

# **Terms of Reference**

(Final Version 26<sup>th</sup> August 2003)

## ***Contents***

- 1. Scope of Work*
- 2. A phased approach*
- 3. Deliverables*
- 4. Timetable*
- 5. Annex I: Specific Key Issues to be addressed*

### **Terms of Reference: Scope of the work**

The overall objective of integrated testing (WG 4.1) is to contribute to the implementation of the WFD directive in the selected Pilot River Basins, leading in the long-term to the development of River Basin Management Plans. The specificity of the testing versus the real implementation is that the testing should be a front-runner of the actual implementation, with focus on *Key Issues* felt to be of particular relevance. Reporting in the context of the PRB activities will concentrate only on these *Key Issues*. It is important to stress that the integrated testing contributes to applying the many operational issues mentioned in the Guidance Documents (GD). In fact, many of the questions arising from the *Key Issues* will refer to operational aspects and therefore, they will be only solved after the guidance's application to real cases.

The objectives of the integrated testing are set around two deadlines: the first covering the 2002-third quarter of 2003 period, and the second aiming at mid 2004. These deadlines are based on the considerations that the actual implementation of the WFD is already taking place in many countries and that reporting from Member States to the Commission on specific issues of the Directive such as Article 5 and its Annexes is required in a relative short time. The WFD implementation should then take advantage as much as possible of the Pilot River Basin activities. To be useful, the integrated testing should start as early as possible.

### **A phased approach**

Two Phases are envisaged to reach the predefined objectives:

Phase 1a: Focus on testing of *Key Issues* related to the reporting commitments on Article 5, set up an on-line dynamic feedback and information exchange, and identify new *Issues* as the testing process evolves and additional cross cutting problems appear.

The time frame of Phase 1a goes till the third quarter of 2003, concentrating primarily on issues in the Guidance Documents related to the reporting commitments on Article 5 due March 2005. A list of general and specific *Key Issues* reported in the Annex 1 of the ToR has been developed in collaboration with the different WG leaders. The information acquired during this phase should flow among the different PRBs concerning experience on how *Key Issues* will be addressed, but also between PRB and WG leaders on the interpretation, implementation, checking for coherence, etc. of specific technical issues of the GDs. Furthermore, this information will be made available to the river basins involved in the “regular” implementation of the WFD, so that they can benefit from the pilot testing experience. The end product will be a document based on the elaboration of the reports dealing with the *Key Issues* addressed during the testing phase.

Phase 1b: Testing of the guidance documents not tested in Phase 1a (to be run in parallel with Phase 1a). Continuation of information exchange.

During Phase 1b the work will concentrate on the Guidance Documents not included in Phase 1a. This work will run in parallel with Phase 1a. However, it will extend until mid-2004. The simultaneous testing to be done in Phases 1a,b will allow an integrated testing of all GDs. The reporting will also be based on the list of general and specific *Key Issues* reported in the Annex 1 of the ToR that was developed in collaboration with the different WG leaders. A similar approach will be used to ensure the flow of information between the PRBs and the WG leaders.

Phase 2: Further develop integrated testing to contribute to producing Program of Measures and a River Basin Management Plan.

The work envisaged during this Phase would initiate during the second half of 2004. In this context, it is important to remember that a Guidance Manual on planning process will be produced by the end of 2005 by WG 2.9. A merging of activities between 4.1 and 2.9 is foreseen in order to establish a new key activity “Integrated River Basin Management”. Because of the restructuring of the CIS organisation, additional details on the timetable would be provided at a later stage.

### ***Deliverables***

- D1. Electronic platform for on-line dynamic feedback and information exchange
- D2. Intermediate reports concerning specific issues that had to be addressed by the PRBs (Phase 1)
- D3. Comprehensive report concerning the testing of the technical Guidance Documents including also a proposal for update. The manual should describe the implementation process through the various stages, from preliminary set-up and information gathering to the actual testing of the guidance and recommendation for improvement of the GDs. This document should be exhaustive and serve as a basis for possible modification of the GDs, and, at a later stage, for the establishment of Programme of Measures and the development of River Basin Management Plans.
- D4. Programme of Measures/RBMP (to be agreed upon for delivery date)

## Timetable

<i>Time</i>	<b>2002</b>			<b>2003</b>				<b>2004</b>				<b>2005</b>				<b>2006</b>			
<b>Actions</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
Information Exchange																			
Testing related to Article 5 commitment (Phase 1a)																			
Integrated testing of other GDs (Phase 1b)																			
Programme of measures/RBMP (Phase 2)																			
<b>Deliverables</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>D1</b>			X																
<b>D2</b>					X														
<b>D3</b>									X				X						
<b>D4</b>																			?

## ***Annex 1: General and Specific Issues to be addressed***

### **Preface**

An issue of concern before and during testing is the typology and the definition of water bodies. This should be ready before testing of Guidance Documents (GDs) can start.

