

**Common Implementation Strategy  
for the Water Framework Directive (2000/60/EC)**



*Guidance Document No:NN*

**Guidance for reporting under the Water Framework Directive**

## Status box

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1.0	15-09-2008	SF/RC	First draft for consultation with DGENv.
2.0	23-09-2008	RC	Document amended to include information from agreed Reporting Sheets only. Information relating to GWD1 will be included when agreed.
3.0	21-10-2008	RC	Comments received by 17 October 2008 following Working Group D meeting on 7-8 October 2008 incorporated into Reporting Guidance. Reporting sheet on Groundwater GWD1 incorporated.
4.0	03-11-2008	RC	Inclusion of text on the classification of ecological status (p14).
5.0	14-11-2008	RC	Incorporating editorial comments agreed at SCG. Inclusion of how information is to be used by the Commission and compliance indicators. Final formatting and editing.

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### Circulation and received comments:

A version was presented and discussed at the WG D Reporting. Written comments were requested from WG D and at SCG meeting.

Once finalised, the contents of the economics reporting sheets will be added as chapter 8.

### Water Directors are invited to:

- Endorse the guidance, subject to final editorial checking, and agree to incorporate the contents of the reporting sheets on economics once agreed.

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# 1 INTRODUCTION

## 1.1 Purpose of this document

Since 2003 several documents have been agreed defining the information that Member States (MS) should provide the Commission for the purposes of compliance checking under the Water Framework Directive (WFD). These cover the following reporting requirements:

- Article 3 (2004);
- Article 5 (2005);
- Article 8 (2007);
- Article 13 (2010).

Information has already been provided by the MS for the first three of these reporting requirements and initial compliance assessments completed. Following agreement of the Reporting sheets for the River Basin Management Plans (RBMP) (2010 reporting), the Reporting sheets for Articles 3 and 5 were reviewed and some changes agreed with the MS through Working Group D. During this review it was agreed to prepare an overall, consolidated document which would present, in a logical way, all the reporting requirements that had been agreed. This document fulfils that requirement.

## 1.2 Development of the Reporting Guidance

Reporting in the context of EU water legislation has been regulated and implemented in different ways over the past 30 years. For example for the remaining 'old' directives (Urban Waster Water Treatment Directive (UWWTD) – 91/271/EEC, Bathing Waters Directive (BWD) – 76/160/EEC, Nitrates Directive (NiD) – 91/676/EEC, Drinking Water Directive (DWD) – 98/83/EC) and the new Bathing Waters Directive (2006/7/EC, concerning management of bathing water quality and repealing Directive 76/160/EEC), reporting is based on several articles<sup>1</sup>. Some of the 'old' directives had clearly defined procedures for reporting adopted through the Committee procedures in the form of Commission Decisions (e.g. reporting on 'old' BWD is based on the provisions of Commission Decision 95/337/EC). However for the others, the reporting process had various backgrounds – sometimes through Committee procedures (e.g. reporting under Article 17 of UWWTD was set up via Commission Decision 83/481/EEC, while reporting under Article 15(4) was based on the Commission duty to issue the questionnaires (request of information) to the Member States with the duty to reply within six months.

For some other directives (stemming partially from the 1970s), streamlined monitoring was introduced with the Standardised Reporting Directive 91/692/EEC with a reporting cycle of three years. On the basis of this directive, the water questionnaire was introduced in 1992 and the latest version agreed by Committee in

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<sup>1</sup> For UWWTD – articles 17, 16, 15(5); for 'old' BWD – article 13 and decision 95/337/EC (Annex VIII) amending decision 92/446/EEC; for 'new' BWD – article 13; for NiD (91/676/EEC) – article 10; and for DWD (98/83/EC) – on article 13.

1995 (Commission Decision 95/337/EEC). The experiences from this reporting exercise are summarised as follows:

- Information was often not submitted or was incomplete;
- The format of the information provided varied (e.g. electronic vs paper copy) and often did not follow the format of the questionnaires in the 1995 Decision;
- It was not clear to MS what information had to be reported for the second reporting return, and what could be omitted and it was not clear to those carrying out the assessment what information had been submitted in previous returns;
- The quality of the information submitted by MS was very diverse and often difficult to read, validate and process;
- There were often differences between MS in the interpretation of the questions and information needs within the questionnaires. This led to information being incomparable between MS and difficulties in drawing comparisons on a year-on-year basis.

Also, for reporting for some 'old' water directives the experiences were mixed. Some of the reporting was organised without providing specifications and/or technical guidelines what to report and how. This led to a set of inconsistent, incomplete information with different levels of detail which were difficult to compare.

On the basis of all these experiences, there is a clear need to streamline the reporting exercise under the directives mentioned above along with the WFD in order to use more consistent approach, taking into account the electronic reporting foreseen under the Water Information System for Europe (WISE).

For the newer pieces of legislation, most of them have general provisions for reporting but include possibilities to specify the explicit requirements and needs in more detail. For example, Article 20 WFD stipulates in paragraph 2:

*“(2) For the purpose of transmission and processing of data, including statistical and cartographic data, technical formats for the purpose of paragraph 1 may be adopted in accordance with the procedures laid down in Article 21.”*

Once approved by the Regulatory Committee and adopted by the Commission, such formats would become legally binding. In other words, if a MS fails to submit even parts of the agreed information, it is not compliant with the Directive. Moreover, the procedures to develop such formats are time consuming and lack flexibility in case adaptations and improvements should be introduced on short notice. Furthermore, the agreement on the required specifications for reporting may be driven by the lowest common denominator and may not have been able to incorporate a feedback and testing process as applied now.

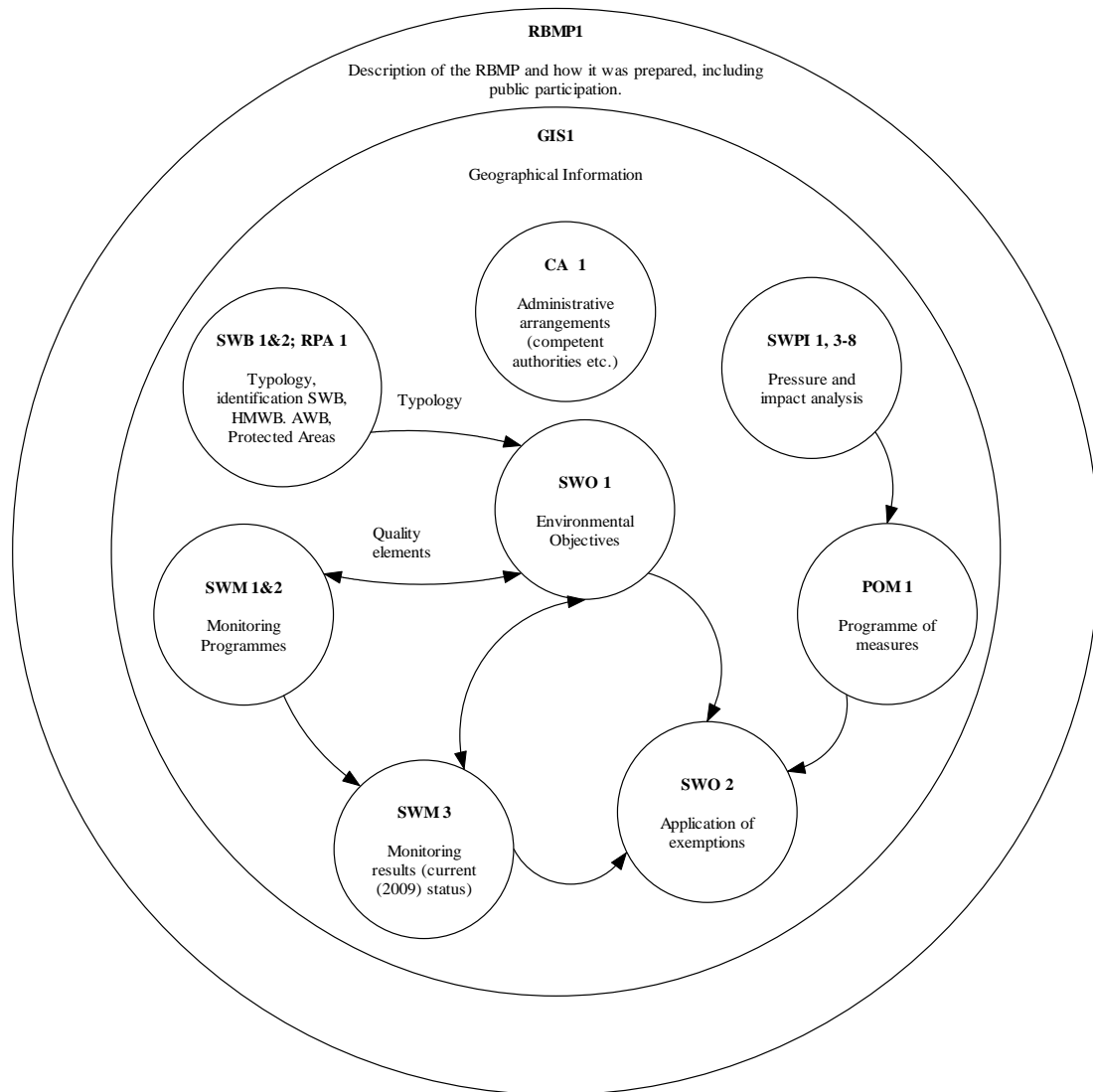
For these reasons, no such legally binding reporting formats have yet been developed. Even if they had been considered, the ambitious deadlines for implementation of the WFD would have made it difficult to publish legally binding reporting formats with sufficient lag time to allow MS to implement the system. Any delays would have triggered complex legal and formalistic discussions rather than focusing on the implementation of the Directive.

The past experience demonstrated that reporting without any detailed specifications and guidelines results in a diverse set of documents with different levels of details and

with information which is poorly comparable. Furthermore, the development of the WISE requires some form of agreement on the contents and the technical specifications of data exchange. Therefore, and having the successful consensus-based cooperation under the Common Implementation Strategy (CIS) in mind, it was decided to prepare and agree guidance documents for the different reporting requirements using the format of Reporting sheets. These Reporting sheets have been prepared by a drafting group of the Working Group on Reporting (Working Group D), agreed by the Group and endorsed by the Water Directors on a consensus basis. These Reporting sheets therefore are informal arrangements between the MS and the Commission and thus are not legally binding. It is a voluntary commitment, agreed at high level, by the MS to submit this information to WISE. Current experiences show that this approach results in a higher success rate in reporting in comparison to the legally binding reporting requirements of the past.

Figure 1 below shows the Reporting sheets developed for surface water and the relationships between them. Similar sheets were developed for groundwater. Whilst the Reporting sheets were a useful tool for the development of the reporting requirements on an Article by Article basis, it is no longer necessary, or indeed helpful, to present the information requirements in this way. This consolidated guidance document contains all the information originally in the Reporting sheets but presented in a clearer, object-related way with the ultimate focus being on fully reported and comparable RBMP.





**Figure 1 Relationships between Reporting sheets on surface waters**

## **2 REPORTING REQUIREMENTS OF THE WATER FRAMEWORK DIRECTIVE**

The reporting requirements of the WFD are specified in Articles 3 and 15. Article 3 requires MS to provide information to the European Commission on the identification of River Basin Districts and Competent Authorities, whilst Article 15 requires information to be provided to the Commission on:

- The analysis carried out according to Article 5;
- Monitoring programmes;
- River Basin Management Plans.

Article 18 of the Directive requires the Commission to publish reports on the implementation of the Directive and to submit them to the European Parliament and to the Council.

