# Reporting at RBD/Sub-unit level for RBMP (schema RBMPPoM)

## Overview of reporting of information on RBMP

Reporting of information on RBMP and Programme of Measures (PoM) is done for each RBD or Sub-unit. For the purpose of presentation in this guidance, the contents of reporting are structured according to the following Chapters:

* General information on RBMP dates, adoption, table of contents, more detailed programmes and links to other policies (section 9.2)
* Information on emissions of pollutants to surface and groundwater, including the inventory of emissions, discharges and losses of priority substances (section 9.3)
* Information on water abstraction and exploitation of water resources (section 9.4)
* Information on the Programme of measures (chapter 10)
* Information on economic analysis and cost recovery (chapter 11)

The following sections describe the contents of reporting. The UML diagram of the RBMPPoM schema is found in Annex 10.7.

## RBMP dates, table of contents, more detailed programmes, justifications, public participation

### Introduction

The River Basin Management Plan (RBMP) is the main tool for the water management of all surface and groundwater bodies within a specified RBD and the contents of the RBMP are outlined in WFD Annex VII. With respect to water governance, the RBMP shall contain: a general description of the RBD; a summary of the significant pressures and impacts on surface and groundwater bodies; a summary of the measures intended to mitigate the impacts identified; a register of any more detailed plans proposed for sub-basins, sectors, management issues or water categories; a summary of public consultation; and, a list of the Competent Authorities including their relationship with other authorities co-ordinated within a Member State, and a summary of institutional relationships established to ensure co-ordination in international RBDs.

Importantly, the WFD sets Environmental Objectives for Member States to attain for surface and groundwater bodies, the default being ‘good status’ by 2015 (unless an exemption applies or the surface water body meets the conditions for an Artificial or Heavily Modified Water Body). The RBMP is the key tool by which the process to achieve such legally binding Environmental Objectives can be formally set out as a roadmap to implementation and be subject to review.

The WFD sets out a stepwise approach for the development of the RBMP, and if one requirement is not complete or correctly carried out, it may pose obstacles for subsequent steps in the implementation process.

A clear and complete RBMP is also important for accountability as it is also the main tool for communicating to interested parties, including the public, how integrated water management is, or will be, carried out. Complete draft RBMPs including, as appropriate, draft background documents, should be made available in a timely manner through the public consultation process, in order to ensure that interested parties are given sufficient information to enable them to express their views in a meaningful way.

### How will the European Commission and the EEA use the information reported?

The European Commission will use the information reported to ensure that the Member State has properly implemented the WFD, that a register of more detailed programmes and management plans is in place (see CIS Guidance Document No. 8[[1]](#footnote-2)), and that information has been provided to the public in accordance with the WFD.

In addition, the European Commission will use the information to develop future water policy instruments.

Statistics and information will be provided to the European Parliament at EU level. Information will be provided to the public through WISE.

#### Products from reporting

In general, statistics can be derived of the main methodological approaches and factual information reported.

### Contents of the 2016 reporting

* + - 1. Schema sketch

See Annex 10.7.