**Key issues of a general nature:**

Name of Pilot River Basin :  
 Project leader :  
 Reporting period :  
 Status :

<b>Key issues of a general nature (common for all guidance documents)</b>	
<b><i>Organisational aspects for the testing</i></b>	<b><i>A</i></b>
How did you organise the sharing and the diffusion of information ?	A1
How did you organise the collection of the data needed ?	A2
How did you organise the capacity-building of staff and other partners ? Did you use the guidance documents as they were on all operational levels or did you for example transform them into instructions for different administrations ?	A3
Which organisational problems did you identify ? Did you find a solution for them?	A4
Did you involve the stakeholders & general public in the testing ? If yes, how ?	A5
Did the involvement of these stakeholders & general public lead to changes or improvements concerning the data collected, or the content and the results of the testing ?	A6
What experiences can you extract from this exercise for the implementation of art. 14 ?	A7
<b><i>Clarity of the Guidance</i></b>	<b><i>B</i></b>
Is the guidance readable and understandable ? If not, can you make suggestions for improvement	B1
Do you think that the objective of this guidance document, the way it was elaborated, its status and its significance / juridical importance are clear ?	B2
Are the requirements of the WFD clearly explained ? Please indicate where you identified shortfalls!	B3
Does the distinction between requirements of the directive and good / best practices appear as sufficiently clear ? Please indicate where you identified shortfalls!	B4
Would you like to find more precisions on the different points which are developed in this guidance ? For which aspects ?	B5
Do you identify some redundancies and where ?	B6

<b><i>Coherence between Guidance documents</i></b>	<b><i>C</i></b>
<p>Do you think this guidance is coherent with the other guidance documents you tested ?</p> <p>If not, where and why ?</p> <p>Specific issues for which coherence problems might occur :</p> <ul style="list-style-type: none"> <li>- REFCOND/COAST/water bodies</li> <li>- INTERCALIBRATION/Monitoring: focus on (availability) of biological data</li> <li>- HMWB / economics : economic analysis, disproportionate cost</li> <li>- Public information and participation / economics : evaluation of cost recovery, identification of human activities being at stake</li> <li>- Water bodies horizontal guidance / HMWB</li> <li>- IMPRESS / HMWB</li> <li>- .....</li> <li>- .....</li> <li>- .....</li> </ul> <p>Are there sufficient cross-references to clarify the linkages between the guidance document?</p> <p>Are there any incompatibilities between approaches, tools, methods proposed in the guidance documents?</p>	C1
<b><i>Methods proposed in the Guidance</i></b>	<b><i>D</i></b>
<p>Are the methods proposed acceptable and operational? If not, why?</p> <p>What should be improved, modified or added?</p>	D1
<p>Does the guidance document bring sufficient technical elements to implement operationally the requirements of the WFD in the field concerned by this guidance?</p> <p>Does the “tools kit” allow you to start and go from theory to practice?</p>	D2
<p>Among the tools and methods which are proposed in this guidance, do you think that some are difficult to implement and why? (for technical, social, cultural, political, economical reasons)</p>	D3
<p>Do you think that some aspects have not to be included in this guidance?</p>	D4
<p>On the contrary, do you think that some aspects are lacking?</p> <p>Which aspects should be developed?</p>	D5
<p>Do you need more concrete examples (for example concerning the current practices in Member States)?</p>	D6
<p>Which pitfall(s) / obstacles would you identify in the recommended process &amp; methods?</p> <p>Could you propose any solution to this problem?</p>	D7
<p>Does the guidance help to achieve a common approach in transboundary river basins?</p>	D8

### Specific key issues

Name of Pilot River Basin :  
 Project leader :  
 Reporting period :  
 Status :

Guidance	ToR No	Key issues	Specific question	Clarification	Suggestions for improvement
<b>2.0 Identification of Water Bodies</b>	2.0 - 1	Surface Waters: Status of aquatic ecosystems in the river basin	Does the Water bodies identified permit you to provide an accurate description of the status of aquatic ecosystems in your river basin?	Define the status of aquatic ecosystems	
	2.0 - 2	Surface Waters: Number of water bodies	How many water bodies have you identified?		
	2.0 - 3	Surface Waters: Minimum size	Which is the minimum size you have identified?		
	2.0 - 4	Surface Waters: Maximum size	Which is the maximum size you have identified?		
	2.0 - 5	Surface Waters: Very Small Water bodies	Which approach have you taken for very small ground water bodies?	How to deal with very small water bodies.	
	2.0 - 6	Surface Waters: Types	Is your typology process finalized? How many Water bodies have you identified regarding this typology?	Define types and criteria used.	
	2.0 - 7	Surface waters: Iterative process	Which problems/uncertainties have you identified?	Practicalities when implementing article 5.	



		Information from article 5 analyses and reviews		Uncertainties reported	
	2.0 - 8	Surface waters: Review of the water bodies identification process	Will you review the water bodies identification following the article 5 analysis or after the establishment of the monitoring programme?	Revision after the fulfillment of article 5 requirements or after the monitoring.	
	2.0 - 9	Surface waters: Pristine waters	Have you identified water bodies with pristine waters?		
	2.0 - 10	Surface Waters: Status of aquatic ecosystems in the river basin	Does the Water bodies identified permit you to provide an accurate description of the status of aquatic ecosystems in your river basin?	Define the status of aquatic ecosystems Please provide indication on the average quality of status.	
	2.0 - 11	Surface waters: Aggregation of water bodies	Which criteria have you applied when aggregating water bodies?		
	2.0 - 12	Surface waters: Sub-division of water bodies	How have you considered sub-division and which criteria have you used?		
	2.0 - 13	Surface waters: Physical features	Which physical (geographical and hydromorphological) features have you used when identifying discrete elements of surface water bodies?		
	2.0 - 14	Surface waters: Protected areas	How have you considered protected areas (e.g. Natura sites, or drinking water		

