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	х	
Does the guidance explain where residual values should/should not be included?	Х	
Does the guidance explain where contingent liabilities should/should not be included?	Х	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Х	The guidance refers the reader to the FCDPAG series
Does the guidance set out an approach to valuing benefits in money terms?	Х	
Does the guidance propose early sensitivity to focus effort?	Х	
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	х	
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Х	
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	х	
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	

Questions for Neview of Guidance		
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Х	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Х	The guidance refers the reader to the FCDPAG series
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Х	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	
Does the guidance explain why and how to adjust for risk?	Х	
Does the guidance explain why and how to adjust for optimism bias?	Х	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Х	
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	X	The guidance refers the reader to the FCDPAG series
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Х	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Х	
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Х	

Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Х	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Х	
Does the guidance request that the results of sensitivity/scenario analyses are included?	Х	
Does the guidance provide a good practice template or a proposed list of contents?	Х	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Х	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?		Not known

# Review of A strategic guide for managers and decision makers in the National Rivers Authority, Local Authorities and other local bodies with coastal responsibilities

	Comments/Description/Reference
Υ	P1: sets out a comprehensive policy framework
N	
Υ	Published by MAFF
Υ	Step 1 requests a clear definition of the problem
X	
Х	The guidance refers the reader to the FCDPAG series
Υ	Step 1 requests a clear statement of the final objectives of a scheme
Х	
Partly	Step 1 suggests inclusion of both hard and soft engineering options
Υ	Step 2
Partly	The guidance suggests using consultation, environmental designations and informal environmental assessment to discard options which are likely to have significantly detrimental environmental effects
Х	
Х	
Partlv	The do-minimum option is in a list of options that 'should be considered'
	X Y X Partly Y Partly

Is there clear guidance on the importance of the base case and how to assess it?	Y	Step 2 states that 'this option should always be evaluated as the baseline against which other options are measured'
Option Costs		
Is guidance given on how to cost each option?	х	The guidance does not discuss costing of options, but the manual 'Coastal Defence and the Environment – a guide to good practice' does cover options in more detail
Is guidance given on the level of detail that is required?	Х	
Does the guidance explain how to express costs in opportunity costs?	Х	
Does the guidance explain different types of costs and how they can be combined?	Х	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	х	
Does the guidance explain where residual values should/should not be included?	Х	
Does the guidance explain where contingent liabilities should/should not be included?	Х	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Partly	This is only discussed in terms of the informal and formal environmental assessment
Does the guidance set out an approach to valuing benefits in money terms?	Х	The guidance refers the reader to the FCDPAG series
Does the guidance propose early sensitivity to focus effort?	Х	
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	х	
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Х	
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Х	

Does the guidance explain why and how to adjust for subsidies, etc.?	X
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	X
Distributional Impacts	
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х
Present Values and Discounting	
Does the guidance explain how to update all costs and benefits to today's prices?	Х
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	х
Economic Adjustments	
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х
Does the guidance explain why and how to adjust for risk?	Х
Does the guidance explain why and how to adjust for optimism bias?	Х
Sensitivity Analysis	
Does the guidance explain why and how to undertake sensitivity analysis?	X
Does the guidance explain why and how to calculate switching values?	Х
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	х
Comparing Options	
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	X
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	X
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Х

Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Х	
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Х	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Х	
Does the guidance request that the results of sensitivity/scenario analyses are included?	Х	
Does the guidance provide a good practice template or a proposed list of contents?	Partly	The guidance suggests areas that the environmental assessment should cover
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Х	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?		None known

#### **Review of FCDPAG1**

Y/X	Comments/Description/Reference
Y	P1: To provide an integrated suite of guidance and how to use document series
N	
Y	Published by MAFF
Y	Section 8.1, Example 2, pg 29 notes the potential implications of failing to provide clear information on the problem
х	
Partly	PAG1 discusses approaches/detail at different levels without necessarily defining what this level of detail is (S2.2, pg 3)
Х	
Y	PAG1 describes the need to use project appraisal techniques at all stages in the river and coastal project planning and development process (S2.2, pg 3)
Y	PAG1 states that 'the need to develop a full set of technically and operationally viable options is vital if a comprehensive and meaningful appraisal is to be undertaken' (S4.3.2, pg 16)
Х	
Partly	Section 8.3, Example 8, pg 31 notes the implications of not fully discussing options in the appraisal report or presenting reasons for their rejection
Y	PAG1 states that 'project appraisal is an iterative process where ideas go through a cycle of being developed, reviewed and refined' (S2.2, pg 3)
Х	
Х	
	Y N Y  Y  X  Partly  X  Partly  X  A  A  A  A  A  A  A  A  A  A  A  A

Is there clear guidance on the importance of the base case and how to assess it?	Y	PAG1 notes the importance of the do- nothing baseline with examples 6 and 7 (S8.3, pg 31) noting the implications of not doing this fully
Option Costs		
Is guidance given on how to cost each option?	х	PAG1 forms an introduction to the PAG series and also covers technical issues, decision making, sustainability and common pitfalls. It does not cover costs
Is guidance given on the level of detail that is required?	Х	
Does the guidance explain how to express costs in opportunity costs?	Х	
Does the guidance explain different types of costs and how they can be combined?	Х	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	X	
Does the guidance explain where residual values should/should not be included?	Х	
Does the guidance explain where contingent liabilities should/should not be included?	Х	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	X	PAG1 forms an introduction to the PAG series and also covers technical issues, decision making, sustainability and common pitfalls. It does not directly cover benefits
Does the guidance set out an approach to valuing benefits in money terms?	Х	
Does the guidance propose early sensitivity to focus effort?	Х	
Does the guidance explain how to include non-monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Partly	PAG1 notes that 'if all significant factors in the project appraisal cannot be satisfactorily expressed in monetary terms, an alternative basis for decision making must be determined'. This includes the use of multi-criteria analysis (S5.2, pg 17-18)
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Partly	Section 5.2, pg 18 introduces Multi- criteria analysis as a way of including issues that are difficult to express in monetary terms.

Questions for Review of Guidance (A1/b2)		
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	X	
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Y	Section 5.2, pg 17 notes the approach to be taken when there are legal obligations
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Х	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Х	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	
Does the guidance explain why and how to adjust for risk?	Х	
Does the guidance explain why and how to adjust for optimism bias?	Х	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Х	
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	х	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Х	

Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	PAG1 states that 'good decision making will always include a role for informed consultation and negotiation' (S2.3.2, pg 5)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Partly	PAG1 highlights that 'the purpose of the Appraisal Report is to provide a clear and comprehensive record of the appraisal process and a well argued justification for the selection of the preferred option' (S2.4, pg 5). Annex A provides an abbreviated form of an Appraisal Report
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Y	PAG1 states that 'effective project appraisal will aid [good decision making] with credible supporting technical and economic evidence' (S2.3.2, pg 5)
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Y	PAG1 notes that 'it is essential that the appraisal documentation includes a description of the rationale for the selection of the preferred option in order to justify the choice' (S8.6, example 13, pg 33)
Does the guidance request that the results of sensitivity/scenario analyses are included?	Х	
Does the guidance provide a good practice template or a proposed list of contents?	Υ	Annex A provides suggested contents of an Appraisal Report
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Х	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	?	

#### **Review of FCDPAG 2**

Y/X	Comments/Description/Reference
Υ	P2: To provide an integrated suite of guidance and specifically improve strategic decision making
N	
Y	Published by MAFF
Y	Not necessarily for intervention. Guidance is for thinking about units of coast or rivers. The need for that thinking is highlighted in Section 2
Partly	The strategy guidance is that for high level estimation of likely costs and benefits.
Y	Sections 3.4.6 and 3.4.7. (both of which state that the level of detail should be appropriate to the strategic decisions being addressed)
x	No, because the strategy is deliberately open so as not to presuppose the solution. Section 3.3
Υ	Section 3.5 using the PAG 3 preferred option hierarchy
Υ	Section 3.4.2, 3.4.3
Υ	Section 3.4.2
Υ	Section 3.4.2 ,3.4.3. Creative, Lateral, iterative development
Υ	Section 3.4.3 as above
Υ	Section 3. No specific examples
Y	Section 3.4.2, implicitly
Y	Section 3.2.5
Υ	Section 3.4.6 referring to PAG3
Y	Section 3.4.6
	Y N Y  Partly  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y  Y

Does the guidance explain how to express costs in opportunity costs?	X	No. But Section 3.2.6 does highlight need for identifying opportunity.
Does the guidance explain different types of costs and how they can be combined?	Partly	Through reference to PAG3
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Partly	Through reference to PAG3
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Y	Section 3.2.3. As 50 years but now generally accepted to be up to 100 years.
Does the guidance explain where residual values should/should not be included?	Υ	Section 3.2.3
Does the guidance explain where contingent liabilities should/should not be included?	Х	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Υ	Section 3.4.7
Does the guidance set out an approach to valuing benefits in money terms?	Υ	Section 3.4.7 with reference to PAG 3 and 5
Does the guidance propose early sensitivity to focus effort?	Partly	Section 3.4.5 with reference to PAG 4
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Y	With reference to PAG3 and PAG5 but also to emerging studies.
Does the guidance include and explain approaches for valuing these benefits in nonmoney terms (e.g. scoring and weighting)?	Υ	Section 3.4.6
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Y	Section 3.4
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Х	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Υ	Section 3.4.6 and 3.4.7 with reference to PAG3

Does the guidance explain why and how to undertake discounting of all costs and benefits?	Y	Section 3.4.6 and 3.4.7 with reference to PAG3
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Υ	Section 3.4.6 and 3.4.7 with reference to PAG3
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	
Does the guidance explain why and how to adjust for risk?	Х	
Does the guidance explain why and how to adjust for optimism bias?	Х	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Υ	Section 3.4.5
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Х	Not explicitly
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	х	Not explicitly
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Υ	Section 3.4.8
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Y	Section 3.6
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Х	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Υ	Section 3.6
Does the guidance request that the results of sensitivity/scenario analyses are included?	Х	
Does the guidance provide a good practice template or a proposed list of contents?	Y	Annex A

Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Х	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Х	

#### **Review of FCDPAG3**

Y	P1: To provide an integrated suite of guidance
NI	galadiloc
N	
Y	Published by MAFF
•	
Y	Section 2.1, pg 5
х	Not specifically mentioned as a pre- requisite to appraisal, but the need to identify which costs and benefits accrue earliest and have highest probability of occurrence is given
Y	Section 2.2, pg 5 and Section 3.7, pg 15
Partly	Section 2.3 identifies that 'it is crucial to set out project objectives'
Partly	Figure 3.1 sets out the main stages in a benefit-cost analysis, but this does not relate to a hierarchy in choice
Y	Section 3.2, pg 11, 1 <sup>st</sup> para
Y	Section 3.2, pg 11 (bullets)
Х	No specific details on how to reduce the long-list
х	Not specifically mentioned
Х	None given
Y	Section 3.2, pg 11, 5 <sup>th</sup> para
Y	Section 3.1, pg 9-10
Y	Sections 5.1 and 5.2, pg 53-55
Partly	Discussion in Section 5.1 suggests detailed costs are required
Х	Opportunity costs not mentioned
	Y X Y Partly Partly Y X X Y Y Y Partly Y Partly

