

Status box

Title: Reporting Sheets for Reporting Monitoring Requirements

Version no.: 5.0

Date: 27 November 2005

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Circulation and received comments:

This document provides the final draft of the structure and content of the monitoring reporting sheets specifying the reporting requirements for the Commission in the context of monitoring programmes to be reported in March 2007.

The first version was available for the meeting of the WG D in April 2005. On 30 June, the Drafting Group Compliance discussed the document and the written comments which were made following WG D. Following this meeting, the document V 2.1 was prepared and subsequent written comments received from the drafting group were incorporated. This version 2.1 was circulated widely to all relevant CIS groups for comments. More than individual 120 comments were received from many Member States. Version 3.0 incorporated some of these written comments and was the basis for discussion on the WG D. During the WG D meeting, a new version 4 was prepared which streamlined 8 reporting sheets into 3 and addressed most of the remaining concerns raised in the consultation and the meeting. Further to some additional refinements, version 4.1 was presented to the SCG for final discussion.

Following the SCG, written comments were received from AT, DE, MT, NL, SE, SP and UK. The version 5.0 addresses these comments.

Some comments suggested to split up again the reporting sheets for surveillance and operational monitoring. However, WG D had just decided to merge them. The differences for reporting can be specified during the development of the technical specifications (i.e. data exchange formats/schemas). Several other comments can and should be addressed in the development of the above-mentioned technical tools which will start following the endorsement of the 2007 reporting guidance. **There is no open issue remaining.**

The Water Directors discussed the final version 5.0 and endorsed the document.

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INTRODUCTION

Background

In accordance with Article 8 of the WFD, Member States (MS) are required to establish monitoring programmes to provide a comprehensive and coherent overview of surface and groundwater status within each RBD. These programmes must be operational by 22 December 2006 and in accordance with Article 15, MS must report summaries of these programmes to the Commission by 22 March 2007.

In order to check compliance with the requirements of the WFD and in order to be in a position to report information at an EU level to the European Parliament and the public, the Commission needs MS to provide them with data and information on the monitoring programmes required by the WFD in a consistent format and in sufficient detail.

In November 2003 the Water Directors also approved a Concept Paper “Towards a Common Reporting System for Water” which outlines the concept for a Water Information System for Europe (WISE).

In this paper, it is underlined that:

“A data and information management system will be beneficial to all players and all levels. The challenge for all parties involved is to design an efficient system that recognises multi-needs, makes best use of existing information in countries, respects principles already established (e.g. Aarhus) and takes account of those being developed under the Framework Directive on reporting and INSPIRE (electronic based reporting, European spatial data infrastructure) and other Community initiatives.”

This concept paper also concludes that the European Commission (DG ENV, Eurostat and JRC) and the EEA have committed themselves to develop a new, comprehensive and shared European data and information management system for water, including river basins, following a participatory approach towards the MS, in order to have it operational as soon as possible and to implement it, including all the various elements set out in this document, by 2010.

The first stage towards the development of WISE will be the phased implementation of an **Electronic Reporting Tool**. The first operational version of this tool, enabling MS to electronically upload data required by Article 3 and Annex I of the Directive on the identification of RBDs and competent authorities, has been in place since June 2004. In 2005, the Reporting Tool of WISE was then further developed to allow MS to upload information as required for the Article 5 report.

Previously, the Commission and the Member States agreed the following **phased process** for other reporting aspects under the WFD to be addressed in 2006 and 2007:

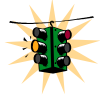
1. The work on reporting sheets for RBMPs covering all elements of Annex VII should start later in 2005 with the view to be agreed by the Water Directors by mid 2007 at the latest;

2. In 2006, MS are committed to input summary information, often **aggregated to a RBD** level derived from 2005 reports (see point 1 above), using WISE.

The 2005 reporting sheets identify the data and information that the MS are committed to report in order to move from a paper based reporting system to a web based one;

3. As part of the development of the RBMP reporting guidance, the Reporting Working Group will work out the more detailed information for **water bodies at risk** in order to provide contextual information for the assessment of the RBMPs that should be reported in 2010 and taking account of lessons learnt from the intercalibration process and the 2004 and 2005 reporting exercises (considering in particular the aspects of uncertainties and data gaps).