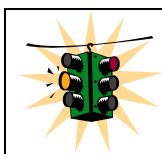
The first reports by MS were made in 2004 (for Article 3) and 2005 (for Article 5). The Commission has used the information provided to make reports to the European Parliament and Council as required under Article 18 of the Directive.

The first report on monitoring programmes was made by the MS in 2007 and the Commission will publish a report to the European Parliament and Council in early 2009. The first report by MS on the RBMPs will be made in 2010.

In addition to the specific requirements of the Directive, the Commission, as “Guardian of the Treaties”, also has a duty to ensure that the regulations and directives adopted by the Council and Parliament are being implemented in the MS. The Commission uses the information provided by the MS to carry out this compliance assessment and to ensure that the Directive is being applied consistently throughout the EU. The Commission has developed a concept for compliance checking for the WFD, and papers have been presented to the Member States specifying how the compliance check will be carried out. These have been completed for Articles 3, 5 and 8 and are currently being developed for Article 13. One of the key concepts used by the Commission is that of compliance indicators which are used for screening assessments to identify where a more detailed examination of compliance may be required. Compliance indicators may be simple (for example: have Competent Authorities been identified? – yes, no, to a certain extent, unclear – not sufficient information) or more complex and numeric indicators (for example: percentage of water bodies per water body category). The information requirements for these indicators have been identified as part of the reporting requirements. More detail on the Commission approach to compliance checking for the WFD can be found in the following documents:

- Questionnaire for the assessment of Compliance of WFD Article 3 Reports (discussed at the Working Group D meeting March 2006);
- Preliminary Screening For Compliance Checking Of Article 5 Reports (2005 Reporting) (discussed at the Working Group D meeting March 2006);
- “Use of information reported for Article 8 – concept paper on compliance checking” (presented at the Working Group D meeting March 2008);

- Concept paper on compliance checking on RBMP – currently being prepared.



**Look Out!**

Information that has already been reported for other purposes (e.g. UWWT Directive to the EEA under WISE-SoE reporting) does NOT have to be provided again.

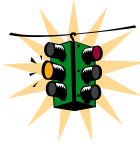
### 3 REPORTING REQUIREMENTS FOR RIVER BASIN MANAGEMENT PLANNING

#### 3.1 Introduction

Article 13(1) of the WFD requires MS to ensure that a River Basin Management Plan (RBMP) is produced for each River Basin District (RBD) within their territory. Article 13(4) requires that the RBMP includes the information laid down in Annex VII of the Directive. Paragraph 8 of Annex VIIA requires MS to include a register of detailed programmes and management plans for the RBD in the RBMP.

Article 14 of the WFD requires MS to encourage the active involvement of all interested parties in the implementation of the Directive, and in particular in the production of the RBMP. For further information in relation to public participation in accordance with the WFD, refer to the Public Participation Guidance Document (WFD CIS Guidance Document 8)<sup>2</sup>.

Article 3 of the WFD requires MS to ensure the appropriate administrative arrangements, including the identification of the appropriate Competent Authority, for the application of the rules of this Directive within each RBD lying within their territory. This will include Competent Authorities for the portion of any international RBD lying within its territory. The Directive requires Competent Authorities to be put in place by 2003 and first reported in June 2004. Annex I of the WFD lays down the information that must be provided.

	<p><b>Look Out!</b></p> <p>Member States first reported under Article 3 in 2004. In 2010, data should only be resubmitted if any was missing from the original submission or if any of the information has since changed.</p>
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#### 3.2 How will the Commission use the information reported?

The Commission will use the information reported to ensure that the Member State has properly implemented the Water Framework Directive; ensuring that a register of more detailed programmes and management plans<sup>3</sup> is in place and that information has been provided to the public in accordance with the Directive. In particular, the information provided will be used to check the consistency of approach between Member States.

The following compliance indicators will be used:

- Have the Member States prepared a comprehensive River Basin Management Plan including all elements of and being consistent with the Directive and having been consulted with the public? (Possible answers: Yes / No / To a certain extent/unclear – not sufficient information).

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<sup>2</sup> [http://circa.europa.eu/Members/irc/env/wfd/library?l=/framework\\_directive/guidance\\_documents/guidancesnos8spublicspar/ EN 1.0 &a=d](http://circa.europa.eu/Members/irc/env/wfd/library?l=/framework_directive/guidance_documents/guidancesnos8spublicspar/ EN 1.0 &a=d)

<sup>3</sup> Dealing with particular sub-basins, sectors, issues or water types.

- A check list will be developed to ensure that every point in Annex VII and other relevant aspects are covered in some place of the RBMP. This check list will build on compliance indicators from other sheets.

Compliance of information provided by Member States on Competent Authorities will not be assessed in 2010. However, the provision of data will allow the Commission to ensure that all roles required by the WFD are being fulfilled within the RBD, making it unnecessary to seek further information from Member States at a later date. The data may be used for presentation to the European Parliament and will be provided to the public through WISE.

### 3.3 Information to be provided

The following information should be provided for each RBD (including national portions of international RBDs).

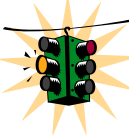
#### Data

For the RBMP the dates of publication of the:

- Timetable, work programme and consultation measures;
- Interim overview of significant water management issues;
- Draft copies of the RBMP;
- Final RBMP.

For each Competent Authority:

- The official name, acronym and Competent Authority Code<sup>4</sup>;
- The full address and web-site.

	<p><b>Look Out!</b></p> <p>Definition of a Competent Authority:</p> <p>The various possible roles/responsibilities of a Competent Authority might be discharged at different levels in different MS. This could result in a large number of Competent Authorities in some MS. To circumvent any difficulties that this situation may cause, for reporting purposes a Competent Authority will be defined as having the following <b>core roles</b>:</p> <p>A. Coordination, preparation and production of RBMPs;</p> <p>B. Reporting (including of reporting on Article 5 requirements, monitoring requirements, establishment of programmes of measures, regulation and authorisation of surface water activities, regulation and authorisation of groundwater activities and public information and consultation).</p>
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<sup>4</sup> A Competent Authority may be associated with many RBDs, and may have different address and contact details for each association. A general/main address and specific addresses for RBDs should be provided if appropriate.

## Summary text

Summary text should be provided covering the following items:

- A description of the (international) RBMP, including;
  - A table of contents of the plan;
  - Reference to any supporting documents that form part of the plan;
  - Reference to databases/repositories of information that support the plan;
  - A summary of the process and procedures used to develop the plan, and the main institutions involved in the planning process.
- The register of the programmes and management plans for the RBD, including sub-basins, Sub-units, sectors, issues or water types, and the information held within it (as specified in Article 13(5) and Paragraph 8 of Annex VIIA);
- **Only if it has not been possible** to produce an international RBMP for any RBD falling entirely within the Community, a justification for why this has not been possible;
- **Only if it has not been possible** to produce a single RBMP for any RBD that extends beyond the boundaries of the Community, a justification for why this has not been possible;
- **Only if any RBMP does not include the information detailed in Annex VII**, a justification for why this is the case;
- **Only if any RBMPs have not been published by 2009**, a justification for why publication is delayed;
- The public participation activities in place to encourage the active participation of the interested parties and consultation of the public in the development of the RBMP; including information on how the consultation on the RBMP was managed (including response periods); and including the arrangements in place to allow members of the public access to the background documents;
- A brief assessment of the experiences of the public participation activities carried out and what could be done in the RBMP to address these issues;
- The planned process of preparation of the first update of the RBMP;
- The legal status of each Competent Authority including:
  - The legislation establishing the Competent Authority;
  - The legislation laying down the duties of the Competent Authority in relation to the WFD;
  - The legislation laying down other duties of the Competent Authority relevant (but not directly related) to the WFD.
- The institutional relationships established in order to:
  - ensure co-ordination where the Competent Authority acts as a co-ordinating body for other Competent Authorities. This should include a list showing the co-ordinating body and the relationship between the co-ordinating body and the authorities whose activities it is co-ordinating;

- ensure co-ordination where a RBD covers the territory of more than one MS or includes the territory of non-Member States.
- The core responsibilities of the relevant Competent Authority. If other relevant roles are fulfilled by organisations not defined as Competent Authorities for the purposes of reporting, a summary should be provided identifying these authorities and the roles that they perform.

References/Hyperlinks to more detailed supporting documents (e.g. methodology documents, documents provided as part of the public participation, statutes, founding treaty or equivalent legal documents) should be provided for each of the above-mentioned summaries, if available.

## 4 REPORTING REQUIREMENTS FOR GEOGRAPHICALLY REFERENCED INFORMATION

### 4.1 Introduction

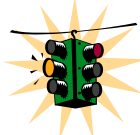
#### Water Framework Directive

Articles 3 and 15 of the WFD require MS to provide information to the European Commission on the identification of RBDs and of the results of the analysis carried out under Article 5, including specific requirements to report geographic information. The first reports were made in 2004 (for Article 3) and 2005 (for Article 5).

In 2010 MS will be required to provide information on the RBMPs. According to Annex VII these should include information on the general characteristics of the RBDs. This section identifies the *geographic elements* of this information that should be provided to the Commission. The *data and textual aspects* of the information required are identified in other sections of this document.

Guidance on how this information should be provided can be found in WFD CIS Guidance Document No. 9<sup>5</sup> and the new GIS Guidance Document<sup>6</sup>. The Commission will use the information to prepare European wide maps for the assessment of compliance and to present information to the European Parliament, Council and general public. In some cases, reference data sets will be created to provide a common basis for assessments across the EU.

Annex V of the WFD specifies how Member States are to monitor and present "status" classification. For groundwater, the detailed provisions and criteria for the respective assessments of chemical and quantitative status are laid down in the Groundwater Directive 2006/118/EC.

	<p><b>Look Out!</b></p> <p>Member States first reported under Article 5 in 2005 and under Article 8 in 2007. In 2010, data should only be resubmitted if any was missing from the original submission or if any of the information has since changed.</p>
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### 4.2 How will the Commission use the information reported?

The Commission will use the information to prepare European wide maps for the assessment of compliance and to present information to the Parliament, Council and general public. In some cases, reference data sets will be created to provide a common basis for assessments across the EU.

For further information on how the Commission will use the information reported on surface water bodies, see Chapter 5.

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<sup>5</sup> The GIS guidance document is currently under revision. Future reporting of geographical information should be in accordance to the specifications agreed in the context of this process.

<sup>6</sup> The GIS guidance document is also being presented to the SCG and Water Directors for approval and will be fully referenced here when this has been completed.

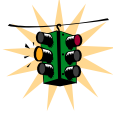


For further information on how the Commission will use the information reported on groundwater bodies, see Chapter 6.

For further information on how the Commission will use the information reported on pressures, impacts and Programmes of Measures, see Chapter 7.

### 4.3 Information to be provided

#### Data

	<p><b>Look Out!</b></p> <p>The geographic information below should be harmonised to national and coastal boundaries. The technical specifications of such harmonisation are to be agreed in the context of the development of the updated GIS guidance.</p>
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For each **RBD** the data are required to enable the following maps to be produced:

- The RBDs;
- All river basins which have either been combined with larger river basins, or joined with neighbouring small basins to form individual RBDs as allowed under Article 3.1;
- Sub-units;
- The main rivers within the RBDs of a catchment area of, at least, 500 km<sup>2</sup>;
- The lakes which have been assigned to the RBDs;
- Transitional waters relating to the main rivers within the RBD;
- Coastal waters which have been assigned to the RBDs;
- Transboundary groundwaters which have been assigned to the RBDs;
- Other contextual data including:
  - River length;
  - Area of lakes, transitional and coastal waters.

