# Reporting at RBD/Sub-unit level for economic analysis and cost recovery (schema RBMPPoM)

## Introduction

Article 5 of the WFD requires Member States to undertake an economic analysis of water uses according to the specifications of Annex III. Article 13 and Annex VII required Member States to send summary reports of the analyses required under Article 5 and Annex II as part of the first RBMP.

Annex III of the WFD stipulates that the economic analysis of water uses should contain enough information in sufficient detail (taking account of the costs associated with collection of relevant data) in order to:

* Make the relevant calculations necessary for taking into account the principle of recovery of the costs of water services under Article 9, taking into account long term forecasts of supply and demand for water in the RBD and where necessary:
	+ Make estimates of the volume, prices and costs associated with water services.
	+ Make estimates of the relevant investment including forecasts of such investments.
* Make judgments about the most cost-effective combination of measures with respect to water uses to be included in the PoMs under Article 11, based on estimates of the potential costs of such measures.

The WFD is the first EU environmental policy that explicitly integrates economic principles (e.g. polluter-pays-principle), economic tools and methods (e.g. cost-effectiveness analysis), and economic instruments (e.g. environmental charges and taxes) into a piece of EU water legislation. This is based on the understanding that economic principles and instruments are potentially important tools in managing the pressures that affect Europe’s waters.

Article 9 of the WFD[[1]](#footnote-2) sets out three general concepts that are closely related but not equivalent, each one imposing specific requirements on economics in general and water pricing schemes specifically:

* Incentive pricing deals with the way water users pay for their use and whether the right price signals are transmitted, i.e. it addresses the question how water is being paid for and how the water price affects the behaviour of water users.
* The polluter-pays-principle establishes how environmental costs should be covered among economic agents, i.e. it considers the adequacy of contributions from different agents based on their role in causing these costs.
* Cost recovery establishes the overall amount that users are charged for water services. The WFD foresees an adequate degree of recovery, not only to the financial costs for the provision of a water service but also of the costs of associated negative environmental effects (environmental costs) as well as forgone opportunities of alternative water uses (resource costs).

The scope of the definition of water services is not fixed, but reflects the activities which result in significant pressures to water bodies in individual Member States.[[2]](#footnote-3) It should be clear that, for the purpose of reporting, Member States are expected to report on that basis and, for those activities which are not subject to cost recovery, a justification should be reported on the basis of Article 9(4). This is in line with the general Union principle of transparency embodied in the Directive via public information and consultation (Article 14) and the need to justify derogations from general rules, while at the same time respecting Member States' margin of discretion in relation to setting programmes of measures under Article 11.

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

The European Commission will use this information to ensure that Member States have carried out an economic analysis consistent with the requirements of Article 5 and Annex III of the WFD, and also that the provisions of Article 9 of the WFD have been properly and consistently applied A screening assessment will be based on the three main elements of Article 9: i) incentive pricing; ii) adequate cost-recovery; and iii) the polluter-pays-principle.

In addition, gaps in information identified by Member States will help the European Commission to take further action and to plan activities for strengthening the knowledge base so as to support Member States in their future implementation of Article 9.

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

## Contents of the 2016 reporting

### Schema sketch

See Annex 10.7.