#### Information and data to be reported using the schemas

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| **Schema: RBMPPoM** |
| ***Class RBMP***  ***Properties:*** *maxOccurs = 1 minOccurs =1* |
| **Schema element**:rbmpName  **Field type / facets:** String1000Type  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Name of the RBMP in English. |
| **Schema element**:rbmpTimetablePublicationDate  **Field type / facets:** DateType  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Date of publication of the timetable for the production of the RBMP, in the format YYYY-MM-DD. |
| **Schema element**:rbmpProgrammePublicationDate  **Field type / facets:** DateType  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Date of publication of the work programme for the production of the RBMP, in the format YYYY-MM-DD. |
| **Schema element**:rbmpConsultationPublicationDate  **Field type / facets:** DateType  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Date of publication of the consultation measures for the production of the RBMP, in the format YYYY-MM-DD. |
| **Schema element**:rbmpInterimOverviewDate  **Field type / facets:** DateType  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Date of publication of the interim overview of the Significant Water Management Issues, in the format YYYY-MM-DD. |
| **Schema element**: rbmpDraftVersionDate  **Field type / facets:** DateType  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Date of publication of the draft versions of the RBMP, in the format YYYY-MM-DD. |
| **Schema element**:finalRBMPPublicationDate  **Field type / facets:** DateType  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Date of publication of the final RBMP, in the format YYYY-MM-DD. |
| **Schema element**:subPlans  **Field type / facets:** YesNoCode\_Enum: Yes, No  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Indicate whether there are specific sub-plans as mentioned in Article 13.5 of the WFD. |
| **Schema element**:subPlansCoverage  **Field type / facets:** SubPlansCoverage\_Enum:  Agriculture  Chemical industry  Hydropower  Transport  Water Scarcity and droughts  Climate change  Coastal erosion  Rural planning  Urban planning  Nutrient enrichment  Chemical pollution  Other  **Properties:** maxOccurs =unbounded minOccurs = 0  **Guidance on completion of schema element**: Conditional. If there are specific sub-plans, select the issues they address from the enumeration list. If ‘Other’ is selected, specify the issue(s) addressed in subPlansCoverageOther.  **Quality checks**: Conditional check: Report if subPlans is ‘Yes’. |
| **Schema element**:subPlansCoverageOther  **Field type / facets:** String1000Type  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If ‘Other’ is selected from the enumeration list under subPlansCoverage, list the issue(s) addressed.  **Quality checks**: Conditional check: Report if subPlans is ‘Yes’ and subPlansCoverage is ‘Other’. |
| **Schema element:** subPlansReference  **Field type / facets:** ReferenceType (see Annex 9)  **Properties:** maxOccurs =unbounded minOccurs = 0  **Guidance on completion of schema element:** Conditional. Provide references or hyperlinks tothe documents and sections where relevant information relating to the sub-plans can be found. Links to the sub-plans themselves can be provided.  **Quality checks:** Conditional check: Report if subPlans is 'Yes'. |
| **Schema element**:sea  **Field type / facets:** YesNoCode\_Enum: Yes, No  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Indicate whether Strategic Environmental Assessments (SEA) have been undertaken on the RBMP and PoM. |
| **Schema element:** seaReference  **Field type / facets:** ReferenceType (see Annex 9)  **Properties:** maxOccurs =unbounded minOccurs = 0  **Guidance on completion of schema element:** Conditional. Provide references or hyperlinks tothe SEA documents.  **Quality checks:** Conditional check: Report if sea is 'Yes'. |
| **Schema element**:publicConsultationInformation  **Field type / facets:** PublicConsultationInformation\_Enum:  Media (papers, TV, radio)  Internet  Social networking (Twitter, Facebook etc)  Printed material  Direct mailing  Invitations to stakeholders  Local Authorities  Meetings  Written consultation  Other  **Properties:** maxOccurs =unbounded minOccurs = 1  **Guidance on completion of schema element**: Required. Select the mechanism(s) used for informing the public and interested parties about the consultations on the draft RBMP from the enumeration list. More than one mechanism may be selected. If ‘Other’ is selected, specify the tool(s) used in publicConsultationInformationOther. |
| **Schema element**:publicConsultationInformationOther  **Field type / facets:** String1000Type  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If ‘Other’ is selected from the enumeration list under publicConsultationInformation, list the mechanism(s) used.  **Quality checks**: Conditional check: Report if publicConsultationInformation is ‘Other’. |
| **Schema element**:rbmpConsultation  **Field type / facets:** RBMPConsultation\_Enum:  Via internet  Via Twitter  Via Facebook  Via other social networking  Direct invitation  Exhibitions  Other outreach methods (e.g. game shows, board games, web-based material for schools)  Telephone surveys  Other  Direct involvement in drafting RBMP  **Properties:** maxOccurs =unbounded minOccurs = 1  **Guidance on completion of schema element**: Required. Select the tool(s) used to carry out the public consultation on the draft RBMP from the enumeration list. More than one tool may be selected. If ‘Other’ is selected, specify the tool(s) used in rbmpConsultationOther. |
| **Schema element**:rbmpConsultationOther  **Field type / facets:** String1000Type  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If ‘Other’ is selected from the enumeration list under rbmpConsultation, list the tool(s) used.  **Quality checks**: Conditional check: Report if rbmpConsultation is ‘Other’. |
| **Schema element**:documentProvision  **Field type / facets:** DocumentProvision\_Enum:  Downloadable  Direct mailing (e-mail)  Direct mailing (post)  Paper copies distributed at exhibitions  Paper copies available in municipal buildings (town hall, library etc)  Other  **Properties:** maxOccurs =unbounded minOccurs = 1  **Guidance on completion of schema element**: Required. Select the method(s) used to provide the public and interested parties with the consultation documents (e.g. draft RBMPs and background documents) from the enumeration list. More than one method may be selected. If ‘Other’ is selected, specify the method(s) used in documentProvisionOther. |
| **Schema element**:documentProvisionOther  **Field type / facets:** String1000Type  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If ‘Other’ is selected from the enumeration list under documentProvision, list the method(s) used.  **Quality checks**: Quality checks: Conditional check: Report if documentProvision is ‘Other’. |
| **Schema element**:documentAvailability  **Field type / facets:** YesNoCode\_Enum: Yes, No  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Indicate whether the consultation documents (e.g. draft RBMPs and background documents) were made available for 6 months for feedback. |
| **Schema element**:ongoingStakeholderInvolvement  **Field type / facets:** OngoingStakeholderInvolvement\_Enum:  Regular exhibitions  Establishment of advisory groups  Involvement in drafting  Other outreach activities  Formation of alliances  Other  **Properties:** maxOccurs =unbounded minOccurs = 1  **Guidance on completion of schema element**: Required. Select the tools(s) used to achieve the continued active participation of stakeholders in the implementation of the WFD from the enumeration list. More than one tool may be selected. If ‘Other outreach activities’ is selected, specify the outreach activities(s) used in ongoingStakeholderInvolvementOtherOutreach. If ‘Other’ is selected, specify the method(s) used in ongoingStakeholderInvolvementOther. |
| **Schema element**:ongoingStakeholderInvolvementOtherOutreach  **Field type / facets:** String1000Type  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If ‘Other outreach activities’ is selected from the enumeration list under ongoingStakeholderInvolvement, list the outreach activities(s) used.  **Quality checks**: Conditional check: Report if ongoingStakeholderInvolvement is ‘Other outreach activities’. |
| **Schema element**:ongoingStakeholderInvolvementOther  **Field type / facets:** String1000Type  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If ‘Other’ is selected from the enumeration list under ongoingStakeholderInvolvement, list the tool(s) used.  **Quality checks**: Conditional check: Report if ongoingStakeholderInvolvement is ‘Other’. |
| **Schema element**:stakeholderGroups  **Field type / facets:** StakeholderGroups\_Enum:  Water supply and sanitation  Agriculture / farmers  Energy / hydropower  Navigation / ports  Fisheries / aquaculture  Industry  NGOs / nature protection  Consumer groups  Local / regional authorities  Other  **Properties**: maxOccurs =unbounded minOccurs = 1  **Guidance on completion of schema**: Required. Select the stakeholder groups that have been actively involved in the development of the RBMPs from the enumeration list. More than one stakeholder group may be selected. If ‘Other’ is selected, specify the stakeholder group(s) in stakeholderGroupsOther. |
| **Schema element**:stakeholderGroupsOther  **Field type / facets:** String1000Type  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional check: Report if stakeholderGroups is ‘Other’.  **Quality checks**: Conditional check: Report if stakeholderGroups is ‘Other’. |
| **Schema element**:impactPublicParticipation  **Field type / facets:** ImpactPublicParticipation\_Enum:  Changes to selection of measures  Adjustment to specific measures  Addition of new information  Changes to the methodology used  Commitment to further research  Commitment to action in the next RBMP cycle  Other  **Properties:** maxOccurs =unbounded minOccurs = 1  **Guidance on completion of schema element**: Required. Select the impact(s) of the public participation process on the RBMPs from the enumeration list. This refers to the whole RBMP process, not just the 6 month consultation on the draft plan. More than one impact may be selected. If ‘Other’ is selected, specify the impact(s) in impactPublicParticipationOther. |
| **Schema element**:impactPublicParticipationOther  **Field type / facets:** String1000Type  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If ‘Other’ is selected from the enumeration list under impactPublicParticipation, list the impact(s).  **Quality checks**: Conditional check: Report if impactPublicParticipation is ‘Other’. |
| **Schema element**:internationalCoOrdination  **Field type / facets:** InternationalCoOrdination\_Enum:  Category 1: International agreement, permanent co-operation body and international RBMP in place.  Category 2: International agreement and permanent co-operation body in place.  Category 3: International agreement in place.  Category 4: No co-operation formalised.  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance**: Conditional. If the RBD is international, select the type of international co-operation or co-ordination mechanism(s) that exist between neighbouring Member States from the enumeration list.  Coordination categories as developed under the project EC Comparative study of pressures and measures in the major river basin management plans in the EU, Water Governance report[[2]](#footnote-3).  **Quality checks**: Conditional check: Report if pominternationalRBD is ‘Yes’. |
| **Schema element**:internationalCoOrdinationPublicParticipation  **Field type / facets:** YesNoCode\_Enum: Yes, No  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If the RBD is international, indicate whether there has been international co-ordination on public participation and the active involvement of interested parties.  **Quality checks**: Conditional check: Report if pominternationalRBD is ‘Yes’. |
| **Schema element:** publicParticipationReference  **Field type / facets:** ReferenceType (see Annex 9)  **Properties:** maxOccurs =unbounded minOccurs = 1  **Guidance on completion of schema element:** Required. Provide references or hyperlinks tothe documents and sections where relevant information relating to public participation and its effectiveness can be found including information on international coordination if any. |
| **Schema element:** consultationResponsesReference  **Field type / facets:** ReferenceType (see Annex 9)  **Properties:** maxOccurs =unbounded minOccurs = 1  **Guidance on completion of schema element:** Required. Provide references or hyperlinks tothe documents and sections where relevant information on the RBMP public consultation responses can be found. |
| **Schema element**:integrationFloodsDirective  **Field type / facets:** YesNoCode\_Enum: Yes, No  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Indicate whether RBMPs and Floods Directive Flood Risk Management Plans have been integrated into a single plan. |
| **Schema element**:coOrdinationFloodsDirective  **Field type / facets:** YesNoCode\_Enum: Yes, No  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Indicate whether joint consultation was carried out on the RBMPs and Flood Risk Management Plans. |
| **Schema element:** fdCoordinationReference  **Field type / facets:** ReferenceType (see Annex 9)  **Properties:** maxOccurs =unbounded minOccurs = 1  **Guidance on completion of schema element:** Required. Provide references or hyperlinks tothe documents and sections where relevant information on the coordination of the RBMP with the Floods Directive implementation can be found. |
| **Schema element**:coOrdinationMSFD  **Field type / facets:** YesNoCode\_Enum: Yes. No  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance**: Required. Indicate whether joint consultation was carried out on the RBMPs and Marine Strategy. |
| **Schema element:** msfdCoordinationReference  **Field type / facets:** ReferenceType (see Annex 9)  **Properties:** maxOccurs =unbounded minOccurs = 1  **Guidance on completion of schema element:** Required. Provide references or hyperlinks tothe documents and sections where relevant information on the coordination of the RBMP with the Marine Strategy Framework Directive implementation can be found. |

## Inputs of pollutants to surface waters (and groundwaters), including inventories of emissions, discharges and losses of EQSD Annex I substances

### Introduction

Article 5 of the EQSD (2008/105/EC)[[3]](#footnote-4) requires Member States to establish, on the basis of the information collected in accordance with Articles 5 and 8 of the WFD and other available data such as that collected under Regulation (EC) No 166/2006[[4]](#footnote-5), an inventory of emissions, discharges and losses of all Priority Substances and the eight other pollutants listed in Part A of Annex I EQSD for each RBD, or part thereof, lying within their territory. The CIS Guidance Document No. 28[[5]](#footnote-6) addresses the preparation of the inventories at national RBD scale.