For each **RBD/Sub-unit**, data will be required to enable the following maps of surface water status to be produced (reflecting the status as reflected in the RBMP). The maps shall present the following quality elements (QE):

- Map 1: Ecological status class of natural water bodies including data at a water body level, on which Biological QEs the assessment is based (default setting "unknown status" is applied if no class and BQE-specific data are provided)<sup>7</sup>;

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<sup>7</sup> The WFD requires to determine the ecological status/potential class of every water body, but not to monitor all quality elements of all water bodies. Furthermore, some MS may not have appropriate monitoring for all BQE in place. The map should enable to create a disaggregated picture where only selected information is shown. It may be necessary to describe more detailed data and reporting needs to fulfil this aim.

- Map 2: Ecological potential class for HMWB - MS should specify BQE concerned (default setting "unknown potential" is applied if no class and BQE-specific data are provided);
- Map 3: Status for protected areas – if not, specify reasons for failure (**if reported for other Directives (e.g. BWD, NiD, Habitats etc.) this information will not need to be reported again.** Reporting **will be required** for Article 7 protected areas as these are not defined under any other Directive);
- Map 4: Achievement/exceedance of EQS for **heavy metals**<sup>8</sup> out of list of Priority Substances;
- Map 5: Achievement/exceedance of EQS for **pesticides**<sup>9</sup> out of list of Priority Substances;
- Map 6: Achievement/exceedance of EQS for **industrial pollutants**<sup>10</sup> out of list of Priority Substances;
- Map 7: Achievement/exceedance of EQS for **other pollutants**<sup>11</sup> out of list of Priority Substances;
- Map 8: Achievement/exceedance of EQS for **other (national) pollutants**;
- Application of exemption for Water Bodies (by QE (to level 2 as defined in the 2007 monitoring Reporting sheets) and the target class)<sup>12</sup>, which illustrates the envisaged/agreed objective for 2015.

Annex V of the WFD specifies how Member States are to monitor and present "status" classification. For surface water it has been agreed that the overall ecological status class of the waterbody will be reported using the defined colour codes. In addition, the following information should be provided<sup>13</sup>:

- An indication of which quality elements have been used in the classification;
- An indication of the status class indicated by the quality elements used;
- An indication of where information for a quality element is not available or not applicable;
- An indication of confidence in the ecological status class for the water body on a qualitative scale from 1 (Low confidence) to 3 (High confidence).

When monitored, monitoring data (disaggregated or aggregated) will be supplied for WISE-SoE reporting at the monitoring site level.

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<sup>8</sup> Cadmium, lead, mercury, nickel.

<sup>9</sup> Alachlor, atrazine, chlorpyrifos, chlorvenfiphos, diuron, endosulfan, isoproturon, HCH, pentachlorobenzene, simazine, trifluralin.

<sup>10</sup> Anthracene, Benzene, C<sub>10-13</sub>-chloroalkanes, Naphthalene, Nonylphenol, octylphenol, chlorinated organics (incl. SCCP, TRI, PER, DCM, Chloroform, 1,2-Dichloroethane...), PentaBDE, DEHP.

<sup>11</sup> DDT, HCB, HCBd, TBT, PAHs (including Fluoranthene), PCP, TCB, drins.

<sup>12</sup> Default status "good status" unless water body is already at "high status" according to 2009 monitoring data and classification.

<sup>13</sup> Agreed at the SCG on 14-15 May 2008 (see document WGD/SCG14150508-13, "Reporting WFD ecological status of water bodies at European level", version 2).

Data will be required to enable the following groundwater-related maps to be produced at **RBD** level (reflecting the status with data available in 2009). The maps shall present the following information:

- Map 1: Quantitative status – Identification of bodies that are at “good quantitative status” and those that are at “poor quantitative status”;
- Map 2: Achievement/exceedance of standard for **nitrates** (value in Annex 1 of GWD or set according to paragraph 3 of Annex 1 GWD, and according to status assessment procedure in Article 4 of GWD);
- Map 3: Achievement/exceedance of standard for **pesticides** (combined total and individual value in Annex 1 of GWD or set according to paragraph 3 of Annex 1 GWD, and according to status assessment procedure in Article 4 of GWD);
- Map 4: Achievement/exceedance of threshold values set by Member States for **other pollutants** (considering in this category the list of substances as contained in Part B of Annex II of GWD and more generally any other pollutants contributing to the characterisation of groundwater bodies as being 'at risk', and according to status assessment procedure in Article 4 of GWD);
- Map 5: Trends - Identification of: (a) groundwater bodies with environmentally significant and sustained upward trends in pollutant concentrations, and (b) groundwater bodies in which trends have been reversed<sup>14</sup>;
- Application of exemption for WB (by QE (to level 2 as defined in the 2007 monitoring reporting sheets) and the target class)<sup>15</sup>, which illustrates the envisaged/agreed objective for 2015.

For each **surface water body** the following data are required:

- Water body code;
- Water body name;
- Shapefile/GML file:
  - Rivers: for water bodies on rivers with catchments > 500 km<sup>2</sup>;
  - Lakes: for all lakes identified as water bodies by Member States;
  - Coastal and transitional waters: for all water bodies identified.
- Centroid (for all surface WBs) (technical specification for the calculation of the centroid to be developed in the context of the updated GIS guidance);
- Size (total length or area) at 1:250 000;
- Whether the water body (WB) is heavily modified (HMWB) or artificial (AWB);
- Type;

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<sup>14</sup> For further information see Guidance on Groundwater Status and Trend Assessment.

<sup>15</sup> Default status “good status” unless water body is already at “high status” according to 2009 monitoring data and classification.

- Significant point source discharges to surface waters:
  - ID of significant point sources where data already available;
  - Latitude and longitude of each significant point source (if possible);
  - Type of point source (see SWPI3).
- Significant diffuse source pollution to surface waters:
  - WB Affected? (Y/N);
  - Type of source (see SWPI4).
- Significant water abstractions from surface waters:
  - WB Affected? (Y/N);
  - Latitude and longitude of each abstraction (if possible);
  - Type of abstraction (see SWPI5).
- Water flow regulations and morphological alterations:
  - WB Affected? (Y/N);
  - Type of Regulation/Alteration (see SWPI6).
- Significant saltwater or other intrusion:
  - WB Affected? (Y/N).
- Other pressures:
  - WB Affected? (Y/N);
  - Type of Pressure (to be specified see SWPI7).
- Impacts:
  - Type of impact identified (see SWPI8).
- Protected areas
  - Water body within or overlapping with a protected area (Y/N);
  - Type of protected area (**provide a Shapefile/GML file only where information is NOT reported under any other Directive. Where information has been provided under other Directives provide the unique identifier (code) of the appropriate protected area**):
    - WFD Article 7;
    - Sites for the protection of economically significant aquatic species;
    - Bathing Water Directive sites (Directives 76/160/EEC and 2006/7/EC);
    - Nitrate vulnerable zones (Directive 91/676/EEC);
    - Sensitive Areas (91/271/EEC);
    - Areas designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection, including relevant Natura 2000 sites (Directive 92/43/EEC and 79/409/EEC);
    - Other protected areas defined under national legislation (specify – see also RPA1);
    - Other protected areas defined under regional/local legislation (specify – see also RPA1).

For each **groundwater body (GWB)** the following data are required:

- Water body code;
- Water body name;

- Shapefile/GML file:
  - Groundwaters: boundaries of groundwater bodies or groups of groundwater bodies larger than 100 km<sup>2</sup>.<sup>16</sup>
- Centroid (for all groundwater bodies) (technical specification for the calculation of the centroid to be developed in the context of the updated GIS guidance);
- For groundwater bodies or groups of groundwater bodies, if available:
  - Layered (Y/N);
  - Average depth to groundwater body (m);
  - Average thickness of groundwater body (m);
  - Assignment to a depth range where the main part of the GWB is situated in (depth ranges: 0-20m, 20-50 m, 50-200 m, >200m);
  - Directly dependent aquatic ecosystems (Y/N);
  - Directly dependent terrestrial ecosystems (Y/N);
  - Geological formation – aquifer type (according to a predefined typology);
  - Type of vertical orientation of GWB (indicated by category and visualised by symbols);
  - Volume of aquifer (m<sup>3</sup>) (if possible).
- Relevant point source discharges to groundwater:
  - ID of significant point sources where data already available;
  - Latitude and longitude of each relevant point source (if possible);
  - Type of point source (see GWPI3).
- Relevant diffuse source pollution to groundwater bodies:
  - WB Affected? (Y/N) ;
  - Type of source (see GWPI4).
- Relevant abstractions from groundwater:
  - WB Affected? (Y/N);
  - Latitude and longitude of each abstraction (if possible);
  - Type of abstraction (see GWPI5).
- Relevant artificial recharge of groundwater:
  - WB Affected? (Y/N);
  - Type of Regulation/Alteration (see GWPI6).
- Significant saltwater or other intrusion:
  - WB Affected? (Y/N).
- Other pressures:
  - WB Affected? (Y/N);
  - Type of Pressure (to be specified see GWPI8).
- Impacts:
  - Type of impact identified (see GWPI9).
- Protected areas:
  - Water body within or overlapping with a protected area (Y/N);

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<sup>16</sup> When providing all GWB boundaries in one file please take care that the GWBs are not intersected. Alternatively provide separate files for each GWB horizon.

- Type of protected area (**provide a Shapefile/GML file only where information is NOT reported under any other Directive. Where information has been provided under other Directives provide the unique identifier (code) of the appropriate protected area**):
  - WFD Article 7;
  - Nitrate vulnerable zones (Directive 91/676/EEC);
  - Areas designated for the protection of habitats or species where the maintenance or improvement of the status of water is an important factor in their protection, including relevant Natura 2000 sites (Directive 92/43/EEC and 79/409/EEC);
  - Other protected areas defined under national legislation (specify – see also RPA1);
  - Other protected areas defined under regional/local legislation (specify – see also RPA1).

For each **surface water monitoring site**, the following data are required:

- 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/Y co-ordinates (latitude/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. TNMN of the Danube river basin or WISE-SoE site);
- QE identifiers<sup>17</sup>.

For each **groundwater monitoring site**, the following data are required:

- 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/Y co-ordinates (latitude/longitude) of the site;

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<sup>17</sup> Development of an identifier system for QEs should be developed.

- Identify if the site is part of existing international monitoring networks (e.g. TNMN of the Danube river basin or WISE-SoE site);
- Information on sampling depth (site allows for sampling of upper, medium or deeper layer of the GW-body or for mixed samples);
- Parameter identifier.

## **5 REPORTING REQUIREMENTS FOR SURFACE WATER BODIES**

### **5.1 Introduction**

#### **Identification and Characterisation of Water Bodies**

Article 5 of the WFD requires Member States (MS) to identify surface water bodies that will be used for assessing progress with, and achievement of the WFDs environmental objectives. In addition, under certain conditions, Article 4(3) of the WFD permits MS to identify and designate artificial water bodies (AWB) and heavily modified water bodies (HMWB). HMWB and AWB are required to achieve Good Ecological Potential by 2015.

Identifying the size of water bodies was an important parameter that had implications on the design of the monitoring programmes and on the development of appropriate programmes of measures. A stepwise process for the identification of HMWB resulted in a provisional identification by 2004. Full identification should be completed by 2010 for publication in the RBMP.

Article 5 of the WFD also requires MS to analyse the characteristics of surface water bodies and provide a summary report on surface water characterisation including general information on their typology.

Article 6 of the WFD requires that a register of the water-related protected areas lying within each RBD be established. This will help to ensure that the management of the relevant water bodies also ensures the objectives of these protected areas are achieved. Annex IV of the WFD specifies what types of protected areas should be included in the register and specifies what the summary of the register, which should be part of the RBMP should include.

