EUROPEAN COMMISSION - DG ENVIRONMENT

TECHNICAL SUPPORT IN RELATION TO THE IMPLEMENTATION OF THE WATER FRAMEWORK DIRECTIVE (2000/60/EC)

A USER GUIDE TO THE WFD REPORTING SCHEMAS

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Document History

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1. INTRODUCTION

The purpose of this document is to provide guidance to users on the key issues relating to the schemas for reporting on Articles 3, 5, 8 and 13 of the WFD (the WFD Reporting Schemas).

In preparation for the 2010 RBMP reporting, DG Env has been consulting, with the support of the CIS Working Group D Reporting and its Drafting Group, on a revision of the 2004, 2005 Reporting sheets for Articles 3 and 5. The revised Reporting sheets relating to Articles 3 and 5, together with the agreed Reporting sheets relating to Articles 8 and 13, have been consolidated into 'Guidance Document No. 21: Guidance for reporting under the Water Framework Directive'[1] which was part of the WISE package that was endorsed by the Water Directors at their informal meeting in Paris 24-25 November 2008.

Concurrently, there has been a comprehensive review of the Article 3, 5 and 13 schemas in order to examine repetition, conflicts, and to simplify the structures to enable MS to fulfil their reporting obligations in the most efficient and effective way. This has resulted in a set of WFD Reporting schemas primarily covering the requirements of Article 13 but including the elements of Articles 3, 5 and 8 which may need to be resubmitted if MS previously gave an incomplete report or if any changes have occurred since reporting on those Articles. This user guidance document includes information relating to all schemas developed to support WFD reporting.

1.1 What is in this document

- Section 2 provides an overview of the general issues in the schemas;
- Section 3 describes the key elements of the schemas;
- Section 4 describes the Common Schema;
- Section 5 describes the key elements for reporting on Administrative Arrangements (Competent Authorities, River Basin Districts and Sub-units);
- Section 6 describes the key elements of the schema for reporting on Surface Water Bodies;
- Section 7 describes the key elements of the schema for reporting on Groundwater Bodies;
- Section 8 describes the key elements of the schema for reporting on the Register of Protected areas;
- Section 9 describes the key elements of the schema for reporting on the Surface Water Bodies and Groundwater Bodies Methodologies;

[1] http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework_directive/guidance_documents/guidance_guidance_report/_EN_1.0_&a=d

- Section 10 describes the key elements of the schema for reporting on River Basin management Plans and Programmes of Measures;

- Section 11 describes the key elements of the schema for reporting on monitoring programmes at RBD level;

- Section 12 describes the key elements of the schema for reporting on surface water monitoring programmes at site level;

- Section 13 describes the key elements of the schema for reporting on groundwater monitoring programmes at site level.

2. WFD REPORTING SCHEMAS – GENERAL ISSUES

2.1 Background

This document has been produced under the 2008-2009 WFD support contract and is intended to provide guidance to experts in the MS who have the responsibility for electronic reporting of the River Basin Management Plans in 2010 in accordance with Article 13 of the Water Framework Directive. In preparation for the 2010 RBMP reporting, DG Env has been consulting, with the support of the CIS Working Group D Reporting and its Drafting Group, on a revision of the 2004, 2005 Reporting sheets for Articles 3 and 5. These Reporting Sheets and those agreed for reporting under Articles 8 and 13 were consolidated into 'Guidance Document No. 21: Guidance for reporting under the Water Framework Directive'[2], part of the WISE package which was endorsed by the Water Directors at their informal meeting in Paris on 24-25 November 2008. Concurrently, there has been a comprehensive review of the Articles 3, 5 and 13 schemas in order to examine repetition, conflicts, to simplify the structures to enable MS to fulfil their WFD reporting obligations in the most efficient and effective way.

The development of the WFD Reporting schemas has followed the following accepted principles:

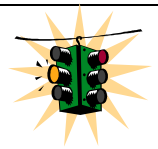
- *That Reporting sheets do not provide all the technical specifications needed to develop the data exchange formats nor provide guidance to the data provider.*
- *These technical specifications may lead, where necessary, to adaptations of reporting requirements in order to facilitate the electronic data exchange.*
- *The technical process will also ensure that data which has been already submitted to WISE do not have to be reported again.*
- *The technical specifications will be developed in cooperation with the Member States.*

The schemas were developed in conjunction with CIS Working Group D and its Drafting Group, the WISE Technical Group, the WISE GIS Group and through a meeting of invited national experts at Prague 11 June 2008. The structure of the Article 8 schemas has not been changed although some amendments have been made to the content of the schemas to ensure consistency with all other WFD Reporting schemas in terms of element descriptions, enumeration lists etc.

[2]http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework_directive/guidance_documents/guidance_guidance_report/_EN_1.0_&a=d

2.2 General issues

2.2.1 Reporting and resubmissions



Look Out!
Given the time since 2005 reporting and the process to update and streamline the content of reporting, the Commission expects Member States to update all the information in 2010.

2.2.2 Levels of reporting

For Article 3, reporting was based on river basins and river basin districts (RBD) at the Member State level. For Article 5, reporting was at the individual RBD level and the water bodies in each RBD. For Article 8, reporting was again based on an individual RBD but it was possible to report for part of an RBD and specify the reporting level to clarify what was being reported.

The schemas allow the user to specify what part of the RBD is being reported:

- An international RBD;
- The national part of an international RBD;
- A national RBD;
- A Sub-unit of an RBD;
- A water body.

2.2.3 The basis for reporting

All Reporting sheets agreed with the Member States and involved in the WFD reporting process for 2010 have now been consolidated into 'Guidance Document No. 21: Guidance for reporting under the Water Framework Directive'[3] which was endorsed by the Water Directors at their meeting in Paris, 24-25 November 2008. This includes Reporting sheet GWD1, developed in the context of activity 7 of the mandate of the Working Group D on Reporting for 2008-2009[4] and included reporting requirements of the Groundwater Directive 2006/118/EC together with WFD reporting requirements for groundwater. It combines both reporting of status information and classification aspects of groundwater that, according to Directive 2006/118/EC, have to be part of the RBMP reporting in 2010.

[3] http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework_directive/guidance_documents/guidance_guidance_report/_EN_1.0_&a=d

[4] http://circa.europa.eu/Members/irc/env/wfd/library?l=/working_groups/new_wg_reporting/mandate

A single schema to meet all of the requirements of the WFD reporting process for 2010 results in unfeasibly large XML files. The schema has therefore been sub-divided as follows:

- Common Schema elements (Schema WFDCommon) which supplies elements common to all schemas such as code lists and enumeration lists;
- Administrative arrangements (Schema RBDSUCA);
- Surface Water Bodies (Schema SWB);
- Groundwater Bodies (Schema GWB);
- Register of Protected Areas (Schema ProtArea);
- Surface Water Methodologies (Schema SWBMethods);
- Groundwater Methodologies (Schema GWBMethods);
- River Basin Management Plans and Programmes of Measures (Schema RBMP_POM);
- Monitoring programmes at RBD level (Schema Monitoring);
- Surface Water monitoring programmes at site level (Schema SurfaceWaterMonitoringStations);
- Groundwater monitoring programmes at site level (Schema GroundWaterMonitoringStations).

2.2.4 Stylesheets

Stylesheets, which convert the corresponding XML files to a more readable HTML format, are provided for each schema.

2.2.5 Approach to status codes

The values for status codes have been harmonised and are described in the table below. In this way “good” status is always denoted by the value 2. This is particularly relevant for reporting the status in the schemas SurfaceWaterBodies and GroundWaterBodies.