Article 5 of the WFD requires Member States to identify the significant anthropogenic pressures in the RBD likely to cause individual surface and groundwater bodies to be of less than good status (or to be at risk of deterioration). This is the so-called ‘pressures and impacts analysis’. According to Annex II, 1.4 WFD, as part of the identification of pressures, Member States are required to estimate and identify significant point and diffuse source pollution.

Article 5(5) of the EQSD requires the European Commission to verify by 2018 that emissions, discharges and losses, as reflected in the inventory of substances given in Annex I of the EQSD, are making progress towards compliance with the reduction or cessation objectives in the WFD, i.e. that there is a downward trend. The reference period for the estimation of pollutant values in the inventory should be one year (or period) between 2008 and 2010. The inventory should be updated between each RBMP. As the first inventory is expected with the RBMPs published in 2015, the next update cannot officially be expected until 2021. Therefore, the analysis of progress by 2018 will have to rely on the voluntary reporting in the 2015 RBMP of inputs of EQSD Annex I substances at two points in time, or over two periods, one covering the reference year or period and the other a more recent year or period. A reliable trend can only be determined if the basis for the calculation of inputs is the same for each year or period, or a correction is made for additional coverage. In some cases, Member States may only be able to provide data for a year or period more recent than 2008-2010, and are, therefore, unable to determine a trend.

Article 5 WFD requires that Member States carry out a similar analysis of pressures for other substances and parameters, i.e. nutrients, deoxygenating substances (COD, BOD), saline discharges, and RBSPs that are discharged in significant quantities to surface and groundwater bodies in each RBD.

Figure 2 on page 16 of the CIS Guidance Document No 28 on inventories[[6]](#footnote-7), which is reproduced here (Figure 5), illustrates the main routes of pollutant transport into surface waters. It indicates source and pathway apportionment for inputs to surface waters, including via upstream compartments. The annotations a) to m) and P1-P3 in the figure allow each of the source and pathway categories to be referred to when pollution by a chemical substance has been quantified.

The combined term ‘emissions, discharges and losses’ refers to the Esbjerg Declaration of the North Sea Convention combining all categories of inputs of chemical substances to surface water, in this context called ‘inputs’[[7]](#footnote-8). ’Losses’ does not refer to any retention or degradation within soil, groundwater or surface water.

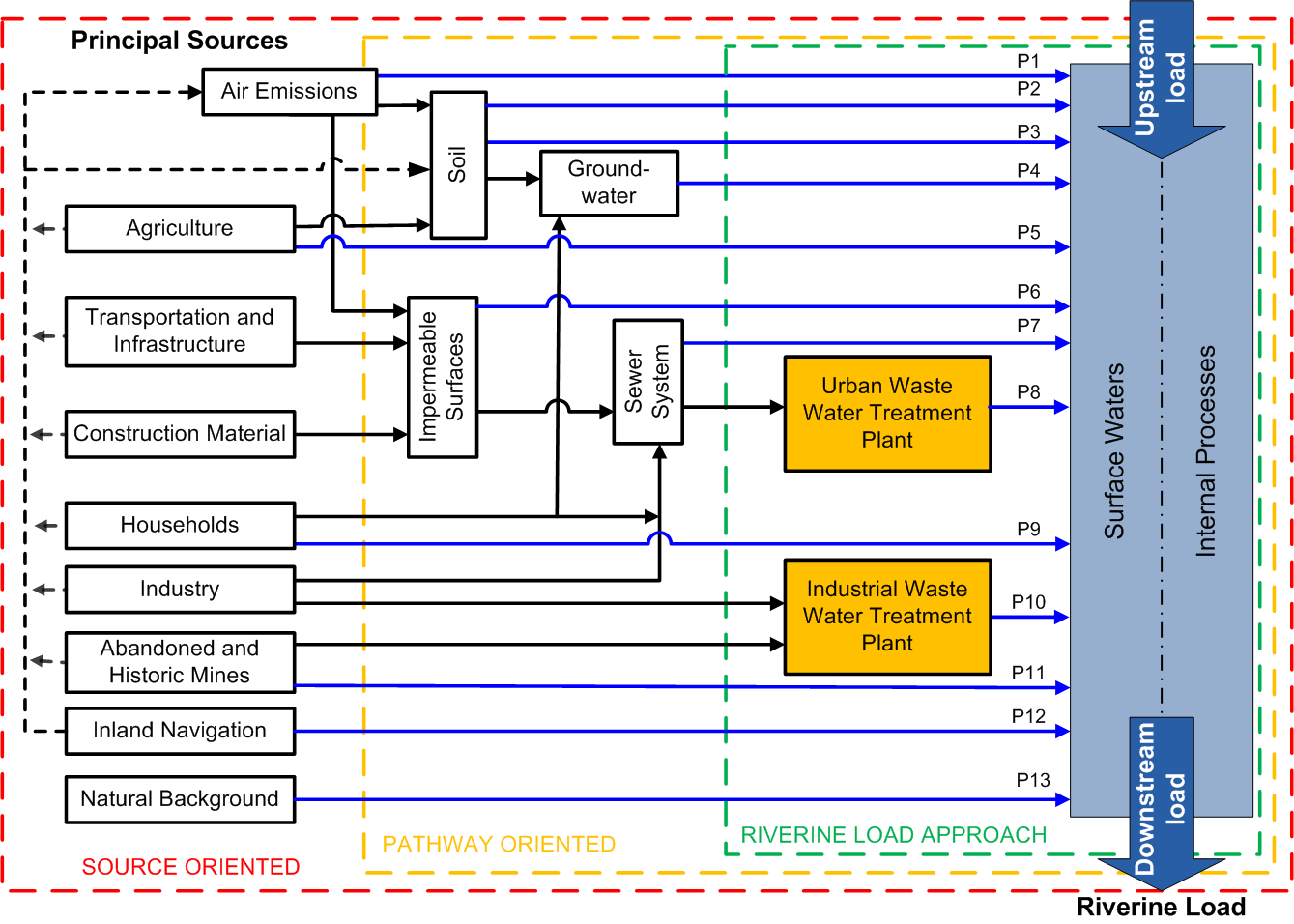
Figure 2 of the CIS Guidance Document No 28 (Figure 5) identifies four tiers or approaches to establishing inventories, i.e. point source information, riverine load, pathway oriented and source oriented. A number of case studies are included. The point source information and riverine load approaches are based on monitoring data. Point source information may be limited because permits do not always require monitoring of the concentrations of Priority Substances, and quantification is only required for E-PRTR facilities. If point source information is limited, the use of carefully justified emission factors together with information on the volume discharged may provide a more complete picture at the regional scale required for the inventory.

The riverine load approach is limited by the analytical resolution, and in the case of heavy metals also by the fact that only the dissolved fraction (not the solid phase fraction) may have been quantified. The riverine load approach is considered capable of yielding a rough estimation of total diffuse inputs from a catchment if the point source inputs are known. The guidance recommends cross-checking the outputs of the different approaches using the riverine load as validation information for the more complex methods.

The pathway oriented approach (RPA) involves extensive modelling of transfer processes towards surface waters, and the source-oriented approach takes an even more complex look at the whole system, using, for example, Substance Flow Analysis (SFA). The different approaches provide different results in terms of process information and spatial resolution. So, in general, the RPA provides a better regionalisation of the inputs whereas the SFA provides a more comprehensive view of the actual releases into the environment but is more limited with respect to spatial resolution. The guidance acknowledges the value of source apportionment for identifying control measures.