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

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| **Schema: RBMPPoM (continued)** |
| ***Class: EconomicAnalysis******Properties:*** *maxOccurs = 1 minOccurs = 1* |
| **Schema element**:updatedEconomicAnalysis**Field type / facets:** YesNoPartially\_Union\_Enum:YesNoPartially**Properties:** maxOccurs =1 minOccurs = 1 **Guidance on completion of schema element**: Required. Indicate whether the 2005 economic analysis of water use has been updated.  |
| **Schema element:** economicAnalysisReference**Field type / facets:** ReferenceType (see Annex 9)**Properties:** maxOccurs =unbounded minOccurs = 0 **Guidance on completion of schema element:** Conditional. Provide references or hyperlinks to the documents and sections where relevant information on the updated economic analysis can be found.Guidance on what should be included in this document is provided in Section 11.2.3. **Quality checks:** Conditional check: Report if updatedEconomicAnalysis is ‘Yes’ or ‘To a certain extent'. |
| **Schema element**:costEffectiveness**Field type / facets:** CostEffectiveness\_Enum:NoQuantitativeQualitativeCombination**Properties:** maxOccurs =1 minOccurs = 1 **Guidance on completion of schema element**: Required. Indicate whether a cost-effectiveness analysis has been carried out for supporting the selection of measures proposed under the 2015-2021 PoM, and the general type of assessment carried out.  |
| **Schema element:** costEffectivenessReference**Field type / facets:** ReferenceType (see Annex 9)**Properties:** maxOccurs =unbounded minOccurs = 0**Guidance on completion of schema element:** Conditional. Provide references or hyperlinks to the documents and sections where relevant information on the cost effectiveness can be found.Guidance on what should be included in this document is provided in Section 11.2.3.**Quality checks:** Conditional check: Report if costEffectiveness is ‘Quantitative’, ‘Qualitative’ or ‘Combination’. |
| **Schema element:** serviceArticle94DrinkingWater**Field type / facets:**  YesNoCode\_Enum: Yes, No**Properties:** maxOccurs = 1 minOccurs = 1**Guidance on completion of schema element**: Required.Has WFD Article 9(4) been applied to drinking water abstraction (surface and/or groundwater), treatment and distribution?  |
| **Schema element:** serviceArticle94Wastewater**Field type / facets:**  YesNoCode\_Enum: Yes, No**Properties:** maxOccurs = 1 minOccurs = 1**Guidance on completion of schema element**: Required.Has WFD Article 9(4) been applied to sewage collection and wastewater treatment?  |
| **Schema element:** serviceArticle94Irrigation**Field type / facets:**  YesNoCode\_Enum: Yes, No**Properties:** maxOccurs = 1 minOccurs = 1**Guidance on completion of schema element**: Required.Has WFD Article 9(4) been applied to irrigation water abstraction, treatment and distribution?  |
| **Schema element:** serviceArticle94Selfabstraction**Field type / facets:**  YesNoCode\_Enum: Yes, No**Properties:** maxOccurs = 1 minOccurs = 1**Guidance on completion of schema element**: Required.Has WFD Article 9(4) been applied to self-abstraction?  |
| **Schema element:** serviceArticle94WaterStorage**Field type / facets:**  YesNoCode\_Enum: Yes, No**Properties:** maxOccurs = 1 minOccurs = 1**Guidance on completion of schema element**: Required.Has WFD Article 9(4) been applied to impoundment and storage of water?  |
| **Schema element:** serviceArticle94FloodProtection**Field type / facets:**  YesNoCode\_Enum: Yes, No**Properties:** maxOccurs = 1 minOccurs = 1**Guidance on completion of schema element**: Required.Has WFD Article 9(4) been applied to impoundment for flood protection?  |
| **Schema element:** serviceArticle94Navigation**Field type / facets:**  YesNoCode\_Enum: Yes, No**Properties:** maxOccurs = 1 minOccurs = 1**Guidance on completion of schema element**: Required.Has WFD Article 9(4) been applied to impoundment for navigation? |
| **Schema element**:serviceArticle94Other**Field type / facets:** String1000Type**Properties:** maxOccurs =1 minOccurs = 1**Guidance on completion of schema element**: Required. Report if Article 9(4) is applied to any water service or water service-use combination not covered in the previous questions. More than one other water service or water service-use combination may be reported in the same string. If Article 9(4) is not applied to any other water service or water service-use combination, you should report “None”. |
| **Schema element**:serviceArticle94Reference**Schema element:** ReferenceType (see Annex 9)**Properties:** maxOccurs =unbounded minOccurs = 0**Field type / facets:** Reference structure (see Annex 9) (1-∞)**Guidance on completion of schema element:** Conditional. Provide references or hyperlinks to the documents and sections where justification on the use of Article 9(4) can be found.Guidance on what should be included in this document is provided in Section 11.2.3.**Quality checks:** Conditional check: Report if any of the elements serviceArticle94... is ‘Yes’. |
| **Schema element**:costRecoveryReference**Field type / facets:** ReferenceType (see Annex 9)**Properties:** maxOccurs =unbounded minOccurs = 1**Guidance on completion of schema element**: Required. Provide references or hyperlinks to documents and sections where specific information on the application of cost recovery can be found. Guidance on what should be included in this document is provided in Section 11.2.3.  |

The following class is used to report information for each water service (for which Article 9(4) is not applied).