Status type	1	2	3	4	5
Ecological Status Class	High	Good	Moderate	Poor	Bad
Ecological Potential Class	-	Good	Moderate	Poor	Bad

Status Class of Hydromorphological quality element (part of ecological status or potential)[5]	High	Good	-	-	-
Status Class of Physicochemical quality element (part of ecological status or potential)[5]	High	Good	Moderate	-	-
Status Class of Biological quality elements (part of ecological status or potential)[5]	High	Good	Moderate	Poor	Bad
Status Class of specific pollutants quality element (part of ecological status or potential)[5]	High	Good	Failing to achieve good	-	-
Article 7 Protected Areas Status (Waters used for the abstraction of drinking water).	-	Good	Failing to achieve good	-	-
Shellfish Waters and Freshwater Fish Protected Areas. (For other Protected Areas see notes below).	High	Good	Failing to achieve good		
Surface Water Chemical status (EQS achievement)	-	Good	Failing to achieve good	-	-
Groundwater chemical or quantitative status	-	Good	Poor	-	-

[5] See CIS Guidance No. 13: Overall approach to the classification of ecological status and ecological potential, in particular Figure 1.

Note: Status of Protected Areas (WFD article 6, 7 and annex IV) is reported under various directives and these general rules apply:

WFD Article 7 Drinking Water Protected Areas:
According to Article 7.2 of the WFD MS should ensure that, under the water treatment regime applied, the resulting water will meet the requirements of the Drinking Water Directive. This means that under existing treatment, if the drinking water produced from a particular water body meets the Drinking Water Directive requirements, the status of the Protected Area for this water body is "good", whereas if it does not meet the standards it "fails". The DWD failure is only relevant in WFD context if the reasons for failure are linked to the quality of the water body (e.g. not to the failure of the water treatment or distribution system).

Bathing Water Directive (76/160/EEC and 2006/7/EC):
In general MS would not be expected to provide information on the status of bathing waters under the WFD as there is an annual reporting exercise that provides this information and this has been successfully integrated into WISE.

Birds and Habitats directives (79/409/EEC and 91/43/EEC):
"Favourable conservation status" of protected habitats and species is not assessed at site level but at national level per biogeographic region, taking into account the overall situation. In the context of the WFD reporting therefore, MS would be expected to provide overall information about the status of protected habitats and species "where the maintenance or improvement of the status of water is an important factor in their protection". This means that if there are more than one water dependent habitat and species in the Protected Areas overlapping with a water body, MS should provide an overall assessment of whether these habitats and species are in a favourable conservation status or not (i.e. good/fail selection corresponding to values 2 and 3 respectively in the field ValueStatusProtectedArea). In addition, the comment box in the schema (CommentValueStatusProtArea) should be used to give additional information about the habitats or species that are relevant in the Protected Areas overlapping with each particular water body.

Shellfish Waters (79/923/EEC codified by 2006/113/EC) and Fish directives (79/659/EEC codified by 2006/44/EC):
The status value should be set to “high” if both the guideline (G) values and imperative (I) standards are respected, "good" if the values under the imperative column are respected. It should be set to "fail" if imperative (I) standards are not respected. The comment box in the schema (CommentValueStatusProtArea) section should be used to clarify which G and I parameters are failing, if any.

Nitrates Directive (91/676/EEC):
In general MS would not be expected to provide information on the status of nitrates as there is a regular reporting exercise. However, if this is to be reported it should be stated "good" if nitrate concentrations are below 50 mg/l and "fail" if they are above 50 mg/l.

Urban Waste Water Treatment Directive (91/271/EEC):
Status information in not relevant in this context. Eutrophication status is captured by WFD ecological status.

2.2.6 Reporting of protected areas and their status

The register of protected areas is reported in the schema Protected Areas which contains information both on surface and groundwater protected areas. A unique EU code for each protected area has to be reported, along with the information indicated (national code, name, latitude, longitude, area or length, protected area type, etc).

In order to avoid double reporting, the protected areas that have been reported before March 2010 under other directives do not need to be reported again. In principle protected areas designated under the bathing water, the nitrates and the habitats and birds directives should fall in this category, as they have been largely subject to recent reporting exercises including geographical data.

Nevertheless, the preferred option is to report all the protected areas that form the register in the Protected Areas schema, even if they have been reported before. This will ensure a consistent register and will be less prone to errors.

The WFD objectives for protected areas are established in article 4.1.c. The purpose of providing information about the status of protected areas is to assess the situation as regards compliance with article 4.1.c. In most cases the compliance with the objectives of article 4.1.c is linked to the compliance with water quality standards in the directives under which the protected areas have been designated. This is the case for bathing water, shellfish, fish life and nitrates directives. In the case of drinking water protected areas, the compliance is linked to water quality at the tap, and a failure is only relevant for WFD if it is a consequence of a water quality issue in the water body used for the abstraction of drinking water (e.g. not linked to malfunctioning of the water treatment or to the distribution system). In case of protected areas designated under habitats and birds directives, the compliance with the conservation objective of favourable conservation status for water dependent habitats and species is the key element in relation to the assessment article 4.1.c., and in particular the additional objectives related to water quality and/or hydromorphology that are necessary to guarantee the conservation objective. This is habitat and species specific.

As the interest of WFD is to focus on the additional requirements that are needed in water bodies to fulfil the objectives of the directives under which the protected areas have been designated, the status of protected areas is linked to the water bodies and not to the register. WFD measures are triggered only if the status of the water bodies overlapping with a protected area is insufficient to achieve the objectives of the directive under which the protected area has been designated.

The protected areas need therefore to be linked with water bodies. This is a complex relationship as one protected area may be overlapping with one or several water bodies and one water body may overlap with one or several protected areas of different types. The WFD schemas allows for all these potential situations to be reported.

For each surface or groundwater body, an element StatusProtectedAreas is available. First thing is to introduce whether there is any protected area associated to the water body (element PROT_AREA_ASSOC). If there is any, then the conditional elements SWProtectedAreaDetails or GWProtectedAreaDetails have to be reported. More than one entry

is foreseen as there might be more than one type of protected area associated with the water body, or more than one protected area of the same type but of different statuses. For each entry, the type of protected area is introduced, the code(s) of the protected area(s) associated, the type of association (water body fully within the protected area, partly overlapping or dynamically connected), the status of the protected area and an explanatory comment. If exemptions are applied to the objectives of the protected areas (article 4.1.c) they should be reported as well using the elements ProtAreaExemptions and ProtAreaExemptionComments.

The status of protected areas do not need to be reported if they have been reported under other directives before March 2010, provided the code of the protected area reported under WFD and these other directives coincide so that the link can be established. In general, this may be the case only for bathing water and nitrates directive reporting. In all other cases the status has to be reported. If there is no information, the element ValueStatusProtectedArea can be set to Unknown.

2.2.7 Namespaces, Schema and Stylesheet Locations

The schemas and stylesheets are located at URL:
http://water.eionet.europa.eu/schemas/dir200060ec.

2.2.8 Metadata

As a minimum, the following metadata attributes are required for each XML file.

Attribute Name	**Description**	**Status**
CreationDate	Date the file was created	Required
Creator	Name of organisation	Required
Email	Contact email	Optional
Description	Descriptions of the file	Optional
GeneratedBy	Method used to generate the file e.g. Access tool	Optional
MD_ClassificationCode	Access restrictions to the data	Optional

It is possible to provide a link to an associated metadata document for each file using the <METADATA> element which is provided at a number of locations throughout the schemas. This allows up to 2000 characters to be specified or alternatively may be used to provide a hyperlink or description of an associated metadata file. This should be used to define any restrictions on the data.

2.2.9 Additional Internet-based information

A <URL> element is also provided at a number of locations throughout the schemas. This allows a hyperlink to be provided to further information in the Member States own Internet-based systems. This could be, for example:

- A link to on-line relevant national methodology reports and statistics;
- A link to a feature/location in a web-based mapping system.