			sources)?		
	2.0 - 15	Surface waters: Wetlands associated to water bodies	Have you considered wetlands associated to your water bodies? How have you considered the relationship?	Wetlands related to surface waters.	
	2.0 - 16	Ground Waters: Number of water bodies	How many water bodies have you identified?		
	2.0 - 17	Ground Waters: Minimum size	Which is the minimum size you have identified?		
	2.0 - 18	Ground Waters: Maximum size	Which is the maximum size you have identified?		
	2.0 - 19	Ground Waters: Very Small Water bodies	Which approach have you taken for very small ground water bodies?	How to deal with very small water bodies.	
	2.0 - 20	Ground waters: Significant flow in aquifers	When designating groundwater bodies, how have you considered “significant flow”?		
	2.0 - 21	Ground waters: Delineation of groundwater bodies	Which criteria have you used when identifying and delineating groundwater bodies?		
	2.0 - 22	Ground waters: Groundwater boundaries	How have you identified boundaries of groundwater?		
	2.0 - 23	Ground waters: Wetlands associated to water bodies	Have you considered wetlands associated to your ground water bodies? How have you considered the relationship?	Wetlands related to ground waters	
	2.0 - 24	General issues: Local and regional	Which local and regional circumstances have you		

		circumstances	considered when identifying water bodies?. How have you done it?		
	2.0 - 25	General issues: Recommendations General issues to raise Experience	Which general problems/experiences/recommendations have you encountered when identifying water bodies in your river basin?	General Comments and Suggestions	
<b>2.1 Pressures and impacts</b>	2.1-1	Criteria for (potential) significant pressures	Is the list of “pressures” and the related “criteria” adequate as a basis to define those significant pressures at water body level that pose a risk of failing to meet the environmental objectives	A qualifier or a set of qualifiers (in this case “pressures” and related “criteria”) can be used as such (independent of the specific water body). The question is whether the applied qualifiers are a useful tool to decide whether the specific water body (management unit) will reach or fail the good status.	
	2.1-2	Impact indicators and their thresholds	Is the list of “impact indicators” and “threshold sizes” adequate to assess the risk of failing to meet the environmental objectives	A qualifier or a set of qualifiers (in this case “impact indicators” and related “thresholds”) can be used as such (independent of the specific water body). The question is whether the applied qualifiers are a useful tool to decide whether the specific water body (management unit) will reach or fail the good status.	
	2.1-3	DPSI(R) concept	Is the DPSI(R) concept applicable in practice	How are the experiences with the (P)ressures – (S)tate-(I)mpact relation (in fact what is the relation between the P (pollution source or activity) – S (the	

				<p>measured state in the water body) and the I (can objectives be met). Which models were used?</p> <p>How was it done in case of hydro morphological changes? Role of expert judgements etc.</p>	
	2.1-4	Heavily modified water-bodies (HMWb)	How was dealt with the provisional identification of HMWB and WB?	Are all WB provisionals identified as HMWB at risk?	
	2.1-5	Base lines	How was dealt with the impact of “autonomous developments” and “existing policies” in the impact assessments	<p>Assessing impacts (can you meet the environmental quality objectives or is there a “risk of failing to meet the objectives in 2015) needs inclusion of a number of societal, industrial and other relevant developments that may have an impact on maintaining or reaching the objectives in the long run. So-called base line scenario’s (sum of the effects of “autonomous developments and existing (water) policies” and the extend they were implemented) can be used to make the necessary assessments.</p> <p>Another issue is the time lack between the actual measure and the resulting response.</p> <p>LINK WATECO</p>	
	2.1-6	Aggregation for reporting	How is/will the gained information be synthesized to become the official art 5 WFD	Information will be gathered at water body level (ecology) and at smaller level (chemical). How is the information	

			report for the Commission.	aggregated to become the official art.5 WFD report to the Commission?	
	2.1-7	Significant water management issues	How to identify significant water management issues (Art. 14.1 WFD)?	The outcome of the Art. 5 review of the impact of human activity will be indispensable for the identification of the significant water management issues in the river basin district, as required by Art. 14.1. What tool was used to perform this? And in case of international river basin districts, did the riparian states use a common tool?	
	2.1-8	PM for groundwater issues (if any)			
<b>2.2 Heavily Modified water bodies (HMW)</b>	2.2-1	Availability of an Infrastructure	<p>1. Please give information on the availability of an infrastructure consisting of:</p> <ul style="list-style-type: none"> <li>• Expertise</li> <li>• Databases</li> <li>• Models and other tools</li> <li>• Organisational structure</li> </ul> <p>2. If the infrastructure was not (sufficiently) available, have you set up a group of experts for matters related to reference conditions and classification, ecological, chemical, hydrological, economical and</p>	Databases are needed for the identification of relevant water bodies and characterisation of pressure and state. State variables would be those required in the WFD for characterisation and classification of water bodies (Annex II and V) plus optional variables suggested in the WFD or other variables preferred by MSs. Pressure variables would include measures of land-use, point source discharges, hydro morphological alterations, etc. It should be stressed that without access to data, an orderly implementation of the WFD is	

			statistical expertise as well as expertise on modelling, GIS and databases.	impossible.	
	2.2-2	Practical qualitative “pressure criteria”	<p>1. Did you use the qualitative “practical pressure criteria” as clues to agree on anthropogenic disturbance (HMW guidance, table 1 of par 4.7).</p> <p>2. Is the list sufficiently adequate to establish insight that the water body is probably heavily modified (and may identify provisionally as a HMWb)</p> <p>3. Failing the GES could be a consequence of (a) morphological alterations, (b) other impacts or (c) a combination (and sum) of (a) and (b). Is it possible to distinguish the real pressure, which is responsible for the likelihood in not achieving the GES</p>	Describe how to distinguish between different pressures	
	2.2-3	Steps of the HMW & AWB identification and designation process (HMW guidance figure	Is this approach in line with the recommendations of the other GD?	Linkage with the draft guidance on water bodies, REFCOND, COASTAL, WATECO, IMPRESS.	