Guidance being reviewed: FCDPAG3 (1999)	Y/X	Comments/Description/Reference
Does the guidance explain different types of costs and how they can be combined?	Y	Sections 5.1 and 5.2, pg 53-55
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Partly	Section 5.1 explains what sunk costs are
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Y	Section 3.5.3, pg 14
Does the guidance explain where residual values should/should not be included?	Y	Section 5.1, 1 <sup>st</sup> para pg 54
Does the guidance explain where contingent liabilities should/should not be included?	Х	Contingent liabilities not mentioned
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Y	Section 4 (Assessing the Benefits)
Does the guidance set out an approach to valuing benefits in money terms?	Y	Section 4, pg19
Does the guidance propose early sensitivity to focus effort?	Y	Section 3.7.3, pg 16-17 in terms of streams of costs and benefits
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Partly	Section 4.1.7 (Non-Monetary Impacts on Households), pg 24. Most of the description in Section 4 focuses on monetising impacts
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Х	Does not give specific details on how to value benefits in non-money terms
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Partly	Wide range of different benefit types are described, but focus is on how to monetise impacts with discussion based on uncertainty around estimates
Does the guidance explain why and how to adjust for subsidies, etc.?	Υ	Particularly for agriculture (Section 4.1.5, pg 22)
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Х	For Habitats and Birds Directives sites, guidance suggests 'if the designated habitats under threat are not recreatable, valuation will normally need to be derived from the least cost method of achieving an appropriate level of protection'
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	Although revision notes have been issued

Guidance being reviewed: FCDPAG3 (1999)	Y/X	Comments/Description/Reference
Present Values and Discounting		•
Does the guidance explain how to update all costs and benefits to today's prices?	Х	No guidance given on how or why to update values
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Y	Section 5.4, pg 56
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Υ	Through revision note
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Partly	Discussion is given in Section 3.5.3, pg 14 on inflation and need to use real prices
Does the guidance explain why and how to adjust for risk?	Y	Section 2.4, pg 6-7 discusses risk generally. The role of probabilities is discussed in Sections 4.3, 4.4, and 4.7.
Does the guidance explain why and how to adjust for optimism bias?	Υ	Through revision note
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Y	Section 6.4, pg 74
Does the guidance explain why and how to calculate switching values?	Y	Section 6.4, pg 74, penultimate para
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	Not specifically mentioned
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	X	The decision-process is not explicitly linked to 'the problem' as defined at the outset of the appraisal
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Х	Not specifically described at decision- making stage but iterative stages re noted in Section 3.7, pg 15
Does the guidance highlight the importance and need for consultation at the decision-making stage?	х	Not specifically discussed at decision- making stage but is noted that 'benefit- cost analysis is but one tool available to aid decision making' (although consultation is not specifically mentioned as an exceptional factor). Section 2.6, pg 7 discusses role of consultation more generally
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Partly	Suggests PAG3 spreadsheets should be used
	•	•

Guidance being reviewed: FCDPAG3 (1999)	Y/X	Comments/Description/Reference
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Partly	Need to give all assumptions is not stressed, but is mentioned/indicated throughout the text
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Partly	Table 3.1, pg 17 lists major benefit or cost streams
Does the guidance request that the results of sensitivity/scenario analyses are included?	Partly	Need for sensitivity analysis is highlighted (Section 6.4, pg 74) but results are not requested specifically
Does the guidance provide a good practice template or a proposed list of contents?	Х	Types of benefits/costs, etc. are listed
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Partly	Need for strategic approach is given in Section 2.2, pg 5 and levels of detail are mentioned for costs and benefits
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Yes	Views of internal (Defra) consultees on revised PAG3 document

#### **Review of FCDPAG 4**

Guidance being reviewed :FCDPAG\$ (2000)	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Y	P1: To provide an integrated suite of guidance and to improve decision making
Is the intended audience stated?	Υ	Assumes reader has prior knowledge of general risk and sensitivity analysis techniques
Is the guidance officially endorsed?	Υ	Published by MAFF
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	While it assumes that a systematic approach to risk assessment is usually required, Section 4.2 confirms the need to define objectives to describe the project aims
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	x	It states that risks should be assessed for all options Section 4.2
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Partly	Regarding extent of risk assessment, Section 1.1 states that the risk approach should suit individual applications. Also see Table 2.2
Does the guidance highlight the need to set out SMART objectives?	Partly	Section 4.2 asks for objectives to be defined, but not necessarily SMART ones
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Y	Figure 1.1, Section 2.7 recommends a tiered approach
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Υ	Section 27 within the tiered approach
Does the guidance give examples or types of options that could/should be included?	Partly	Examples of broad and more specialised methods, but no great clarity on when each type except risk registers is applicable
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Partly	Deals with how risks can be identified, eliminated and most important ones identified through risk screening
Does the guidance indicate the need for option development through a learning process as part of screening?	Y	Section 2.7 refers to an iterative approach, where risk assessment need to feed into project design as it proceeds
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Partly	Insignificance of risk is given as an example to screen out at early stages
Does the guidance request that the do-minimum option always be included?	Υ	Guidance expects risk assessment to at least the qualitative level for all projects
Is there clear guidance on the importance of the base case and how to assess it?	Х	

Х	Approaches to costing risk as well as qualitative assessments are discussed in Sections 3.2 and 3.3
Partly	As appropriate
Х	
X	
Х	
Х	
Partly	Sections 3.2.6 and 4.7.2 recognise the need for transparent residual risk and its management through further mitigation, contingency, monitoring or acceptance).
Х	
X	
Х	
Partly	Proposes a tiered approach with type/extent of assessment to suit severity of risk (Section 4.6).
Y	Sections 3.2, 3.3 and 4.8 (including examples)
Partly	3.2.4 and 3.2.5 show examples of how probability and consequence can be characterised and assessed
Y	It provides a range of quantitative and qualitative approaches e.g. MCA Section 3
	Partly X X X Partly X Partly Y Partly

Does the guidance discuss whether it is		It refers to the use of acceptable risk
necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	partly	levels for health and safety and similar risks
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Х	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	X	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	
Does the guidance explain why and how to adjust for risk?	Y	The whole guidance is about including risk considerations in appraisals
Does the guidance explain why and how to adjust for optimism bias?	Х	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Y	Section 3.3.4 To demonstrate robustness of a choice of preferred option and to determine if more detailed methods are required.
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Y	Section 4.8 describes how to use qualitative and quantitative risk assessments to support decision making, but not absolute selection
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Х	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Х	

Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Partly	Some suggestions for presentation of risk assessment and management outputs
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Υ	Section 2.8
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Partly	Tiered process includes identification and assessment of high risk issues
Does the guidance request that the results of sensitivity/scenario analyses are included?	Υ	Section 2.8
Does the guidance provide a good practice template or a proposed list of contents?	Х	Section 2.8 recognises that presentation of outputs will vary with usage, but lists some key inputs
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Partly	Section 2.8 recognises that presentation of outputs will vary with usage
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Х	

#### **Review of FCDPAG5**

Guidance being reviewed: FCDPAG5 (2000)	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Y	P1: To provide an integrated suite of guidance and should be used to ensure proper account is taken of environmental considerations
Is the intended audience stated?	N	
Is the guidance officially endorsed?	Υ	Published by MAFF
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Partly	PAG5 notes that 'the starting point for decision making must be to minimise risk to the features of interest' (S2.1.4, pg 7)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Partly	PAG5 notes that 'environmental appraisal should continue through the whole scheme development process, starting at the time when a problem is perceived and continuing through to option development and choice, scheme design and operational audit and post project appraisal' (S1.1, pg 2)
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Х	
Does the guidance highlight the need to set out SMART objectives?	Х	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Х	
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Y	PAG5 notes that 'broad option development is required, including consideration of options that deliver environmental benefits or minimise damage' (S2.1.1, pg 5). Section 2.1.4 (pg 7) also states that 'prior to commencing detailed economic analysis, it is important to ensure that all appropriate options have been identified'
Does the guidance give examples or types of options that could/should be included?	Partly	PAG5 suggests examples such as management realignment, locally increasing water levels.

Does the guidance indicate how a long-list may be reduced to a short-list of options?	Partly	Section 2.1.4 (pg 7) notes that 'when considering options, it is important to pay particular attention to the reasons for designation [of a feature of interest]' while Section 2.2.1 (pg 8) notes that 'the process starts with an appropriate degree of appraisal at the strategic level to reduce the risk of unacceptable options/schemes being considered'
Does the guidance indicate the need for option development through a learning process as part of screening?	Х	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	
Does the guidance request that the do-minimum option always be included?	Х	
Is there clear guidance on the importance of the base case and how to assess it?	Х	
Option Costs		
Is guidance given on how to cost each option?	Х	PAG5 is concerned with environmental appraisal
Is guidance given on the level of detail that is required?	Х	
Does the guidance explain how to express costs in opportunity costs?	Х	
Does the guidance explain different types of costs and how they can be combined?	Х	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	X	
Does the guidance explain where residual values should/should not be included?	Х	
Does the guidance explain where contingent liabilities should/should not be included?	Х	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Partly	PAG5 notes that 'some impacts cannot be readily valued in monetary terms, but still need to be taken account of properly in the appraisal process' (S2.1.1, pg 5)
Does the guidance set out an approach to valuing benefits in money terms?	Х	PAG5 does refer to PAG3
Does the guidance propose early sensitivity to focus effort?	Х	

Y	Chapter 3 discusses environmental valuation. Chapter 4 explains how to determine habitat replacement costs
Y	S3.1, pg 23 and mentions MCA and descriptive approaches while Section 3.1, pg 24 describes different nonmonetary approaches. PAG5 also refers to PAG3
х	
Y	Section 4.1, pg 30 describes the need to adjust for VAT, other taxation and subsidies. It also refers to PAG3
Х	
Х	
Х	
Х	
Partly	Section 4.2.6 discusses discounting briefly, referring to PAG3
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Х	
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Х	
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	Y X X X A A A A A A A A A A A A A A A A

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Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Partly	PAG5 states that 'identifying the best option requires careful consideration of environmental issues alongside economic and other issues'
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Х	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Partly	PAG5 notes the importance of consulting during the appraisal (S2.1.4, pg 8)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Х	
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Х	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Y	Section 4.1, pg 29 requests that data should be provided under each heading of setting objectives, land acquisition, planning, assessment and design, implementation, monitoring and additional costs
Does the guidance request that the results of sensitivity/scenario analyses are included?	Х	
Does the guidance provide a good practice template or a proposed list of contents?	Х	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Х	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	?	Not known

## **Review of NRA Manual of Investment Appraisal (1992)**

Guidance being reviewed: NRA Manual of Investment Appraisal (1992)	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Y	S1.1: describes requirements for justification of all investment in capital expenditure
Is the intended audience stated?	N	
Is the guidance officially endorsed?	Υ	NRA manual
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	S3.10.2
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Х	Assumes project will be justified
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Х	Only in so much as it refers to projects over £100k (cut down version for projects up to £100k)
Does the guidance highlight the need to set out SMART objectives?	Х	Principal objectives only to be stated i.e. to prevent loss of life, etc.
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Х	Base on B/C ratio but if <1 than can be based on asset values (not FD projects?).
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Y	S3.10.7 Sufficient number must be considered
Does the guidance give examples or types of options that could/should be included?	Y	Annex 9 Definition of improvement options; improve, maintain, sustain, hold, do-nothing
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Υ	S 3.10.7Only that non viable options should be briefly stated and reasons for dismissing
Does the guidance indicate the need for option development through a learning process as part of screening?	Х	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	
Does the guidance request that the do-minimum option always be included?	Х	
Is there clear guidance on the importance of the base case and how to assess it?	Y	S 3.10.7 Do-nothing should be included to highlight consequences of inaction
Option Costs		
Is guidance given on how to cost each option?	Y	Annex 11 In table form to include construction, design, maintenance, residual value