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| **Schema: RBMPPoM (continued)** |
| ***Class: Service******Properties:*** *maxOccurs = unbounded minOccurs = 1* |
| **Schema element**:service**Field type / facets:** ServiceType\_Enum:Drinking water abstraction (surface and/or groundwater), treatment and distributionSewage collection and wastewater treatmentDrinking water abstraction (surface and/or groundwater), treatment and distribution AND sewage collection and wastewater treatment (when considered together)Irrigation water abstraction, treatment and distributionSelf-abstractionImpoundment and storage of waterImpoundment for flood protectionImpoundment for navigationOther**Properties:** maxOccurs =1 minOccurs = 1**Guidance on completion of schema element**: Required. Select the water services that exist and are recognised in the Member State from the enumeration list. More than one water service may be selected.Select ‘Other’ for any water services not included in the enumeration list or if the Member State prefers to report on the basis of water service-use combinations. A description of the water service or water service-use combination should be reported in serviceOther. The remaining schema elements should be reported for each water service. |
| **Schema element**:serviceOther**Field type / facets:** String1000Type**Properties:** maxOccurs =1 minOccurs = 0**Guidance on completion of schema element**: Conditional. If ‘Other’ is selected from the enumeration list in Service, describe the water service or the water service-use combination. More than one other water service or water service-use combination may be reported. The remaining schema elements should be reported for each water service or water service-use combination.**Quality checks**: Conditional check: Report if service is ‘Other’. |
| **Schema element**:serviceCostInstrument**Field type / facets:** YesNoPartially\_Union\_Enum: Yes, No, Partially**Properties:** maxOccurs =1 minOccurs = 1**Guidance on completion of schema element**: Required. Indicate whether there are legal or regulatory instruments which require cost recovery for this water service.  |
| **Schema element**:serviceCostInstrumentReference**Field type / facets:** ReferenceType (see Annex 9)**Properties:** maxOccurs =unbounded minOccurs = 0**Guidance on completion of schema element**: Conditional. Provide references or hyperlinks to documents and sections where specific information on the legal instruments implementing cost recovery for this water service can be found. Guidance on what should be included in this document is provided in Section 11.2.3. **Quality checks**:Conditional check: Report if serviceCostInstrument is ‘Yes’ or ‘Partially’. |
| **Schema element**:serviceVolumetricCharges**Field type / facets:** YesNoPartially\_Union\_Enum: Yes, No, Partially**Properties:** maxOccurs =1 minOccurs = 1**Guidance on completion of schema element**: Required. Indicate whether cost recovery for this water service is based on volumetric charges (i.e. users paying in proportion to the measured use of water).  |
| **Schema element**:servicePriceLevel**Field type / facets:** String10Type**Properties:** maxOccurs =1 minOccurs = 1**Guidance on completion of schema element**: Required. In case of volumetric charges (serviceVolumetricCharges is 'Yes' or 'Partially'), report the average or range of price levels for this water service in euros per m3. In case volumetric charges are not in place (serviceVolumetricCharges is 'No'), report the estimated average price in euros per m3 by dividing the overall revenue by the quantity of water delivered. In case this is unknown report 'Not available'. |
| **Schema element**: serviceFinancialCostIncluded**Field type / facets:** YesNoPartially\_Union\_Enum: Yes, No, Partially**Properties:** maxOccurs =1 minOccurs = 1**Guidance on completion of schema element**: Required. Indicate whether financial costs (investment, operation and maintenance, other financial costs including the costs of capital) are included in the cost recovery for this water service.  |
| **Schema element**:serviceFinancialCostCalculation**Field type / facets:** YesNoPartially\_Union\_Enum: Yes, No, Partially**Properties:** maxOccurs =1 minOccurs = 1**Guidance on completion of schema element**: Required. Indicate whether the economic analysis includes the calculation of the total financial costs (investment, operation and maintenance, other financial costs including the costs of capital) per year.  |
| **Schema element**:serviceFinancialCostRecovery**Field type / facets:** NumberDecimalType**Properties:** maxOccurs =1 minOccurs = 1**Guidance on completion of schema element**: Required. Report the overall recovery of total financial costs (investment, operation and maintenance, other financial costs including the costs of capital) as a percentage of total financial costs for this water service. Report -9999 if this information is not available.**Quality checks**: Element check: Report -9999 if information on cost recovery is not available. |
| **Schema element**:serviceEnvironmentalCharge**Field type / facets:** YesNoCode\_Enum: Yes, No**Properties:** maxOccurs =1 minOccurs = 1**Guidance on completion of schema element**: Required. Indicate whether an environmental charge or tax is applied for this water service.  |
| **Schema element**: serviceEnvironmentalChargeRevenues**Field type / facets:** NumberDecimalType**Properties:** maxOccurs =1 minOccurs = 0**Guidance on completion of schema element**: Conditional. If an environmental charge or tax is applied to this water service, report the total revenue from the environmental charge or tax applied (in millions € or total € per year).Report whether the total revenue is provided in millions € or total € per year in serviceEnvironmentalChargeRevenuesUnits.**Quality checks**: Conditional check: Report if serviceEnvironmentalCharge is ‘Yes’. |