#### **Classification and Monitoring of Water Bodies**

Annex V of the WFD specifies how MS are to monitor and present "status" classification. The Commission needs to ensure that "good status/potential" has been defined according to the provisions of the Directive, and in a consistent and comparable way throughout the EU. The status requirements refer to all QEs in the Directive, chemical and biological. The normative provisions of Annex V provide a starting point. However, interpretation and application of these definitions may differ, which may lead to a wide range of variation between the MS. In this respect, it is important to compare the criteria and thresholds that MS have set. Whilst it is recognised that the intercalibration exercise has set out to ensure that the definition of high and good ecological status is consistent, the intercalibration exercise will not result in the findings of whether the Member States have followed the results of intercalibration or whether class boundaries have been established for all required water body types and quality elements. However, the intercalibration exercise has provided a useful template for the collection of such information which has been used in the development of this reporting guidance.

Article 8 of the WFD requires MS to ensure the establishment of programmes for the monitoring of water status in order to establish a coherent and comprehensive overview of water status within each RBD. Monitoring programmes should be in place by 2006 and reported in March 2007.

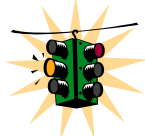


Investigative monitoring is reactive in nature and, as such, differs from the more routine surveillance and operational programmes. No detailed site specific information can be provided up front in relation to investigative monitoring. However, methodologies/strategies can be put in place detailing how 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.

	<p><b>Look Out!</b></p> <p>Member States first reported under Article 5 in 2005 and under Article 8 in 2007. In 2010, data should only be resubmitted if any was missing from the original submission or if any of the information has since changed.</p>
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## 5.2 How will the Commission use the information reported?

The Commission will use this information to assess progress with, and achievement of, the WFD's environmental objectives. This information will be provided to the public through WISE.

The following compliance indicators, for the identification of surface water bodies will be used:

- Average size of river water bodies: as the total river water body length (km)/number of river water bodies;
- Average size of lake water bodies: total lake surface area (km<sup>2</sup>)/number of lake water bodies (by Sub-unit);
- Average size of transitional water bodies: total area of transitional water bodies (km<sup>2</sup>)/number of transitional water bodies (by Sub-unit);
- Average size of coastal water bodies: total surface area of coastal waters (km<sup>2</sup>)/number of coastal water bodies/ (by Sub-unit);
- Minimum and maximum size (define dimensions) of water body in the Sub-unit per water category;

- Number and combined surface area (km<sup>2</sup>) of lakes that are below the threshold (0.5 km<sup>2</sup>). If no accurate figures are available then an estimate should be provided.

The following compliance indicators, for the identification of AWBs and HMWBs will be used for each water category (rivers, lakes, transitional waters, coastal waters):

- Number of artificial water bodies/Sub-unit – calculated by MSs;
- Number of heavily modified water bodies/Sub-unit;
- Percentage of water bodies per water body category.

With regard to the typology of surface waterbodies, the key issue for compliance will be identifying whether the level of typology is comparable. The information will be used to ensure that if System B has been followed, it provides at least the same level of differentiation as would be provided by System A and that type specific reference conditions can be adequately defined. It is also important for the Commission to check how the International River Basin District (IRBD) have co-ordinated their typology, and if not, the reasons why it was not coordinated, the steps that have been taken to address this shortcoming and by when co-ordination will be achieved.

For information relating to the typology of surface waters in accordance with the WFD, refer to the REFCOND, COAST and Waterbodies Guidance Documents (WFD CIS Guidance Document Nos 10, 5 and 2, respectively).

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.

A summary report of the monitoring programmes was 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.

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 exceedances, 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 monitoring programmes in accordance with the WFD, refer to the Monitoring Guidance Document (WFD CIS Guidance Document No. 7)<sup>18</sup>.

Although compliance of information provided by Member States on the results of surface water monitoring programmes (status of surface waterbodies) will not be assessed in 2010, a key indicator will be percentage of moderate, poor or bad water bodies in the River Basin District or Sub-unit (i.e. those not of good ecological status and potential). Therefore, the main part of the reported information will be used for visualisation and for providing information to the public through WISE. Furthermore, the data and maps will provide a baseline or starting point for the implementation of the WFD (e.g. answering the question: how was the water quality before the programme of measures required by the WFD was implemented?). This means that the requested data and maps will be essential for trend analysis, for policy development and for the assessment of policy effectiveness. However, if Member States provide some of this information through the WISE-SoE reporting to the EEA, the Commission will use those data for its own purposes.

The following compliance indicator will be used:

- No compliance check will be carried out on 2009 monitoring results. However, for the purposes of illustrating the current status of water bodies to the public the indicator percentage of the water bodies being in different status classes specified for different quality elements (based on available maps) will be used.

Information provided by Member States on will be used to establish whether Member States have established a status classification scheme in accordance with the Directive, and to determine whether status classes are consistent with the Directive, comprehensive and comparable between Member States and River Basin Districts. The comparison of assessment criteria and thresholds will make the level and ambition of environmental protection more transparent and will allow to identification of differences in assessment methods, in terms of whether they are comprehensive and comparable.

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<sup>18</sup> [http://circa.europa.eu/Members/irc/env/wfd/library?!=/framework\\_directive/guidance\\_documents/guidancesnos7smonitoring/ EN 1.0 &a=d](http://circa.europa.eu/Members/irc/env/wfd/library?!=/framework_directive/guidance_documents/guidancesnos7smonitoring/ EN 1.0 &a=d)

The following compliance indicator will be used:

- Did Member States set a comprehensive set of criteria for assessing "good status/potential" (and other required boundaries) which is consistent with the Water Framework Directive and comparable throughout the EU? (Possible answers: Yes / No / To a certain extent / unclear – not sufficient information).

The Commission will use the information provided by Member States on protected areas to ensure that a register of protected areas has been established in the RBD.

The following compliance indicator will be used:

- Has information relating to protected areas been provided?

### 5.3 Information to be provided

#### Data

For each **RBD/Sub-unit** the following data are required:

- Total river water body length/total number of water bodies including artificial water bodies;
- Total lake water body surface area (km<sup>2</sup>)/number of lake water bodies;
- Total area of transitional water bodies (km<sup>2</sup>)/number of transitional water bodies;
- Total surface area of coastal waters (km<sup>2</sup>)/number of coastal water bodies;
- Maximum and minimum size of water body (by water body category);
- Total number of HMWBs and AWBs.

*The size of water body should be calculated at the scale of 1:250 000. If this is not possible then the scale at which the calculations have been made should be stated.*

For each **category of water body** (rivers, lake, transitional and coastal waters) the following data are required:

- Number of types per water category (national or RBD);
- A list of types and a short description (<300 characters) of each type.

For each **surveillance and operational monitoring programme and for each surface water category** (rivers, lakes, coastal and transitional), the following data are required:

- 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 QE (see **Feil! Fant ikke referansekinden.** below);
- List of Priority Substances and other substances discharged in significant quantities to be monitored.

**Table 1 Information 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.

The following data on investigative monitoring should **only be provided as an illustration of how the system of investigative monitoring has been implemented – it can only be provided if an incident requiring investigative monitoring has occurred.**

- Type of investigative monitoring programme (e.g. incident response, unknown exceedances, 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).

No specific monitoring results per monitoring station in water bodies will be required at this stage. For the purpose of plausibility and consistency checking with the assessment of status, other data submitted to WISE (e.g. WISE-SoE reporting) may be used. If the Commission requires additional monitoring data for an in-depth analysis, a specific data request will be issued.

For each **surface water type and relevant QE**, the status/potential class boundaries should be reported (see Table 2 ):

**Table 2 Reporting of Classification boundaries**

Water category	QE or parameter code (Reported under Article 8)	National method in use (hyperlink) (Reported under Article 8)	National type (name or code) (Reported under Article 5)	Short description of national type (Reported under Article 5)	Reporting units	Reference conditions (if applicable)	High-Good boundary	Good-Moderate boundary	Moderate – Poor boundary	Poor – Bad boundary	Does this boundary reflect the result of the intercalibration exercise? (For biological quality elements only) (this column may be removed depending on results of discussions ongoing in intercalibration process) Yes/No/Other (specify)	Can the Member State implement this quality element at this stage?	
Rivers	Dissolved oxygen	In situ measurement	Type R1; type R2 etc.	Small, high altitude, low alkaline	5-percentile mg O <sub>2</sub> /L	9	7,5	6					
	Soluble reactive phosphorus	CEN 11564			µg/L	25	30	50					
	...												
	Macro-invertebrates	GREB			EQR	1	0,86	0,65				Yes	
	Phytobenthos	MMPB			EQR	1	0,75	0,55				No	

Water category	QE or parameter code (Reported under Article 8)	National method in use (hyperlink) (Reported under Article 8)	National type (name or code) (Reported under Article 5)	Short description of national type (Reported under Article 5)	Reporting units	Reference conditions (if applicable)	High-Good boundary	Good-Moderate boundary	Moderate – Poor boundary	Poor – Bad boundary	Does this boundary reflect the result of the intercalibration exercise? (For biological quality elements only) (this column may be removed depending on results of discussions ongoing in intercalibration process) Yes/No/Other (specify)	Can the Member State implement this quality element at this stage?
	...											
	Priority substances (specify) <sup>(1)</sup> – CAS number	....			.....	NA	NA	[means EQS]	NA	NA	NA	
	Other pollutants– CAS number					NA	NA	[means EQS]	NA	NA	NA	
	Supporting parameters (hydromorphology and physico-chem			...								

<b>Water category</b>	<b>QE or parameter code (Reported under Article 8)</b>	<b>National method in use (hyperlink) (Reported under Article 8)</b>	<b>National type (name or code) (Reported under Article 5)</b>	<b>Short description of national type (Reported under Article 5)</b>	<b>Reporting units</b>	<b>Reference conditions (if applicable)</b>	<b>High-Good boundary</b>	<b>Good-Moderate boundary</b>	<b>Moderate – Poor boundary</b>	<b>Poor – Bad boundary</b>	<b>Does this boundary reflect the result of the intercalibration exercise? (For biological quality elements only) (this column may be removed depending on results of discussions ongoing in intercalibration process) Yes/No/Other (specify)</b>	<b>Can the Member State implement this quality element at this stage?</b>
Lakes, transitional, coastal and territorial waters												



## Summary text

Summary text should be provided for each RBD covering the following items:

- The methodology/criteria used to:
  - delineate each category of surface water bodies such as size, river confluence, etc;
  - identify HMWB and AWB;
  - identify and characterise small water bodies less than the threshold;
  - determine the QEs and the class boundaries for natural waters;
  - determine the QEs and the class boundaries for artificial and heavily modified water bodies;
  - combine QEs to define the final status class;
  - assess the “no deterioration” objective (Art. 4.1.a). The information should demonstrate on how the assessment is carried out (including: baseline, trend analysis etc.).
- **If System B has been used** for the characterisation of water bodies, a list of those factors (obligatory and optional) listed in Annex II 1.2 of the WFD that have been used for the definition of typology of water bodies should be provided;
- The coordination for international RBDs to:
  - designate water bodies;
  - characterise water bodies;If no co-ordination has been achieved, give reasons why not and details of what has been put in place to overcome this situation.
- A list of any legislation identifying additional national, regional or local water related protected areas other than those identified in EU legislation.

Summary text for each monitoring programme and for each surface water category should be provided covering the following items:

- The methodology/criteria used to:
  - select sites;
  - select monitoring frequencies for each QE.
- The sampling and analysis methodology to be used for each QE and details of any relevant national or international standards (e.g. CEN/ISO);
- The 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 the levels of confidence and precision expected to be achieved from the results of monitoring;
- Any additional monitoring requirements for waters used for the abstraction of drinking water in relation to Article 7<sup>19</sup>;

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<sup>19</sup> 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.