RLout

RLin)



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| P1: Atmospheric Deposition directly to Surface Waters | P2: Erosion | P3: Surface Runoff from Unsealed Areas |
| P4 Interflow, Tile Drainage and Groundwater[[8]](#footnote-9) | P5: Direct Discharges and Drifting | P6: Surface Runoff from Sealed Areas |
| P7: Storm Water Outlets, Combined Sewer Overflows and Unconnected Sewers | P8: Urban Waste Water Treated | P9: Individual - Treated and Untreated- Household Discharges |
| P10 Industrial Waste Water treated | P11: Direct Discharges from Mining Areas[[9]](#footnote-10) | P12: Direct Discharges from Navigation[[10]](#footnote-11) |
| P13 Natural Background |  |  |

The encoding a) – m) has been inserted in the figure to enable identification of source categories in relation to their pathways P1-P13.

Figure 5 - Figure 2 from CIS Guidance No 28: General working scheme of the inventory

Guidance Document 28 suggests a two-step approach in compiling the inventory. In the first step substances not relevant in the RBD should be identified based on the information from the WFD Article 5 analysis. For those substances, only a basic estimation of significant inputs should optionally be reported whereas for the remaining substances a more in-depth analysis should be performed, as a minimum based on the riverine load approach and point source inputs.

For the first inventories, the minimum expectation from the more in-depth assessment is the quantification of total point source inputs and total diffuse source inputs. However, due to data gaps and the analytical uncertainty mentioned above, this may not be possible in all cases. For the evaluation of data reliability, information on the methods used is required.

More detailed reporting of information on source (or pathway) apportionment would add substantially to the value of the exercise, and is provided for in the schema elements on an optional basis. Voluntary reporting of total point source inputs, total diffuse source inputs, and individual sources of RBSPs or other pollutants is also provided for.

Since 2009, the EEA has been collecting data on pollutant loads through the State of the Environment (SoE) reporting by EEA Member Countries involved the EIONET process on an annual basis (see reporting obligation for Water emission (WISE-1))[[11]](#footnote-12). The source categories for apportioning inputs are similar in some respects to the inputs P1-P13 identified in Figure 2 of the CIS Guidance Document No 28, and in that respect they provide an adequate indication of the apportionment.

Other Member States may have used the WFD list of pressure types (in Annex 1a to this document), which may also provide an adequate indication.

It is possible to roughly correlate the SoE source categories and WFD pressure types with the pathways identified in the inventory guidance. An indication of how the various categorisations can be correlated is provided in Annex 7. Depending upon the data provided by Member States, i.e. on the categorisation used, the European Commission may use these correlations to analyse and compare the source apportionment in different Member States. Discussion and further follow-up work in the EIONET framework could lead to greater harmonisation of the categorisation.

It would not be appropriate to limit reporting to inputs *known* to be causing EQS failures. This is because one purpose of the WFD Article 5 analysis is to identify where to monitor substances, therefore concentrations and EQS failures might not yet have been determined, and because, at least for Priority Hazardous Substances, any knowledge of quantifiable inputs should be considered relevant and included in the inventory.

### How will the European Commission and the EEA use the information reported?

As required by the WFD, the inventories will be used by the European Commission for compliance checking with the Environmental Objectives of the WFD (Article 4) on the reduction of emissions, discharges and losses (inputs) of Priority Substances and cessation or phase-out of inputs of Priority Hazardous Substances, and of the eight other pollutants included in EQSD Annex I.

The inventories will be an important element of the European Commission’s review according to Article 7(1) of the EQSD on the possible need to amend existing acts or introduce additional specific Community-wide measures such as emission controls, as well as to the report according to Article 7(2).

The information should throw light on the relevance of pollutants, including Priority Substances, at the spatial scale of the RBD or the national part of an international RBD, and on the loads reaching the aquatic environment, thus supporting Member States in subsequent river basin management and WFD implementation. However, it is recognised that differences in methodologies used will mean that comparison between the datasets from different Member States will be subject to caveats, and work will be needed to improve comparability. In addition, since the basis for the emission inventory in each Member State could change, proper comparison to determine a trend might require recalculation of the data for an earlier reference year or period, and this might not always be possible. For the public, the information should provide greater transparency regarding the possible origin of existing problems and the need for measures to address those problems.

It should be possible to illustrate trends in inputs for substances other than the EQSD Annex I substances, as has been done already for nitrogen and phosphorus, and to relate reductions to measures.

Information on source/pathway apportionment will be used to provide European overviews of the contribution made by different sources and pathways to the loads of pollutants.

Statistics and information will be provided to the European Parliament at EU level. Information will be provided to the public through WISE.

#### Products from reporting

The following charts, tables and/or maps will be developed. The extent to which products relating to non-EQSD substances can be developed will depend upon the extent of reporting. The extent to which products relating to trends can be produced will depend upon the provision of data for more than one year. The products will focus on total inputs to surface waters and groundwaters, but some could distinguish between inputs specifically to surface waters and inputs to groundwaters if sufficient information is provided. Similarly, products presenting inputs from individual sources might be produced if sufficient source or pathway apportionment data are reported.

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| **Nb** | **Name of product** | **Type of product** | **Scale of information\*** | **Detailed information displayed** | **Source of detailed information and aggregation rule** |
| 1 | **Total (significant) point source inputs of EQSD Annex I substances** | Chart, table or map | EU/MS/RBD | Inputs from point source categories by substance. | Information reported at RBD or Sub-unit level. |
| 2 | **Total (significant) diffuse source inputs of EQSD Annex I substances** | Chart, table or map | EU/MS/RBD | Inputs from diffuse source categories by substance. | Information reported at RBD or Sub-unit level. |
| 3 | **Trends in total inputs of EQSD Annex I substances** | Chart or table | EU/MS/RBD | Trend in total point and diffuse source inputs (including by self-assessment if provided), by substance. | Information reported at RBD or Sub-unit level. |
| 4 | **Total (significant) point source inputs of other substance s/ parameters** | Chart, table or map | EU/MS/RBD | Inputs from point source categories, by substance. | Information reported at RBD or Sub-unit level. |
| 5 | **Total (significant) diffuse source inputs of other substances / parameters** | Chart, table or map | EU/MS/RBD | Inputs from diffuse source categories, by substance. | Information reported at RBD or Sub-unit level. |
| 6 | **Trends in total inputs of other substances / parameters** | Chart or table | EU/MS/RBD | Trend in total point and diffuse source inputs (including by self-assessment if provided), by substance. | Information reported at RBD or Sub-unit level. |

### Contents of 2016 reporting

The schema elements address the minimum requirement to report total point and total diffuse source inputs of the EQSD Annex I substances, by substance, for at least one year. Similar reporting for other substances/parameters is optional.

The reporting of a second, more recent, year of data, and of a self-assessed trend (taking into account difference in the coverage of actual inputs between the two time points), is optional.

Schema elements on methodology and on data quality are included to enable better assessment of the data.

More detailed reporting of information on source or pathway apportionment (categorisation) for all substances is also optional. Member States may select the system they have used to categorise inputs. If Member States are reporting under the SoE process, they may specify that a particular year of data be taken into account for source apportionment.

Depending upon the level of detail reported, and the approach used to establish the inventory, it is possible to report inputs to surface water specifically via groundwater.

#### Schema sketch

See Annex 10.7.