2.2.10 Required Elements

A large number of fields are **required** in order to ensure that the submission can be processed. Note that the term "mandatory" is no longer used in the context of schemas because of possible confusion with "mandatory" in the sense of legal compliance (i.e. failure to supply mandatory information is legally not in compliance with the directive).

The bases for deciding whether certain fields are required or optional is 'Guidance Document No. 21: Guidance for reporting under the Water Framework Directive'[6]. In principle, information is required unless it is stated explicitly that information is optional or should be reported "if possible" or if "available".

2.2.11 Conditional Elements

Other elements are **conditional**, for example <OtherCompetentAuthorities> which allows MS to define any other Competent Authority associated with the RBD and <InternationalName> which **must** be completed **only** if the answer is **YES** to the question in <International> "Is the RBD part of an international River Basin?" So the general rule is applied: If the answer to Element A is YES, then completion of Element B is required in Conditional Elements.

Conditional elements are not (technically) possible in XML schema. Therefore all these elements have been identified as optional in the schema but with but the "If ……then" conditional clause added to the annotation.

2.2.12 Optional Elements

Other elements are **optional**, for example those elements that allow MS to enter a URL or text strings for further information to aid clarity to an answer, or any information qualified in the Reporting sheets as due to be reported "if possible" or "if available".

[6]http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework_directive/guidance_documents/guidance_guidance_report/_EN_1.0_&a=d

2.2.13 Common Elements

Each schema references a number of **common** elements. As with previous reporting, all common definitions and all enumeration lists are defined in the WFDCommon schema. As part of the schema development some new common elements have been established.

3. THE SCHEMAS

The following sections provide the “annotations” or descriptive notes for the schema main elements which are intended to help and guide the person completing the schemas.

4. THE COMMON SCHEMA

This schema contains the elements common to all schemas including the enumeration lists.

Schema **WFDCommon.xsd**

Complex types

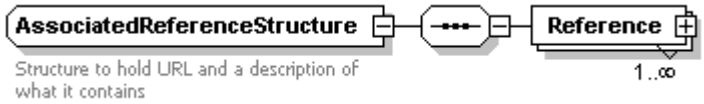
AssociatedReferenceStructure

Simple types

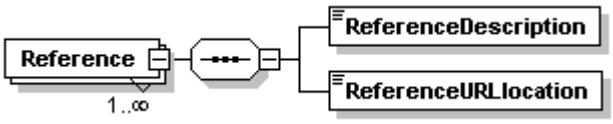
CARoleCode
ChemicalAllSubstancesType
ChemicalCASNumberType
ChemicalDeOxygenatingSubstanceCode
ChemicalMatrixType
ChemicalNonPrioritySubstanceCASCode
ChemicalNutrientType
ChemicalPrioritySubstanceType
CoordinateType
CostDecimalType
CostExemptionType
CountryCode
DataConfidentialityClassificationCode
Economic2009to2015Code
EconomicWaterServiceType
FeatureUniqueCodeType
FeatureUniqueEUCodeType
GECode
GWBackgoundSubstancesCode
GWChemicalFailureCode
GWConcentrationUnitsCode
GWDepthRangeCode
GWGeologicalFormationCode
GWImpactTypes
GWMeasureLevelCode
GWPollutantAnnexI-IIType
GWPollutantsCode
GWPressureAbstractionType
GWPressureAggregatedType
GWPressureRechargeType
GWPressureType
GWQuantitativeFailureCode
GWStatusCode
GWVerticalOrientationCode
GWWellOrSpringCode
MeasureBasicOtherType
MeasureCostAggregationType
MeasureCostClassificationType
MeasureCoverageType
MeasureRBDorNationalCode

SWPressureAbstractionType
SWPressureAggregatedType
SWPressureType
SWStatusChemicalCode
SWStatusEcologicalCode
SWStatusGeneralPhysicoChemicalCode
SWStatusHydroMorphCode
SWStatusNonPrioritySubstanceCode
SWStatusProtAreaCode
TypologyCoastalIntercalibrationCode
TypologyLakeIntercalibrationCode
TypologyRiverIntercalibrationCode
TypologyTransitionalIntercalibrationCode
YesNoCode
YesNoNotApplicableCode
YesNoUnknownCode

complexType **AssociatedReferenceStructure**

diagram	
annotation	documentation Structure to hold URL and a description of what it contains

element **AssociatedReferenceStructure/Reference**

diagram	

simpleType **CARoleCode**

facets	enumeration A enumeration B01 enumeration B02 enumeration B03
annotation	documentation Codes for the Roles: A=Coordination, preparation and production of river basin management plans (RBMPs); B01=Reporting monitoring requirements, establishment of programmes of measures. B02=Reporting, regulation and authorisation of surface water activities, regulation and authorisation of groundwater activities and B03=Reporting public information and consultation.

simpleType **ChemicalAllSubstancesType**

facets	enumeration 1 Heavy Metals - aggregated enumeration 1.1 Cadmium enumeration 1.2 Lead enumeration 1.3 Mercury enumeration 1.4 Nickel enumeration 2 Pesticides - aggregated enumeration 2.1 Alachlor enumeration 2.2 Atrazine enumeration 2.3 Chlorpyriphos

	enumeration	2.4 Chlorvenfinphos
	enumeration	2.5 Diuron
	enumeration	2.6 Endosulfan
	enumeration	2.7 Isoproturon
	enumeration	2.8 Hexachlorocyclohexane
	enumeration	2.9 Pentachlorobenzene
	enumeration	2.10 Simazine
	enumeration	2.11 Trifluralin
	enumeration	3 Industrial Pollutants - aggregated
	enumeration	3.1 Anthracene
	enumeration	3.2 Benzene
	enumeration	3.3 Brominated diphenylether
	enumeration	3.4 Carbon tetrachloride
	enumeration	3.5 C10-13-chloroalkanes
	enumeration	3.6 1,2-Dichloroethane
	enumeration	3.7 Dichloromethane
	enumeration	3.8 Di(2-ethylhexyl)phthalate (DEHP)
	enumeration	3.9 Naphthalene
	enumeration	3.10 Nonylphenol
	enumeration	3.11 Octylphenol
	enumeration	3.12 Tetrachloroethylene
	enumeration	3.13 Trichloroethylene
	enumeration	3.14 Trichloromethane
	enumeration	4 Other pollutants - aggregated
	enumeration	4.1 Aldrin
	enumeration	4.2 Dieldrin
	enumeration	4.3 Endrin
	enumeration	4.4 Isodrin
	enumeration	4.5 DDT Total
	enumeration	4.6 para-para-DDT
	enumeration	4.7 Flouranthene
	enumeration	4.8 Hexachlorobenzene
	enumeration	4.9 Hexachlorobutadiene
	enumeration	4.10 Pentachlorophenol
	enumeration	4.11 Polyaromatic hydrocarbons
	enumeration	4.12 Benzo(a)pyrene
	enumeration	4.13 Benzo(b)fluoranthene
	enumeration	4.14 Benzo(k)fluoranthene
	enumeration	4.15 Benzo(g,h,i)perylene
	enumeration	4.16 Indeno(1,2,3-cd)pyrene
	enumeration	4.17 Tributyltin compounds
	enumeration	4.18 Trichlorobenzenes (all isomers)
annotation	documentation	
	Contains Heavy Metals, Pesticides, Priority Substances and Other Pollutants	

simpleType **ChemicalCASNumberType**

annotation	documentation	
	Type to enter CAS numbers	

simpleType **ChemicalDeOxygenatingSubstanceCode**

facets	enumeration	BOD5
	enumeration	BOD7
	enumeration	COD
	enumeration	CODCr
	enumeration	CODMn
annotation	documentation	
	An enumeration list of BOD5, BOD7, COD, CODCr, CODMn	

simpleType **ChemicalMatrixType**

facets	enumeration	water
	enumeration	settled sediment
	enumeration	suspended sediment
	enumeration	biota
annotation	documentation	
	Defines the types of chemical measurement methods	