		1)			
	2.2-4		Have you applied the steps to a provisional identification (including the considerations on derogation) of HMWs. If not, which alternative approach has been used.		
	2.2-5		How did you go through the decision steps for the designation (including the considerations on derogation) of HMWB and AWB and with which profoundness	<p>Example: 2 approaches for Lake IJssel in NL may be followed:</p> <ul style="list-style-type: none"> <li>• About 70 years ago Lake IJssel in the NL was a transitional water. Due to safety reasons (combat against flooding by the sea) its now an inland lake. So a change of category took place (transitional water -&gt; inland water lake). This may lead to the simple conclusion that Lake IJssel cannot achieve GES and have to be provisionally identified as HMW due to the change in category. Further designation process will start with step 7 of figure 1 of the HMW guidance.</li> <li>• The designation process starts with the actual situation. For</li> </ul>	

				Lake IJssel the laborious process of figure 1 of the HMW guidance can be followed.	
	2.2-6		What are your experiences concerning the identification of MEP (including recommended approach for physico-chemical quality elements); comparison with closest comparable water body.		
	2.2-7		What are your experiences concerning the identification of GEP		
	2.2-8	Artificial Water Bodies (AWB)	What are your experiences with the definition of AWB – are there any problems to distinguish between AWB, HMWB and natural WB?		
	2.2-9	Intercalibration of HMW and AWB	Is the proposed intercalibration related to HMW and AWB considered to be practicable	The reference conditions for HMWB and AWB are determined by the nearest natural equivalent to the modified water body. This means reference conditions for HMWB and AWB will depend on the degree of modification. Therefore in most cases intercalibration of ecological potential boundaries is not required. Nevertheless the guidance recommends	



				an intercalibration exercise for such bodies if those bodies are the dominating water types. So, is this statement OK and if yes, have you tried such intercalibration exercise? LINK: intercalibration	
<b>2.3 REFCOND</b>	2.3-1	Availability of an infrastructure	<p>1. Please give information on the availability of an infrastructure consisting of:</p> <ul style="list-style-type: none"> <li>• Expertise</li> <li>• Databases</li> <li>• Models and other tools</li> <li>• Organisational structure</li> </ul> <p>2. If the infrastructure was not (sufficiently) available, have you set up a group of experts for matters related to reference conditions and classification, ecological, chemical, hydrological, and statistical expertise as well as expertise on modelling, GIS and databases?</p>	Databases are needed for the identification of relevant water bodies and characterisation of pressure and state. State variables would be those required in the WFD for characterisation and classification of water bodies (Annex II and V) plus optional variables suggested in the WFD or other variables preferred by MSs. Pressure variables would include measures of land-use, point source discharges, hydro morphological alterations, etc. It should be stressed that without access to data, an orderly implementation of the WFD is impossible.	
	2.3-2	Differentiation of a water body type	<ul style="list-style-type: none"> <li>• Did you use “system A” or “system B” in differentiating the surface water body types?</li> <li>• Did you apply the obligatory factors of</li> </ul>		

			“system A” in case you chose “system B” ?		
	2.3-3	Practical pressure criteria	<p>1. Did you use the “practical pressure criteria” as clues to agree on anthropogenic disturbance (REFCOND guidance, table 2 of par 3.4)?</p> <p>2. Is the list sufficiently adequate to establish reference conditions and ecological quality class boundaries?</p>	<p>Pressure criteria, describing very minor and slight anthropogenic disturbance can, consequently, be used as such for establishing reference conditions and ecological quality class boundaries. A prerequisite is that the relationship between pressures and ecological impacts is known, or at least that a conceptual model for this relationship exists.</p> <p>The question is whether the applied qualifiers are a useful tool to establish reference conditions and ecological class boundaries.</p>	
	2.3-4	Practical pressure criteria as a tool for risk assessment of failing GES	<p>Did you use the “practical pressure criteria” as clues to agree on anthropogenic disturbance (REFCOND, table 2 of par 3.4) with as consequence a risk of failing GES</p>	<p>The questions are:</p> <ul style="list-style-type: none"> <li>• Whether the applied qualifiers are a useful tool to establish reference conditions and ecological class boundaries and</li> <li>• Whether the applied qualifiers are considered to be a useful tool to decide whether the specific water body (management unit) will reach or fail the good status</li> </ul>	
	2.3-5	How are reference conditions set.	<p>How are reference-conditions established:</p> <ul style="list-style-type: none"> <li>• Spatially based (using</li> </ul>		