#### Information and data to be reported

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| **Schema: RBMPPoM (continued)** |
| ***Class InputInventory***  ***Properties:*** *maxOccurs = unbounded minOccurs = 1* |
| **Schema element**:euSubUnitCode  **Field type / facets:** FeatureUniqueEUCodeType  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If applicable, report theunique EU code of the Sub-unit. If there are no sub-units this element does not need to be reported and the reporting of the information is done at RBD level.  **Quality checks**:Conditional check: report if *RBDSUCA/RBD/*subUnitsDefined is ‘Yes’.  Element check: First 2 characters must be the Member State’s 2-alpha character ISO country code.  Cross-schema check: euRBDSubUnitCode must be consistent with the codes reported in *RBDSUCA/RBD/SubUnit/*euSubUnitCode. |
| **Schema element:** inputInventoryReference  **Field type / facets:** ReferenceType (see Annex 9)  **Properties:** maxOccurs =unbounded minOccurs = 1  **Guidance on completion of schema element:** Required. Provide references or hyperlinks to the documents and sections where any other relevant information relating to the estimation of the inputs of pollutants can be found. Guidance on what should be included in this document is provided in Section 9.3.3.3. |

The following class (child of InputInventory) is used to report information for each substance::

|  |
| --- |
| **Schema RBMPPoM (continued)** |
| ***Class InputPollutant***  ***Properties:*** *maxOccurs = unbounded minOccurs = 1* |
| **Schema element**:chemicalSubstance  **Field type / facets:** ChemicalSubstances\_Union\_Enum (see Annex 8e)  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Select each EQSD Annex I substance in turn to provide the information detailed in the following schema elements.  Select among the RBSP list and other entries additional substances to report the information in the following schema elements. Codes should be consistent with EIONET codes for the same substances.  **Quality check**: Within-schema check: all EQSD Annex 1 substances should be reported (if Total aldrin+dieldrin+endrin+isodrin is reported the individual substances do not need to be reported; if Total PAHs is reported, the individual substances Benzo(g,h,i)perylene, Indeno(1,2,3-cd)pyrene, Benzo(b)fluoranthene, Fluoranthene and Benzo(k)fluoranthene do not need to be reported). |
| **Schema element:** chemicalSubstanceOther  **Field type / facets**: string250Type  **Properties**: maxOccurs = 1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If ‘chemicalSubstance’ is ‘EEA\_00-00-0 Other chemical parameter’ please indicate in this field the CAS number (if relevant) and the name of the pollutant or indicator.  **Quality check**: Conditional check: report if ‘chemicalSubstance’ is ‘EEA\_00-00-0 Other chemical parameter’. |
| **Schema element**:inventory  **Field type / facets:** YesNoCode\_Enum: Yes, No  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Indicate if an inventory of emissions, discharges and losses has been completed for this substance.  Reply 'No' only if you have not done the necessary assessment for the substance.  In case the result of the assessment is that the substance is not relevant at RBD scale report 'Yes' and then report the elements twoStepApproach and relevanceRBDScale accordingly. |
| **Schema element**:reportedUnderSoEEmissions  **Field type / facets:** YesNoCode\_Enum: Yes, No  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Indicate if the Member State has reported emissions for this chemical under SoE. |
| **Schema element**:twoStepApproach  **Field type / facets:** YesNoCode\_Enum: Yes, No  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. Has the two-step approach in CIS-Guidance No 28 been followed? Step 1 requires an assessment of the current relevance of the substance at the RBD level. Step 2 requires a more detailed analysis for the substances which pass the relevance criteria given in Step 1 (i.e. they are relevant at the RBD level). For those substances that are of minor relevance at the RBD scale (i.e. do not meet Step 1 criteria), MS should try to provide a basic estimation of emissions, discharges and losses from point and diffuse sources: this is particularly important for Priority Hazardous Substances. Together with Schema element relevanceRBDScale this element determines the data-set to be reported for each substance.  **Quality checks**: Conditional check: report if inventory is ‘Yes’. |
| **Schema element**:relevanceRBDScale  **Field type / facets:** YesNoNotApplicable \_Enum: Yes, No, Not applicable  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. To be answered for reported substances. "Yes" if proceeding to second step of two-step approach. (See criteria on pages 9-10 of the CIS-Guidance No 28.) "No" leads to optional point source assessment. Any knowledge of quantifiable inputs of priority hazardous substances should be reported. “Not applicable” if the Two Step Approach has not been used.  **Quality checks**: Conditional check: report if inventory is ‘Yes’.  Within-schema check: if twoStepApproach is ‘No’ then relevanceRBDScale must be ‘Not applicable’ |
| **Schema element**:inventoryMethodology  **Field type / facets:** InventoryMethodology\_Enum:  Tier 1 (point source information)  Tier 2 (riverine load)  Tier 3 (pathway-oriented)  Tier 4 (source-oriented, e.g. SFA)  Tiers 1 + 2  Tiers 1 + 2 + 3  Tiers 1 + 2 + 4  Tiers 1-4  Other  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**:Required for all substances reported. Indicates the approach used to determine the reported inputValue (and inputCategoryValue if reported). Further descriptions of Tiers 1-4 in CIS Guidance Document 28. Other methodology to be detailed (see inputMethodReference). May be different for different substances and individual input categories. Tier 1 automatic if "No" re "relevanceRBDScale".  **Quality check:** Conditional check: report if inventory is ‘Yes’. |
| **Schema element**:inputDataQuality  **Field type / facets:** InputDataQuality\_Enum:  Very good  Good  Medium  Uncertain  Very uncertain  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Optional. It can be reported if quantitative data for this substance is reported. To reflect the reliability and variance of the data provided, taking into account issues such as the availability of monitoring data, the reliability of emission factors used in calculations, the difficulty of taking account of seasonal influences in areas with high seasonal variation etc. E.g. very good would imply a substantial monitoring basis, very uncertain would imply a very weak or absent monitoring basis (heavy reliance on estimation). |
| **Schema element**:inputMethodReference  **Field type / facets:** ReferenceType (see Annex 9)  **Properties:** maxOccurs =unbounded minOccurs = 0  **Guidance on completion of schema element**: Conditional. Required if "Other" methodology is specified under inventoryMethodology. Desirable if approaches in CIS-Guidance Document 28 have been elaborated or described in an electronic freely accessible version of the national emission inventory for EQSD Annex I substances, in specific documents as part of RBMP reporting, in international seas convention guidance documents or similar. URL-Reference to specific documents.  **Quality check**: Conditional check; report if inventoryMethodology is ‘Other’. |
| **Schema element**:inputTotalType  **Field type / facets:** InputTotalType\_Enum:  Total point sources  Total diffuse sources  Total point and diffuse sources  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. Required for all EQSD Annex I substances reported. Optional for other substances/parameters. Distinction between total point and total diffuse expected for EQSD Annex I substances.  **Quality checks**: Conditional check: it must be reported only if chemicalSubstance is part of the list of Priority Substances (Annex 8d) and inventory is ‘Yes’. For others it is optional. |
| **Schema element**:inputTotalValue  **Field type / facets:** NumberDecimalType  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. Required for all EQSD Annex I substances reported. Optional for other substances/parameters. Input = emissions, discharges and losses.  **Quality checks**: Conditional check: it must be reported only if chemicalSubstance is part of the list of Priority Substances (Annex 8d) and inventory is ‘Yes’. For others is optional. |
| **Schema element**: inputTotalUnit  **Field type / facets:** UnitOfMeasure\_Enum (see Annex 8f)  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. Required if inputTotalValue is reported.  **Quality checks**: Conditional check: report if inputTotalValue is reported.  Element check: Only the options ‘t/a’ or 'kg/a' are a valid selection. |
| **Schema element**:inputYearPeriod  **Field type / facets**: InputYearPeriodType  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. 4-digit number (should ideally be 2008, 2009 or 2010 as reference year) required for EQSD Annex I substances and for other substances for which an inputValue is reported. Calendar year to which the load applies. A period of up to six years within the relevant RBMP period may be indicated by a start and end year, separated by a double hyphen ( yyyy--yyyy ).  If a Member State optionally wants to report a second inputValue for a second inputYearPeriod it must select twice the same substance under chemicalSubstance.  **Quality checks**: Element check: the value must be between 2000 and 2015.  Conditional check: report if inputTotalValue is reported.  Within-schema check: if two or more periods are reported for the same substance they should not overlap. |
| **Schema element**:inputTrend  **Field type / facets:** NumberDecimalType  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**:Optional.For each chemical substance a trend (positive or negative) can be reported directly (self-assessed), independently of any trend that might be calculated directly from the datasets reported for those years.  Unit:% per year (+ or -); average over trend interval reported under InputTrendPeriod. |
| **Schema element**:inputTrendPeriod  **Field type / facets:** YearRangeType  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If inputTrend is reported, report first and last years of trend assessment.  **Quality checks**: Element check: the values must be between 2000 and 2015.  Conditional check: report if inputTrend is reported. |

The following class (child of InputPollutant) is used to report detailed information of the inventory per input category.