simpleType **ChemicalNonPrioritySubstanceCASCode**

facets	enumeration	1002-53-5
	enumeration	10028-17-8
	enumeration	104-40-5
	enumeration	106-43-4
	enumeration	106-93-4
	enumeration	107-13-1
	enumeration	107-46-0
	enumeration	108-70-3
	enumeration	115-32-2
	enumeration	1163-19-5
	enumeration	120-82-1
	enumeration	12767-79-2
	enumeration	129-00-0
	enumeration	1321-64-8
	enumeration	1321-65-9
	enumeration	1335-87-1
	enumeration	1335-88-2
	enumeration	1336-36-3
	enumeration	136677-10-6
	enumeration	140-57-8
	enumeration	140-66-9
	enumeration	143-50-0
	enumeration	144-49-0
	enumeration	16478-18-5
	enumeration	1746-01-6
	enumeration	182346-21-0
	enumeration	1825-21-4
	enumeration	182677-30-1
	enumeration	1836-75-5
	enumeration	189084-64-8
	enumeration	2051-24-3
	enumeration	207122-15-4
	enumeration	208-96-8
	enumeration	2104-64-5
	enumeration	218-01-9
	enumeration	2227-13-6
	enumeration	2234-13-1
	enumeration	23593-75-1
	enumeration	2385-85-5
	enumeration	2440-02-0
	enumeration	262-12-4
	enumeration	294-62-2
	enumeration	297-78-9
	enumeration	31508-00-6
	enumeration	319-84-6
	enumeration	319-85-7
	enumeration	32241-08-0
	enumeration	32536-52-0
	enumeration	32598-13-3
	enumeration	32598-14-4
	enumeration	32774-16-6
	enumeration	330-55-2
	enumeration	3424-82-6
	enumeration	35065-27-1
	enumeration	35065-28-2
	enumeration	35065-29-3
	enumeration	35693-99-3
	enumeration	36065-30-2
	enumeration	36355-01-8
	enumeration	36643-28-4
	enumeration	37680-73-2
	enumeration	38380-08-4
	enumeration	39765-80-5
	enumeration	4234-79-1
	enumeration	4636-83-3
	enumeration	4904-61-4
	enumeration	51000-52-3
	enumeration	512-04-9
	enumeration	53-19-0

	enumeration 53-70-3 enumeration 5436-43-1 enumeration 55525-54-7 enumeration 56-55-3 enumeration 57465-28-8 enumeration 57-74-9 enumeration 58-89-9 enumeration 603-35-0 enumeration 60348-60-9 enumeration 60-51-5 enumeration 6164-98-3 enumeration 62-73-7 enumeration 64743-03-9 enumeration 68631-49-2 enumeration 69782-90-7 enumeration 7012-37-5 enumeration 70124-77-5 enumeration 70776-03-3 enumeration 72-43-5 enumeration 72-54-8 enumeration 72-55-9 enumeration 732-26-3 enumeration 7429-90-5 enumeration 7439-89-6 enumeration 7439-96-5 enumeration 7439-98-7 enumeration 7440-31-5 enumeration 7440-33-7 enumeration 7440-38-2 enumeration 7440-47-3 enumeration 7440-48-4 enumeration 7440-50-8 enumeration 7440-62-2 enumeration 7440-66-6 enumeration 76-44-8 enumeration 77-47-4 enumeration 7782-49-2 enumeration 789-02-6 enumeration 793-24-8 enumeration 79-94-7 enumeration 8001-35-2 enumeration 81-15-2 enumeration 82-68-8 enumeration 83-32-9 enumeration 84-66-2 enumeration 84-69-5 enumeration 84-74-2 enumeration 84852-15-3 enumeration 85-01-8 enumeration 85-22-3 enumeration 85-68-7 enumeration 86-73-7 enumeration 87-61-6 enumeration 90-12-0 enumeration 9016-45-9 enumeration 91-57-6 enumeration 919-86-8 enumeration 93-76-5 enumeration 959-98-8 enumeration 98-51-1 enumeration Other
annotation	documentation Defines the list of non-Priority Substance pollutants CAS Number and Substance 1002-53-5 Dibutyltin 10028-17-8 Tritium 104-40-5 4-nonylphenol 106-43-4 4-chlorotoluene 106-93-4 1,2-dibromoethane 107-13-1 Acrylonitrile 107-46-0 Hexamethyldisiloxane (HMDS)

	108-70-3 1,3,5-trichlorobenzene 115-32-2 Dicofol 1163-19-5 Bis(pentabromophenyl) ether 120-82-1 1,2,4-trichlorobenzene 12767-79-2 Aroclor 129-00-0 Pyrene 1321-64-8 Pentachloronaphthalene 1321-65-9 Trichloronaphthalene 1335-87-1 Hexachloronaphthalene 1335-88-2 Tetrachloronaphthalene 1336-36-3 Polychlorinated biphenyls 136677-10-6 Polychlorinated dibenzofurans (PCDF) 140-57-8 Aramite 140-66-9 Para-tert-octylphenol 143-50-0 Chlordecone (Kepone) 144-49-0 Fluoroacetic acid 16478-18-5 Pentachloroiodobenzene 1746-01-6 Dioxin 182346-21-0 2,2',3,4,4'-pentabromodiphenyl ether (BDE85) 1825-21-4 Pentachloroanisole 182677-30-1 2,2',3,4,4',5'-hexabromodiphenyl Ether (BD(E)138) 1836-75-5 Nitrophen 189084-64-8 2,2',4,4',6-pentabromodiphenyl Ether (BD(E)100) 2051-24-3 5,5',6,6'-decachlorobiphenyl (CB209) 207122-15-4 2,2',4,4',5,6'-hexabromodiphenyl Ether (BDE154) 208-96-8 Acenaphthylene 2104-64-5 Ethyl O-(p-nitrophenyl) phenyl phosphonothionate (EPN) 218-01-9 Chrysene 2227-13-6 Tetrasul 2234-13-1 Octachloronaphthalene 23593-75-1 Clotrimazole 2385-85-5 Mirex 2440-02-0 Heptachloronorbornene 262-12-4 Dibenzodioxin 294-62-2 Cyclododecane 297-78-9 Isobenzane 31508-00-6 2,3',4,4',5-pentachlorobiphenyl (CB118) 319-84-6 alpha-HCH 319-85-7 beta-HCH 32241-08-0 Heptachloronaphthalene 32534-81-9 Diphenyl ether, pentabromo derivative 32536-52-0 Diphenyl ether, octabromo deviate 32598-13-3 3,3',4,4'-tetrachlorobiphenyl (CB77) 32598-14-4 2,3,3',4,4'-pentachlorobiphenyl (CB105) 32774-16-6 3,3',4,4',5,5'-hexachlorobiphenyl (CB169) 330-55-2 Linuron 3424-82-6 DDE, o, p 35065-27-1 2,2',4,4',5,5'-hexachlorobiphenyl (CB153) 35065-28-2 2,2',3,4,4',5'-hexachlorobiphenyl (CB138) 35065-29-3 2,2',3,4,4',5,5'-heptachlorobiphenyl (CB180) 35693-99-3 2,2',5,5'-tetrachlorobiphenyl (CB52) 36065-30-2 2,4,6-tribromophenyl 2-methyl-2,3-dibromopropy ether 36355-01-8 Hexabromobiphenyl 36643-28-4 Tributyltin 37680-73-2 2,2',4,5,5'-pentachlorobiphenyl (CB101) 38380-08-4 2,3,3',4,4',5-hexachlorobiphenyl (CB156) 39765-80-5 trans-Nonachlor 4234-79-1 Kelevan 4636-83-3 Morfamquat 4904-61-4 1,5,9 cyclododecatriene 51000-52-3 Vinyl neodecanoate 512-04-9 Diosgenin 53-19-0 DDD, o, p 53-70-3 Dibenz[a,h]anthracene 5436-43-1 2,2',4,4'-tetrabromodiphenyl ether (BDE47) 55525-54-7 3,3'-(ureylenedimethylene)bis(3,5,5'- trimethylcyclohexyl) diisocyanate 56-55-3 Benzo-a-anthracene 57465-28-8 3,3',4,4',5 pentachlorobiphenyl (CB126) 57-74-9 Chlordane 58-89-9 Lindane (gamma-HCH) 603-35-0 Triphenyl phosphine