			<p>existing survey data) or based on modelling or a combination of these</p> <ul style="list-style-type: none"> <li>• Based on modelling, (distinguish between predictive and hind-casting models)</li> <li>• Expert judgement</li> </ul>		
	2.3-6	Validation	Are reference conditions and ecological class boundaries validated		
	2.3-7	Statistical evaluation of used data	<p>What are the statistical considerations on:</p> <ul style="list-style-type: none"> <li>• Probability that a site is assigned to the wrong class</li> <li>• Sufficient level of confidence and precision</li> <li>• Sources of errors</li> <li>• Final classification ( e.g. “one out – all out” principle)</li> </ul>		
	2.3-8	Which quality elements are selected and which are excluded on ecological assessment	Classification of ecological status should be done at quality element level. Parameters most indicative of each relevant quality element should be used	In annex V of the WFD the biological elements are defined. Annex II 1.3(vi) makes possible to exclude elements from de type specific reference conditions . This opportunity has been used	

			status		
	2.3-9	A priori or a posteriori	How are class boundaries set: a priori or a posteriori	<p>Explanation of using lakes as an example:</p> <p>A priori: basis: a representative sample of “reference lakes” (R) and “good status lakes” (G) in a region/type using pressure criteria. The 25 percentile of (R) represents the class boundary between high and good status. The 25 percentile of (G) represents the class boundary between good and moderate status. Class boundaries for moderate, poor and bad status are based on equally spaced intervals.</p> <p>A posteriori: A representative sample is taken from the entire lake population excluding lakes known to be severely impaired. The 75 percentile is used to define the reference lake population. All lakes above the 75 percentile are assigned as reference lakes.</p>	
<b>2.4 Typology, classification of transitional and coastal waters</b>	2.4-1	Defining surface water bodies	How were surface water bodies defined?	The guidance suggests that it may be necessary to divide a water body type into two or more water bodies for management purposes.	
	2.4-2	Assigning coastal	Were the principles suggested	The guidance suggests that coastal	

		waters within the River Basin District	in the guidance practical?	waters should be assigned to the closest natural management unit for example by using existing administrative boundaries, the boundary between two adjacent types, or splitting the coastline along open coast rather than through natural management units.	
	2.4-3	Lagoons	Were there any coastal lagoons within the River Basin District? If yes, were these defined as transitional or coastal?	The guidance states that coastal lagoons can be either transitional or coastal water bodies depending upon whether they are substantially influenced by freshwater flows.	
	2.4-4	Coastal and transitional wetlands	How were wetlands associated with transitional and coastal waters dealt with?	The guidance states that although wetlands are not defined as water bodies, the importance of wetlands should be recognised.	
	2.4-5	Defining transitional waters	Which methods suggested in the guidance document were used to identify transitional waters? Where any other methods used? If so please explain why.	The guidance identifies four possible methods for identifying the seaward boundary of transitional waters: a) Methods defined under other European and national legislation b) Salinity gradient c) Physiographic features d) Modelling It was suggested that either the freshwater limit or tidal limit can be used to define the landward boundary.	
	2.4-6	Size of transitional waters	Was the suggested minimum size of transitional waters of 1	The guidance suggests a minimum size of 1 km <sup>2</sup> for transitional waters unless	

			km <sup>2</sup> considered to be realistic?	management issues require otherwise.	
	2.4-7	Typology	Did you use the descriptors in the order suggested in the guidance? If no, in which order did you use the descriptors?	Within the typology guidance an order within which to use the descriptors is suggested. This order is different for transitional and coastal waters.	
	2.4-8		Which optional descriptors did you use to produce a typology?	A wide range of optional descriptors are listed in System B for transitional and coastal waters.	
	2.4-9		Did you use the descriptors in the same way as proposed in the guidance? Was further splitting / aggregation of the classes necessary?	Within the guidance document, suggested ways of splitting each descriptor are given.	
	2.4-10	Reference Conditions	Which methods were used to define reference conditions? Which of these methods were used the most widely? Were there any problems associated with any of these methods that were commonly encountered?	Four methods for deriving reference conditions are listed in order of preference: a) an existing undisturbed type or a type with only very minor disturbance b) historical data and information c) models d) expert judgement	
	2.4-11	Classification tools	Were any of the classification tools suggested in the Annexes used? Did these have to be adapted for local use?	When writing the guidance document there was a lack of classification tools already in existence which met the requirements of the WFD. The guidance document contains a number of	

			Were any other existing tools which are not mentioned in the guidance document used?	classification tools that may need to be adapted to meet local and regional circumstances.	
	2.4-12	Classification schemes	How were the quality elements combined into a single score? An explanation of the relationship between ecological and chemical status. Which physicochemical determinants are included within the ecological status? What statistical methods were used for classification?	The Directive states that the one-out, all-out concept should be applied. The text is still being drafted.  The text is still being drafted.  This section highlights the difficulties related to the statistic of classification in the marine environment. It emphasises how the only short term solution is to ensure that the appropriate data is collected and that expert judgement will be essential when comparing metrics with suggested classification tools and the normative definitions.	
<b>2.5 Intercalibration (IC)</b>	2.5-1	Selection of types and sites for IC-network	Is it possible to develop agreement / a common view on reference conditions and class boundaries, as a basis for the selection of sites for the IC-network?	The IC-network shall consist of at least two sites corresponding to the boundary between the normative definitions of high and good status, and at least two sites corresponding to the boundary between the normative definitions of good and moderate status. Selecting sites for the IC-exercise requires a common view on where these boundaries are.	