Y	Annex 11 appears to assume high level of detail
Х	Mentions opportunity costs but no guidance
Y	Annex 10
Х	
Y	Annex 10 need to use common time horizon and over suggested 60 years
Υ	Not clearly
Х	
Y	Annex 10, Annex 11
Y	Annex 8 MAFF guidance, Annex 10 & Annex 11
Х	
Y	Annex 1 Important costs and benefits which cannot be valued should at least be recorded. Annex 8 states that they should be fully explored & Annex 10 refer to DoE Policy Appraisal and the Environment booklet
Y	Annex 10 refers to scoring and weighting and DoE Guidance. Also suggests trying to evaluate the consequential costs of do nothing.
х	But does comment on need to assess sufficient areas of benefit to justify the project
Y	Annex 8 Maff guidance on agricultural damage
Х	
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Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Х	Annex 10 All prices to same price base but no explanation
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Y	Annex 3 Discount factor and tables provided
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Х	Old rate of 6% only (valid in 1992)
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	
Does the guidance explain why and how to adjust for risk?	Х	
Does the guidance explain why and how to adjust for optimism bias?	Х	Published prior to OB
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Y	Annex 1 Treasury Guidelines – SA should be used to test project outurn with each uncertainty
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Y	Annexes 8,9,10 & 11 briefly discuss costs and benefits but superficially and no mention of objectives.
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Х	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Х	Consultation not mentioned
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Υ	S 3.10.7 Suggests use of tables to summarise results
Does the guidance stress the importance of including all assumptions alongside the	Х	

calculations, etc.?		
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Y?	Full details of costs but benefits not mentioned
Does the guidance request that the results of sensitivity/scenario analyses are included?	Υ	Annex 10 Sensitivity test to each uncertainty
Does the guidance provide a good practice template or a proposed list of contents?	Υ	S 3.9 List of contents only
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	?	Annex 10 Suggests sufficient detail to justify project
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Х	

## **Review of NRA Economic Appraisal Manual**

Guidance being reviewed: NRA Economic Appraisal Manual (1993)	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Υ	Pi; to provide practical and detailed guidance on the use of CBA
Is the intended audience stated?	Υ	NRA Staff
Is the guidance officially endorsed?	Υ	Published by NRA
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	1-5 covers the need for economic appraisal in widest sense. Also more focussed on water quality and water resource projects.
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Х	No - Guidance is primarily on economics
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Υ	2-24 Refers to Project Management and Control Manual that does include guidelines on level of appraisal.
Does the guidance highlight the need to set out SMART objectives?	Х	No – Economic guidance
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Х	See above
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Y	2-14 In general terms
Does the guidance give examples or types of options that could/should be included?	Υ	2-14 Includes do-nothing and 'environmentally best' option and refers to PAGN list of options for FD.
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Х	mentions need for short list but not methodology
Does the guidance indicate the need for option development through a learning process as part of screening?	Υ	2-14 Including breaking down options to individual measures
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Y	2-14 In terms of being justified
Does the guidance request that the do-minimum option always be included?	Х	Not explicitly
Is there clear guidance on the importance of the base case and how to assess it?	Υ	2-14 Should include the do-nothing
Option Costs		
Is guidance given on how to cost each option?	Y	2-16 Must include engineering and other costs
Is guidance given on the level of detail that is required?	Х	

Questions for Neview of Galdance (A1/DZ)		
Does the guidance explain how to express costs in opportunity costs?	Υ	2-3 Basis for economic appraisal
Does the guidance explain different types of costs and how they can be combined?	Y	2-4 Gives introduction to Neoclassical Economic Theory
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	Not included
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Y	2-15 Gives examples of FD works 50 year and STWs 25-30 years
Does the guidance explain where residual values should/should not be included?	Х	
Does the guidance explain where contingent liabilities should/should not be included?	Х	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Υ	Sections on Agriculture, Fisheries, Environmental Effects
Does the guidance set out an approach to valuing benefits in money terms?	Υ	As above Chs 4,5,6 & 7
Does the guidance propose early sensitivity to focus effort?	Х	No - sensitivity on assumptions and how it alters decision
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Υ	2-22 but only in general term that they should be included
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Y	2-22 In terms of using best judgement and in Ch 7 Environmental effects in more detail
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Х	
Does the guidance explain why and how to adjust for subsidies, etc.?	Υ	Ch 5 Agriculture
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Х	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Y	2-7 Why but not how
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Υ	2-20 Comprehensive and gives sources for updating

Does the guidance explain why and how to undertake discounting of all costs and benefits?	Υ	2-11
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	х	Uses old discount rate due to age of guidance
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	??	
Does the guidance explain why and how to adjust for risk?	Y	2-22 IN context of uncertainty and sensitivity
Does the guidance explain why and how to adjust for optimism bias?	Х	No OB nbot an issue when published
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Y	2-22 Uncertainty and sensitivity
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	х	Not in detail or depth
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Y	2-14 Identification of options
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Х	
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Υ	PV and CBA
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Х	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Х	
Does the guidance request that the results of sensitivity/scenario analyses are included?	Y?	2-22 Assumes they will be included
Does the guidance provide a good practice template or a proposed list of contents?	Х	

Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Y	Refers to Project Management and Control Manual
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Х	

# Proforma for Review of Flood Defence Management Manual (FDMM 1993)

Guidance being reviewed: FDMM 1993	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	P1/3: sets out details of a framework for identification, justification and prioritisation of works
Is the intended audience stated?	N	
Is the guidance officially endorsed?	Υ	NRA guidance document
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Υ	Page 1/3 need for setting appropriate standards of protection and identifying the problem
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	x	Methodology is to inform maintenance works
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Y	Ch. 3 Uses House Equivalents (HEs)
Does the guidance highlight the need to set out SMART objectives?	Х	Not based on objectives but standards of service
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Υ	Ch. 6 Based on priority for maintenance
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Х	Limited range of maintenance options
Does the guidance give examples or types of options that could/should be included?	Υ	Ch 6 Types of maintenance activity
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Х	N/A
Does the guidance indicate the need for option development through a learning process as part of screening?	Х	N/A
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	N/A
Does the guidance request that the do-minimum option always be included?	Υ	Ch 6 Reduction in maintenance is considered
Is there clear guidance on the importance of the base case and how to assess it?	Х	Based on standards of service
Option Costs		
Is guidance given on how to cost each option?	Υ	Ch 6 unit costs and annualised
Is guidance given on the level of detail that is required?	?	Not sure as in FDMS which presumable calculates costs

Does the guidance explain how to express costs in opportunity costs?	Х	Guide for practitioners
Does the guidance explain different types of costs and how they can be combined?	?	Costs are part of FDMS which is not included in the manual
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	No presumably not seen as important for maintenance works.
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	X	Not explicitly
Does the guidance explain where residual values should/should not be included?	Х	Not applicable to maintenance works
Does the guidance explain where contingent liabilities should/should not be included?	Х	As above?
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Y	Ch 5. There are 4 approaches in FDMM. Approach 4 is closest to Dera/EA appraisal requirements and uses standard HE damages for depth of flood for properties and agricultural damages. Can also include traffic disruption.
Does the guidance set out an approach to valuing benefits in money terms?	Y	Ch 5. Uses HEs and for 3 approaches is linked to FDMS. Other approach uses normalised damage frequency curves.  Refrers to Middlesex data and methodology. (Review carried out by RPA in 2000)
Does the guidance propose early sensitivity to focus effort?	Х	No - only to test preferred option
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Y	5/21. Suggests just noting impacts to environment and social benefits.
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Х	No. Comments that 'at this point in time there is insufficient data'.
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Х	No
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	Not necessary as based on drainage status of land.
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Х	No
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Х	No
Х	No. Also no information ion how to update HEs to present day prices.
Y?	5/9 Gives how but not why. Gives discount tables (but due to age at 6%)
x	No - see above
Х	No
Х	Risk not specifically covered but standards of service based on probabilities and land use bands.
Х	No – prior to optimism bias
Υ	5/10 carried out as check on preferred option
Х	No
Y	5/10
Y	Ch 5. The 4 approaches calculate damages for different standards of service but 'best' option is not mentioned.
х	Not in a way that is transparent.  Presumably this is covered by setting out the maintenance regime (i.e. dredging vs weedcuttuing to varying degrees.)
Х	No consultation at any stage.
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Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Х	No but FDMM (and FDMS) are a mechanistic approach.
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Х	See above
Does the guidance request that the results of sensitivity/scenario analyses are included?	Х	
Does the guidance provide a good practice template or a proposed list of contents?	Υ	Templates are included but not easy to follow
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Х	Does go into a lot of detail but no mention of proportionality
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Y	Review by RPA in 2000 to identify the most appropriate approach. Report commented on how difficult it was to follow, it lacked clarity and did not consider any wider benefits. Use of HEs acceptable but must be able to update the figure annually (no basis in the manual).

# **Review of Sustainability Appraisal of Regional Spatial Strategies and Local Development**

Guidance being reviewed: Review of Sustainability Appraisal of Regional Spatial Strategies and Local Development (2005)	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Υ	P13: to assist regional planning bodies carry out SAs
Is the intended audience stated?	Υ	See above
Is the guidance officially endorsed?	Υ	Published by ODPM
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Partly	ON p. 13, "This guidance is intended to help regional planning bodies (RPBs) and local planning authorities (LPAs) carry out SA of RSS revisions or new or revised DPDs and SPDs."
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Y	p.14
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Y	p.14
Does the guidance highlight the need to set out SMART objectives?	Х	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Y	SPDs, DPDs, RSSs use a hierarchy of options (p. 68), figure 27 p. 123 hierarchy of options
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Y	SPDs, DPDs, RSSs use a hierarchy of options (p. 68), figure 27 p. 123 hierarchy of options
Does the guidance give examples or types of options that could/should be included?	Х	
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Х	
Does the guidance indicate the need for option development through a learning process as part of screening?	Х	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Υ	p.57, appendix 2 p.79
Does the guidance request that the do-minimum option always be included?	Υ	p.82, 93
Is there clear guidance on the importance of the base case and how to assess it?	Y	Baseline information in SA stage A2 p.19 (p. 24 detail) ; p.23, 24

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Option Costs		
Is guidance given on how to cost each option?	Х	
Is guidance given on the level of detail that is required?	Х	
Does the guidance explain how to express costs in opportunity costs?	Х	
Does the guidance explain different types of costs and how they can be combined?	Х	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Y	Appropriate time frames for consultation exercise (p.73, 74)
Does the guidance explain where residual values should/should not be included?	Х	
Does the guidance explain where contingent liabilities should/should not be included?	Y	Repetition p.35 , 56, 75
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Х	
Does the guidance set out an approach to valuing benefits in money terms?	Х	
Does the guidance propose early sensitivity to focus effort?	Х	
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Х	
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Y	p.127
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Х	
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Х	