	60348-60-9 2,2',4,4',5-pentabromodiphenyl ether (BDE99) 60-51-5 Dimethoate 6164-98-3 Chlordimeform 62-73-7 Dichlorvos 64743-03-9 Phenols 68631-49-2 2,2',4,4',5,5'-hexabromodiphenyl ether (BD(E)153) 69782-90-7 2,3,3',4,4',5'-hexachlorobiphenyl (CB157) 7012-37-5 2,4,4'-trichlorobiphenyl (CB28) 70124-77-5 Flucythrinate 70776-03-3 Naphthalene, chloro derivatives 72-43-5 Methoxychlor 72-54-8 DDD, p, p' 72-55-9 DDE, p, p' 732-26-3 2,4,6-tri-tert-butylphenol 7429-90-5 Aluminium and its compounds 7439-89-6 Iron and its compounds 7439-96-5 Manganese and its compounds 7439-98-7 Molybdenum and its compounds 7440-31-5 Tin and its compounds 7440-33-7 Tungsten and its compounds 7440-38-2 Arsenic and its compounds 7440-47-3 Chromium and its compounds 7440-48-4 Cobalt and its compounds 7440-50-8 Copper and its compounds 7440-62-2 Vanadium and its compounds 7440-66-6 Zinc and its compounds 76-44-8 Heptachlor 77-47-4 Hexachlorocyclopentadiene (HCCP) 7782-49-2 Selenium and its compounds 789-02-6 DDT, o,p' 793-24-8 4-(dimethylbutylamino) diphenylamin (6PPD) 79-94-7 Tetrabromobisphenol A (TBBP-A) 8001-35-2 Toxaphene 81-15-2 Musk xylene 82-68-8 Quintozene 83-32-9 Acenaphthene 84-66-2 Di-ethyl phthalate 84-69-5 Di-iso-butyl phthalate 84-74-2 Dibutylphthalate 84852-15-3 4-nonylphenol (branched) 85-01-8 Phenanthrene 85-22-3 Pentabromoethylbenzene 85-68-7 Butyl benzyl phthalate (BBP) 86-73-7 Fluorene 87-61-6 1,2,3-trichlorobenzene 90-12-0 1-methylnaphthalene 9016-45-9 Nonyl phenol ethoxylate 91-20-3 Naphthalene 91-57-6 2-methylnaphthalene 919-86-8 Demeton-S-methyl 93-76-5 2,4,5-T 959-98-8 alpha-Endosulfan 98-51-1 4-tert-butyltoluene Other

simpleType **ChemicalNutrientType**

facets	enumeration	KjeldahlNitrogen
	enumeration	Nitrate
	enumeration	Nitrite
	enumeration	OrganicNitrogen
	enumeration	ParticulateOrganicNitrogen
	enumeration	Non-ionisedAmmonia
	enumeration	Orthophosphate
	enumeration	Soluble Reactive Phosphorous
	enumeration	Silicate
	enumeration	TotalInorganicNitrogen
	enumeration	TotalNitrogen
	enumeration	TotalOxidisedNitrogen
	enumeration	TotalAmmonium

	enumeration	TotalOrganicCarbon
	enumeration	TotalPhosphorous
annotation	documentation	An enumeration list of Kjeldahl Nitrogen, Nitrate, Nitrite, Organic Nitrogen, Particulate Organic Nitrogen, Non-ionised Ammonia, Orthophosphate, Soluble Reactive Phosphate, Silicate, Total Inorganic Nitrogen, Total Nitrogen, Total Oxidised Nitrogen, Total Ammonium, Total Organic Carbon, Total Phosphorus.

simpleType **ChemicalPrioritySubstanceType**

facets	enumeration	104-40-5 Nonylphenol
	enumeration	140-66-9 Octylphenol
	enumeration	107-06-2 1,2-Dichloroethane
	enumeration	115-29-7 Endosulfan
	enumeration	117-81-7 Di(2-ethylhexyl)phthalate (DEHP)
	enumeration	118-74-1 Hexachlorobenzene
	enumeration	12002-48-1 Trichlorobenzenes(all isomers)
	enumeration	120-12-7 Anthracene
	enumeration	122-34-9 Simazine
	enumeration	127-18-4 Tetrachloroethylene
	enumeration	1582-09-8 Trifluralin
	enumeration	15972-60-8 Alachlor
	enumeration	1912-24-9 Atrazine
	enumeration	191-24-2 Benzo(g,h,i)perylene
	enumeration	193-39-5 Indeno(1,2,3-cd)pyrene
	enumeration	205-99-2 Benzo(b)fluoranthene
	enumeration	206-44-0 Fluoranthene
	enumeration	207-08-9 Benzo(k)fluoranthene
	enumeration	2921-88-2 Chlorpyrifos
	enumeration	309-00-2 Aldrin
	enumeration	32534-81-9 Pentabromodiphenylether
	enumeration	330-54-1 Diuron
	enumeration	34123-59-6 Isoproturon
	enumeration	36643-28-4 Tributyltin compounds
	enumeration	465-73-6 Isodrin
	enumeration	470-90-6 Chlorfenvinphos
	enumeration	50-29-3 para-para-DDT
	enumeration	50-32-8 Benzo(a)pyrene
	enumeration	56-23-5 Carbontetrachloride
	enumeration	60-57-1 Dieldrin
	enumeration	608-73-1 Hexachlorocyclohexane
	enumeration	608-93-5 Pentachlorobenzene
	enumeration	67-66-3 Trichloromethane
	enumeration	71-43-2 Benzene
	enumeration	72-20-8 Endrin
	enumeration	7439-92-1 Lead and its compounds
	enumeration	7439-97-6 Mercury and its compounds
	enumeration	7440-02-0 Nickel and its compounds
	enumeration	7440-43-9 Cadmium and its compounds
	enumeration	75-09-2 Dichloromethane
	enumeration	79-01-6 Trichloroethylene
	enumeration	85535-84-8 C10-13 Chloroalkanes
	enumeration	87-68-3 Hexachlorobutadiene
	enumeration	87-86-5 Pentachlorophenol
	enumeration	91-20-3 Naphthalene
	enumeration	n/a DDT total
	enumeration	n/a Polyaromatic hydrocarbons (PAH)
annotation	documentation	Defines the list of Priority Substances CAS Number and Substance 104-40-5 Nonylphenol 140-66-9 Octylphenol 107-06-2 1,2-Dichloroethane 115-29-7 Endosulfan 117-81-7 Di(2-ethylhexyl)phthalate (DEHP) 118-74-1 Hexachlorobenzene 12002-48-1 Trichlorobenzenes(all isomers) 120-12-7 Anthracene 122-34-9 Simazine 127-18-4 Tetrachloroethylene 1582-09-8 Trifluralin