|  |
| --- |
| **Schema RBMPPoM** |
| ***Class InputCategory***  ***Properties:*** *maxOccurs = unbounded minOccurs = 0* |
| **Schema element**:inputCategoryCode  **Field type / facets**: InputCategory\_Union\_Enum (see Annex 8n):  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Allows apportionment of inputs between different sources/pathways. |
| **Schema element**:inputCategoryScheme  **Field type / facets:** InputCategoryScheme\_Enum:  CIS Inventory Guidance Principal Source  CIS Inventory Guidance Pathways  CIS Inventory Guidance Riverine Loads  WISE SoE Categories  WFD Pressures  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Identifies the type of emmissions apportionement being used. |
| **Schema element**:inputCategoryValue  **Field type / facets:** NumberDecimalType  Properties: maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. The multiplicity of the whole Class InputCategory is 0 to many. If the class is reported, this schema element must be included.  Report input by source/pathway for each inputCategory selected. |
| **Schema element**: inputCategoryUnit  **Field type / facets:** UnitOfMeasure\_Enum (see Annex 8f)  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. The multiplicity of the whole Class InputCategory is 0 to many. If the class is reported, this schema element must be included.  **Quality checks**: Element check: Only the options ‘t/a’ or 'kg/a' are a valid selection. |
| **Schema element**: inputUWWTPCoverage  **Field type / facets:** InputUWWTPCoverage\_Enum:  U100 (> 100,000 p.e.)  U10 (> 10,000 p.e.)  U2 (> 2,000 p.e.)  All (extrapolation to all treatment plants)  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If categories for Urban Waste Water Treatment Plants are reported please indicate the coverage. Please note that under WISE SoE specific categories exist for this purpose (U11, U12, U13, U14, U21, U22, U23, U24).  **Quality checks**: Conditional check: report if '1.1' from Pressures, 'U' or one of its lower level categories from SoE or 'P8' from CIS Guidance (see Annex 8n). |
| **Schema element**: inputIndustryCoverage  **Field type / facets:** InputIndustryCoverage\_Enum:  E-PRTR  National business registers  All manufacturing industries  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If categories for Industrial Waste Water Treatment plants are reported please indicate the coverage. “E-PRTR” means large facilities with releases to water reported in E-PRTR; “national business registers” means including also medium size facilities with emission data in registers; “all manufacturimg industries” means including also small size facilities with direct discharges based on economic activity extrapolations.  **Quality checks**: Conditional check: report if "I" from SoE or "P10" from CIS–Guidance (see Annex 8n). |
| **Schema element**:riverineLoadMonitoringSite  **Field type / facets:** FeatureUniqueEUCodeType  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Optional. If reporting inputCategoryValues as riverine loads, provide the code of the monitoring station used as a basis.  **Quality checks**: Cross-schema check: the reported riverineLoadMonitoringSite must be consistent with the codes reported MonitoringSites. |

#### Guidance on the contents of RBMPs/background documents

The following provides guidance on the aspects that the European Commission expects to find in the relevant chapters on the inputs of pollutants in the RBMPs or in background documents. This guidance is not intended to be comprehensive in terms of what the Member States have to include in their RBMPs or background documents, rather to provide certain concrete elements of information that the European Commission expects to find.

Member States should include a description of the method for estimating the inputs of pollutants from the different sources/pathways in the RBMPs or background documents, or refer to another document.

*References*

CIS Guidance Document No. 28: Technical Guidance on the Preparation of an Inventory of Emissions, Discharges and Losses of Priority and Priority Hazardous Substances[[12]](#footnote-13)

EIONET SoE reporting guidance[[13]](#footnote-14)

E-PRTR Diffuse Sources project[[14]](#footnote-15)

LIFE WEISS project[[15]](#footnote-16)

#### Glossary of terms

See CIS Guidance No. 28: Preparation of Priority Substances Emissions Inventory and EIONET SoE reporting guidance.

## Water abstractions and exploitation of water resources

### Introduction

Recital 19 of the WFD reads as follows: ‘*This Directive aims at maintaining and improving the aquatic environment in the Community. This purpose is primarily concerned with the quality of the waters concerned. Control of quantity is an ancillary element in securing good water quality and therefore measures on quantity, serving the objective of ensuring good quality, should also be established*’.

Although the WFD is primarily focused on water quality, the management of water quantity plays a very important role through the objective of good quantitative status for groundwater and the hydromorphological component of good ecological status for surface waters. Ultimately, it is only possible to achieve the WFD Environmental Objectives of good status if sufficient quantity of water is available.

The need to integrate the management of water quality and quantity has been highlighted in several reports at EU level[[16]](#footnote-17). Different CIS groups and networks have also been established for several years. The current CIS Work Programme includes a CIS Working Group on E-flows and an activity on Water Accounts.

Reporting of the quantitative use of water is highly relevant for the WFD although it is clear that the situation as regards quantitative pressures in the EU is very diverse. Therefore, any reporting linked to this issue has to take into account this diverse situation in order to avoid unnecessary burden for those Member States where water abstraction is not an issue now nor is likely to be one in the future.

Article 5 of the WFD requires Member States to identify the key pressures present in the RBD that are likely to cause water bodies to be of less than good status. It also requires Member States to assess the impacts on water bodies to support the determination of status. This analysis should include water quantity related considerations where relevant.

In scarcity-prone RBDs, water balances are often calculated at RBD level, e.g. as part of water resources management or development of RBMPs and drought management plans. Significant abstractions and volumes abstracted on an annual and/or seasonal temporal scale, by source and category of abstraction (see List of pressure types in Annex 1a) have frequently been reported in RBMPs in the first cycle at RBD or Sub-unit level.

In 2012, Water Directors agreed a formula for calculating the Water Exploitation Index Plus (WEI+)[[17]](#footnote-18) of a particular area, as ‘the total consumption of water divided by the renewable freshwater resources'. The WEI+ was developed by the CIS Expert Group on Water Scarcity and Droughts to provide an indication of the pressure on the water resources of a certain territory as a consequence of water withdrawals.

WEI+ = (Abstractions – Returns) / Renewable Water Resources

This information is highly relevant to reinforce the link between water quantity and water quality, and the interaction between surface and groundwater bodies.

In terms of the pressure analysis, the information generally focuses on water use which needs to be further specified into water abstraction and consumptive water use (‘Abstraction minus Returns’). However, the pressures due to consumptive use need to be put into the context of water availability since only an imbalance between consumptively used water and freshwater availability gives an indication of the real pressure on the water ecosystem.

The selection of appropriate spatial and temporal scales is important to specify the regional and seasonal differences in the assessments. For the purpose of reporting the following scales are considered:

**Spatial Scale**

National.

RBD or the portion of an international RBD falling within a Member State’s territory.

**Temporal Scale**

In some basins, water scarcity is reflected only when calculating the monthly WEI+ indicator but not necessarily the annual WEI+ indicator. It is recognised that the monthly WEI+ best represents seasonal shortages that may not be revealed in the annual scale, while the annual WEI+ may be sufficient where there is an absence of problems associated with water scarcity. However, the application of the WEI+ on a monthly basis and associated reporting requires considerable effort in data acquisition and, therefore, should only be required in those RBDs where water abstraction is a significant pressure.

In order to adapt the reporting effort to the situation in the respective RBDs, the following two-step approach is devised for reporting purposes:

* Required for all RBDs: an indication of whether, on the basis of the pressures and impacts analysis, the annual WEI+ and/or any other available information, the Member State considers that water abstraction (understood as net consumption) is a significant pressure at the level of the (national part of the) RBD (or significant portions of it). If water abstraction is not a significant pressure in the RBD, *no* further reporting is required. An estimate of the RBD or national annual WEI+ may be provided if available (optional).
* Required only for those RBDs where water abstraction is considered a significant pressure: report the annual WEI+ and the WEI+ for the worst month in which water scarcity situations could be expected in the (national part of the) RBD as well as supplementary information about the consumptive water use by source and sector, and supporting parameters.

Reporting of the WEI+ for the worst month is not required in those cases where water scarcity does not present a seasonal pattern.