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Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Х	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Х	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	
Does the guidance explain why and how to adjust for risk?	Х	
Does the guidance explain why and how to adjust for optimism bias?	Х	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Х	
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Y	p.19 SA stage B1 (p. 28 detail)
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Y	p.19 incorporating SA into RSS, p.39 incorporating SA into DPDs
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	p.17 stage one of the RSS revision, p. 19 Stage A5 of SA (p.26,7 detail); public and stakeholder involvement p. 20, 21
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Х	

Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Х	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Х	
Does the guidance request that the results of sensitivity/scenario analyses are included?	Х	
Does the guidance provide a good practice template or a proposed list of contents?	Х	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Х	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?		None known

# **Review of Foresight Future Flooding Scotland**

Guidance being reviewed:	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	Report presents deeper analysis of Scotland as part of Foresight Flood and Coastal Defence project. Not so much guidance as analysis of drivers of future flooding and potential economic dimensions
Is the intended audience stated?	N	
Is the guidance officially endorsed?	?	
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	N	Paper is not designed as guidance for selection of options to deal with flooding/coastal defence, but provides information on the causes of flooding/scale in Scotland
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	N	
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	N	
Does the guidance highlight the need to set out SMART objectives?	N	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	N	
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	N	
Does the guidance give examples or types of options that could/should be included?		Provides brief mention of planning/legislative measures p.5 – 11, and some of the causes of problems p – 12 – 31. Some limited references to possible solutions (but no details) in these pages e.g. construction of flood embankments, bank revetment p.5, managed realignment of shoreline p.11, upstream storage and downstream embankments p.14, repair of ageing urban drainage schemes p.20, planting of floodplain forests p.24
Does the guidance indicate how a long-list may be reduced to a short-list of options?	N	
Does the guidance indicate the need for option development through a learning process as part of screening?	N	

Is guidance given (e.g. examples) of acceptable reasons for screening out?	N	
Does the guidance request that the do-minimum option always be included?	N	
Is there clear guidance on the importance of the base case and how to assess it?	N	
Option Costs		
Is guidance given on how to cost each option?	N	
Is guidance given on the level of detail that is required?	N	
Does the guidance explain how to express costs in opportunity costs?	N	
Does the guidance explain different types of costs and how they can be combined?	N	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	N	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	N	
Does the guidance explain where residual values should/should not be included?	N	
Does the guidance explain where contingent liabilities should/should not be included?	N	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	N	
Does the guidance set out an approach to valuing benefits in money terms?	N	But includes chapter on the economic dimensions of flooding as relates to costs as a result of various drivers
Does the guidance propose early sensitivity to focus effort?	N	
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	N	
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	N	
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	N	

Questions for Neview of Guidance (A1762)		
Does the guidance explain why and how to adjust for subsidies, etc.?	Ν	
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	N	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	N	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	N	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	N	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	N	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	N	
Does the guidance explain why and how to adjust for risk?	N	
Does the guidance explain why and how to adjust for optimism bias?	N	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	N	
Does the guidance explain why and how to calculate switching values?	N	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	N	Only considers different scenarios with respect to degree of flooding and broad approaches. E.g. Table 14 p.54
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	N	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	N	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	N	

Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	N	
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	N	But does provide some indication of uncertainties associated with and assumptions made when estimating annual average damage by flooding
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	N	
Does the guidance request that the results of sensitivity/scenario analyses are included?	N	
Does the guidance provide a good practice template or a proposed list of contents?	N	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	N	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	?	

# **Proforma for ERMITE**

Guidance being reviewed: ERMITE – Economic Analysis of Mine Water Pollution Abatement on A Catchment Scale	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	Demonstrate how different metal load reduction levels can be achieved at minimum costs, whilst achieving the related water quality standards in the water recipient (p.2)
Is the intended audience stated?	N	
Is the guidance officially endorsed?	Y	It is endorsed by the European Commission Fifth Framework Programme
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Partly	With the onset of the new EU WFD, new tools are being developed for quantifying the water quality. The ERMITE paper discusses the theory and application of these economic decision rules (p. i)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Y	An illustration of the conditions set by the cost effectiveness rule is given on p.3. These relate to the required quality standards to provide maximum benefit and the possible costs for achieving prespecified targets
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Y	A run down of the cost model and its formulation is given on pp.3-5, and more detailed explanation is given in Appendix C
Does the guidance highlight the need to set out SMART objectives?	N	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Partly	Hierarchy of choice is explained in the formulation of cost effectiveness by defining first order and second order conditions for reaching maximum net benefits (p.3-5)
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	N	But the guidance does state that there are a number of options (p.18)
Does the guidance give examples or types of options that could/should be included?	N	
Does the guidance indicate how a long-list may be reduced to a short-list of options?	N	
Does the guidance indicate the need for option development through a learning process as part of screening?	N	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	N	

Does the guidance request that the do-minimum option always be included?	N	
Is there clear guidance on the importance of the base case and how to assess it?	Partly	The guidance gives a description of a base case scenario in their case study and compares the base case results with those from the other scenarios (p.7; 9; 10) but no clear reason is given as to why or how it is to be assessed. Results of the base case are given in appendix A
Option Costs	•	
Is guidance given on how to cost each option?	Υ	See formulations of costs p.3-5
Is guidance given on the level of detail that is required?	Y	See formulations of costs p.3-5, with further detail given in appendices
Does the guidance explain how to express costs in opportunity costs?	N	But opportunity costs are included in Appendix A which gives the results of operational costs of constructed wetlands (p.25) with no further explanation
Does the guidance explain different types of costs and how they can be combined?	Y	Types of costs include abatement costs, marginal costs, inefficiency costs and total costs. The formulas to combine these costs are explained on p.3-5
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	N	Not taken into account
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Y	The base case is given a time horizon of 50 years, whilst other scenarios are given between 12.5 to 25 years (p.28)
Does the guidance explain where residual values should/should not be included?	N	Not taken into account
Does the guidance explain where contingent liabilities should/should not be included?	N	Not taken into account
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	N	The guidance only shows the impact of maximising benefits (p.3) but does not go about explaining in detail the types of benefits or how to identify them
Does the guidance set out an approach to valuing benefits in money terms?	N	Although one of the key decision rules is to maximise net benefits and for this, estimated values are required on benefits related to water quality. In addition, the guidance does recognise that an approach for calculating pollutant load reduction is imperative if benefits are to be maximised (p.16)
Does the guidance propose early sensitivity to focus effort?	N	Not taken into account

Questions for Neview of Guidance (A1/B2)		
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	N	But the guidance does imply the use of benefit-maximisation model (p.5)
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	N	Not taken into account
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	N	Sensitivity is not taken into account but the guidance does imply that it places a monetary value on biological and health benefits associated with water quality standards (p.5)
Does the guidance explain why and how to adjust for subsidies, etc.?	N	Not taken into account
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Y	The guidance states that ""Estimated costs for mine water pollution abatement do not commonly include cost components associated with measurement/prediction uncertainties, which imply finite risk/probability of abatement measures not achieving their targeted water quality improvements" (p.ii). Therefore, although the guidance acknowledges the need to place a monetary value on risk, it is yet to be quantified and this is acknowledges in the general discussion (p.15)
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	N	But it recognises the need for this to be done (p.16)
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	N	Not taken into account
Does the guidance explain why and how to undertake discounting of all costs and benefits?	N	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	N	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	N	
Does the guidance explain why and how to adjust for risk?	N	But the guidance does recognise the importance of including risk or probability into cost-effectiveness analysis (p.15)
Does the guidance explain why and how to adjust for optimism bias?	N	

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Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	N	Not taken into account
Does the guidance explain why and how to calculate switching values?	N	Not taken into account
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Y	Appendix B and C give a detailed explanation of how to calculate the different scenarios and what to expect from them. Table 1 p.7 describes comparatively the difference between scenarios
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Partly	Does not include a sensitivity analysis, but all results from the case study and the appendices include a comparison of all scenarios to analyse which one suits the original objectives best
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	N	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	N	Not taken into account
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	N	Not explicitly, but results of the case studies are given in the appendices and on pp9-13, so it is presumed that the results should be presented in a similar fashion
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	N	Not known
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	N	Not known
Does the guidance request that the results of sensitivity/scenario analyses are included?	N	Not taken into account
Does the guidance provide a good practice template or a proposed list of contents?	Partly	The guidance includes a case study and detailed appendices to allow the target audience to follow by example
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	N	
Other Reviews of the Guidance	1	
Has a review been made of the guidance? If so, what were the findings of the review?		Not known

# Review of the Wise Use of Floodplains – Guidance on Options Appraisal

Guidance being reviewed: Review of the Wise Use of Floodplains – Guidance on Options Appraisal	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Υ	Describes findings from 5 case studies
Is the intended audience stated?	N	
Is the guidance officially endorsed?	Υ	Published by RSPB
Rationale and Objectives	•	
Is the need for a clear rationale for intervention highlighted?	Partly	The guidance starts by stating that "appraisal floodplain management should consider impacts on wetlands, agriculture, and designated sites like Special Protection Areas"
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Y	Through catchment-level thinking, the cost-effective policies can be identified in relation to social and environmental objectives and thus help fulfil the requirements of the Water Framework Directive
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Х	
Does the guidance highlight the need to set out SMART objectives?	Х	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Х	
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Х	
Does the guidance give examples or types of options that could/should be included?	Y	Three options are considered for floodplain management: the creation of multi-use wetlands, floodwater storage areas and catchment scale agricultural change
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Х	
Does the guidance indicate the need for option development through a learning process as part of screening?	Partly	WUF devotes time to work through research by consultants, with GIS (special emphasis is placed on using upgraded versions), and by organising workshops with stakeholders
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	
Does the guidance request that the do-minimum option always be included?	Х	

Is there clear guidance on the importance of the base case and how to assess it?	Partly	Baseline case is defined as a forward-looking participation approach
Option Costs		
Is guidance given on how to cost each option?	Y	The guidance states that the WUF project uses the cost-effectiveness analysis and MCA
Is guidance given on the level of detail that is required?	Х	
Does the guidance explain how to express costs in opportunity costs?	Х	
Does the guidance explain different types of costs and how they can be combined?	Х	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	X	
Does the guidance explain where residual values should/should not be included?	Х	
Does the guidance explain where contingent liabilities should/should not be included?	Х	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Y	The guidance recognises the benefits from wetland creation, agriculture and Special Protection areas
Does the guidance set out an approach to valuing benefits in money terms?	Partly	The guidance states it needs to pay particular attention to the values and features of floodplains and identify the cost-effective combination of measures
Does the guidance propose early sensitivity to focus effort?	Х	
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Y	The guidance integrates intangible and tangible costs and benefits through CBA, which includes assessments of the costs and benefits of qualitative measures, and through the 'local sustainability' model
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Υ	Options for catchment scale agricultural change are carried out using financial values and weighted socioenvironmental indicators.
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Х	

Does the guidance explain why and how to adjust for subsidies, etc.?	Partly	Subsidies for welfare values that are transfer payments within the UK are not included
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Y	Financial valuing are identified in terms of agricultural land use and production
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Х	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	X	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	
Does the guidance explain why and how to adjust for risk?	Х	
Does the guidance explain why and how to adjust for optimism bias?	Х	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Х	
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Х	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Х	

Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	Consultancy research was recognised as the most cost-effective method for collecting and analysing catchment specific data
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Х	
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Х	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Y	Costs and benefits need assessing and analysing through MCA and CBA, and these need to pay particular attention to the values and features of floodplains
Does the guidance request that the results of sensitivity/scenario analyses are included?	Х	
Does the guidance provide a good practice template or a proposed list of contents?	Х	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Х	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Х	None Known

# Review of an Economic Assessment of Road Schemes in Scotland – the NESA Manual

Guidance being reviewed:	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	The guidance provides an economic and environmental assessment of proposed schemes for improving traffic conditions and tests out their operability (p.2-1-1)
Is the intended audience stated?	N	
Is the guidance officially endorsed?	Y	The Scottish Office Development Department (paragraph 1.1 p.2-1-1)
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	The guidance states that traffic modelling using NESA will "identify current and future stress points, () and assess the extent to which potential solutions alleviate these problems; provide output that can be used in the operational and environmental assessments; provide input to the economic assessment" (paragraph 2.10 p.2-2-3)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Y	NESA forecasts the likely costs and benefits from schemes and evaluates which is the most feasible solution (p.2-1-1)
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	N	There is no mention of this in the guidance
Does the guidance highlight the need to set out SMART objectives?	N	Not taken into account
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Partly	Options are selected and ranked based on their NPV and NPB, which are compared to the do-nothing scenario (paragraphs 4.8-4.9 p.4-4-2)
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	N	The only options suggested are the dominimum and the do-something options
Does the guidance give examples or types of options that could/should be included?	N	
Does the guidance indicate how a long-list may be reduced to a short-list of options?	N	Not taken into account
Does the guidance indicate the need for option development through a learning process as part of screening?	N	Not taken into account
Is guidance given (e.g. examples) of acceptable reasons for screening out?	N	Not taken into account

Does the guidance request that the do-minimum option always be included?	Y	Performing economic appraisals using the NESA model requires a comparison between the do-minimum and the dosomething approach (paragraph 2.1 p.3-2-1)
Is there clear guidance on the importance of the base case and how to assess it?	Y	The base case is the do- minimum approach which is explained and guidance on how to assess it is in chapter 2 p.3-2-1
Option Costs		
Is guidance given on how to cost each option?	Y	Yes – Part 6 gives guidance on calculating vehicle operating costs(p.6-6); construction costs (p.6-8); road maintenance costs (p.6-10); and Part 10 provides a spreadsheet on how to model the options into the NESA software
Is guidance given on the level of detail that is required?	Y	The level of detail is shown in chapter 9 p.6-9-1 to 6-9-4 which provides a working example of how to perform scheme cost inputs
Does the guidance explain how to express costs in opportunity costs?	Partly	The guidance states the importance of opportunity costs and that it is the job of the District valuer to estimate it.  However, there is no explanation on how to express it p.6-7-2 paragraph 7.7
Does the guidance explain different types of costs and how they can be combined?	Υ	Types of costs are itemized in part 1 chapter 4 (p. 1-4)
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Partly	Capital costs of construction and maintenance are estimated as part of the Present Value Costs (sect 1 p. 3-1)
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Partly	Road schemes are commonly appraised over a period of 30 years (paragraph 2.5 p.2-2-1)
Does the guidance explain where residual values should/should not be included?	N	Not taken into account
Does the guidance explain where contingent liabilities should/should not be included?	N	Not taken into account
Option Benefits	_	
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Partly	A summary of likely benefits is included in Table 9-4-1 p.9-4-4, but there is no guidance on how to identify benefits

Y	Benefits are calculated using market values that are incorporated into the present value of benefits (PVB), which is defined as the change in discounted value of user costs between the dominimum and the do-something schemes (paragraph 1.3 p.6-1-1). Additionally, the 'willingness to pay' approach is used to convert benefits into monetary values (paragraph 1.2 p.6-1-1)
N	Not taken into account
Y	All the costs that receive government subsidies are valued using factor costs and market price units of account using the formula described on p.3-6-1
Partly	The guidance indicates the need for legal transaction costs to be included, whereby estate agents/solicitors are given an amount, which is integrated into the costs sheets, to deal with the acquisition of land and property (paragraph 7.11 p. 6-7-2)
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Partly	The distribution of cost values are displayed in Table 6-8-2 p. 6-8-5, the guidance does not explain why or how they are calculated
Y	Costs and benefits are brought up to date by discounting (chapter 3 p.3-3-1)
Y	The guidance includes an explanatory formula for discounting (chapter 3 p.3-3-1 to 3-3-3)
N	The discount rate is 6% (paragraph 3.6 - 3.9 p.3-3-2)
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Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Partly	The guidance provides a detailed description of how to input the data into the NESA program in Part 10
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Υ	The modelling process requires assumptions to be included alongside calculations (Part 10)
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Partly	The guidance does not explicitly request this, however, values are attached to costs and benefits in Part 10 (instructions on how to use NESA)
Does the guidance request that the results of sensitivity/scenario analyses are included?	N	The guidance makes no mention of this
Does the guidance provide a good practice template or a proposed list of contents?	Υ	A flowchart is included on p.10-1-2 which summarises all the necessary steps needed to carry out the appraisal
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Partly	The level of detail is refined in the do- something option in order to understand all the differences between schemes (paragraph 2.5 p.3-2-2)
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?		None known

# **Evaluating the Economic Impact of Irrigation Controls**

Guidance being reviewed:	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	The remit is given on p.ii (or p.1 sect.1.1) in the executive summary, the focus is on the geographical spread, the abstraction control strategies and economic impacts and benefits
Is the intended audience stated?	N	
Is the guidance officially endorsed?	Υ	By the Scottish Executive (p.i and 1)
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	EC Water Framework Directive "requires Member States to put in place comprehensive abstraction controls where necessary to achieve its environmental objectives. This study focused on the controls that might be necessary to achieve an ecologically acceptable minimum flow as a proxy for the environmental objectives that might be set under the Directive" and reach good ecological status in all waters by 2015 (p.i;1)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	N	Not taken into account
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	N	
Does the guidance highlight the need to set out SMART objectives?	N	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	N	
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	N	
Does the guidance give examples or types of options that could/should be included?	Υ	Six options are given on pp.17-20
Does the guidance indicate how a long-list may be reduced to a short-list of options?	N	
Does the guidance indicate the need for option development through a learning process as part of screening?	Partly	The guidance does suggest that further investigation is needed in order to assure full competency (p.viii)
Is guidance given (e.g. examples) of acceptable reasons for screening out?	N	
Does the guidance request that the do-minimum option always be included?	N	But the guidance does include and refer to the do minimum as the 'no control' (p.60 chapt.10)

Questions for Review of Guidance (A1/B2)		
Is there clear guidance on the importance of the base case and how to assess it?	N	The baseline is given for each case study with no explanation as to why or how it was devised (p.69 sect. 10.3.3; p.70 sect. 10.4.1; p.77 sect. 10.5.1)
Option Costs		
Is guidance given on how to cost each option?	Y	Economic evaluation is given in chap. 10 section 10.3, and a 'run-through' of examples on economic evaluations for different areas are given pp.70-82
Is guidance given on the level of detail that is required?	Partly	A clear explanation is given for each level of decision making, however little information is given which would enable this appraisal strategy to be repeated
Does the guidance explain how to express costs in opportunity costs?	N	
Does the guidance explain different types of costs and how they can be combined?	Y	Table 10.4, 10.5 p.71-2 outlines how different costs, including: fixed, application, water charges, reservoir, irrigation, and irrigation margin costs, are summarized together in order to compare between results
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Y	Capital costs were converted into annual costs using an interest of 7% to take into account the depreciation rate over 7 years (p.68 sect. 10.3.1) and prices are averaged across the total land use area (p. 71)
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	Y	Time horizon is 10 years and the guidance states that "The rationale for using a series of years is that the costs and benefits of irrigation will vary according to climatic conditions. The farmer will therefore take a long-term view when deciding on capital investments of this type" (p.68, sect. 10.3)
Does the guidance explain where residual values should/should not be included?	N	
Does the guidance explain where contingent liabilities should/should not be included?	Y	These should be included in the sensitivity analysis (p.29 sect. 5.3)
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Y	Ecological benefits are summarised on p.83, 84, benefits to anglers on p. 84 and benefits to farmers on p. 85.
Does the guidance set out an approach to valuing benefits in money terms?	Y	Using the willingness-to-pay measures p.83-84
Does the guidance propose early sensitivity to focus effort?	Y	Chap. 9 outlines the types of spatial sensitivity assessment needed before cost benefit analysis is carried out (p.63-65)
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Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	N	
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	N	
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Partly	Sensitivity is based on the type of spatial data available, and as a result it may present a bias in the types of issues represented (chap.9)
Does the guidance explain why and how to adjust for subsidies, etc.?	N	
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	N	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Partly	Only on GIS terms but not as part of the cost-benefit analysis
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	N	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	N	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Partly	The guidance uses an interest rate of 7% over 7 years (p.68 sect. 10.3.1)
Economic Adjustments	•	
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	N	
Does the guidance explain why and how to adjust for risk?	N	
Does the guidance explain why and how to adjust for optimism bias?	N	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	N	
Does the guidance explain why and how to calculate switching values?	N	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Y	The analysis stage includes a comparison of different irrigation control scenarios (p. 49-53

Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	N	It does suggest that comparisons between different issues be taken into account but it does not recommend how this may be done. Tables in the appendix (A1 to A6 pp.94- 99, and A11 to A14 p.104-107) do compare results with the baseline
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Partly	There are tables demonstrating the model outputs of the effects of restriction when financial returns are maximised (pp. 108 -116) and when there are limited irrigation capacity (p.101-103)
Does the guidance highlight the importance and need for consultation at the decision-making stage?	N	
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Partly	Case studies demonstrate the use of GIS layers (p.23), flow charts produced by ArcView (p.25-26) and tables (p.27)
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	N	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	N	
Does the guidance request that the results of sensitivity/scenario analyses are included?	Partly	p.49-53 takes into account all irrigation control scenarios and compares them with one another
Does the guidance provide a good practice template or a proposed list of contents?	N	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	N	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?		None known

# Review of ponds, pools and lochans Guidance on good practice in the management and creation of small waterbodies in Scotland

Guidance being reviewed: Ponds, pools and lochans Guidance on good practice in the management and creation of small waterbodies in Scotland, June 2000	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	S 1 ()g 1) The main aim of the handbook is to provide a summary of new information about the conservation and management of small water bodies, The guide is not a practical management handbook.
Is the intended audience stated?	Y	S 1(Pg 1) This guide is aimed at: Statutory environmental protection agencies and NGOs; Farmers and landowners; Local authority planners and engineers; Developers, environmental consultants and landscape architects; local action groups and members of the public.
Is the guidance officially endorsed?	Υ	S 1 (Pg 1) Endorsed by SEPA
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	S 2 (Pg 2 -10)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	N	Although the amenity, historical and archaeological value of ponds are acknowledged and a system to categorise ponds on the basis of this proposed (Pg 11)
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	N	
Does the guidance highlight the need to set out SMART objectives?	N	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	N	
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	N	
Does the guidance give examples or types of options that could/should be included?	Y	The Guidance proposes some options for pond management (e.g. Pg 24: options for controlling pollution where it is not possible to maintain semi-natural vegetation cover; Pg 48 Options for disposal of spoil)