	2.5-2	Typology incompatibility	How was dealt with the fact that MS do not use comparable typology systems?	Member States do not need to differentiate surface water body types (needed for the ‘analysis of the characteristics’ of each River Basin District) before December 2004. Before that (already in 2003) the sites for the draft register of the intercalibration network should be already selected and the draft register submitted to the Art. 21 Committee for adoption.	
	2.5-3	Data availability	Is it possible to carry out an IC-exercise based on limited data (e.g. some quality elements only or focussing on specific pressures only)?	The monitoring systems of the Member States do not need to be operational before December 2006. By that time the intercalibration exercise should be already completed and the results should be published.	
<b>2.6 Economic Analysis (WATECO)</b>	2.6-1	Methodology for cost recovery	What methodology has been used to determine environmental and resource costs? Has Annex IV.I of the guidance been of sufficient help?	Insight has to be given in the current level of cost recovery of water services, including environmental costs. Environmental costs can be calculated in different manners (e.g. via a cost benefit analysis or mitigating measures) and the calculation of resource costs is practically at the frontiers of knowledge. It is useful to compare the applied approaches and benefit of the results. In this respect it is important to learn how is dealt with investments, subsidies and levies.	



				LINK: water services defined	
	2.6-2	Water uses, water services	Which water uses and water services have been identified?	For the assessment of current cost recovery it is necessary to identify water services. For the judgement about the most cost-effective combination of measures in respect of water uses it is necessary to identify water uses. This inventory will give insight in the range of water services and water uses identified in the different pilot areas and the extent of the cost recovery assessment.	
	2.6-3	Methodology for trend analysis	With respect to socio-economic factors: which scenario has been used to describe the trend/development of pressures?	In order to forecast the achievement of the water quality objectives of the WFD the changes of pressures in the future need to be predicted. For this reason it is important to predict the trends of socio-economic driving forces that influence the pressures (next to hydrological forces). LINK: DPSIR under pressures	
	2.6-4	Scale	At what scale has the economic analysis been assessed?	Two issues: 1) The results of the economic analysis are dependent on the data availability and the level at which these data have been aggregated (from water body to district). 2) The level of assessment to be identified for the planned cost-effectiveness of measures, for cost	

				recovery, for the division of costs of measures between areas/sectors, and for the shift of pressures on to other environmental compartments or areas (upstream-downstream). LINK: scale of pressure analysis	
<b>2.7 Monitoring</b>	2.7-1	Define water bodies	Are information from Article 5 analyses and reviews sufficient to identify surface and groundwater bodies required in surveillance monitoring ? Additional criteria reflecting the status of the water environment and on the characteristics of Member State's territory ? Reference conditions for all water typology	Identification of water bodies will require information from Article 5 analyses and reviews. The purpose of delineating water bodies is to provide for an accurate description of the status of surface water and groundwater. The number of water bodies required will strongly depend on the status of the water environment and on the characteristics of Member State's territory	
	2.7-2	Assessment of body at risk	A first set of existing data and information on water bodies and pressures on the RB is needed for the preliminary river basin plan: which data and information? The above analysis will support the design of a first surveillance and operational monitoring programmes.	Annex II describe a process by which water bodies are identified, categorised and typified (system A and B for surface waters). All waters are attributed to geographical or administrative units (RB, RBD, Water Body) Annex II define a process to identify water bodies, characterise them, identify pressures, collect existing data to identify those bodies at risk of failing to achieve	Water bodies can be grouped for the purpose of assessing the risk of failing and define operational monitoring programme. Grouping is based on similarities on

			Lack of previous information means more extensive surveillance monitoring?	objectives,	pressure experienced and water body sensitive to pressures. Grouping should provide for an acceptable level of confidence and precision in the results of monitoring
	2.7-3	Start monitoring programmes	The WFD states that monitoring programmes should be operational in 2006. However, in the river basin plans due in 2004, an analysis of its characteristics and a review of the impact of human activity are necessary. For this purpose monitoring data will be required.	It may be suggested to start surveillance monitoring in 2004. And start of the operational monitoring in 2007, using the results of the three years of surveillance monitoring to make further choices (on locations, parameters and frequencies).	

	2.7-4	Choice of locations / water bodies	<p>What scale of detail is needed in the choice of monitoring locations?</p> <p>The unit of compliance for monitoring is function of pressures and impacts and should allow to assign to a water body a single ecological status for surface water and chemical and quantitative status for GW.</p> <p>The number of monitoring stations needs to be sufficient to assess the magnitude and impacts of point source, diffuse source and hydromorphological pressures.</p>	<p>The criteria for the choice of locations (annex V, 1.3.1) and the scale of monitoring 2500 km<sup>2</sup> are minimal criteria sufficient for choosing locations for Surveillance monitoring</p> <p>For operational monitoring more detailed insight necessary More locations in general will be needed than for Surveillance monitoring</p>	<p>The choice of locations for monitoring is strongly dependent on the status of the water environment and on the characteristics of Member State's territory</p> <p>Sub-division of surface water and groundwater to define units of compliance for monitoring should be necessary for a clear, consistent and effective application of monitoring objectives.</p>
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	2.7-5	Additional monitoring protected area's	Annex IV mentions more types of Protected areas (e.g.. bathing waters, nitrate-directive). But the relevant section for the monitoring (1.3.5 of Annex V) asks for additional monitoring only for drinking-water abstraction points and habitat and species protection area's.	These requirements can be sufficiently met, if the monitoring programmes from the relevant directives (drinking water (75/440/EEG), habitat directive (92/43/EEG) and birds directive (79/409/EEG)) will be continued, also after the start of the WFD-monitoring programmes Integration of different monitoring programmes is needed.	
<b>WG 2.8 Tools on assesment and classification of GW</b>	2.8-1	description of tools	is the description of the tools understandable?		
	2.8-2	distribution of monitoring sites	is the spatial distribution of monitoring sites in accordance with the proposed procedure (spatial representativity)?		
	2.8-3	quality data	do available monitoring data meet the needs for the assesment of GW chemical status (with particular emphasis on limit of detection and limit of quantificaton)?		
	2.8-4	quality data (time series)	do available time series meet		