An alternative reporting option is provided for those Member States where the WEI+ is not yet available and uses other indicators.

Regarding the reporting of consumptive use, it is recognised that Member States have different approaches to obtain this value from their statistics. Focus needs to be on the clarification of the share of consumptive use as this is the most relevant aspect relating to water scarcity and droughts. In addition, it should be ensured that volumes that are abstracted but returned (e.g. for cooling water and hydropower) are not included into the reported value. Estimates for the consumptive use of water can be made on the basis of percentage factors of abstraction per type of use.

If the information requested has already been reported to the EEA’s SoE reporting through the EIONET process, it does not need to be reported again under the WFD.

### How will the European Commission and the EEA use the information reported?

Information provided by Member States on the WEI+ and, where appropriate, the water abstracted by sector from surface waters or groundwater will be used to provide European overviews of water quantity related challenges.

Statistics and information will be provided to the European Parliament at EU level. Information will be provided to the public through WISE.

#### Products from reporting

The products below will focus on those RBDs and Member States where water abstraction is a pressure. For the remaining RBDs and Member States, an indication will be displayed to state that water abstraction has not been identified as a problem.

Thresholds have not yet been agreed[[18]](#footnote-19). Until this is done, the presentation of the products should be for comparison purposes only and should not include any classification unless previously agreed by Member States. The products from reporting will need approval through the CIS process whenever EU-wide visualisation is involved.

| **Nb** | **Name of product** | **Type of product** | **Scale of information\*** | **Detailed information displayed** | **Source of detailed information and aggregation rule** |
| --- | --- | --- | --- | --- | --- |
| 1 | **WEI+ national** | Chart, table or map | EU/MS | Indication of the pressure on the water resources at national level as a consequence of water withdrawals. | Information reported at national level for a 5 year period. |
| 2 | **WEI+ seasonal for worst month in the year or period** | Chart, table or map | RBD | Indication of the pressure on the water resources at national level as a consequence of water withdrawals, based on the worst month in the year or period reported. | Information reported at RBD level. |
| 3 | **Water abstraction by source** | Chart, table or map | EU/MS/RBD | Share of abstraction between surface and groundwater resources. | Information reported at RBD or Sub-unit level, at annual or monthly resolution. |
| 4 | **Trends in water use by sector** | Chart, table or map | EU/MS/RBD | Trends in water use by sector. Identification of the main water users across Europe. | Information reported at RBD level. |
| 5 | **Overview of losses and leakages** | Chart, table or map | EU/MS/RBD | Overview of loss and leakages and trends of their improvements. | Information reported at RBD level. |
| 6 | **Water transfers, returns and reuse** | Chart, table or map | EU/MS/RBD | Overview of returned waters, amounts reused and intra and inter-basin transports in and out of the RBD (e.g. to big cities) | Information reported at RBD level. |
| 7 | **Water exploitation and Water balance and their trends** | Chart, table or map | EU/MS/RBD | Water balance information displayed as index. | Information reported at RBD level for a 5 year period. |

### Contents of 2016 reporting

#### Schema sketch

See Annex 10.7.

#### Data and information to be reported using the schemas

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| --- |
| **Schema: RBMPPoM (continued)** |
| ***Class WaterQuantity***  ***Properties:*** *maxOccurs = 1 minOccurs = 1* |
| **Schema element**:wqPressure  **Field type / facets:** YesNoCode\_Enum: Yes, No  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Indicate whether water abstraction (understood as consumptive use or net consumption) has been identified as a significant pressure at the RBD level (or in significant portions of the RBD). |
| **Schema element**: **r**eportedUnderSoEQuantity  **Field type / facets / relationship**: YesNoCode\_Enum: Yes, No  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element**: Required. Indicate whether information on water abstraction (understood as consumptive use or net consumption) has previously been reported to SoE-Water Quantity.  If ‘Yes’ is reported, there is no need to provide any further information regarding WEI+. |
| **Schema element**:weiNational  **Field type / facets:** NumberDecimal0100Type  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Optional. Report the annual water exploitation index (WEI+) as a percentage at national level for the latest available reference year or as an average of the latest available 5 year period. |
| **Schema element**:weiNationalYear  **Field type / facets:** YearRangeType  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. Report the latest available reference year (in the format YYYY) or 5 year period (in the format YYYY--YYYY) used in the calculation of the annual WEI+ at national level as reported in weiNational.  **Quality checks**: Element check: must be reported in the format YYYY (for a single year) or YYYY--YYYY (for a period).  Conditional check: report if weiNational is reported. |
| **Schema element**:weiRBD  **Field type / facets:** NumberDecimal0100Type  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If water abstraction has been identified as a significant pressure at RBD level, report the annual WEI+ as a percentage at RBD level for the latest available reference year or as an average of the latest available 5 year period. If it is not possible to report the value of weiRBD report ‘0’ and report an alternative indicator under wqAlternativeIndicatorReference below.  **Quality checks**: Conditional check: Report if wqPressure is ‘Yes’ and reportedUnderSoEQuantity is ‘No’. |
| **Schema element**:weiRBDYear  **Field type / facets:** YearRangeType  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If water abstraction has been identified as a significant pressure at the RBD level, report the latest reference year (in the format YYYY) or 5 year period (in the format YYYY--YYYY) used in the calculation of the annual WEI+ at RBD level as reported in weiRBD.  **Quality checks**: Element check: must be reported in the format YYYY (for a single year) or YYYY--YYYY (for a period).  Conditional check: Report if wqPressure is ‘Yes’, reportedUnderSoEQuantity is ‘No’ and weiRBD is not null. |
| **Schema element**:weiWorst  **Field type / facets:** NumberDecimal0100Type  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If water abstraction has been identified as a significant pressure at the RBD level, report the WEI+ for the worst month as a percentage at RBD level. Reporting of the WEI+ for the worst month is not required in those cases where water scarcity does not exhibit a seasonal pattern. In those cases report ‘0’.  **Quality checks**: Conditional check: Report if wqPressure is ‘Yes’ and reportedUnderSoEQuantity is ‘No’. |
| **Schema element**:weiWorstMonth  **Field type / facets:** YearMonthType  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**: Conditional. If water abstraction has been identified as a significant pressure at the RBD level, report the worst month of the year (in the format YYYY-MM) used in the calculation of the WEI+ for the worst month at RBD level. Reporting of the WEI+ for the worst month is not required in those cases where water scarcity does not exhibit a seasonal pattern.  **Quality checks**: Element check: weiWorstMonth must be reported in the format YYYY-MM.  Conditional check: Report if wqPressure is ‘Yes’, reportedUnderSoEQuantity is ‘No’ and weiWorst is not ’0’. |
| **Schema element**: wqAlternativeIndicatorReference  **Field type / facets:** ReferenceType (see Annex 9)  **Properties:** maxOccurs =unbounded minOccurs = 0  **Guidance on completion of schema element**: Conditional. If water abstraction has been identified as a significant pressure at the RBD level, but it is not possible to report WEI+ values at RBD level, please provide a reference to documents where alternative indicators or equivalent water balances are developed. Provide a reference or hyperlink to the relevant document and section where specific information can be found. This information must be uploaded to WISE or made available on the web.  Guidance on the naming of files and documents to be uploaded to WISE is included in the user manual for reporting to WISE (see Annex 6).  If a hyperlink to information stored on a Member State’s server is reported, the Member State must guarantee that the hyperlink will remain stable and active for a period of 6 years after reporting, and that the information referred to will not be revised or updated.  **Quality checks**: Conditional check: Report if wqPressure is ‘Yes’, reportedUnderSoEQuantity is ‘No’ and weiRBD is ‘0’. |
| **Schema element**:wqVolumeReferenceYear  **Field type / facets:** YearRangeType  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element**:Conditional. If water abstraction has been identified as a significant pressure at the RBD level, provide the reference year (in the format YYYY) or 5 year period (in the format YYYY--YYYY) used in the estimates of water consumption or the values of non-consumptive use, imports or exports.  **Quality checks**:Element check: must be reported in the format YYYY (for a single year) or YYYY--YYYY (for a period).  Conditional check: Report if wqPressure is ‘Yes’ and reportedUnderSoEQuantity is ‘No’. |
| **Schema element**:wqCalculationMethodReference  **Field type / facets:** ReferenceType (see Annex 9)  **Properties:** maxOccurs =unbounded minOccurs = 0  **Guidance on completion of schema element**: Conditional. If water abstraction has been identified as a significant pressure at the RBD level, provide refernces or hyperlinks to documents containing further details on the method(s) used in the estimation of water quantity values for each parameter. Guidance on what should be included in this document is provided in Section 9.4.3.3.  **Quality checks**: Conditional check: Report if wqPressure is ‘Yes’ and reportedUnderSoEQuantity is ‘No’. |