This Guidance Document has been developed to identify the information requirements for the upload information related to Article 8 and 15 (WFD). Separate “Reporting Sheets” has been developed for surface water and groundwater, outlining the information that Commission requires for **compliance checking**.



Look Out!

WFD CIS Guidance Document No.7 on monitoring in accordance with the WFD gives guidance on how the monitoring programmes required by Article 8 and Annex V should be developed and implemented.

The reporting sheets cover the surface and groundwater monitoring programmes identified in Annex V of the WFD. For surface waters, two reporting sheets have been prepared for surveillance, operational and investigative monitoring, including the additional requirements for protected areas. For groundwaters, one reporting sheet has been prepared for determination of quantitative status (groundwater level monitoring) and surveillance and operational monitoring for determination of chemical status. In addition to numeric data and summary text, geographic data are requested to allow the derivation of European maps. Table C.1 provides an overview of the status of the reporting sheets.

The monitoring programmes must be operational by 22 December 2006 and a summary of the programmes must be reported to the Commission in March 2007. Member States had until the end of 2004 to classify all WBs as either ‘at risk’ or ‘not at risk’, based on the risk assessment required in accordance with Annex II. However, it is likely that for many water bodies, the initial risk assessment was not conclusive. For those WBs identified as definitely being ‘at risk’, operational monitoring is required. For those WBs where there are uncertainties, additional information (e.g. through surveillance monitoring) must be gathered to further supplement and validate the risk assessment. For further clarification refer to the document “Principles and Communication of Results of the First Analysis under the Water Framework Directive” (2004).

The report required in March 2007 requires details of the proposed monitoring programmes and when the monitoring will start. It is assumed for the purposes of the reporting sheets that MS will be able to provide metadata and information on their proposed surveillance

monitoring and operational monitoring programmes, and a strategy for dealing with investigative monitoring.

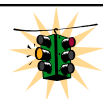
Monitoring is required to be carried out for the period covered by each RBMP. However, during the first RBMP cycle, monitoring programmes are not required to be operational until December 2006, leaving only two to three years for data collection to be undertaken in order for results to be provided in the first RBMP. MS are not expected to be able to report on the full 6 year dataset for the first RBMP. Most MS already have monitoring programmes in place. It is expected that the preliminary results of the surveillance and operational monitoring programmes data will be used to supplement existing data in order to provide an overall assessment of surface water status by the first RBMP.

Surveillance monitoring is required to be carried out for a period of, at least, one year during the period covered by a RBMP. According to the WFD, all monitoring programmes have to be operational on 22 December 2006. If MS choose to start surveillance monitoring after this date then justification will have to be provided.

The classification results, and, where appropriate, related monitoring data, which will be used for the purpose of compliance checking will need to be reported as part of the 2010 reporting requirements for the RBMP. In addition, there is a need to determine reporting of monitoring results for the purpose of assessment of the state of the environment (SoE) and trends. Discussion is taking place within the Drafting Group on SoE (as part of WG D on Reporting) to determine voluntary agreements for data flows from 2007 onwards. The provision of voluntary data and results for determination of SoE and trends should complement the requirements for compliance (e.g. metadata delivery). To achieve this, the Reportnet tools currently being developed will encompass the requirements of WISE, with information being linked via unique codes.

Way forward

This document provides the reporting sheets for monitoring in accordance with Articles 8 and 15. In 2005, the Reporting Working Group (WG D) developed the reporting sheets for monitoring and the Water Directors **[are invited to]** endorsed the guidance during their meeting under the UK Presidency on 28/29 November 2005. The information requested in each of the reporting sheets forms the basis of the data exchange format (e.g. XML and shape files) to be developed to allow Member States to upload information to WISE. Before data can be uploaded to WISE, the information exchange tools will be subject to testing by Member States in mid-2006. The final prototype for uploading reports should be available before the end of 2006 in order to enable to use WISE as the single transmission route for compliance reporting.



Look Out!