| **Schema element**:serviceEnvironmentalChargeRevenuesUnits**Field type / facets:** RevenuesUnits\_Enum:millions €total € per year**Properties:** maxOccurs =1 minOccurs = 0**Guidance on completion of schema element**: Conditional. Report whether the total revenue reported in serviceEnvironmentalChargeRevenues is provided in millions € or total € per year.**Quality checks**: Conditional check: Report if serviceEnvironmentalCharge is ‘Yes’. |
| **Schema element**:serviceEnvironmentalChargeRevenuesUse**Field type / facets:** YesNoPartially\_Union\_Enum: Yes, No, Partially**Properties:** maxOccurs =1 minOccurs = 0**Guidance on completion of schema element**: Conditional. If an environmental charge or tax is applied to this water service, indicate whether the revenues obtained are dedicated to measures linked to the achievement of the WFD Environmental Objectives. **Quality checks**: Conditional check: Report if serviceEnvironmentalCharge is ‘Yes’. |
| **Schema element**:serviceExternalEnvironmentalResourceCost**Field type / facets:** YesNoCode\_Enum: Yes, No **Properties:** maxOccurs =1 minOccurs = 1**Guidance on completion of schema element**: Required. Indicate whether the economic analysis includes calculation of external environmental and resource costs for this water service.  |
| **Schema element**:serviceExternalEnvironmentalResourceCostSignificance**Field type / facets:** YesNoCode\_Enum: Yes, No **Properties:** maxOccurs =1 minOccurs = 0**Guidance on completion of schema element**: Conditional. Indicate whether the environmental and resource costs are considered significant for this water service. **Quality checks**: Conditional check: Report if serviceExternalEnvironmentalResourceCost is ‘Yes’. |
| **Schema element**:serviceExternalEnvironmentalResourceCostInternalisation**Field type / facets:** YesNoPartially\_Union\_Enum: Yes, No, Partially **Properties:** maxOccurs =1 minOccurs = 0**Guidance on completion of schema element**: Conditional. If the environmental and resource costs are considered significant for this water service, indicate whether the environmental and resource costs are already considered internalised through the available instruments. **Quality checks**: Conditional check: Report if serviceExternalEnvironmentalResourceCostSignificance is ‘Yes’. |
| **Schema element**:serviceExternalEnvironmentalResourceCostJustification**Field type / facets:** String2500Type**Properties:** maxOccurs =1 minOccurs = 0**Guidance on completion of schema element**: Conditional. Provide a justification of why environmental and resource costs for this water service they are not considered significant and/or are internalised.**Quality checks**:Conditional check: Report if serviceExternalEnvironmentalResourceCostSignificance is ‘No’ or serviceExternalEnvironmentalResourceCostInternalisation is ‘No’ or ‘Partially’. |
| **Schema element**:serviceWaterUseHouseholds**Field type / facets / relationship**: YesNoNotApplicable \_Enum: Yes, No, Not applicable **Properties:** maxOccurs =1 minOccurs = 0**Guidance on completion of schema element:** Conditional. Are households benefitting from this water service? This element does not need to be reported if the Member State is reporting on the basis of a water service-use combination as indicated by reporting ‘Other’ in service and providing further information in serviceOther.**Quality checks**: Element check: A valid option must be selected from the enumeration list. Conditional check: Report if service is not ‘Other’ and serviceOther is not null. |
| **Schema element**:serviceWaterUseAgriculture**Field type / facets / relationship**: YesNoNotApplicable \_Enum: Yes, No, Not applicable**Properties:** maxOccurs =1 minOccurs = 0**Guidance on completion of schema element:** Conditional. Is agriculture benefitting from this water service?This element does not need to be reported if the Member State is reporting on the basis of a water service-use combination as indicated by reporting ‘Other’ in service and providing further information in serviceOther.**Quality checks**: Element check: A valid option must be selected from the enumeration list. Conditional check: Report if service is not ‘Other’ and serviceOther is not null. |
| **Schema element**:serviceWaterUseIndustry**Field type / facets / relationship**: YesNoNotApplicable \_Enum: Yes, No, Not applicable**Properties:** maxOccurs =1 minOccurs = 0**Guidance on completion of schema element:** Conditional. Is industry benefitting from this water service? This element does not need to be reported if the Member State is reporting on the basis of a water service-use combination as indicated by reporting ‘Other’ in service and providing further information in serviceOther.**Quality checks**: Element check: A valid option must be selected from the enumeration list. Conditional check: Report if service is not ‘Other’ and serviceOther is not null. |
| **Schema element**:serviceWaterUseOther**Field type / facets / relationship**: String1000Type **Properties:** maxOccurs =1 minOccurs = 0**Guidance on completion of schema element:** Optional. If other use than households, agriculture and industry is benefitting from this water service please describe it. More than one other water use may be reported in this field.**Quality checks**: Element check: String length must be a maximum of 1000 characters.  |
| **Schema element**:serviceWaterUseContribution**Field type / facets:** YesNoCode\_Enum: Yes, No**Properties:** maxOccurs =1 minOccurs = 0**Guidance on completion of schema element**: Conditional. If the water service is relevant for more than one water use (considering as a minimum households, agriculture and industry), indicate whether the economic analysis includes calculations relating to the contribution of each of the water uses to the cost recovery of water services. **Quality checks**: Conditional check: Report if more than one water use is reported as Yes in serviceWaterUseHouseholds, serviceWaterUseAgriculture, serviceWaterUseIndustry and/or serviceWaterUseOther. |