The following class (child of WaterQuantity) is used to report information for each 11 “water quantity use types”.

|  |
| --- |
| **Schema: RBMPPoM (continued)** |
| ***Class WQUse***  ***Properties:*** *maxOccurs: 11 minOccurs: 0 (multiplicity is 0 or 11)*  *Conditional check: Report information for the 11 water quantity use types if wqPressure is ‘Yes’ and reportedUnderSoEQuantity is ‘No’.* |
| **Schema element:** wqUseType  **Field type/facets:** WQUseTypeList\_Enum:  ConsumptiveUseAgricultureGW  ConsumptiveUseAgricultureSW  ConsumptiveUseIndustryEnergy  ConsumptiveUseIndustryGW  ConsumptiveUseIndustrySW  ConsumptiveUseWaterSupplyGW  ConsumptiveUseWaterSupplySW  DesalinatedWater  ReusedWater  WaterExports  WaterImports  **Properties:** maxOccurs =1 minOccurs = 1  **Guidance on completion of schema element:** Required. For each use type that is a significant pressure, provide the information in the two elements below  **Quality checks:** Within-schema check: information for all use types should be provided. Each use type should be chosen only once. |
| **Schema element:** wqCalculationMethod  **Field type/facets:** WQCalculationMethod\_Enum: List of calculation methods for water quantity (see Annex 8o)  **Properties:** maxOccurs = 1 minOccurs = 1  **Guidance on completion of schema element:** Required. Select the method of calculation used for the estimation of the water quantity volumes |
| **Schema element:** wqUseVolume  **Field type/facets:** NumberDecimalType  **Properties:** maxOccurs =1 minOccurs = 0  **Guidance on completion of schema element:** Conditional: Provide the annual volume for each water use that is a significant pressure in Hm3.  In case of ConsumptiveUseIndustryEnergy, if available, provide the percentage of the annual volume of surface water consumption from energy production in the RBD (Consumption = Abstractions – Returns), e.g. due to evaporation of cooling water, in relation to the total consumptive use of industry reported under ConsumptiveUseIndustrySW.  **Quality checks:** reportif wqCalculationMethod is different from ‘Water quantity use data not available’ and ‘Water quantity use not relevant or not significant’. |

#### Guidance on the contents of RBMPs/background documents

The following provides guidance on the aspects that the European Commission expects to find in the relevant chapters on water abstraction in the RBMPs or in background documents. This guidance is not intended to be comprehensive in terms of what the Member States have to include in their RBMPs or background documents, rather to provide certain concrete elements of information that the European Commission expects to find.

Member States which consider that water abstraction is a significant pressure in the RBD should include a description on the method for estimating the water balance, water abstractions and water uses in the RBMPs or background documents.

* In case the data have resulted from hydrological and water balance modelling, a short review of the robustness of the used models, their ability to represent the salient features of the physical system, and the accuracy and bias of the simulations should be described in the background documents.
* In case indicators have been used, their representativity, robustness and sensitivity should be described in the background documents

#### Glossary of terms

Water consumptive use, from public supply: Total volume of freshwater used by end-users for a specific purpose within a territory, and which is provided to them by public water supply systems. Public water supply refers to water supplied by economic units engaged in collection, purification and distribution of water (excluding system operation for agricultural purposes and treatment of waste water solely in order to prevent pollution). It corresponds to division 41 NACE/ISIC independently of the sector involved. Deliveries of water from one public supply undertaking to another are excluded. Public water supply services provide water for domestic use, use at offices, restaurants and hotels, factories, municipal use etc. (all or some of these uses). Thus, since this depends on the system it may not be possible to separate which amount is intended for each user. In some cases of course this might be possible.

Reused water: Volume of water which has undergone wastewater treatment and is delivered to a user as reclaimed wastewater for reuse within the RBD. This means the direct supply of treated effluent to the user. Excluded is waste water discharged into a watercourse and used again downstream. Recycling is excluded. If this amount of water is made available for reuse to recipients which are located outside the RBD - in other words the water is exported for reuse elsewhere - this should not be reported here.

Water use, produced from desalination process: Total volume of water obtained from desalination processes for supply to water users.

Water imports and exports: Total volume of traded bulk water imported from, or exported to, another territory outside the RBD as a water transfer.

For ease of reference, common understanding and possible use of complementary reporting flows, Annex 2 provides an allocation of the relevant statistical classes (NACE) to the WFD list of pressures.

1. https://circabc.europa.eu/sd/a/0fc804ff-5fe6-4874-8e0d-de3e47637a63/Guidance%20No%208%20-%20Public%20participation%20(WG%202.9).pdf [↑](#footnote-ref-2)
2. [http://ec.europa.eu/environment/archives/water/implrep2007/background.htm.](http://ec.europa.eu/environment/archives/water/implrep2007/background.htm) [↑](#footnote-ref-3)
3. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:348:0084:0097:en:PDF> [↑](#footnote-ref-4)
4. <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2006:033:0001:0017:EN:PDF> [↑](#footnote-ref-5)
5. 106 <https://circabc.europa.eu/sd/a/6a3fb5a0-4dec-4fde-a69d-5ac93dfbbadd/Guidance%20document%20n28.pdf> [↑](#footnote-ref-6)
6. https://circabc.europa.eu/sd/a/6a3fb5a0-4dec-4fde-a69d-5ac93dfbbadd/Guidance%20document%20n28.pdf [↑](#footnote-ref-7)
7. Input = Movement of a substance into the aquatic environment, i.e. sum of emissions, discharges and losses (inputs) to surface and groundwaters, from land and sea-based sources and from point and diffuse sources, including atmospheric deposition. [↑](#footnote-ref-8)
8. 109 pathway comprises also emissions from contaminated land [↑](#footnote-ref-9)
9. A portion of the total emissions from abandoned and historic mining sites is discharged to groundwater. Active mines are covered under "Industry". [↑](#footnote-ref-10)
10. Inland navigation also comprises waterway construction materials. [↑](#footnote-ref-11)
11. <http://rod.eionet.europa.eu/obligations/632> [↑](#footnote-ref-12)
12. <https://circabc.europa.eu/sd/a/6a3fb5a0-4dec-4fde-a69d-5ac93dfbbadd/Guidance%20document%20n28.pdf> [↑](#footnote-ref-13)
13. <http://rod.eionet.europa.eu/obligations/632> [↑](#footnote-ref-14)
14. <http://prtr.ec.europa.eu/DiffuseSourcesWater.aspx> [↑](#footnote-ref-15)
15. <http://weiss.vmm.be/> [↑](#footnote-ref-16)
16. E.g. in the Communication from the Commission on Water Scarcity and Droughts COM(2007)414, on the Council Conclusions of June 2010 on the same subject and lately on the Blueprint to Safeguard Europe's Water Resources COM(2012)673. [↑](#footnote-ref-17)
17. https://circabc.europa.eu/sd/a/b81cb8ec-2655-4013-ac40-d6266ed33523/Update%20on%20Water%20Scarcity%20and%20Droughts%20indicator%20development%20May%202012.doc [↑](#footnote-ref-18)
18. See conclusions from Informal Meeting of Water and Marine Directors of the European Union, Candidate and EFTA Countries Copenhagen, 4-5 June 2012 [↑](#footnote-ref-19)