- If the monitoring programmes will start later than 22 December 2006, a justification of why the monitoring programme/s are delayed;
- If the monitoring programme includes the identification of sub-sites<sup>20</sup>, a summary of the extent and how the concept of sub-sites has been applied;
- The investigative monitoring strategy, including an example of where the strategy has been implemented, if available;
- Whether a paper-based report, e.g. for national consultation, international co-ordination, 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) was produced. If yes, the report should be provided or uploaded.

References/Hyperlinks to more detailed supporting documents (e.g. methodology documents, documents provided as part of the public participation, statutes, founding treaty or equivalent legal documents) should be provided for each of the above-mentioned summaries, if available.

#### **5.4 Reporting on specific initiatives and management objectives**

If Member States choose to set operational management objectives they will be asked to report those in a generic form. In order to communicate such information to the public it would be beneficial to provide detailed, geographically referenced information on specific management measures taken and the management objectives put in place. At the highest level this could be provided for each RBD or Sub-unit. The information that would need to be provided to enable data to be displayed visually would be:

- The RBD (code);
- The Sub-unit (code);
- For nutrient load (if objectives set) the current nutrient load, the target nutrient load for the Sub-unit (for 2015) and the load reduction required for the impacted groups of water bodies;
- For connectivity (if objectives set), current status of connectivity of the Sub-unit (yes, no, partial). This question should be answered for 2009, 2015, 2021, 2027 and the target date by which the Sub-unit will be connected to the river network;
- MS may report information on other management objectives that they have set for other parameters;
- A textual summary of what measures are being put in place to achieve this (e.g. dam removal and target dates).

If this is not possible, summary text with hyperlinks to more detailed information may be provided. The summary should include the targets that have been set, the deadlines

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<sup>20</sup> 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 QEs at different points in one site).

by which they should be achieved, the measures in place to achieve the targets and the resulting improvements in water quality that would result. Given the generalised nature of this information it should be reported at a RBD level.

On the basis of this information, data should be provided to allow maps to be produced along the lines of the examples presented by Germany (see presentation at [http://circa.europa.eu/Members/irc/env/wfd/library?l=/working\\_groups/new\\_wg\\_reporting/meetings/meeting\\_1718\\_october/reporting\\_janningppt\\_EN\\_1.0\\_&a=d#261,1,Reporting\\_2010](http://circa.europa.eu/Members/irc/env/wfd/library?l=/working_groups/new_wg_reporting/meetings/meeting_1718_october/reporting_janningppt_EN_1.0_&a=d#261,1,Reporting_2010)).

## 6 REPORTING REQUIREMENTS FOR GROUNDWATER BODIES

### 6.1 Introduction

#### **Identification and Characterisation of Water Bodies**

Article 5 and Annex II of the WFD requires MS to identify the location and boundaries of groundwater bodies. The Commission will use the information provided on the level of subdivision of groundwater to ensure that this is adequate to describe the status of groundwater bodies.

Article 6 of the WFD requires that a register of the water-related protected areas lying within each RBD be established. This will help to ensure that the management of the relevant water bodies also ensures the objectives of these protected areas are achieved. Annex IV of the WFD specifies what types of protected areas should be included in the register and specifies what the summary of the register, which should be part of the RBMP, should include.

#### **Classification and Monitoring of Water Bodies**

Annex V of the Water Framework Directive specifies how Member States are to monitor groundwater, present chemical and quantitative status classification results and identify groundwater bodies with significant and sustained upward trends<sup>21</sup> in pollutant concentrations. The detailed provisions and criteria for status and trend assessments are laid down in the Groundwater Directive.

In addition to the WFD reporting requirements, the Groundwater Directive introduces several additional reporting requirements to ensure that groundwater body status and trends have been defined according to the provisions of the Directive, and in a consistent and comparable way across the EU.

The reporting requirements include threshold values (groundwater quality standards set by Member States). These have to be reported along with a summary of the methodology used for identifying the pollutants (or their indicators) and deriving the threshold value(s). The criteria for establishing threshold values are included in Article 3 and Annex I and II of the GWD (reporting obligations in GWD Article 3.5 and Annex II Part C). This is linked to the pressure and impact analysis required by Article 5 of the WFD and Article 17 of the WFD relating to strategies to prevent and control pollution of groundwater. According to Article 3.1(b) of the GWD, threshold values have to be established for pollutants, groups of pollutants and indicators of pollution – the relevant parameters – which have been identified as contributing to the characterisation of groundwater bodies as being at risk of not meeting the WFD Article 4 objectives, taking into account at least the list of the GWD Part B Annex II).

Article 8 of the WFD requires MS to ensure the establishment of groundwater programmes for the monitoring of water status (quantitative and chemical), including the assessment of the available groundwater resource, in order to establish a coherent

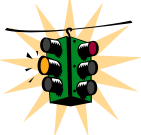
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<sup>21</sup> In this reporting sheet the term 'significant and sustained upward trends' refers to the definition in Article 2.3 of GWD.

and comprehensive overview of water status within each RBD. Monitoring programmes should be in place by 2006 and reported in March 2007.

The GWD requires that the results of both chemical and quantitative status assessment and the methodology used to classify groundwater bodies are reported. The requirements are laid down in WFD Annex V, GWD Article 4, and Annex III (reporting requirements in GWD Article 4.4 and Annex III point 5).

In addition, the GWD requires that the results of trend assessment and the method used for trend assessment, including the way in which results from monitoring at individual points has been used, must be reported. The starting point for trend reversal and the reasons for selecting the starting point must also be reported. Requirements for the identification of upward trends and the definition of starting points for trend reversal are laid down in GWD Article 5 and Annex IV (reporting requirements in GWD Article 5.4, 5.5 and Annex IV, Part A point 3).

	<p><b>Look Out!</b></p> <p>Member States first reported under Article 5 in 2005 and under Article 8 in 2007. In 2010, data should only be resubmitted if any was missing from the original submission or if any of the information has since changed.</p>
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## 6.2 How will the Commission use the information reported?

The Commission will use the information provided on the level of subdivision of groundwater to ensure that this is adequate to describe the status of GWB. The following compliance indicators will be used:

- Number of groundwater bodies per RBD/Sub-unit;
- Average size of groundwater body per RBD/Sub-unit.

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 was 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.

Information provided by Member States under the Groundwater Directive will be used to ascertain whether they have established and applied methodologies, in accordance with the WFD and GWD, for: deriving threshold values; assessing status (chemical and quantitative) and; identifying environmentally significant pollutant trends (and starting points for trend reversal).

The Commission will determine whether the methods applied are comparable between Member States and River Basin Districts. The comparison of assessment criteria and thresholds will make the level and ambition of environmental protection more transparent and will allow any differences to be identified. Information on threshold values and the substances for which such values have been established will be summarised and analysed.

Although compliance will not be assessed in 2010, a key indicator will be number of poor status groundwater bodies per River Basin District (i.e. those not of good status). This information will be provided to the public through WISE. Appropriate explanation will accompany the information on status noting that an overall result of poor status could reflect problems that are very different in severity and character (i.e. the problems can exist throughout the whole groundwater body or only in part of the body and the gap between the WFD objectives and the actual state of the groundwater can be large or small).

The following compliance indicators will be used:

- It will be analysed whether threshold values have been established in accordance with the Groundwater Directive. Did Member States set a comprehensive set of criteria for assessing "good status" which is consistent with the WFD and comparable throughout the EU? (Possible answers: Yes / No / To a certain extent / unclear – not sufficient information);
- No compliance check will be carried out on status and trends results. However, for the purposes of illustrating the current status of water bodies to the public the indicator percentage of the groundwater bodies being of good and poor chemical and quantitative status (based on available maps) will be used.

The Commission will use the information provided by Member States on protected areas to ensure that a register of protected areas has been established in the RBD.

The following compliance indicator will be used:

- Has information relating to protected areas been provided?

### 6.3 Information to be provided

#### Data

For each **RBD** the following data are required:

- Total number of groundwater bodies;
- Average area (m<sup>2</sup>) of the groundwater bodies;
- Number of groundwater bodies for which there are directly dependent surface water or terrestrial ecosystems.

For each **surveillance and operational monitoring programme**, the following data are required:

- 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 groundwater 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 data are required:

- Any additional monitoring requirements in relation to drinking water abstraction areas, over and above those already provided;
- Detailed site-specific information on monitoring frequencies is only required where monitoring deviates from the general programme outlined above.

No specific monitoring results per monitoring station in water bodies will be required at this stage. For the purpose of plausibility and consistency checking with the assessment of status, other data submitted to WISE (e.g. WISE-SoE reporting) may be used. If the Commission requires additional monitoring data for an in-depth analysis, a specific data request will be issued.

The following information on the **classification used for groundwater bodies** should be reported for each RBD:

- The Threshold Values (TV) established in accordance to Article 3 of the GWD and the level at which TV are established (Member State level / international RBD / national part of RBD / GWB level)<sup>22</sup>;
- The Threshold Values established for nitrates and pesticides, only if more stringent than the groundwater quality standards identified in Annex 1 of GWD;
- The starting point for trend reversal, and reasons for their definition where they are different from 75% of the applicable TV.

Table 3 summarises the information requested.

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<sup>22</sup> All TVs that are relevant for the RBD should be reported, including those developed at MS or GWB level.

**Table 3 Information required on Groundwater Classification**

Pollutants / Indicators	Threshold Value (or range) <sup>2,4</sup>	Level on which the TV is established (Member State / international RBD / national part of RBD / GWB)	Starting point for trend reversal (in % of TV) <sup>3,4</sup>
Nitrates			
Active substance in pesticides			
Pesticides total			
Parameter 1 <sup>1</sup>			
Parameter 2 <sup>1</sup>			
... <sup>1</sup>			
Parameter n <sup>1</sup>			

<sup>1</sup>) Considering at least the list of substances as contained in Part B of Annex II of GWD and extended by further relevant parameters/indicators as appropriate.

<sup>2</sup>) For nitrates and pesticides, only if different from those in Annex I to GWD.

<sup>3</sup>) Only if different from 75%.

<sup>4</sup>) Insert the range of TVs respectively the range of starting points if different TVs or starting points are applied at GWB-level within the RBD.

The following should be reported on **groundwater chemical status**, background levels and trends for each **groundwater body or group of groundwater bodies**:

- The result of the chemical status assessment (good/poor);
- If the GWB is identified as poor status;
  - The relevant pollutants / indicators for the GWB as referred to in Annex II Part A of GWD including the observed concentration values; and
  - The reason(s) for failing to achieve good chemical status, including the threshold values or quality standards that have been exceeded:
    - Multi-selection of reasons:
      - a) Saline or other intrusions;
      - b) Exceedance of one or more quality standard or threshold value;
      - c) Failure to meet environmental objectives in associated surface water bodies or significant diminution of the ecological or chemical status of such bodies;
      - d) Significant damage to terrestrial ecosystems which depend directly on the groundwater body;
      - e) Deterioration in quality of waters for human consumption;
      - f) Significant impairment of human uses;
      - g) Significant environmental risk from pollutants across the groundwater body.
- The background level for those substances that occur naturally in the groundwater body and for which threshold values have been established;



- Information on significant and sustained upward trends including the pollutants for which trend assessment has been required.