Does the guidance indicate how a long-list may be reduced to a short-list of options?	N	
Does the guidance indicate the need for option development through a learning process as part of screening?	Partly	For some options, such as SUDs, post- implementation appraisals as well as the potential for inclusion of corrective measures are suggested (Pg 56)
Is guidance given (e.g. examples) of acceptable reasons for screening out?	N	
Does the guidance request that the do-minimum option always be included?	N	
Is there clear guidance on the importance of the base case and how to assess it?	N	
Option Costs		
Is guidance given on how to cost each option?	N	
Is guidance given on the level of detail that is required?	N	
Does the guidance explain how to express costs in opportunity costs?	N	
Does the guidance explain different types of costs and how they can be combined?	N	Although some examples of management work related costs are given (Pg 31)
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	N	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	N	
Does the guidance explain where residual values should/should not be included?	N	
Does the guidance explain where contingent liabilities should/should not be included?	N	
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Partly	The Guidance identified types of benefits that may arise from ponds management, e.g. amenity, conservation, and that these should be taken into account but does not explain how to identify them (S 7.6; Pg 57)
Does the guidance set out an approach to valuing benefits in money terms?	N	
Does the guidance propose early sensitivity to focus effort?	N	
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	N	

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Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Partly	Some criteria for categorisation of value are proposed, e.g. historical importance (Pg 16)
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	N	
Does the guidance explain why and how to adjust for subsidies, etc.?	N	
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	N	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	N	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	N	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	N	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	N	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	N	
Does the guidance explain why and how to adjust for risk?	N	Guidance notes risks associated with pond management (e.g. pollution; dam construction, etc.; Pg 27)
Does the guidance explain why and how to adjust for optimism bias?	N	
Sensitivity Analysis	•	
Does the guidance explain why and how to undertake sensitivity analysis?	N	
Does the guidance explain why and how to calculate switching values?	N	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	N	

Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	N	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	N	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	S 6 notes that any project involving the creation of ponds and other wetlands should clearly involve discussion and consultation with local people most likely to be affected (Pg 50).
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	N	
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	N	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	N	
Does the guidance request that the results of sensitivity/scenario analyses are included?	N	
Does the guidance provide a good practice template or a proposed list of contents?	N	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	N	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	N	Not known

# Review of watercourses in the community- A guide to sustainable watercourse management in the urban environment, June 2000

Guidance being reviewed: Watercourses in the Community , A guide to sustainable watercourse management in the urban environment, June 2000	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	Pg 2: to convince people of the importance of taking urban watercourses seriously, and to encourage them to find the advice, reference documents, guidance, and funding which will enable them to get on with the job: the restoration, protection & appreciation of Scotland's urban burns and rivers.
Is the intended audience stated?	Y	Pg 2: This report is aimed at anyone who is involved in the development and management of urban areas, from drainage through to architecture.
Is the guidance officially endorsed?	Y	Endorsed by SEPA
Rationale and Objectives	T	
Is the need for a clear rationale for intervention highlighted?	Y	S 1 explains the importance of urban water courses
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	N	
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	N	
Does the guidance highlight the need to set out SMART objectives?	N	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	N	
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	N	
Does the guidance give examples or types of options that could/should be included?	Y	Some practical examples are given (Pg 33)
Does the guidance indicate how a long-list may be reduced to a short-list of options?	N	
Does the guidance indicate the need for option development through a learning process as part of screening?	N	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	N	

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Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	N	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	N	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Z	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Z	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	N	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	N	
Does the guidance explain why and how to adjust for risk?	N	
Does the guidance explain why and how to adjust for optimism bias?	N	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	N	
Does the guidance explain why and how to calculate switching values?	N	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	N	
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Z	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	N	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	To avoid conflict, consultation is regarded as necessary (e.g. Preconsultation can make a big difference to the acceptability of a scheme, the quality of advice, degree of support and funding; Pg 36).

Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	N	
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	N	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	N	
Does the guidance request that the results of sensitivity/scenario analyses are included?	N	
Does the guidance provide a good practice template or a proposed list of contents?	N	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	N	
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	N	Not known

# Review of Guidance Document of Identification and Designation of Heavily Modified and Artificial Water Bodies

Guidance being reviewed: Guidance Document of Identification and Designation of Heavily Modified (HMWD) and Artificial Water Bodies (AWB), CIS Working Group 2.2 UBA, SNIFFER et at (2003)	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	S 1.4 (Pg 19): The purpose of this guidance is to introduce the requirements of the WFD with respect to HMWB and AWB identification and designation
Is the intended audience stated?	Y	S 1.4 (Pg 20):The guidance document is addressed to: administrative bodies responsible for implementing the WFD; administrative bodies influenced by the implementation of the WFD; planning engineers and other technical experts; interested public; and other stakeholders affected by the implementation of the WFD, especially with regards to the designation of HMWB (NGOs, water supply companies, hydropower, shipping, industry,).
Is the guidance officially endorsed?	Y	Foreword (Pg 3), endorsed by water directors of the EU and funded by German Federal Environment Agency (UBA); Scotland and Northern Ireland Forum for Environmental Research (SNIFFER); Environment Agency of England and Wales; and DG Environment of the European Commission.
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	S 1 (Pg 12-19): Linkages to WFD
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	N	N/a
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	N	N/a
Does the guidance highlight the need to set out SMART objectives?	N	Although environmental objectives should be set for those water bodies identified as heavily modified or artificial, i.e. "maximum ecological potential"

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Is there a clear structure to the decision-making process defining any hierarchy in choice?	Υ	There is a stepwise decision process to identify HMWB or AWB, from provisional identification to designation (Pg 31)
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	N	N/a
Does the guidance give examples or types of options that could/should be included?	N	N/a
Does the guidance indicate how a long-list may be reduced to a short-list of options?	N	N/a
Does the guidance indicate the need for option development through a learning process as part of screening?	N	N/a
Is guidance given (e.g. examples) of acceptable reasons for screening out?	N	Not with regard to options; however in terms of screening out water bodies for identification S 4.4 proposes a screening process (step 3) to reduce effort and time in identifying water bodies which should not be considered for the HMWB designation tests. This will include those water bodies that are likely to fail to achieve Good Ecological Status but which show no hydromorphological changes
Does the guidance request that the do-minimum option always be included?	N	N/a
Is there clear guidance on the importance of the base case and how to assess it?	N	N/a
Option Costs	I.	
Is guidance given on how to cost each option?	N	N/a
Is guidance given on the level of detail that is required?	N	N/a
Does the guidance explain how to express costs in opportunity costs?	N	N/a
Does the guidance explain different types of costs and how they can be combined?	N	N/a
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	N	N/a
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	N	N/a
Does the guidance explain where residual values should/should not be included?	N	N/a

Does the guidance explain where contingent liabilities should/should not be included?	N	N/a
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	N	N/a
Does the guidance set out an approach to valuing benefits in money terms?	N	N/a
Does the guidance propose early sensitivity to focus effort?	N	N/a
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	N	N/a
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	N	N/a
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	N	N/a
Does the guidance explain why and how to adjust for subsidies, etc.?	N	N/a
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	N	N/a
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?		
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	N	N/a
Does the guidance explain why and how to undertake discounting of all costs and benefits?	N	N/a
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	N	N/a
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	N	N/a
Does the guidance explain why and how to adjust for risk?	N	N/a
Does the guidance explain why and how to adjust for optimism bias?	N	N/a

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Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	N	N/a
Does the guidance explain why and how to calculate switching values?	N	N/a
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	N	N/a
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	N	N/a
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	N	N/a
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	S 5.7 (Pg 59) notes that the designation of HMWB will be undertaken as part of the River Basin Management planning process and is therefore subject to the requirements for the provision of public information and consultation (as defined by Article 14 0of WFD).
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	N	N/a
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	N	N/a
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	N	N/a
Does the guidance request that the results of sensitivity/scenario analyses are included?	N	N/a
Does the guidance provide a good practice template or a proposed list of contents?	N	N/a
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	N	N/a
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	N	Not known

### Review of WFD29 Volume 1 - Preliminary Guidance Document

Guidance being reviewed: WFD29 Volume 1 - Preliminary Guidance Document	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Y	To provide a user friendly guide
Is the intended audience stated?	Y	WR licensing officers
Is the guidance officially endorsed?	Υ	Published by SNIFFER
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Υ	The guidance states in the executive summary the main objective which is to present "a user friendly guide for identifying best practice and costeffective management strategies and mitigation measures for potential application to impoundments of hydropower, flow regulation and water supply in order to meet the requirements of the Water Framework Directive"
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Partly	The guidance recognises the need to calculate the financial and socio-economic costs but this is step 8 (out of 10 steps) of the methodology on conducting an appraisal (p.8)
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Y	This is covered in detail in section 4 (pp. 37-102)
Does the guidance highlight the need to set out SMART objectives?	Partly	They don't have a SMART system, but they have a similar approach which they call DPSIR (Driving forces, Status, Pressures, Impact, Response) p. 22
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Y	There is a ranking system in place for each option in steps 9 and 10 of the appraisal methodology
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Partly	The options are mainly socio-economic based (p. 32)
Does the guidance give examples or types of options that could/should be included?	Υ	Ten options are listed on p. 32
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Х	
Does the guidance indicate the need for option development through a learning process as part of screening?	Х	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	
Does the guidance request that the do-minimum option always be included?	Х	

Х	
Y	The guidance suggests the use of NPV for calculating costs (p.29). More detail is included in spreadsheet examples for costing options (p.42)
Partly	There is no explicit guidance given, however there is a spreadsheet example of an appraisal and this is provides much more detail (Table 2 p.120-125)
Х	
Y	Mitigation measures are combined to assess the effectiveness of meeting WFD objectives (Section 3p. 26-27). Then for each selected measures, costs are identified. This is done in terms of financial costs and includes modelling costs, habitat modification, capital and operational costs
x	The guidance states that capital and operational costs are relevant to assessing financial and socio-economic costs (p. 52)
Partly	The guidance states that an agreed timescale for implementation is needed to ensure that the most effective measures are implemented first p.31(sect 3.14), however, there is no explanation for determining this because it depends on the option
Х	
Partly	Liabilities are only mentioned in the context of one option (i.e. in the case of the removal of a structure) (p.106)
Υ	This is explained on an option based system (section 4)
Partly	Cost and benefit analysis is carried out in steps 8 to 10 of the methods for appraisal (p.27-31), and when selecting potential mitigation measures, the socioeconomic and financial costs are compared to the expected benefits calculated in the CBA p. 7
Х	
	Y Partly X Partly Y Partly Y Partly

Does the guidance explain how to include non-		
monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Х	
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Y	The guidance recommends the use of a relative scale for effectiveness on individual measures (p.21)
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	x	
Does the guidance explain why and how to adjust for subsidies, etc.?	Х	
Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	Х	
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Х	
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Х	
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	x	
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	
Does the guidance explain why and how to adjust for risk?	Х	
Does the guidance explain why and how to adjust for optimism bias?	Х	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Х	
Does the guidance explain why and how to calculate switching values?	Х	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Х	

Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	X	
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Partly	Possible mitigation measures are combined to meet WFD requirements; these then have their costs calculated using NPV (see table 3.1p.8; table 3.8 p.27). The guidance also recommends the use of specialists so that suitable combinations are selected (p.25 - 27)
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	Step 1 of the guidance to appraisal highlights the need for consultation with environmental agencies, managers, and other stakeholders as a vital component; thus ensuring that all the relevant impacts are fully incorporated (p.9 section 3.4)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Partly	Table 1 and 2 in the Appendix (pp. 116-126) is a detailed example of an appraisal
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Y	Any potential pressures which can not be quantified due to a lack of information should include the assumptions made with it (p.14)
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Partly	The guidance does not explicitly state that values need to be attached to costs and benefits; however, the appraisal example on pp. 116-126 does include monetary values.
Does the guidance request that the results of sensitivity/scenario analyses are included?	Y	Results are included for every step of the appraisal process (p. 8)
Does the guidance provide a good practice template or a proposed list of contents?	Y	A step by step methodology is given in section 3 of the guidance, which includes a flow diagram(p.8) illustrating and summarising the methods for appropriate appraisal measure
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Υ	The guidance sheets in section 4 (pp. 37-102) provide much more detail on a step by step basis for each of the options
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?		None known

# Review of Appraisal Criteria: A Guide to the Appraisal of Support for Passenger and Freight Rail Services Strategic Rail Authority (SRA) April 2003

Guidance being reviewed:	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	Υ	Guide to provide a consistent approach
Is the intended audience stated?	N	
Is the guidance officially endorsed?	Υ	Published by SRA
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	Chapter 2 (p.7) sets out the criteria used to 'decide whether or not to proceed with further development or implementation of rail proposals'
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Y	Under the heading 'Value for Money' (Chapt.2 p.7), the guidance states that 'Schemes will be ranked in terms of the risk-adjusted net present value of costs and benefits per £ of SRA support'
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Y	Chapter 6 covers a wide range of impacts needing measuring, valuing and incorporation
Does the guidance highlight the need to set out SMART objectives?	Х	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Y	The hierarchy is divided into high level, intermediate and immediate objectives (p.10).
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Partly	This is only briefly discussed in Chapter 3 and 5
Does the guidance give examples or types of options that could/should be included?	Y	A list of examples is included on p. 19
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Х	
Does the guidance indicate the need for option development through a learning process as part of screening?	Х	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	
Does the guidance request that the do-minimum option always be included?	Y	It is recommended that it is always carried out in the shortlist, so it can check against a more interventionalist solution (p.20)
Is there clear guidance on the importance of the base case and how to assess it?	Х	

The guidance suggests calculating a net
y present value for each option to help select the preferred option (p.24)
The guidance describes three types of cost: avoidable costs; capital costs; operating costs (pp.34 - 35)
The guidance suggests residual values should represent the anticipated net benefits
Monetary valuations of costs should be set out according to the DfTs latest recommendations
The guidance does refer to non- monetised benefits, but only marginally explains how these may be related to freight services (p.30, 32-33)
There is a mention of using the measuring the benefits to passengers using a willingness to pay method (p.32)
tl

Y	The guidance recommends the use of DfT's HEN1 values for casualty related costs (p.31)
Х	
Υ	It is suggested that monetary values should be adjusted using a GDP deflator (based on the one from the Bank of England) (p.23)
Υ	Discounting is the first recommended step for calculating the NPV of costs and benefits(p. 24), it is clearly explained using examples
Υ	3.5% over the first thirty years (p.24)
Х	
Х	
Х	
Y	The rationale behind sensitivity analysis is clearly explained (p.25), and the guidance recommends using the Monte Carlo analysis
Х	
Υ	The annexes cover 3 different scenarios in detail
Υ	Again this is covered in the Annexes under the various scenario examples
Х	
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Does the guidance highlight the importance and need for consultation at the decision-making stage?	Х	
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	Y	Instructions are available (p.14) for the sensitivity analysis (p.25), the Net Present Value (p.24), and examples of tables displaying results are consistently used throughout the guidance
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Х	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	Х	
Does the guidance request that the results of sensitivity/scenario analyses are included?	Х	
Does the guidance provide a good practice template or a proposed list of contents?	Y	An appraisal summary table is displayed as an example to demonstrate how to develop a business case (p.18)
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Y	There is a section dedicated especially to this (p.14), stating that the level of detail will be dependent on associated constraints and other additional factors
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	Х	

# Review of Climate Adaptation-Risk, Uncertainty and Decision-Making

Guidance being reviewed: Climate Adaptation-Risk, Uncertainty and Decision-Making	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	To provide guidance that helps decision- makers and their advisors:  - take account of the risk and uncertainty associated with climate variability and future climate changes  - identify and appraise measures to mitigate the impact or exploit the opportunities presented by climate change
Is the intended audience stated?	Y	The audience is identified as being broad, hence, the guidance is generic to cover any decision that is likely to be influence by climate
Is the guidance officially endorsed?	Partly	The report is officially sanctioned but is not 'official' guidance, rather it is to help decision-makers
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	The aim of the framework is for a decision-maker to identify where climate change is a material consideration  The need for a clear definition of the problem is highlighted (pg 10, Part 1) and that this 'should be as open as possible, so that options for the decision are not cut off at an early stage'
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Y	The decision process is 'tiered, allowing the decision-maker to undertake screening, evaluation and prioritisation ofrisk and options before moving onto more detailed risk assessments and options appraisal' (pg 7, Part 1)
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Partly	The guidance sets out a set of questions to consider when identifying which options appraisal process to use (pg 9, Part 1). The influence of different levels of decision-making is considered on pg 11, Part 1, with examples given on pg 12, Part 1
Does the guidance highlight the need to set out SMART objectives?	Y	Pg 10, Part 1 notes 'it is essential to understand the decision-makers wider objectives'. The also guidance includes reference to criteria against which the appraisal is undertaken.  These are also termed policy objectives

adestions for review of Guidance (ATIBE)		(pg 14, Part 1)
Is there a clear structure to the decision-making process defining any hierarchy in choice?	Y	Risk screening and a tiered approach are used to prevent unnecessary costs by avoiding the immediate use of complicated decision-making and quantitative methods (pg 8, Part 1)
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Y	Pg 30, Part 1 notes 'it is important that a wide range of potential options is considered to avoid the premature rejection of viable options'
Does the guidance give examples or types of options that could/should be included?	Partly	Pg 30, Part 1 notes 'this will include options ranging from 'do nothing' to 'do a lot'
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Partly	Pg 30, Part 1 notes 'the decision-maker should attempt to identify no regret and low regret options at the outset'. Pg 33, Part 1 discusses the use of high level appraisal to screen out some options on pre-defined criteria
Does the guidance indicate the need for option development through a learning process as part of screening?	Y	The 'decision framework is circular, allowing the performance of options to be reviewed' and it is 'iterative allowing the problem, decision-making criteria, risk assessment and options to be refined' (pg 7, Part 1).
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Partly	Appropriate criteria for screening out are given (pg 33, Part 1)
Does the guidance request that the do-minimum option always be included?	N	Not specifically, but the guidance does request a wide range of options from donothing to do a little to do a lot, which would cover do-minimum (pg 30, Part 1)
Is there clear guidance on the importance of the base case and how to assess it?	Partly	A range of different baseline types is given (e.g. pg 83, Part 2) depending on that used in the main appraisal (assumes assessment of climate change is an add-on)
Option Costs		
Is guidance given on how to cost each option?	N	The guidance does not cover how to cost options as it addresses how to take account of climate change within options appraisal. Implications for option costs are discussed at various points, and are included in the key questions at the end of each stage of the appraisal process
Is guidance given on the level of detail that is required?	N	
Does the guidance explain how to express costs in opportunity costs?	N	

N	
N	
N	Although the guidance does include details of what appraisal approaches may be useful when different time periods are used (pg 79, Part 2)
N	
N	
Partly	The approach to identifying and assessing benefits depends on the methodology used. The guidance focuses on where benefits might arise and the need to take them into account (e.g. pg 13, Part 1 'is the decision expected to provide benefits in the long term?'
N	The guidance refers to the methodology that could be used rather than describing how the benefits would be valued
Y	The guidance proposes looking initially at systematic qualitative analysis, through semi-quantitative to fully quantitative, in some cases converted into monetary terms (pg 33, Part 1)
Partly	The guidance notes that not all benefits need to be (or should be monetised) (pg 33, Part 1)
Y	A whole range of different approaches for assessing benefits are described, this includes scoring and weighting (pg 35, Part 1 gives a table of techniques – these are described further in Appendix 3)
Partly	The tiered approach proposed should help focus in on the most significant benefits
N	
N	
	N N N Partly Partly  Partly

<u></u>		
Distributional Impacts		
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Partly	Equity is included in the question for Stage 2 when deciding the criteria against which the decision should be made
Present Values and Discounting		
Does the guidance explain how to update all costs and benefits to today's prices?	Partly	Discounting is included in the tools and techniques but is not explained in great detail (it is included in the glossary)
Does the guidance explain why and how to undertake discounting of all costs and benefits?	Partly	It is included in the glossary
Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	N	The guidance is intended for a range of decision-makers, hence, is not specific about the discount rate
Economic Adjustments		
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	N	
Does the guidance explain why and how to adjust for risk?	Partly	The guidance focuses on risk assessment and the need to take account of risk
Does the guidance explain why and how to adjust for optimism bias?	N	
Sensitivity Analysis		
Does the guidance explain why and how to undertake sensitivity analysis?	Y	Sensitivity of the decision to changes in one or more key factors is included (e.g. in Table 7, pg 23, Part 1). It is also discussed in Appendix 3 where various techniques are covered
Does the guidance explain why and how to calculate switching values?	N	
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Y	Pg 36, Part 1 briefly discusses the use of scenarios to investigate the influence of uncertainty
Comparing Options		
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Y	Pg 36 notes the importance of brining all of the information together and comparing it against the objectives and defined decision criteria to inform the decision-making process
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	Y	Pg 32, Part 1 notes 'a further purpose of options appraisal is to seek ways of refining the options so as to seek better options with lower environmental, social and economic impacts'

Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	The guidance highlights the importance of involving stakeholders at all stages in the decision process (pg 6, Part 1)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	N	
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	Partly	The guidance stresses throughout the importance of transparency (e.g. pg 37, Part 1)
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	N	Not specifically, although the tone of the guidance is that all information should be used to inform decision-making
Does the guidance request that the results of sensitivity/scenario analyses are included?	N	As above, there is a general suggestion that sensitivity analysis is used to inform decision-making, allowing the influence of uncertainty to be identified
Does the guidance provide a good practice template or a proposed list of contents?	N	
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	Y	The guidance proposes a tiered structure from systematic qualitative analysis, through semi-quantitative to fully quantitative (pg 33, Part 1)
Other Reviews of the Guidance		
Has a review been made of the guidance? If so, what were the findings of the review?	N	The guidance includes a stage to monitor, evaluate and review the decision (pg 39, Part 1)

# **Proforma for Strategic Environmental Assessment and Climate Change: Guidance for Practitioners**

Guidance being reviewed:	Y/N	Comments/Description/Reference
Is the aim of the guidance given?	Y	The guidance's aim is to explain how climate change issues can be considered in strategic environmental assessment (SEA) (p.1 §1)
Is the intended audience stated?	N	The only reference of the possible audience is to 'SEA practitioners' (p.1 §1)
Is the guidance officially endorsed?	Y	Endorsement is given by the Countryside Council for Wales, EA, English Nature, UK Climate Impacts Programme, and Environmental Change Institute (p.1)
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Partly	The guidance states that climate change should be included into various stages of the SEA process (p.3 Table 1), and lists a number of applications where climate change is vital to wellbeing (p.6)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	N	Nothing on costs or monetary issues mentioned
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	N	
Does the guidance highlight the need to set out SMART objectives?	N	
Is there a clear structure to the decision-making process defining any hierarchy in choice?	N	
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Y	The guidance has a set of guidelines for selecting environmental planning options which are adapted to deal with climate change (p.6-7). One such guideline is to keep the range of options open and flexible
Does the guidance give examples or types of options that could/should be included?	Y	A number of adaptation and mitigation options needing consideration are included in Table 3 & 4
Does the guidance indicate how a long-list may be reduced to a short-list of options?	N	Nothing mentioned
Does the guidance indicate the need for option development through a learning process as part of screening?	Partly	Climate change is monitored as a way of ensuring all environmental plans can adapt to the changes as they arise (p.3,4)