This document as endorsed by the Water Directors is the informal agreement between the Member States and the Commission on what should be reported under Article 8 and 15 of the WFD. It is not, however, providing all the technical specifications needed to develop the data exchange formats and to provide guidance to the data provider. These specifications may lead, where necessary, to adaptations of reporting requirements in order to facilitate the electronic data exchange (e.g. splitting up of sheets for surveillance and operational monitoring or specifying that no field in the WISE submission

should be marked as “mandatory” to allow partial submissions). The technical process will also ensure that data which have been already submitted to WISE do not have to be reported again in 2007 reporting. The technical specifications will be developed in cooperation with the Member States as next step.

The Directive allows for monitoring programmes to be amended during the period of the river basin management plan, and between RBMP cycles. The EEA and European Commission (DG Env, JRC and Eurostat) are in the process of developing a WISE Implementation Plan (2006-2010). This implementation plan will provide flexibility in all elements of reporting, including provision for updating monitoring programmes as new information becomes available.

Table C.1: Overview of the status of the reporting sheets for monitoring of surface water status, groundwater status and protected areas

Reporting Sheet Code	Reporting Sheet Title	WFD Reference	Reporting dates
SWM 1	Summary of the surface water monitoring programmes (surveillance and operational)	Article 8, 15 and Annex V 1.3	2007
SWM 2	Surface water investigative monitoring programme	Article 8, 15 and Annex V 1.3.3, 1.3.4, 1.3.5 and 1.3.6	2007
GWM 1	Summary of Monitoring Programme for Groundwater (Quantitative and Chemical Status)	Article 8, 15 and Annex V 2.2	2007

Reporting Sheet Code	SWM 1
Reporting Sheet Name	Summary of the Surface Water Monitoring Programmes (surveillance and operational)
Lead DG Env	Joachim D'Eugenio
Lead WRc	Carla Littlejohn
Other inputs	MS comments
Status	
Date	14 November 2005
Version	5.0

2007 Reporting Sheet – SWM 1

What should be reported (general overview)?

MS are required to submit summary reports of the monitoring programmes developed in accordance with Annex V. The summary reports will need to provide the following information at an RBD level:

- Purpose of the monitoring programme (surveillance, operational);
- Surface water categories to which the programme applies (rivers, lakes, transitional or coastal waters);
- Monitoring sites in relation to number of WBs or groups of WBs for each WB type in each RBD;
- Type and number of protected areas for each monitoring programme;
- What QEs will be monitored (including priority substances and other substances discharged in significant quantities);
-

Why is it needed?

WFD Article 8 requires that monitoring programmes be established for each RBD and made operational by December 2006, and must be implemented in accordance with Annex V.

While Annex V sets out the minimum requirements for establishment of surface water surveillance, operational and investigative monitoring programmes, it is up to individual MS to develop the programmes, ensuring that the network of sites, parameters indicative of the QEs and monitoring frequencies are sufficient to provide a comprehensive and coherent overview of surface water status within each RBD.

For further information in relation to the establishment of monitoring programmes in accordance with the WFD, refer to the Monitoring Guidance Document (WFD CIS Guidance Document No. 7)¹.

¹ Europa.eu.int/comm/enviroment/water [CHECK]

A summary report of the monitoring programmes must be reported to the Commission by March 2007. This summary should be sufficient to enable the Commission to carry out screening to ensure that the monitoring networks established for each purpose will be adequate to provide a comprehensive and coherent overview of surface water status for each RBD within each MS.

The Commission will check comparability of the monitoring programmes between Member States and consistency with the requirements of Annex V WFD and the outcome of the Article 5 analysis. Moreover, the Commission will use this information to inform the European Parliament and the public about the implementation progress in the Member States. Finally, some of the base data are necessary to establish a reference dataset with which monitoring results can be related and exchanged between the Member States and the European bodies more easily at a later stage.

Detailed list of what should be reported

Geographic information

For each site, the following information is requested:

- Site name
- Is the site a surveillance monitoring or operational monitoring site, or both?
- Unique site identifier;
- Link to the code/s of WB or WBs reported under Article 5 to which the site is associated (1 to 1-, 1 to many- or many to 1-relationship possible);
- X co-ordinate (latitude) of the site;
- Y co-ordinate (longitude) of the site;
- Identify if the site located in protected areas (Y/N). If so, the type of the protected areas (in accordance to Annex IV WFD) is required;
- Identify if the site is part of the intercalibration network (in accordance with Decision 2005/646/EC) or the national network of reference sites (i.e. determining reference conditions);
- Identify if the site is part of existing international monitoring networks (e.g. EIONET Water);
- QE identifiers²;

Data

For each surveillance and operational monitoring programme and for each surface water category (rivers, lakes, coastal and transitional), the following should be reported on the RBD level:

² Development of an identifier system for QEs should be developed.