The following should be reported on **quantitative status for each groundwater body or group of groundwater bodies**:

- The results of quantitative status assessment (good/poor);
- If the GWB is identified as poor status;
  - The reason(s) for failing good quantitative status:
    - Multi-selection of reasons:
      - a) Exceedance of available groundwater resource by long-term annual average rate of abstraction that may result in a decrease of groundwater levels;
      - b) Failure to achieve environmental objectives (Article 4 WFD) for associated surface waters;
      - c) Significant diminution of the status of surface waters;
      - d) Significant damage to terrestrial ecosystems directly depending on groundwater;
      - e) Saline or other intrusion.

### **Summary text**

Summary text should be provided for each RBD covering the following items:

- The methodology/criteria used to delineate GWBs;
- A list of any legislation identifying additional national, regional or local water related protected areas other than those identified in EU legislation;
- The establishment of groundwater threshold values (GWD Annex II Part C) covering the following items:
  - The way the procedure set out in Annex II Part A of the Groundwater Directive has been followed to derive threshold values;
  - The relationship between threshold values and background levels for naturally occurring substances;
  - The relationship between threshold values and environmental quality objectives and other standards for water protection that exist at national, Community or international level.
- The assessment of groundwater chemical and quantitative status describing the following methodologies:
  - The assessment of groundwater chemical status to cover an explanation of how exceedances of groundwater quality standards or threshold values at individual monitoring points have been taken into account in the final assessment, including the indication of what option from GWD Article 4.2 has been used (GWD Article 4.4);
  - The assessment of groundwater quantitative status.
- The assessment of trends and trend reversal (GWD Article 5.4) describing:
  - The way in which the trend assessment at individual monitoring points within a body or a group of bodies of groundwater, has contributed to identifying that those bodies are subject to a significant and sustained upward trend;

- The way in which the trend assessment at individual monitoring points within a body or a group of bodies of groundwater has contributed to identifying that those bodies are subject to a reversal of that significant and sustained upward trend;
- The reasons to establish starting points for trend reversal where they are different from 75% of the parametric value of the threshold value or groundwater quality standards (see GWD Article 5.4 and Annex IV, Part B, point 1).
- The results of any existing assessments of the impacts of relevant (expanding) plumes (GWD Article 5.5) in particular, verification by additional trend assessments that existing plumes from contaminated sites do not expand, do not deteriorate the chemical status of groundwater bodies and do not present a risk for human health and the environment;
- For transboundary groundwaters, a summary of the steps put in place to coordinate the objectives (establishment of threshold values, status and trend assessment).

Summary text for **quantitative and chemical monitoring programmes** should be provided separately covering the following items:

- The methodology/criteria used to;
  - select sites;
  - select monitoring frequencies.
- The sampling and analysis methodology to be used and details of any relevant national or international standards (e.g. CEN/ISO);
- The 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);
- If the monitoring programmes will start later than 22 December 2006, a justification of why the monitoring programme/s are delayed;
- If the monitoring programme includes the identification of sub-sites<sup>23</sup>, a summary of the extent and how the concept of sub-sites has been applied.

References/Hyperlinks to more detailed supporting documents (e.g. methodology documents, documents provided as part of the public participation, statutes, founding treaty or equivalent legal documents) should be provided for each of the above-mentioned summaries, if available.

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<sup>23</sup> 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 QEs at different points in one site).

## 7 REPORTING REQUIREMENTS FOR PRESSURES, IMPACTS AND PROGRAMMES OF MEASURES

### 7.1 Introduction

Article 5 of the WFD requires MS to identify the key pressures present in the RBD likely to cause water bodies to be of less than good status. It also requires MS to assess the impacts on water bodies to support the determination of status.

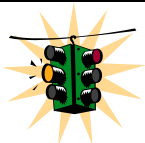
Article 11 of the WFD requires MS to ensure the establishment of a programme of measures for each RBD, or part of international RBDs within its territory to achieve the objectives laid down in Article 4 of the Directive. The programme of measures should take account of the analyses carried out according to Article 5 and the subsequent monitoring results collected with the network established under Article 8.

For each RBD, the programme of measures must include “basic” and, where required, “supplementary measures”. Basic measures are listed in Article 11(3) of the Directive. The basic measures are divided into those measures which are regulated in other EU directives (Article 11 (3)(a)) (including those listed in Annex VI, part A) and those measures additionally introduced by the WFD (Article 11 (3), sub-paragraphs (b) to (l)).

A tentative list of supplementary measures (Article 11 (4)) are listed in Annex VI, part B.

Article 4(4-9) of the WFD allows MS to extend the deadlines for the achievement of good status/potential or to set other objectives under certain specified circumstances. Additional information can be found in the CIS Paper on "Environmental Objectives" agreed in 2005<sup>24</sup>.

Article 4(4-9) goes on to require MS to provide information regarding such extensions or other objectives and the reasons for it in the River Basin Management Plan.

	<p><b>Look Out!</b></p> <p>Member States first reported under Article 5 in 2005 and under Article 8 in 2007. In 2010, data should only be resubmitted if any was missing from the original submission or if any of the information has since changed.</p>
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### 7.2 How will the Commission use the information reported?

The purpose of the collection of the information is to identify the main pressures within the RBD. The summary information will be used to compile maps at a European level of relevant pressures and to ensure that relevant pressures have been identified at RBD level. Statistics and information will be provided to the European Parliament at EU wide level. Information will be provided to the public through WISE.

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<sup>24</sup> [http://forum.europa.eu.int/Public/irc/env/wfd/library?l=/framework\\_directive/thematic\\_documents/environmental\\_objectives/environmental\\_20605pdf/ EN\\_1.0 &a=d](http://forum.europa.eu.int/Public/irc/env/wfd/library?l=/framework_directive/thematic_documents/environmental_objectives/environmental_20605pdf/ EN_1.0 &a=d)

The following compliance indicators relating to surface waters will be used:

- Number of water bodies failing to reach good status/potential as a result of each pressure;
- Number of water bodies or river length etc/Sub-unit "not in good status/potential" as a result of point sources (either as a result of point sources only or in combination with other pressures);
- Whether information has been provided on the substances discharged from point sources and the load of those substances;
- Number of water bodies/Sub-unit "not in good status/potential" as a result of diffuse sources (either as a result of diffuse pollution only or in combination with other pressures);
- Whether information has been provided on the substances discharged from diffuse sources and the load of those substances;
- Whether information has been provided on the number of abstraction points and the volumes abstracted;
- Number of water bodies/Sub-unit "not in good status/potential" as a result of water abstractions (wholly or partially);
- Whether information has been provided on the water flow regulations and morphological alterations;
- Number of water bodies/Sub-unit "not in good status/potential" as a result of water flow regulations and morphological alterations, either as a result of water flow regulations and morphological alterations only or in combination with other pressures;
- For each pressure type (point sources, diffuse sources, water abstractions, and water flow regulations and morphological alterations) is "significance" defined in a way that is comparable with the approach used in other RBDs/Member States;
- Number of water bodies/Sub-unit "not in good status/potential" as a result of unknown pressures;
- Whether information has been provided on the actions to be taken to identify the unknown pressures;
- Whether information on the impacts on surface water bodies has been provided;
- Whether information on the impacts on uncertainties and data gaps have been provided;
- Whether sufficient steps have been taken since 2005 to address the uncertainties and data gaps;
- Whether future plans have been put in place to address any continuing uncertainties and data gaps;

The following compliance indicators relating to groundwaters will be used:

- Number of groundwater bodies failing to reach good status as a result of each pressure or combination of pressures (depending on the information provided);
- Number of GWBs/RBD "not in good status" as a result of point sources (either as a result of point sources only or in combination with other pressures);
- Whether information has been provided on the substances discharged from point sources and the load of those substances;
- Whether information has been provided on the substances discharged from diffuse sources and the loads of those substances;
- Number of GWB/RBD "not in good status" as a result of water abstractions only or in combination with other pressures;
- Whether information has been provided on the number of abstraction points and the volumes abstracted;
- Number of water bodies/RBD "not in good status" as a result of artificial recharge only or in combination with other pressures;
- Whether information has been provided on the number of artificial recharges and the volumes concerned;
- Number of GWBs/RBD "not in good status" as a result of saltwater intrusion (either as a result of saltwater intrusion only or in combination with other pressures);
- Whether information has been provided on the number of groundwater bodies affected by saltwater intrusion;
- Number of groundwater bodies/RBD "not in good status" as a result of pressures not covered by other reporting sheets or unknown pressures;
- Whether information has been provided on the actions to be taken to identify the pressures;
- Whether information on the further characterisation/assessment of human impacts on GWBs has been provided;
- What level of further characterisation of groundwater has been carried out and what plans are in place to complete the work in preparation for the publication of the draft River Basin Management Plans in 2010;
- Whether information on the impacts on uncertainties and data gaps has been provided;
- Whether sufficient steps have been taken since 2005 to address the uncertainties and data gaps;
- Whether plans have been put in place to address any continuing uncertainties and data gaps.

Information provided by Member States on the summary of steps and measures taken to meet the requirements of Article 11 will be used by the Commission to ensure that the provisions of Article 11 have been properly and consistently applied according to the Directive, and to provide information to the Parliament and public on the relevant measures. A screening assessment will be made on the basis of the compliance indicator which builds on an approach based on pressures.

The following compliance indicators will be used:

- For every significant pressure that has been identified, the Commission will check that Member States have ensured that measures are in place to address that pressure or that exemptions are applied and justified. An aggregated compliance indicator will be developed. (Possible answers: Yes / No / To a certain extent/unclear – not sufficient information);
- A check list will be developed to ensure that every point in Article 11 and any other relevant aspects is covered in some place of the Programme of Measures and to ensure that every pressure identified has been adequately addressed.

The Commission will use information provided by Member States on the classification of status to give summary statistics to the European Parliament and the public and assess whether the level of exemptions is comparable and justified. The comparative screening assessment will be based on the compliance indicators (see below). Taking account also the summary text provided, the screening assessment will be used to determine whether more detailed analysis is required.

The Commission will use the geographic information provided to produce a map for the Parliament and the Public to show the distribution of water bodies across the EU where Article 4(4-7) has been used and also to create a map showing the status of water bodies. This information will be made available through WISE.

The following compliance indicator will be used to prioritise those River Basin Districts where the use of Article 4 (4-7) requires further investigation:

- Percentage of surface water bodies where each exemption per Article 4 (4, 5, 6 and 7) has been used/River Basin District (per (national part of international) River Basin District or Sub-unit), as a proportion of all SWBs and the SWBs not achieving good status as reported in the River Basin Management Plan.
- Percentage of groundwater bodies where each exemption per Article 4 (4, 5, 6 and 7) has been used/River Basin District (per (national part of international) River Basin District or Sub-unit), as a proportion of all GWBs and the GWBs not achieving good status as reported in the River Basin Management.