Is guidance given (e.g. examples) of acceptable reasons for screening out?	N	Nothing mentioned
Does the guidance request that the do-minimum option always be included?	Partly	The guidance includes a 'no regret' option which delivers net benefits, i.e. cost effective actions dealing with weather-related problems (p.6)
Is there clear guidance on the importance of the base case and how to assess it?	Y	A baseline scenario puts the SEA into context, which allows the main problems to be identified (p.3, 8). Table 1 (p.3) sets out a broad and brief explanation on how to establish a baseline and Box 2 (p.4) sites a number of data sources to be used
Option Costs		
Is guidance given on how to cost each option?	N	
Is guidance given on the level of detail that is required?	N	
Does the guidance explain how to express costs in opportunity costs?	N	
Does the guidance explain different types of costs and how they can be combined?	N	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	N	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	N	
Does the guidance explain where residual values should/should not be included?	N	
Does the guidance explain where contingent liabilities should/should not be included?	Y	Contingency planning should be included as part of the adaptation options as a measure for dealing with risk (p.7)
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Partly	The guidance
Does the guidance set out an approach to valuing benefits in money terms?	N	
Does the guidance propose early sensitivity to focus effort?	N	
Does the guidance explain how to include non- monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Partly	The guidance only makes reference to non-monetised benefits, i.e. milder winters, fewer deaths (p.2) and the 'no regret' option which secures net benefits (p.6)

Does the guidance include and explain approaches for valuing these benefits in nonmoney terms (e.g. scoring and weighting)?  Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?  Does the guidance explain why and how to adjust for subsidies, etc.?  Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?  Distributional Impacts  Does the guidance explain why and how to adjust costs and benefits for distributional impacts?  Present Values and Discounting  Does the guidance explain how to update all costs and benefits to today's prices?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?
issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?  Does the guidance explain why and how to adjust for subsidies, etc.?  Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?  Distributional Impacts  Does the guidance explain why and how to adjust costs and benefits for distributional impacts?  Present Values and Discounting  Does the guidance explain how to update all costs and benefits to today's prices?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?
adjust for subsidies, etc.?  Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?  Distributional Impacts  Does the guidance explain why and how to adjust costs and benefits for distributional impacts?  Present Values and Discounting  Does the guidance explain how to update all costs and benefits to today's prices?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?
necessary to place a monetary value on legally protected elements at risk (and if so, how to)?  Distributional Impacts  Does the guidance explain why and how to adjust costs and benefits for distributional impacts?  Present Values and Discounting  Does the guidance explain how to update all costs and benefits to today's prices?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 201-300), 1.0% (year 301+) to be used?
Does the guidance explain why and how to adjust costs and benefits for distributional impacts?  Present Values and Discounting  Does the guidance explain how to update all costs and benefits to today's prices?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?
adjust costs and benefits for distributional impacts?  Present Values and Discounting  Does the guidance explain how to update all costs and benefits to today's prices?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?
Does the guidance explain how to update all costs and benefits to today's prices?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?
costs and benefits to today's prices?  Does the guidance explain why and how to undertake discounting of all costs and benefits?  Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?
undertake discounting of all costs and benefits?  Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?
3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?
Economic Adjustments
Economic Adjustments
Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?
Does the guidance explain why and how to adjust for risk?  Partly  Mitigation and adaptation options allow risk to be included into the management plan (p.7)
Does the guidance explain why and how to adjust for optimism bias?
Sensitivity Analysis
Does the guidance explain why and how to undertake sensitivity analysis?
Does the guidance explain why and how to calculate switching values?
Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?  Partly  Figure 2 p. 5 includes all the possible nationwide scenarios which may occur as a result of climate change
Comparing Options
Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best

option?		
Does the guidance highlight how to maximise benefits/minimise costs by combining the best bits of a number of options?	N	
Does the guidance highlight the importance and need for consultation at the decision-making stage?	Y	Consultation with authorities is used to decide the scope of the SEA and the draft plan (p.3)
Presentation of Results		
Does the guidance set out instructions on how to present the results of the appraisal?	N	
Does the guidance stress the importance of including all assumptions alongside the calculations, etc.?	N	
Does the guidance request that all major costs and benefits are described, together with the values attached to them?	N	
Does the guidance request that the results of sensitivity/scenario analyses are included?	N	
Does the guidance provide a good practice template or a proposed list of contents?	Y	The SEA process is outlined on p.3. In addition, the guidance includes different categories of option development (p.6,7) and a brief summary of what aspects of climate change the SEA should focus on (p.8)
Does the guidance suggest the level of detail, etc. that is required and/or suggest that this is proportionate to the value of the whole project?	N	
Other Reviews of the Guidance	•	
Has a review been made of the guidance? If so, what were the findings of the review?		None known
·		

### Review of Zoning Marine Protected Areas through Spatial Multiple-Criteria Analysis: The Case of the Asinara Island National Marine Reserve Italy

Guidance being reviewed:	Y/X	Comments/Description/Reference
Is the aim of the guidance given?	N	Paper to illustrate special MCA (rather than guidance)
Is the intended audience stated?	N	
Is the guidance officially endorsed?	?	
Rationale and Objectives		
Is the need for a clear rationale for intervention highlighted?	Y	The guidance starts by stating that 'systematic, objective approaches to site selection and design can help reconcile conflicting interests, represent stakeholders' viewpoints fairly and evenly, and extend the scope of planning studies from single reserves to networks' (p.515)
Is the need identified for an estimate of the likely costs and benefits before the appraisal is undertaken to see if the project is likely to be justified?	Х	
Does the guidance suggest how/at what level of detail the costs and benefits should be estimated?	Х	
Does the guidance highlight the need to set out SMART objectives?	Х	
Is there a clear structure to the decision- making process defining any hierarchy in choice?	Y	A hierarchically structured knowledge model is developed in which higher-level values representing the general MPA characteristics, and any rarities are incorporated at the lower levels (p. 520)
Options and Screening of Options		
Does the guidance highlight the need for a wide range of options to be considered?	Y	It highlights the need to involve the different viewpoints of all the main interest groups in defining the priorities and to integrate objectives with contrasting priorities of different stakeholders (p.515)
Does the guidance give examples or types of options that could/should be included?	?	The guidance suggests the use of zoning options (p.517), and planning options (p.525)
Does the guidance indicate how a long-list may be reduced to a short-list of options?	Υ	When many decision-makers get involved, multivariate statistics can be used to reduce the options (p. 519)
Does the guidance indicate the need for option development through a learning process as part of screening?	Х	
Is guidance given (e.g. examples) of acceptable reasons for screening out?	Х	

Does the guidance request that the dominimum option always be included?	Х	
Is there clear guidance on the importance of the base case and how to assess it?	Х	
Option Costs		
Is guidance given on how to cost each option?	Х	
Is guidance given on the level of detail that is required?	Х	
Does the guidance explain how to express costs in opportunity costs?	Х	
Does the guidance explain different types of costs and how they can be combined?	Х	
Does the guidance explain the need to exclude depreciation and capital charges and how to exclude them?	Х	
Does the guidance explain the need for a common time horizon and how this should be determined (and/or does the guidance set a common time horizon for all appraisals of that type)?	X	
Does the guidance explain where residual values should/should not be included?	Х	
Does the guidance explain where contingent liabilities should/should not be included?	Y	These are included in the consistency indexes (p. 518)
Option Benefits		
Does the guidance explain how to identify benefits of each option and the types of benefits that may occur?	Y	Benefits are identified in the introduction (p.516) and the guidance lists a number of general guidelines which would help maximise benefits (p.523)
Does the guidance set out an approach to valuing benefits in money terms?	Х	
Does the guidance propose early sensitivity to focus effort?	Х	
Does the guidance explain how to include non-monetised benefits in the appraisal (or suggest alternative methodologies/guidance that can be referred to)?	Y	The guidance makes use of a map of natural value (in terms of endemic and rare species) to maintain ecosystem function (p. 520)
Does the guidance include and explain approaches for valuing these benefits in non-money terms (e.g. scoring and weighting)?	Y	Weighting is performed on the basis of the results (p.520) for priority setting and evaluation. A table indicating the weights is included (p.522, 523). An explanation of how they are calculated in on p. 525 in the appendix.
Does the guidance encourage wide coverage of issues based on sensitivity and does it avoid valuation of what is easily valuable to the detriment of other issues?	Y	Sensitivity analysis is mainly used on subjective components in order to ensure transparency in the objectives (p. 524)

	Does the guidance explain why and how to adjust for subsidies, etc.?	Х	
	Does the guidance discuss whether it is necessary to place a monetary value on legally protected elements at risk (and if so, how to)?	X	
	Distributional Impacts		
	Does the guidance explain why and how to adjust costs and benefits for distributional impacts?	Х	
	Present Values and Discounting		
•	Does the guidance explain how to update all costs and benefits to today's prices?	Х	
	Does the guidance explain why and how to undertake discounting of all costs and benefits?	X	
	Does the guidance require a discount rate of 3.5% (years 0 to 30), 3.0% (years 31-75), 2.5% (years 75-125), 2.0% (years 126-200), 1.5% (years 201-300), 1.0% (year 301+) to be used?	Х	
•	Economic Adjustments		
	Does the guidance explain why, how and where it may be necessary to adjust for material differences in tax?	Х	
	Does the guidance explain why and how to adjust for risk?	X	
	Does the guidance explain why and how to adjust for optimism bias?	Х	
	Sensitivity Analysis		
	Does the guidance explain why and how to undertake sensitivity analysis?	Partly	It explains why a sensitivity analysis should be carried out (on subjective components) (p. 524), but does not explain how this should be done
	Does the guidance explain why and how to calculate switching values?	X	
	Does the guidance explain how and why different scenarios would be used, and how they could be taken into account?	Y	Scenarios are used to compare between different protection levels on the basis of concordance scores for benefit and cost values (p. 518)
•	Comparing Options		
	Does the guidance explain how to take into account all of the costs, benefits, adjustments, sensitivity analysis, etc. and compare them back against the original objectives to select the best option?	Y	The use of pair wise comparison matrices is applied (p. 518)

Υ	The final zoning proposal incorporate the essential components and ensured benefits were maximised (p. 523)
Υ	The stakeholders are consulted to minimise conflict on the decision making process and the management proposal (p.523)
Υ	Through the use of GIS layers and a formal description of the design priorities, to ensure a standardized procedure (p. 517)
Х	
Х	
Υ	Scenarios are compared using quantitative information (p. 518)
Partly	The guidance included a table indicating all the spatial coverages used and how to collect the raw data to perform the MCA (p. 521)
Х	
	None known
	Y Y X Y Partly