- Intended start date (if it differs from 22 December 2006);
- Total number of monitoring sites and frequency to be (or expected to be) monitored for each quality element (see table C2 below);
- List of Priority Substances and other substances discharged in significant quantities to be monitored;

Table C2 following information is required for surveillance and operational monitoring programmes

Category	River		Lake		Coastal		Transitional	
	No. sites	Freq	No. sites	Freq	No. sites	Freq	No. sites	Freq
QE1 -Parameter 1 -Parameter 2 -Etc								
QE2 -Parameter 1 -Parameter 2 -Etc								
*QE (priority substances) -Parameter 1 (if applicable) -Parameter 2 (if applicable) -Etc								
*QE (other substances) -Parameter 1 (if applicable) -Parameter 2 (if applicable) -Etc								

* Note: If individual substances are monitored at different frequencies, then the monitoring frequency for each substance/group of substances should be reported.

Summary text

For each monitoring programme (surveillance, operational) and for each surface water category, the following information should be reported on the RBD level:

- Brief summary (<2000 characters) of methodology/criteria used to select sites;
- Brief summary (<2000 characters) of the sampling and analysis methodology to be used for each QE and details of any relevant national or international standards (e.g. CEN/ISO);
- Brief summary (<2000 characters) of the methodology/criteria used to select monitoring frequencies for each QE;
- Brief summary (<2000 characters) on extent of where any monitoring deviates from what is outlined in the monitoring programme overview above (e.g. frequency, QEs) and number or percentage of sites that is affected (in particular for surveillance monitoring and where possible/applicable also for operational monitoring).
- Information on (<2000 characters) levels of confidence and precision expected to be achieved from the results of monitoring;
- Brief summary (<2000 characters) of any additional monitoring requirements for waters used for the abstraction of drinking water in relation to Article 7³;
- If the monitoring programmes will start later than 22 December 2006, brief summary (<2000 characters) justifying why the monitoring programme/s are delayed;
- If the monitoring programme includes the identification of sub-sites⁴, brief summary (<2000 characters) to what extent and how the concept of sub-sites has been applied.

References (preferably hyperlinks) should be made to sources of more detailed information.

Other questions

Did you produce a “paper-based” report, e.g. for national consultation, international coordination, public information or other purposes, to describe the establishment of the monitoring programmes in accordance to Article 8 WFD (e.g. in PDF- or DOC-format) (Y/N). If yes, please upload report or provide hyperlink.

³ Monitoring requirements for protected areas (other than for the abstraction of drinking water) identified in Annex IV will be incorporated into WISE and are not required to be reported here.

⁴ It may be necessary to monitor parameters at a number of sub-sites within a single monitoring site (E.g. to determine profiles of stratification in lakes/reservoirs, transitional and coastal waters or in large rivers (e.g. temperature, oxygen, nutrient or phytoplankton conditions) or to monitor chemical and biological quality elements at different points in one site.)

Reporting Sheet Code	SWM 2
Reporting Sheet Name	Surface Water Investigative Monitoring Programme
Lead DG Env	Joachim D'Eugenio
Lead WRc	Carla Littlejohn
Other inputs	MS comments
Status	
Date	14 November 2005
Version	5.0

2007 Reporting Sheet – SWM 2

What should be reported (general overview)?

Investigative monitoring is 'reactive' in nature and as such, differs from the more 'routine' surveillance and operational programmes. No detailed site specific information can be provided up front in relation to investigative monitoring. However, methodologies/strategies can be put in place detailing how each MS will investigate exceedances, reasons for likely failure to meet the environmental objectives and pollution incidents.

Strategies may include:

- Implementation of early warning systems (e.g. alert systems, public enquiries, pollution incident helplines etc);
- Procedures for dealing with individual exceedances (e.g. maximum allowable concentrations) and long-term exceedances (e.g. likelihood of non-compliance);
- Procedures for dealing with pollution incidents (e.g. incident notification, site visits, monitoring, reporting and action such as fines, clean-up etc);

In order to assess compliance with the requirements for investigative monitoring, MS are requested to provide an overview of the methodology/strategies that have been put in place at an RBD level to address the above issues.