			the needs for the assessment of trends, respectively trend reversal (with particular emphasis on limit of detection and limit of quantification)?		
<b>2.9 Best practices</b>	2.9-1	River basin districts	How were the boundaries of the RBD defined?		
	2.9-2		What was the methodology used to assign and define ground water bodies for shared aquifers	Where groundwaters do not fully follow a particular river basin, they shall be identified and assigned to one RBD. According to the guidance different criteria can be used.	
<b>Public Participation</b>	2.9-3	Scale issues	<p>At what scale did you apply PP?</p> <p>a) stakeholder analysis in (large) basins; how was it carried out, at what level, by whom, how was it assured that no stakeholders were missed?</p> <p>b) how were the interested parties in (large) basins contacted?</p> <p>c) what tools showed to be effective at the 'used' level?</p> <p>d) How was it ensured in the pilot basin that a common, co-ordinated approach to PP</p>	Public participation can be practised in different scales, varying from (international) river basin district level to a local level or even a water body level. It is acknowledged that larger basins, especially transboundary ones, will deal with a more complicated task due to language and cultural differences and an expected wider variety of interested parties. For the PP guidance it is especially interesting to know how larger basins handled PP	

			and the transmission of reactions from the local or the national scale to the international scale and vice versa took place?		
	2.9-4	Broad public	a) in what way was the general public involved? b) what were the effects of involving the general public?	The WFD mentions in Art. 14 the target group “public”. Apart from discussions about the definition of “public”, it is interested to know if indeed the public was involved and if it resulted in a modification of the original plans.	
	2.9-5	Management of expectations	a) how did you incorporate these aspects in the planning of the participatory process?	When embarking on public participation it is important to inform the participants of their role, function, rights, and in how far their comments will be taken into account. It will prevent the participants from disappointments. It is also important to know for the project leader and participants what their “mandate” is while representing an interested party.	
	2.9-6	Timing (when to involve the interested parties,	a) taking into account the different implementation steps of the WFD: which interested parties at which scale should be targeted at in each step to benefit most from PP and which methods can be used best for this?	Not every party has the same role in every step of the implementation of the WFD. Moreover at different scales different parties will be of interest. It will be interested to know how the interested parties are selected and at which point in time during the implementation. The toolbox at the end of the guidance	

				might give some help.	
	2.9-7	Management of comments	<ul style="list-style-type: none"> <li>a) How did you collect the responses from the consultation?</li> <li>b) How did you analyse those responses?</li> <li>c) How many responses did you collect?</li> <li>d) How did you give feedback to the responding public?</li> </ul>	The broader the public you reach the more responses can be expected. It will be interesting to know how the responses have been handled.	
	2.9-8	Information supply	<ul style="list-style-type: none"> <li>a) how did you organize the information supply?</li> <li>b) what were the investments (time and money) for the information supply?</li> <li>c) how did you assure the information supply was 'sufficient'?</li> </ul>		
	2.9-9	Evaluation	<ul style="list-style-type: none"> <li>a) how did you organize this process? Was there continuous evaluation and adaptation? What went well, what could be done better?</li> </ul>		
	2.9-10	Keys to success	<ul style="list-style-type: none"> <li>a) did you obtain new information that was important for management?</li> <li>b) were any substantial changes in the plan or in the programme</li> </ul>		



			<p>of measures made (more/fewer "heavily modified water bodies", new "additional measures", etc.)?</p> <p>c) how many interested parties became actively involved and what are their experiences of the process?</p> <p>d) did public acceptance of the resulting plan/ decisions increase and - if implementation has already started - did implementation problems decrease.</p> <p>e) did you succeed to start a 'learning process'?</p>		
	2.9-11	Proportionality	a) how did you value the input for public participation, given the outcome? Why?	What were the benefits with respect to the "costs"? Not only in financial terms but also valued in increased network, better understanding, etc. In short: was it worth it?	
<b>Planning process</b>	2.9-12		a) Questions to be formulated when the "planning process product" proceeds.		
<b>3.1 Development of a Geographica</b>	3.1-1	Required GIS-datasets	Is the specification of the required GIS-datasets and the related data model adequate for the reporting obligations?	The specifications of the GIS-datasets and the data model are a translation of the reporting obligations mentioned in the WFD into technical requirements.	