	15972-60-8 Alachlor 1912-24-9 Atrazine 191-24-2 Benzo(g,h,i)perylene 193-39-5 Indeno(1,2,3-cd)pyrene 205-99-2 Benzo(b)fluoranthene 206-44-0 Fluoranthene 207-08-9 Benzo(k)fluoranthene 2921-88-2 Chlorpyrifos 309-00-2 Aldrin 32534-81-9 Pentabromodiphenylether 330-54-1 Diuron 34123-59-6 Isoproturon 36643-28-4 Tributyltin compounds 465-73-6 Isodrin 470-90-6 Chlorfenvinphos 50-29-3 para-para-DDT 50-32-8 Benzo(a)pyrene 56-23-5 Carbontetrachloride 60-57-1 Dieldrin 608-73-1 Hexachlorocyclohexane 608-93-5 Pentachlorobenzene 67-66-3 Trichloromethane 71-43-2 Benzene 72-20-8 Endrin 7439-92-1 Lead and its compounds 7439-97-6 Mercury and its compounds 7440-02-0 Nickel and its compounds 7440-43-9 Cadmium and its compounds 75-09-2 Dichloromethane 79-01-6 Trichloroethylene 85535-84-8 C10-13 Chloroalkanes 87-68-3 Hexachlorobutadiene 87-86-5 Pentachlorophenol 91-20-3 Naphthalene n/a DDT total n/a Polyaromatic hydrocarbons (PAH)

simpleType **CoordinateType**

annotation	documentation Format Decimal degrees (-)dd.ddddd

simpleType **CostDecimalType**

annotation	documentation Decimal with exception -9999 "not included in economic analysis"

simpleType **CostExemptionType**

facets	enumeration -9999
annotation	documentation -9999 to mean "not included in economic analysis"

simpleType **CountryCode**

facets	enumeration AT enumeration BE enumeration BG enumeration CH enumeration CZ enumeration CY enumeration DE enumeration DK enumeration EE enumeration EL enumeration ES enumeration FI enumeration FR

	enumeration HR enumeration HU enumeration IE enumeration IS enumeration IT enumeration LT enumeration LU enumeration LV enumeration MT enumeration NO enumeration NL enumeration PL enumeration PT enumeration RO enumeration SE enumeration SI enumeration SK enumeration TR enumeration UK
annotation	documentation Unique 2 character ISO Code for the EU Member States

simpleType **DataConfidentialityClassificationCode**

facets	enumeration 001 enumeration 003
annotation	documentation Codes for data security classification: 001 = Unclassified - available for general circulation 003 = Confidential - available for EC reporting only

simpleType **Economic2009to2015Code**

facets	enumeration 2009 enumeration 2010 enumeration 2011 enumeration 2012 enumeration 2013 enumeration 2014 enumeration 2015 enumeration 2009-2015
annotation	documentation An enumeration list of 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2009-2015

simpleType **EconomicWaterServiceType**

facets	enumeration Water supply for households enumeration Water supply for industry enumeration Water supply for agriculture enumeration Wastewater collection and treatment for households enumeration Wastewater collection and treatment for industry enumeration Other
annotation	documentation An enumeration list of Water supply for households Water supply for industry Water supply for agriculture Wastewater collection and treatment for households Wastewater collection and treatment for industry Other

simpleType **FeatureUniqueCodeType**

annotation	documentation Type for unique code within the Member State for the feature

simpleType **FeatureUniqueEUCodeType**

annotation	documentation Type for EU code, allows up to 42 characters (unique code within MS prefixed with country ISO 2 character code

simpleType **GECode**

facets	enumeration GE1 Groundwater level and yield enumeration GE1-1 Groundwater level enumeration GE1-2 Groundwater yield enumeration GE2 General parameters enumeration GE2-1 Oxygen content enumeration GE2-2 pH Value enumeration GE2-3 Conductivity enumeration GE2-4 Nitrate enumeration GE2-5 Ammonium enumeration GE3 Other pollutants
annotation	documentation Codes for groundwater parameter/elements used in groundwater monitoring programmes Groundwater level and yield GE1 Groundwater level GE1-1 Groundwater yield GE1-2 General parameters – all sub-elements below are determined (as described by Annex 5) GE2 Oxygen content GE2-1 pH Value GE2-2 Conductivity GE2-3 Nitrate GE2-4 Ammonium GE2-5 Other pollutants (e.g. other pollutants not covered above) are determined GE3

simpleType **GWBackgoundSubstancesCode**

facets	enumeration Arsenic enumeration Cadmium enumeration Lead enumeration Mercury enumeration Ammonium enumeration Chloride enumeration Sulphate enumeration Conductivity enumeration Nitrate
annotation	documentation An enumeration list of Arsenic, Cadmium, Lead, Mercury, Ammonium, Nitrate, Chloride, Sulphate, Conductivity.

simpleType **GWChemicalFailureCode**

facets	enumeration saline intrusions enumeration exceedance enumeration environmental enumeration terrestrial enumeration water quality enumeration human impairment enumeration pollutant risk
annotation	documentation An enumeration list of saline intrusions, exceedance, environmental, terrestrial, water quality, human impairment and pollutant risk

simpleType **GWConcentrationUnitsCode**

facets	enumeration mg/l enumeration µg/l enumeration ng/l

	enumeration	S m-1
	enumeration	Other
annotation	documentation	
	An enumeration list of mg/l, µg/l, ng/l, S m-1 and Other	

simpleType **GWDepthRangeCode**

facets	enumeration	0-20
	enumeration	20-50
	enumeration	50-200
	enumeration	200+
annotation	documentation	
	Assignment to a depth range at the point where the main part of the Groundwater Body is situated (depth ranges: 0-20m, 20-50m, 50-200m, >200m)	

simpleType **GWGeologicalFormationCode**

facets	enumeration	Porous high
	enumeration	Porous moderate
	enumeration	Fissured high
	enumeration	Fissured moderate
	enumeration	Insignificant
annotation	documentation	
	An enumeration list Porous - highly productive , Porous - moderately productive, Fissured aquifers including karst - highly productive, Fissured aquifers including karst - moderately productive, Insignificant aquifers - local and limited groundwater	

simpleType **GWImpactTypes**

facets	enumeration	Anthropogenic Diminution
	enumeration	Chemical Diminution
	enumeration	Anthropogenic Damage
	enumeration	Chemical Damage
	enumeration	Altered Habitat
	enumeration	Population substitution
	enumeration	Other Groundwater Impact
annotation	documentation	
	Defines the types of Groundwater Impacts Anthropogenic alterations of the level of groundwater leading to significant diminution of the ecological and qualitative status of associated surface water bodies; Chemical composition of groundwater leading to significant diminution of the ecological and qualitative status of associated surface water bodies; Anthropogenic alterations of the level of groundwater leading to significant damage to terrestrial ecosystems which depend directly on the GWB; Chemical composition of groundwater leading to significant damage to terrestrial ecosystems which depend directly on the GWB; Altered habitat in dependent surface water or terrestrial ecosystems; Substitution of populations; Other impacts.	

simpleType **GWMeasureLevelCode**

facets	enumeration	Member State
	enumeration	International RBD
	enumeration	National
	enumeration	RBD
	enumeration	Part of RBD
	enumeration	Groundwater body
annotation	documentation	
	An enumeration list of Member State, International RBD, national RBD, part of RBD, Groundwater body	

simpleType **GWPollutantAnnexI-IIType**

facets	enumeration	Nitrates
	enumeration	Arsenic
	enumeration	Cadmium
	enumeration	Lead
	enumeration	Mercury
	enumeration	Ammonium
	enumeration	Chloride
	enumeration	Sulphate
	enumeration	Trichloroethylene
	enumeration	Tetrachloroethylene
	enumeration	Conductivity
	enumeration	TotalPesticides
annotation	documentation	
	Defines the types of Annex I - II pollutants (of Groundwater Directive 2006/118/EEC) or indicators for Groundwater classification	

simpleType **GWPollutantsCode**

facets	enumeration	1 Nitrates
	enumeration	2 Pesticides
	enumeration	2.1 Alachlor
	enumeration	2.2 Atrazine
	enumeration	2.3 Endosulfan
	enumeration	2.4 Isoproturon
	enumeration	2.5 Hexachlorocyclohexane
	enumeration	2.6 Pentachlorobenzene
	enumeration	2.7 Simazine
	enumeration	2.8 Trifluralin
	enumeration	3 Annex II pollutant
	enumeration	3.1 Arsenic
	enumeration	3.2 Cadmium
	enumeration	3.3 Lead
	enumeration	3.4 Mercury
	enumeration	3.5 Ammonium
	enumeration	3.6 Chloride
	enumeration	3.7 Sulphate
	enumeration	3.8 Trichloroethylene
	enumeration	3.9 Tetrachloroethylene
	enumeration	3.10 Conductivity
annotation	documentation	
	An enumeration list of 1. Nitrates; 2. Pesticides - Alachlor, Atrazine, Endosulphan, Isoproturon, Hexachlorocyclohexane, Pentachlorobenzene, Simazine, Trifluralin; 3. Annex II pollutants - Arsenic, Cadmium, Lead, Mercury, Ammonium, Chloride, Sulphate, Trichloroethylene, Tetrachloroethylene, Conductivity.	