Why is it needed?

WFD Article 8 requires that monitoring programmes be established for each RBD and made operational by December 2006, and must be implemented in accordance with Annex V.

While Annex V sets out the minimum requirements for establishment of surface water investigative monitoring programmes, it is up to individual MS to develop/implement the programmes, ensuring that the network of sites, parameters indicative of the QEs and monitoring frequencies are sufficient to provide a comprehensive and coherent overview of surface water status within each RBD.

WFD Annex V 1.3 requires that, under certain circumstances and to supplement surveillance and operational monitoring, MS may need to establish an investigative monitoring programme.

The purpose of investigative monitoring is to determine:

- Reasons for exceedences, where these are unknown;
- Reasons for the likely failure to achieve the environmental objectives and where operational monitoring has not already been established; and,
- The magnitude and impacts of accidental pollution

The outcomes of investigative monitoring will be used to inform the programme of measures.

Annex V 1.3.3 sets out the objectives and requirements for investigative monitoring. Additional monitoring requirements for protected areas and standards for monitoring are set out in Annex 1.3.5 and 1.3.6, respectively. No specific guidance is provided on selection of sites and monitoring frequencies. However, the number of sites and monitoring frequencies must be sufficient to determine the magnitude and impacts of accidental pollution and to achieve acceptable levels of confidence and precision.

For further information in relation to the establishment of operational monitoring programmes in accordance with the WFD, refer to the Monitoring Guidance Document (WFD CIS Guidance Document No. 7).

Detailed list of what should be reported

Most importantly the strategy for setting up the investigative monitoring should be described, including the intended date for implementation of the monitoring strategy (if it differs from 22 December 2006) (see summary text section).

In addition and where investigative monitoring has already taken place (e.g. following a pollution incident), the following information is requested in relation to an incident until the date of reporting in order to illustrate how the strategy is working in practice (see data and summary text section).

Geographic information

No geographic information is required.

Data (only for illustration of incident)

- Type of investigative monitoring programme (e.g. incident response, unknown exceedences, likely failure of objectives);
- QEs and parameters monitored;
- Number of monitoring stations for each programme;

- Number of monitoring occasions (e.g. 1 off, monthly for 1 year etc);

Summary text

- **Summary of investigative monitoring strategy (<5000 characters)**

Where investigative monitoring **has already taken place** (e.g. following a pollution incident), the following information is requested in relation to a programme of investigative monitoring initiated in order to illustrate how the strategy works in practice:

- Brief summary (<2000 characters) to illustrate how the strategy works.

References, preferably hyperlinks should be made to sources of more detailed information.

Other Questions

Did you produce a “paper-based” report, e.g. for national consultation, international coordination, public information or other purposes, to describe the establishment of the monitoring programmes in accordance to Article 8 WFD (e.g. in PDF- or DOC-format) (Y/N). If yes, please upload report or provide hyperlink.

Reporting Sheet Code	GWM 1
Reporting Sheet Name	Summary of Monitoring Programme for Groundwater (Quantitative and Chemical Status)
Lead DG Env	Joachim D'Eugenio
Lead WRc	Carla Littlejohn
Other inputs	Philippe Quevauviller, UBA Vienna, MS comments
Status	
Date	14 November 2005
Version	5.0

2007 Reporting Sheet – GWM 1

What should be reported (general overview)?

MS are required to submit summary reports of the groundwater monitoring programmes developed in accordance with Annex V. The summary reports will need to provide the following information at an RBD level:

- Purpose of the monitoring programme;
- Groundwater bodies (GWBs) or groups of GWBs monitored in each RBD;
- Number of groundwater monitoring sites;
- Frequency of monitoring;
- Number of monitoring sites located in waters used for the abstraction of drinking water;
- Monitoring of GWBs that cross MS boundaries
- An overview of the methodology/criteria for selection of the monitoring sites and frequencies.

To enable a comprehensive assessment of the groundwater monitoring programme, MS are also requested to provide metadata and information on the monitoring sites. For each monitoring site included in the groundwater monitoring network information should be provided on:

- The GWB or group of GWBs to which the site is associated;
- Any additional monitoring requirements in relation to drinking water abstraction areas;
- Whether the GWB crosses MS boundaries.