### **7.3 Information to be provided**

A list of pressures is given below. This is indicative and it is not expected that all these pressures will be significant for all RBDs:

- Point sources including:
  - (to surface water)
    - UWWT plants;
    - Storm overflows;
    - IPPC plants (EPRTTR);
    - Other industrial plants outside the IPPC Directive not covered in EPRTTR;
    - Additional point sources (e.g. small agglomerations) that may cause a significant impact in the status of water body or water bodies.
  - (to groundwater)
    - Leakages from contaminated sites;

- Leakages from waste disposal sites (landfill and agricultural waste disposal);
- Leakages associated with oil industry infrastructure;
- Mine water discharges;
- Discharges to ground such as disposal of contaminated water to soakaways;
- Other relevant point sources.
- Diffuse sources including:
  - (to surface water)
    - Via storm overflows (if data not available to allow this to be treated as a point source) or the built environment (urban run-off);
    - Due to agricultural activities (via leaching, erosion, spills, direct drainage discharges,);
    - Due to transport and infrastructure without connection to canalisation/sewers (ships, trains, automobiles and airplanes and their respective infrastructures outside the urban area);
    - Abandoned industrial sites;
    - Releases from facilities for the storage and/or treatment of domestic effluent in areas without sewerage networks (e.g. leaks from septic tanks etc.);
    - Other diffuse sources not listed above.
  - (to groundwater)
    - Due to agricultural activities (e.g. fertilizer and pesticide use, live stock etc.);
    - Due to non-sewered population;
    - Urban land use.
- Water Abstractions including
  - (from surface water)
    - Abstractions for irrigation in agriculture;
    - Abstractions for public water supply;
    - Abstractions by manufacturing industry;
    - Abstractions for the production of electricity (cooling);
    - Abstractions by fish farms;
    - Abstractions by hydro-energy (not for cooling);
    - Abstractions by quarries/open cast coal sites;
    - Abstractions for navigation (e.g. supplying canals);
    - Abstraction for water transfer;
    - Other major abstractions.
  - (from groundwater)
    - Abstractions for agriculture;
    - Abstractions for public water supply;
    - Abstractions by industry;
      - IPPC industries;
      - Non-IPPC industries;
    - Abstractions by quarries/open cast coal sites;
    - Other major abstractions.
- Water flow regulations and morphological alterations of surface water including:

- Water Flow Regulations;
- Groundwater re-charge;
- Hydroelectric dams;
- Water supply reservoirs;
- Flood defence dams, dykes and channels;
- Diversions;
- Locks;
- Weirs.
- River management including:
  - Physical alteration of channel;
  - Engineering activities;
  - Agricultural enhancement;
  - Fisheries enhancement;
  - Land infrastructure (road/bridge construction);
  - Dredging.
- Transitional and coastal water management including:
  - Estuarine/coastal dredging;
  - Marine constructions, shipyards and harbours;
  - Land reclamation and polders;
  - Coastal sand suppletion (safety);
  - Tidal barrages including those for flood defence and power generation.
- Other morphological alterations or surface waters including:
  - Barriers;
  - Land sealing in riparian area/zones and flood plains.
- Artificial recharge of groundwater including:
  - Discharges to groundwater for artificial recharge purposes;
  - Returns of groundwater to GWB from which it was abstracted (e.g. for sand and gravel washing);
  - Mine water rebound;
  - Other major recharges.
- Saltwater intrusion of groundwater including:
  - Saltwater intrusion;
  - Other intrusion.
- Other pressures not covered by the list above.

## **Data**

- The number of water bodies in each Sub-unit or RBD failing to reach good status as a result of each pressure type (point sources, diffuse sources, water abstractions etc.) for each water body category (rivers, lakes, transitional waters, coastal waters, groundwaters). This will result in some water bodies being counted more than once;
- Number of significant point sources in the Sub-unit (UWWT plants, storm overflows, IPPC Plants (EPRTR), other industrial plants outside the IPPC Directive not covered in EPRTR);



- Number of other significant point sources that are relevant in the Sub-unit (e.g. small agglomerations);
- Number of relevant point sources in the RBD causing groundwater bodies to be “not in good status”;
- Loads (monitored, calculated or estimated) of pollutants (COD, nutrients, priority substances, other pollutants, saline discharges)<sup>25</sup> discharged to surface waters (total for Sub-unit) (if not provided to the EEA under WISE-SoE Reporting);
- Number of significant abstractions and volumes abstracted/year or in different seasons by category of abstraction (see list in the introduction to this section) and per Sub-unit;
- Number of relevant abstractions in a RBD and volumes abstracted (annual average) by category of abstraction (if not provided to the EEA under WISE-SoE Reporting);
- Water balance (as defined in the guidance on the assessment of groundwater status) (or groundwater exploitation index);
- Number of relevant recharges and volumes recharged by category of recharge (see list in the introduction to this sheet) and per RBD.

Provide data on basic measures (Article 11(3)(a) and (b-1)), supplementary measures (Article 11(4)) and additional measures (Article 11 (5)) according to the templates provided in Tables 3 - 5.

**Table 4 Basic Measures required by Article 11(3)(a) and listed in Annex VI Part A**

<b>Directive listed in Annex VI Part A</b>	<b>Measures implemented in Member State (self assessment) – tick if yes</b>	<b>Additional comments or if no, additional explanations (&lt;2000 characters)</b>
Bathing Water Directive (76/160/EEC and 2006/7/EC)		
Birds Directive (79/409/EEC)		
Drinking Water Directive (80/778/EEC) as amended by Directive (98/83/EC)		
Major Accidents (Seveso) Directive (96/82/EC)		
Environmental Impact Assessment Directive (85/337/EEC)		
Sewage Sludge Directive (86/278/EEC)		
Urban Waste-water Treatment Directive (91/271/EEC)		
Plant Protection Products Directive (91/414/EEC)		

<sup>25</sup> Specification of detailed pollutant lists and units when preparing the schemas.

<b>Directive listed in Annex VI Part A</b>	<b>Measures implemented in Member State (self assessment) – tick if yes</b>	<b>Additional comments or if no, additional explanations (&lt;2000 characters)</b>
Nitrates Directive (91/676/EEC)		
Habitats Directive (92/43/EEC)		
Integrated Pollution Prevention Control Directive (96/61/EC)		

**Table 5 Other basic measures as required by Article 11(3)(b-l)**

<b>Measure (Article 11(3))</b>	<b>Implemented in Member State (self assessment) – tick if yes</b>	<b>Reference to legislation or other document (hyperlink or document)</b>	<b>Description of measure (&lt;500 characters)</b>	<b>Additional comments or if no, additional explanations (&lt;2000 characters)</b>
Measures for the recovery of cost of water services (Article 9)				
Measures to promote efficient and sustainable water use				
Measures for the protection of water abstracted for drinking water (Article 7) including those to reduce the level of purification required for the production of drinking water (note: these basic measures may not apply to the whole territory)				
Controls over the abstraction of fresh surface water and groundwater and impoundment of fresh surface waters including a register or registers of water abstractions and a requirement for prior authorisation of abstraction and impoundment				

Measure (Article 11(3))	Implemented in Member State (self assessment) – tick if yes	Reference to legislation or other document (hyperlink or document)	Description of measure (<500 characters)	Additional comments or if no, additional explanations (<2000 characters)
Controls, including a requirement for prior authorisation of artificial recharge or augmentation of groundwater bodies.				
Requirement for prior regulation of point source discharges liable to cause pollution				
Measures to prevent or control the input of pollutants from diffuse sources liable to cause pollution.				
Measures to control any other significant adverse impact on the status of water, and in particular hydromorphological impacts.				
Prohibition of direct discharge of pollutants into groundwater				
Measures to eliminate pollution of surface waters by priority substances and to reduce pollution from other substances that would otherwise prevent the achievement of the objectives laid down in Article 4				
Any measures required to prevent significant losses of pollutants from technical installations and to prevent and/or reduce the impact of accidental pollution incidents				

**Table 6a      Need for Supplementary/Additional Measures (Article 11(4) and 11(5))**

Estimated % of SW bodies (as a proportion of river length/surface area) within the basin that may fail to reach GES/GEP (by 2015)	What is the nature of the pressure that will prevent the water bodies from reaching good status or potential by 2015 (chemical pollution, hydromorphology etc.)	Will the basic measures identified above be sufficient to address this (Y/N)	Comments

Estimated % of GW bodies within the basin that may fail to reach good status (by 2015)	What is the nature of the pressure that will prevent the water bodies from reaching good status or potential by 2015 (chemical pollution, hydromorphology etc.)	Will the basic measures identified above be sufficient to address this (Y/N)	Comments

**Table 6b Significant Pressures and Measures Checklist – incl. Supplementary Measures (only to be completed if table 5.a indicates that supplementary measures are required. INFORMATION SHOULD ONLY BE PROVIDED FOR THOSE PRESSURES THAT ARE RELEVANT – IT IS NOT NECESSARY TO PROVIDE INFORMATION FOR THOSE PRESSURES THAT ARE NOT RELEVANT OR WHERE BASIC MEASURES ARE SUFFICIENT) Information can be provided at different levels if required.**

Significant Pressure	Where relevant give details of supplementary measures (Art 11(4)) put in place (including hyperlink)		Where relevant give details of additional measures (Art 11(5)) put in place (including hyperlink)		Geographic coverage of measure (RBD, part-RBD, Water Body, National etc.)	Comments
	Type of measure (from pick list of Annex VI Part B)	Details including hyperlink	Type of measure (from pick list <sup>26</sup> )	Details including hyperlink		
<b>Point sources:</b>						
<i>To surface water</i>						
UWWT plants						
Storm overflows						
IPPC plants (EPRTR)						
Other industrial plants outside the IPPC Directive not covered in EPRTR						
Additional point sources (e.g. small agglomerations) that may cause a significant impact in the status of a water body or water bodies						
<i>To groundwater</i>						
Leakages from contaminated sites						
Leakages from waste disposal sites (landfill and agricultural waste disposal)						

<sup>26</sup> Pick list to include: revision of permits; establishment of stricter environmental standards.

Significant Pressure	Where relevant give details of supplementary measures (Art 11(4)) put in place (including hyperlink)		Where relevant give details of additional measures (Art 11(5)) put in place (including hyperlink)		Geographic coverage of measure (RBD, part-RBD, Water Body, National etc.)	Comments
	Type of measure (from pick list of Annex VI Part B)	Details including hyperlink	Type of measure (from pick list <sup>26</sup> )	Details including hyperlink		
Leakages associated with oil industry infrastructure						
Mine water discharges						
Discharges to ground such as disposal of contaminated water to soakaways						
Other relevant point sources						
<b>Diffuse sources:</b>						
<i>To surface water</i>						
Via storm overflows (if data not available to allow this to be treated as a point source) or the built environment (urban run-off)						
Due to agricultural activities (via leaching, erosion, spills, direct drainage discharges)						
Due to transport and infrastructure without connection to canalisation/sewers (ships, trains, automobiles and airplanes and their respective infrastructures outside the urban area)						
Abandoned industrial sites;						

Significant Pressure	Where relevant give details of supplementary measures (Art 11(4)) put in place (including hyperlink)		Where relevant give details of additional measures (Art 11(5)) put in place (including hyperlink)		Geographic coverage of measure (RBD, part-RBD, Water Body, National etc.)	Comments
	Type of measure (from pick list of Annex VI Part B)	Details including hyperlink	Type of measure (from pick list <sup>26</sup> )	Details including hyperlink		
Releases from facilities for the storage and/or treatment of domestic effluent in areas without sewer networks (e.g. leaks from septic tanks etc.)						
Other diffuse sources not listed above						
<i>To groundwater</i>						
Due to agricultural activities (e.g. fertilizer and pesticide use, livestock etc.)						
Due to non-sewered population						
Urban land use						
<b>Water Abstractions:</b>						
<i>From surface water</i>						
Abstractions for irrigation in agriculture						
Abstractions for public water supply						
Abstractions by manufacturing industry						
Abstractions for the production of electricity (cooling)						
Abstractions by fish farms						
Abstractions by hydro-energy (not for cooling)						
Abstractions by quarries/open cast coal sites						

Significant Pressure	Where relevant give details of supplementary measures (Art 11(4)) put in place (including hyperlink)		Where relevant give details of additional measures (Art 11(5)) put in place (including hyperlink)		Geographic coverage of measure (RBD, part-RBD, Water Body, National etc.)	Comments
	Type of measure (from pick list of Annex VI Part B)	Details including hyperlink	Type of measure (from pick list <sup>26</sup> )	Details including hyperlink		
Abstractions for navigation (e.g. supplying canals)						
Abstraction for water transfer						
Other major abstractions						
<i>From groundwater</i>						
Abstractions for agriculture						
Abstractions for public water supply						
Abstractions by industry: IPPC activities						
Abstractions by industry: Non-IPPC activities						
Abstractions by quarries/open cast coal sites						
Other major abstractions						
<b>Water flow regulations and morphological alterations of surface water</b>						
Water Flow Regulations						
Groundwater re-charge						
Hydroelectric dams						
Water supply reservoirs						
Flood defence dams, dykes and channels						
Diversions						