simpleType **GWPressureAbstractionType**

facets	enumeration	3 Abstraction
	enumeration	3.1 Abstraction - Agriculture
	enumeration	3.2 Abstraction - Public Water Supply
	enumeration	3.3 Abstraction - Industry (aggregated)
	enumeration	3.3.1 Abstraction - IPPC industries
	enumeration	3.3.2 Abstraction - Non-IPPC industries
	enumeration	3.4 Abstraction - Quarries
	enumeration	3.5 Abstraction - Other
annotation	documentation	
	Defines the list of GW Abstraction pressures	

simpleType **GWPressureAggregatedType**

facets	enumeration	1 Point Sources
	enumeration	2 Diffuse Sources
	enumeration	3 Abstraction
	enumeration	4 Artificial Recharge
	enumeration	5 Saltwater Intrusion
	enumeration	6 Other Pressures

annotation	documentation Defines the list of groundwater aggregated pressures

simpleType **GWPressureRechargeType**

facets	enumeration 4 Artificial Recharge enumeration 4.1 Recharge - Discharges enumeration 4.2 Recharge - Returns enumeration 4.3 Recharge - Mine water rebound enumeration 4.4 Recharge - Other
annotation	documentation Defines the list of GW Recharge pressures

simpleType **GWPressureType**

facets	enumeration 1 Point Sources enumeration 2 Diffuse Sources enumeration 3 Abstraction enumeration 4 Artificial Recharge enumeration 5 Saltwater Intrusion enumeration 6 Other Pressures enumeration 1.1 Point - Contaminated Sites enumeration 1.2 Point - Waste Disposal Sites enumeration 1.3 Point - Oil Industry enumeration 1.4 Point - Mine Waters enumeration 1.5 Point - Discharges To Ground enumeration 1.6 Point - Other enumeration 2.1 Diffuse - Agriculture enumeration 2.2 Diffuse - Non-sewered Population enumeration 2.3 Diffuse - Urban Land Use enumeration 2.4 Diffuse - Other enumeration 3.1 Abstraction - Agriculture enumeration 3.2 Abstraction - Public Water Supply enumeration 3.3 Abstraction - Industry (aggregated) enumeration 3.3.1 Abstraction - IPPC industries enumeration 3.3.2 Abstraction - Non-IPPC industries enumeration 3.4 Abstraction - Quarries enumeration 3.5 Abstraction - Other enumeration 4.1 Recharge - Discharges enumeration 4.2 Recharge - Returns enumeration 4.3 Recharge - Mine water rebound enumeration 4.4 Recharge - Other enumeration 5.1 Saltwater intrusion enumeration 5.2 Other intrusion
annotation	documentation Defines the list of groundwater pressures requiring supplementary or additional measures POINT SOURCES - Leakages from contaminated sites; - Leakages from waste disposal sites (landfill and agricultural waste disposal); - Leakages associated with oil industry infrastructure; - Mine water discharges; - Discharges to ground such as disposal of contaminated water to soakaways; - Other relevant point sources. DIFFUSE SOURCES - Due to agricultural activities (e.g. fertilizer and pesticide use, live stock etc.); - Due to non-sewered population; - Urban land use; - Other relevant diffuse sources. ABSTRACTION OF WATER - Abstractions for agriculture; - Abstractions for public water supply; Abstractions by industry including: - IPPC industries; - Non-IPPC industries; - Abstractions by quarries/open cast coal sites; - Other major abstractions.

	ARTIFICAL RECHARGES - Discharges to groundwater for artificial recharge purposes; - Returns of groundwater to GWB from which it was abstracted (e.g. for sand and gravel washing); - Mine water rebound; - Other major recharges OTHER - Saltwater intrusion; - Other intrusion.

simpleType **GWQuantitativeFailureCode**

facets	enumeration	exceedance
	enumeration	environmental
	enumeration	diminution
	enumeration	damage
	enumeration	intrusion
annotation	documentation	
	An enumeration list of exceedance, environmental, diminution, damage and intrusion.	

simpleType **GWStatusCode**

facets	enumeration	2
	enumeration	3
	enumeration	U
annotation	documentation	
	Codes for groundwater status 2=good, 3=poor, U=unknown	

simpleType **GWVerticalOrientationCode**

facets	enumeration	Horizontal continuous
	enumeration	Horizontal individual
	enumeration	Declining, mainly continuous
	enumeration	Declining cumulative
	enumeration	Declining individual
	enumeration	Boat
	enumeration	Smaller boat
	enumeration	Other
annotation	documentation	
	An enumeration list. Horizontal, mainly continuous body; Horizontal, mainly smaller, individual formations; Declining, mainly continuous body; Declining, mainly smaller, individual formations; Declining and cumulative, mainly continuous body; Declining and cumulative, mainly smaller, individual formations; Boat form, mainly continuous body; Smaller individual boat formed formations; Other	

simpleType **GWWellOrSpringCode**

facets	enumeration	W
	enumeration	S
	enumeration	O
annotation	documentation	
	Codes for well or spring W = Well S = Spring O = Other	

simpleType **MeasureBasicOtherType**

facets	enumeration	OM-CostRecovery
	enumeration	OM-EfficientWaterUse
	enumeration	OM-ProtectAbstraction
	enumeration	OM-ControlAbstraction
	enumeration	OM-Recharge
	enumeration	OM-PointSourceDischarges
	enumeration	OM-PollutantsDiffuse
	enumeration	OM-HydromorphologicalPressures
	enumeration	OM-PollutantsToGroundwater

	enumeration OM-PrioritySubstances enumeration OM-AccidentalPollution
annotation	documentation Defines the Other Basic measures required by Article 11(3)b to Article 11(3)l . These are as follows OM-CostRecovery - Measures for the recovery of cost of water services (Article 9). Supplementary OM-EfficientWaterUse - Measures to promote efficient and sustainable water use. OM-ProtectAbstraction - Measures for the protection of water abstracted for drinking water (Article 7) including those to reduce the level of purification required for the production of drinking water (note: these basic measures may not apply to the whole territory). OM-ControlAbstraction - Controls over the abstraction of fresh surface water and groundwater and impoundment of fresh surface waters including a register or registers of water abstractions and a requirement for prior authorisation of abstraction and impoundment. OM-Recharge - Controls, including a requirement for prior authorisation of artificial recharge or augmentation of groundwater bodies. OM-PointSourceDischarges - Requirement for prior regulation of point source discharges liable to cause pollution. OM-PollutantsDiffuse - Measures to prevent or control the input of pollutants from diffuse sources liable to cause pollution. OM-HydromorphologicalPressures - Measures to control any other significant adverse impact on the status of water, and in particular hydromporphological impacts. OM-PollutantsToGroundwater - Prohibition of direct discharge of pollutants into groundwater. OM-PrioritySubstances - Measures to eliminate pollution of surface waters by priority substances and to reduce pollution from other substances that would otherwise prevent the achievement of the objectives laid down in Article 4. OM-AccidentalPollution - Any measures required to prevent significant losses of pollutants from technical installations and to prevent and/or reduce the impact of accidental pollution incidents.