<b>I information system</b>				Using the technical specifications will results in datasets be adequate for reporting obligations and to make the desired maps?	
	3.1-2	Spatial detail and accuracy	How was dealt with the specifications on spatial detail and accuracy?  Are already existing datasets used, or was processing necessary to meet the specifications?	The spatial detail and accuracy used in the practise of water management can be different for local, regional, national or international purposes. How does one deal with the translation of already operational datasets to the (probably more general) level specified in the guideline?	
	3.1-3	Meta-data	What effort was needed to fulfil the requirements on meta-data?	A specific selection (profile) of meta-data elements of the ISO 19115 standard is made for the WFD datasets. Does this profile correspond to the national implementation of metadata standard, and what choices are made to fulfil the requirements? How is the meta-data generated and maintained?	
	3.1-4	Free non-proprietary use of data	Are there any restrictions for further use of the reported data?	A specific object of the working group GIS is to facilitate free, non-proprietary access to the complete set of information that is reported by the Member States, river basin districts.  Data policy differences are to be expected considering the many organisations involved, and can influence the choice which datasets to use.	

	3.1-5	Standardisation	Is the use of international technical standards on meta-data and data-exchange/access already applicable in practice?	International standards on meta-data and data-exchange/access (gml/web-mapping, Open GIS standards) are preferable. Are these standard already used in practice?	
	3.1-6	European coding system	How was the recommendations on the European feature coding system dealt with?	Feature coding is the assignment of unique identification codes to each spatial feature in the dataset. The recommended coding approach should allow European harmonization and continuing use of national coding structures.	
<b>Horizontal Guidance on Wetlands</b>		<u>Identification of Wetlands under the WFD – what is a wetland and wetlands under the operational structure of the WFD</u>	Is the information given in the document sufficient to provide guidance on the requirements of wetlands under the WFD?	Rather than attempting to establish a new international definition of wetlands for the purposes of the Water Framework Directive, the guidance explains their relevance to the achievement of the Directive’s environmental objectives.	
		<u>Identification of Wetlands among Surface Water Bodies (river, lake, transitional and coastal waters) (2.3)</u>	Which difficulties have been encountered when considering wetlands as part of rivers, lakes, transitional and coastal waters ?	Member States may use existing information about the presence and value of wetland features of interest, including biodiversity and cultural significance, to help to select water bodies	
		<u>Identification of Terrestrial ecosystems directly depending on groundwater bodies (2.4)</u>	Which difficulties have been encountered when identifying terrestrial ecosystems directly depending on groundwater bodies ?	Terrestrial ecosystems that depend directly on a body of groundwater will include types of terrestrial ecosystems that occur in areas where the water table is at or near the surface of the ground.	

		<u>Identification of wetlands among Small elements of surface water connected to water bodies but not identified as water bodies (2.5)</u>	Which difficulties have been encountered in considering wetlands as small elements of surface water connected to water bodies?	Many of the elements of surface water that are not identified as water bodies may nevertheless be connected to these. Such elements will need to be protected or, in some cases, enhanced and restored to the extent needed to ensure that any impacts of human activity on them do not compromise the achievement of the environmental objectives relative to the water bodies to which they are connected.	
		<u>Identification of other Ecosystems significantly influencing the quality and quantity of water bodies, or surface waters connected to surface water bodies (2.6)</u>	How to determine the influence of wetland ecosystems not directly adjacent to water bodies but having a significant influence on their status ?	Member States will need to ensure that the relevant objectives for water bodies are not at risk from pressures imposed upon other ecosystems significantly influencing their quality and quantity. In doing so, Member States may determine, where appropriate, to manage, protect, enhance, restore or even artificially create such ecosystems.	
		<u>Identification of biological quality elements for surface water bodies (section: 3.2 Surface water objectives and wetlands)</u>	Which quality elements are significant for the achievement of surface water objectives?	RB districts typically include complex mosaics of surface waters, temporarily inundated and terrestrial habitats. Significant quality elements are identified following a risk assessment approach. Those which would cause the	

				most significant damage (as in 3.3.1) if affected, are to be selected first.	
		<u>Wetlands and the identification of impacts and pressures analysis</u>	Which pressures and impacts on wetlands should be considered as significant?	River basin specific screening criteria are to be identified in order to narrow down the analysis to those water bodies subject to greater risk. Wetlands hydrologically connected to water bodies which are selected through IMPRESS screening as well as wetlands which are connected in some way to the risk itself (Table 10 & 11 Chapter 6).	
		<u>Wetlands and Protected Areas</u>	Which wetlands are entitled to be included in the register, and should they be managed?	Protected areas should be screened according to ecological criteria for water dependency (5.1). Wetlands identified in this way should be monitored as part of the PRB monitoring programme and managed in accordance with the requirements set by the Habitats and Birds Directives.	
		<u>Wetlands and HMWB</u>	Which water bodies within the PRB should be designated as HMWB because of modifications to their hydromorphology and could the restoration needed to achieve	The PRB exercise should define a GES for each water body. If this cannot be achieved due to changes to the nature of the water body and its quality elements (wetlands) then the water body will be designated, and its objective will become	

			GES cause adverse effects?	GEP.	
		<u>The Programme of Measures and wetlands</u>	How can wetlands relevant to the programme of measures be managed in order to achieve the WFD objectives?	PRB planning identifies a specific programme of measures on the basis of WFD objectives, by focusing on basic measures. Wetlands should be selected to be part of basic measures, when appropriate (7.1.1), or can work in a combination of measures, where relevant according to their specific function (7.3).	
		<u>Monitoring and wetlands</u>	Which monitoring programme should be designed for specific wetlands within the PRB?	Identify the wetlands which if damaged could jeopardize the achievement of surface water objectives defined during PRB planning. Design monitoring programme to target pressures which could translate into significant damage (Figure 8, Chapter 8).	