Significant Pressure	Where relevant give details of supplementary measures (Art 11(4)) put in place (including hyperlink)		Where relevant give details of additional measures (Art 11(5)) put in place (including hyperlink)		Geographic coverage of measure (RBD, part-RBD, Water Body, National etc.)	Comments
	Type of measure (from pick list of Annex VI Part B)	Details including hyperlink	Type of measure (from pick list <sup>26</sup> )	Details including hyperlink		
Locks						
Weirs						
<b>River management including:</b>						
Physical alteration of channel						
Engineering activities						
Agricultural enhancement						
Fisheries enhancement						
Land infrastructure (road/bridge construction)						
<b>Dredging</b>						
<b>Transitional and coastal water management including:</b>						
Estuarine/coastal dredging						
Marine constructions, shipyards and harbours						
Land reclamation and polders						
Coastal sand suppletion (safety)						
Tidal barrages including those for flood defence and power generation						
<b>Other morphological alterations including:</b>						
Barriers.						
Land sealing in riparian area/zones and flood plains						

Significant Pressure	Where relevant give details of supplementary measures (Art 11(4)) put in place (including hyperlink)		Where relevant give details of additional measures (Art 11(5)) put in place (including hyperlink)		Geographic coverage of measure (RBD, part-RBD, Water Body, National etc.)	Comments
	Type of measure (from pick list of Annex VI Part B)	Details including hyperlink	Type of measure (from pick list <sup>26</sup> )	Details including hyperlink		
<b>Artificial recharge of groundwater</b>						
Discharges to groundwater for artificial recharge purposes						
Returns of groundwater to GWB from which it was abstracted (e.g. for sand and gravel washing)						
Mine water rebound						
Other major recharges						
<b>Saltwater intrusion of groundwater</b>						
Saltwater intrusion						
Other intrusion						
<b>Other pressures not covered by the list above</b>						

Data on the costs of measures should be provided as detailed in Table 7.

**Table 7** Costs of measure (per MS or RBD as available)

Type of measure	Total cost of measures (€)	Comments
Basic measures (Article 11(3)(a) (Table 1)		
Basic measures (Article 11(3)(b-1) (Table 2)		
Supplementary and additional measures (Article 11(4-5) (Table 3b)		

Note: The figures should be based on readily available administrative budgetary allocations (not private) or alternatively official or informal estimations. The method for estimation is left to the MS. If possible, it should refer to the total costs of the programme of measures during **one** entire RBMP. If not, annual or otherwise aggregated figures can be provided. A pick list should allow classifying the costs (e.g. pick list on methods for calculation, reference years, etc.). Where available, reference to relevant documents should be provided. If it is not possible to provide the costs disaggregated by the type of measure, a total cost should be provided:

- The percentage of water bodies per Sub-unit where each exemption under Article 4(4-7) applies and the main justifications for each exemption and the quality elements concerned;
- Statistics on the water bodies where an exemption applies under Article 4(4-7) and the justification for the exemption (Table 8).

**Table 8 Data to be provided on exemptions**

Exemption	<p><b>%age of the total river length/surface area of water bodies in Sub-unit to which exemption applies</b></p> <p><b>%age of the total number of GWBs in Sub-unit to which exemption applies</b></p>	<p><b>Justification (from a pick list to be defined – multiple selections to be allowed – examples given below)</b></p>	<p><b>%age of exempt (by river length/surface area) WBs where this justification applies (total may be above 100%)</b></p> <p><b>%age of exempt GWBs where this justification applies (total may be above 100%)</b></p>	<p><b>Further comments or explanation</b></p>
Article 4(4)		<p>1) Technical feasibility</p> <p>2) disproportionate cost</p> <p>3) natural conditions</p>	<p>1) x%</p> <p>2) y%</p> <p>3) z%</p>	
Article 4(5)		<p>1) Technical feasibility</p> <p>2) disproportionate cost</p>	<p>1) x%</p> <p>2) y%</p>	
Article 4(6)		<p>1) Natural causes (a-floods, b-droughts)</p> <p>2) <i>Force majeure</i></p> <p>3) Accidents</p>	<p>1) x%</p> <p>2) y%</p> <p>3) z%</p>	
Article 4(7)		<p>1) New modifications to physical characteristics of surface water</p> <p>2) New sustainable human development activities</p>	<p>1) x%</p> <p>2) y%</p>	

## **Summary Text**

Summary text should be provided for each RBD covering the following items:

- For surface water the methodology and criteria provided in 2005 for identifying the following should be updated:
  - Significant point sources;
  - Significant diffuse sources. Loads (calculated or estimated) of pollutants (nutrients, priority substances, other pollutants, temperature, saline discharges)<sup>27</sup> discharged (total for Sub-unit) if available (**if not provided to the EEA under WISE-SOE reporting**);
  - Significant abstractions;
  - Significant morphological alterations;
  - Other significant pressures.
- For **groundwater** the methodology and criteria provided in 2005 for identifying the following should be updated:
  - Relevant point sources including a list of pollutants discharged to the GWBs from the relevant point sources where thresholds have been established and, where available, an indication of the loads of those pollutants discharged. Loads, if available, (monitored, calculated or estimated) of pollutants (NO<sub>3</sub>, As, Cd, Pb, Hg, NH<sub>4</sub>, Cl<sup>-</sup>, SO<sub>4</sub>, Trichloroethylene, Tetrachloroethylene) discharged (total for RBD) if not already provided to the EEA under WISE-SoE reporting;
  - Relevant diffuse sources including a list of pollutants discharged to the GWBs in the RBD from the relevant diffuse sources where thresholds have been established and an indication of the loads of those pollutants discharged where available;
  - Relevant abstractions;
  - Relevant artificial recharge;
  - Relevant saltwater intrusions;
  - Other relevant pressures.
- The plan of actions to be put in place to identify any unknown pressures to surface waters or groundwaters;
- The main environmental impacts on **surface waters** occurring in the RBD as a result of significant pressure. This should include the following if appropriate:
  - Nutrient enrichment (at risk of becoming eutrophic) (unless information already provided under UWWTD);
  - Organic enrichment;
  - Contamination by priority substances or other specific pollutants;
  - Contaminated sediments;
  - Acidification;
  - Saline intrusion;
  - Elevated temperatures;
  - Altered habitats as a result of hydromorphological alterations.

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<sup>27</sup> Specification of detailed pollutant lists and units when preparing the schemas.

- The methodology and criteria used for identifying significant impacts on **surface waters** should be provided. This should include a description of the following where appropriate:
  - Numerical models;
  - Quantification tools;
  - State assessment tools;
  - Data sources (e.g. whether existing data were used or whether data was collected specifically for the purpose);
  - Expert judgment;
  - Legal status of the assessment criteria;
  - Role of supporting quality elements in the assessment of significance of impacts.
- The main impacts on groundwaters occurring in the RBD as a result of relevant pressures should be provided. This should include the following if appropriate:
  - Anthropogenic alterations of the level of groundwater leading to significant diminution of the ecological and qualitative status of associated surface water bodies;
  - Chemical composition of groundwater leading to significant diminution of the ecological and qualitative status of associated surface water bodies;
  - Anthropogenic alterations of the level of groundwater leading to significant damage to terrestrial ecosystems which depend directly on the GWB;
  - Chemical composition of groundwater leading to significant damage to terrestrial ecosystems which depend directly on the GWB;
  - Altered habitat in dependent surface water or terrestrial ecosystems;
  - Substitution of populations.
- The methodology and characteristics assessed in the further characterisation of GWBs;
- The description of progress to resolve uncertainties and data gaps since 2005;
- A list of uncertainties and data gaps;
- A list of planned actions to address uncertainties and data gaps.

References/Hyperlinks to more detailed supporting documents (e.g. methodology documents, documents provided as part of the public participation, statutes, founding treaty or equivalent legal documents) should be provided for each of the above-mentioned summaries, if available.

## **8 REPORTING REQUIREMENTS FOR ECONOMIC DATA**

**<Section to be inserted when Reporting Sheets agreed>**

## 9 HOW TO REPORT

### 9.1 What is WISE?

The Water Information System for Europe – WISE – is comprised of data and information collected at EU level by various institutions or bodies which has previously either not been available or been stored in a number of different places. There are four EU partners developing WISE: DGs Environment, JRC and Eurostat, and EEA.

The WISE project started in 2002 and in 2003 a report on “Reporting for Water – Concept Document: towards a shared Water Information System for Europe (WISE)” defined the overall concepts of WISE which was endorsed by the Water Directors under the Italian Presidency in November 2003.<sup>28</sup> The paper identified the following core objective:

*“...the European Commission (DG ENV, Eurostat and JRC) and the EEA are committed to continue the development of a **new, comprehensive and shared European data and information management system for water**, including river basins, following a participatory approach towards the Member States, 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**.”*

Member States have agreed to provide data under the WFD to WISE. Rules and Procedures to do this have been agreed<sup>29</sup>.

### 9.2 Reporting into WISE

The EEA has a central role in the management of WISE due to its role as EU data centre for water. The reporting services (Reportnet) of the EEA will be used and further developed towards the needs of WISE. The EEA is acting as a WISE operator (with the assistance of DGs Environment, JRC and Eurostat) and is responsible for the provision and operation of the WISE infrastructure at EU level.

The right to upload information and data for official compliance reporting needs to be thoroughly regulated and implemented. There will be a limited number of officially nominated individuals with the rights to submit, update and validate data on behalf of a Member State. The European Commission (DG Environment, unit D.2) will forward the list of the authorised WISE data providers to the EEA which is the responsible body for managing the access rights through Reportnet<sup>30</sup>. The EEA – through the WISE helpdesk - will contact the authorised WISE data providers to provide a username, password and relevant supporting material. Member States should take the appropriate actions to prevent any misuse of their username and password.

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<sup>28</sup> [http://ec.europa.eu/environment/water/water-framework/transp\\_rep/pdf/2003\\_concept\\_report.pdf](http://ec.europa.eu/environment/water/water-framework/transp_rep/pdf/2003_concept_report.pdf)

<sup>29</sup> Guidance on practical arrangement for electronic reporting to the Water Information System for Europe (WISE), “WISE REPORTING ARRANGEMENTS ” Final Document (01/03/2007).

<sup>30</sup> Reportnet is a system of integrated IT tools and business processes creating a shared information infrastructure optimised to support and improve European environment reporting by the streamlining, improving quality and ensuring transparency and availability of information reported by Member States and other European Countries.



Data should be provided in XML format and schemas are being developed and agreed to facilitate this under the auspices of Working Group D. Geospatial data should be provided as Shapefiles or in GML format (GML is a requirement under the INSPIRE Directive<sup>31</sup>).

The EEA provides a content-related help desk for questions related to these rules and procedures, and for technical issues regarding WISE. (The EEA may delegate these tasks to contracted partners). The contact details of the WISE technical help desk are:

**Phone:** +37 2 508 4992 from Monday through Friday 09:00 to 17:00 CET

**Email:** [helpdesk@eionet.europa.eu](mailto:helpdesk@eionet.europa.eu)

**Web page:** <http://nmc.eionet.europa.eu/>

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<sup>31</sup> <http://inspire.jrc.ec.europa.eu/>