### 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 economic analysis 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.

The RBMP or background documents must make clear reference to the methodology applied in the context of the updated economic analysis of water services and uses in particular for supporting the implementation of Article 9 and the calculation of cost recovery levels. This should include:

* The assessments made for updating the economic analysis of water uses.
* The methods applied for performing the cost-effectiveness analysis to support the selection of measures.
* The water services selected, and the rationale for supporting this selection.
* The assessments made for estimating the financial costs of water services, specifying in particular how subsidies allocated to water services (if any) have been accounted for when assessing these costs.
* For each selected water service, the total financial costs (investment, operation and maintenance, other financial costs including the costs of capital) per year.
* The methodology for assessing environmental and resource costs.
* The methodology applied for assessing cost-recovery levels for individual water services.
* Description of the instruments in place to recover costs, including water charges, environmental taxes, etc.
* The assessments made for justifying that the contribution of different water uses (agriculture, households, industry, others) to the costs of water services is ‘adequate’.
* The assessments made to justify that water-pricing policies provide adequate incentives for users to use water resources efficiently.
* The methodology used for taking account of the social, environmental and economic effects of the cost recovery as well as the geographic and climatic conditions of the region or regions affected when implementing Article 9.
* If applied, justification for the application of WFD Article 9(4).
* If diffuse pollution from agriculture is identified as a significant pressure on the aquatic environment, provide information on:
	+ The estimated cost of measures to counteract the impact of diffuse pollution (in €/year or €/cycle).
	+ The proposed additional contribution of agriculture to the recovery of costs of diffuse pollution (additional to financing costs of measures), e.g. taxes, fees on fertilisers, pesticides etc. Provide details on the tools and indicate the revenue collected.
	+ Specify whether diffuse pollution from agriculture imposes additional financial cost on the water service providers (e.g. for the removal of nitrates). If so, specify whether those costs have been estimated.
1. These central principles are set out in Article 9 in WFD as followfollows: Member States shall ensure by 2010 that: 1) water-pricing policies provide adequate incentives for users to use water resources efficiently, and thereby contribute to the Environmental Objectives of this Directive; 2) An adequate contribution of the different water uses disaggregated into at least industry, households and agriculture, to the recovery of the costs of water services based on the economic analysis conducted according to Annex III and taking account of the polluter pays principle; 3) Member States may in so doing have regard to the social environmental and economic effects of the recovery as well as the geographic and climatic conditions of the region or regions affected. [↑](#footnote-ref-2)
2. See judgment of the Court of Justice (11 September 2014) in case C-525/12, *Commission v Germany*, paragraphs 54-58: <http://curia.europa.eu/juris/document/document.jsf?text=&docid=157518&pageIndex=0&doclang=EN&mode=lst&dir=&occ=first&part=1&cid=90467>. [↑](#footnote-ref-3)