Why is it needed?

WFD Article 8 requires that groundwater monitoring programmes be established for each RBD and made operational by December 2006, and must be implemented in accordance with Annex V.

WFD Annex V (2) requires that MS must establish a groundwater monitoring programmes (quantitative and chemical status). The groundwater network must be designed in order to provide a reliable assessment of the status of all GWBs or groups of GWBs, including the assessment of the available groundwater resource.

For further information in relation to the establishment of monitoring programmes in accordance with the WFD, refer to the Monitoring Guidance Document (WFD CIS Guidance Document No. 7).

A summary report of the monitoring programmes must be reported to the Commission by March 2007. This summary should be sufficient to enable the Commission to carry out screening to ensure that the monitoring networks established for each purpose will be adequate to provide a comprehensive and coherent overview of groundwater status for each RBD within each MS.

The Commission will check comparability of the monitoring programmes between Member States and consistency with the requirements of Annex V WFD and the outcome of the Article 5 analysis. Moreover, the Commission will use this information to inform the European Parliament and the public about the implementation progress in the Member States. Finally, some of the base data sets (such as geographic information) are necessary to establish a reference dataset with which monitoring results can be related and exchanged between the Member States and the European bodies more easily at a later stage.

Detailed list of what should be reported

Geographic information

For each site, the following information is requested:

- Unique site identifier;
- Identify the type of monitoring site:
 - a) Is the site a well or a spring?
 - b) Is the site a quantitative or chemical monitoring site, or both?
- Identify the use of monitoring site:
Is the site used for monitoring, drinking water supply, industrial supply, irrigation or others?
- Unique code of GWB or group of GWBs to which the site is associated (1 to 1-, 1 to many- or many to 1-relationship possible);
- X co-ordinate (latitude) of the site;
- Y co-ordinate (longitude) of the site
- Identify if the site is part of existing international monitoring networks (e.g. EIONET Water);
- Information on sampling depth (site allows for sampling of upper, medium or deeper layer of the GW-body or for mixed samples)

- Parameter identifier

Data

The following should be reported on the RBD level:

- Intended start date (if it differs from 22 December 2006);
- Total number of monitoring sites to be (or expected to be) monitored;
- Total number of protected areas used for drinking water abstraction (from groundwater) for which there are GW monitoring sites associated;
- List of parameters (mainly level and pollutants) expected to be monitored;
-

For sites that are located in drinking water abstraction areas, the following information should be provided:

- Any additional monitoring requirements in relation to drinking water abstraction areas, over and above those already provided; and,

Detailed site-specific information on monitoring frequencies is only required where monitoring deviates from the general programme outlined above.

Summary text

The following should be reported on the RBD level separately for quantitative and chemical monitoring programmes:

- Brief summary (<2000 characters) of methodology/criteria used to select sites;
- Brief summary (<2000 characters) of the sampling and analysis methodology to be used and details of any relevant national or international standards (e.g. CEN/ISO);
- Brief summary (<2000 characters) of the specific arrangements (where different from the ones mentioned above) in place for the monitoring of transboundary groundwater bodies;
- Brief summary (<2000 characters) of the methodology/criteria used to select monitoring frequencies; and,
- If the monitoring programmes will start later than 22 December 2006, brief summary (<2000 characters) justifying why the monitoring programme/s are delayed;
- If the monitoring programme includes the identification of sub-sites⁵, brief summary (<2000 characters) to what extent and how the concept of sub-sites has been applied;

⁵ It may be necessary to monitor parameters at a number of sub-sites within a single groundwater monitoring sites (e.g. depth profiles within the saturated soil zone (below the water table) or within the unsaturated zone where perched waters may be present due to the occurrence of impermeable or semi-permeable strata (e.g. clay horizons)).

References (preferably hyperlinks) should be made to sources of more detailed information.

Other questions

Did you produce a “paper-based” report, e.g. for national consultation, international coordination, public information or other purposes, to describe the establishment of the monitoring programmes in accordance to Article 8 WFD (e.g. in PDF- or DOC-format) (Y/N). If yes, please upload report or provide hyperlink.