simpleType **MeasureCostAggregationType**

facets	enumeration Entire RBMP enumeration Annual enumeration Other
annotation	documentation An enumeration list of Entire RBMP, Annual, Other

simpleType **MeasureCostClassificationType**

facets	enumeration total enumeration financial enumeration resources enumeration administrative enumeration non-water env
annotation	documentation An enumeration list of total, financial, resources, administrative, non-water environmental

simpleType **MeasureCoverageType**

facets	enumeration RBD enumeration Sub-unit enumeration Water Body enumeration National enumeration Other
annotation	documentation An enumeration list of RBD, Sub-unit, Water body, National, Other

simpleType **MeasureRBDorNationalCode**

facets	enumeration R enumeration N
annotation	documentation An enumeration list of R=RBD and N=national

simpleType **MeasuresBasicType**

facets	enumeration BM-Bathing

	enumeration BM-Birds enumeration BM-Drinking enumeration BM-Seveso enumeration BM-Env Impact enumeration BM-Sewage sludge enumeration BM-UWWTD enumeration BM-Plant protection enumeration BM-Nitrates enumeration BM-Habitats enumeration BM-IPPC
annotation	documentation Defines the Basic measures required by Article 11(3)(a). These are as follows Bathing - Bathing Water Directive (76/160/EEC and 2006/7/EC) Birds - Birds Directive (79/409/EEC) Drinking- Drinking Water Directive (80/778/EEC) as amended by Directive (98/83/EC) Seveso- Major Accidents (Seveso) Directive (96/82/EC) Env Impact - Environmental Impact Assessment Directive (85/337/EEC) Sewage Sludge - Sewage Sludge Directive (86/278/EEC) UWWTD - Urban Waste-water Treatment Directive (91/271/EEC) Plant protection - Plant Protection Products Directive (91/414/EEC) Nitrates - Nitrates Directive (91/676/EEC) Habitats - Habitats Directive (92/43/EEC) IPPC - Integrated Pollution Prevention Control Directive (96/61/EC)

simpleType **MeasureSWSupplementaryType**

facets	enumeration LEGAL enumeration ADMIN enumeration ECONOMIC enumeration NEGOTIATED enumeration EMISSION enumeration PRACTICE enumeration ABSTRACTION enumeration DEMAND enumeration EFFICIENCY enumeration CONSTRUCTION enumeration DESALINATION enumeration REHABILITATION enumeration RECHARGE enumeration EDUCATIONAL enumeration RESEARCH enumeration OTHER
annotation	documentation An enumeration list of legal, economic, negotiated, emission, practice, abstraction, demand, efficiency, construction, desalination, rehabilitation, recharge, educational, research, other

simpleType **MethodLoadType**

facets	enumeration estimated enumeration calculated enumeration monitored
annotation	documentation Defines how results are measured for assessing pressures. Values are monitored, calculated or estimated

simpleType **MonitoringDepthCode**

facets	enumeration U enumeration M enumeration L enumeration A
annotation	documentation Codes for depth at which monitoring occurs U = Upper M = Middle L = Lower A = Mixed

simpleType **MonitoringInternationalNetworkType**

facets	enumeration	EIONET
	enumeration	Helsinki Convention(HELCOM)
	enumeration	Barcelona Convention/Mediterranean Action Plan(MEDPOL)
	enumeration	Arctic Monitoring and Assessment Programme
	enumeration	North East Atlantic (OSPAR)
	enumeration	Bucharest Convention/Black Sea Commission
	enumeration	Transboundary Waters Convention
	enumeration	International Commission for the Meuse
	enumeration	International Scheldt Commission
	enumeration	International Commission for the Elbe
	enumeration	International Commission for the Protection of the Danube
	enumeration	International Commission for the Protection of the Odra/Oder
	enumeration	International Commission for the Protection of the Rhine against Pollution (ICPR)
	enumeration	international commission for the protection of the Moselle against pollution
annotation	documentation	
	International monitoring networks	

simpleType **MonitoringInvestigativeCode**

facets	enumeration	F
	enumeration	E
	enumeration	R
	enumeration	O
annotation	documentation	
	Codes for investigative monitoring E = unknown exceedance F = failure of objectives R = incident response O = Other	

simpleType **MonitoringProgrammeLevelCode**

facets	enumeration	I
	enumeration	N
	enumeration	R
annotation	documentation	
	Codes for level at which the programme is designed: I = International, N = National, R = RBD	

simpleType **MonitoringSubsiteCode**

facets	enumeration	A
	enumeration	T
	enumeration	M
	enumeration	N
annotation	documentation	
	Codes to define the type of subsite: A= Area, T=Transect, M=Multipoint, N=Not Applicable/None	

simpleType **NumberDecimalBaseType**

simpleType **NumberDecimalType**

annotation	documentation
	Decimal with options for exceptions. -9999=Unknown, -8888=Yet to be measured, -7777=Not Applicable.

simpleType **NumberExceptionType**

facets	enumeration	-9999
	enumeration	-8888
	enumeration	-7777
annotation	documentation	
	Numerical codes for data exceptions: -9999=Unknown, -8888=Yet to be measured, -7777=Not Applicable	

simpleType **NumberNonNegativeIntegerType**

annotation	documentation Non-negative integer with option for exceptions

simpleType **NumberPercentageBaseType**

annotation	documentation Percentage with 3 decimal places

simpleType **NumberPercentageType**

annotation	documentation Percentage with option for exceptions

simpleType **ObjectivesExemptionType**

facets	enumeration Article4(4) -Technical feasibility enumeration Article4(4) - Disproportionate cost enumeration Article4(4) - Natural conditions enumeration Article4(5) -Technical feasibility enumeration Article4(5) - Disproportionate cost enumeration Article4(6) - Natural causes enumeration Article4(6) - Force Majeure enumeration Article4(6) - Accidents enumeration Article4(7) - New modification enumeration Article4(7) - Sustainable human development
annotation	documentation Defines the Articles against which exemptions are made

simpleType **PressureGWAbstractionPeriodType**

facets	enumeration yearly enumeration winter enumeration spring enumeration summer enumeration autumn
annotation	documentation An enumeration list of yearly, winter, spring, summer, autumn

simpleType **PressureGWAbstractionUnitType**

facets	enumeration m3 enumeration 1000m3 enumeration 1000000m3
annotation	documentation An enumeration list of m3, 1000m3, 1000000m3

simpleType **PressureLoadUnitType**

facets	enumeration kg/yr enumeration tonnes/yr enumeration 1000tonnes/yr
annotation	documentation An enumeration list of kg/yr, tonnes/yr, 1000tonnes/yr.

simpleType **ProtAreaAssociationType**

facets	enumeration within protected area enumeration overlapping (partly within) enumeration dynamically connected

annotation	documentation Defines the type of protected Area Association. Options are within protected area, overlapping (partly within) and dynamically connected.

simpleType **ProtectedAreaGWType**

facets	enumeration Birds enumeration Habitats enumeration Nitrates enumeration Article 7 Abstraction for drinking water enumeration European other enumeration National enumeration Local
annotation	documentation Defines Protected Areas types relevant to the classification of Protected Areas associated with Groundwater Bodies

simpleType **ProtectedAreaSWType**

facets	enumeration Bathing enumeration Birds enumeration Fish enumeration Shellfish enumeration Habitats enumeration Nitrates enumeration Article 7 Abstraction for drinking water enumeration EuropeanOther enumeration National enumeration Local
annotation	documentation Defines Protected Areas types relevant to the classification of Protected Areas associated with Surface Water bodies

simpleType **ProtectedAreaType**

facets	enumeration Bathing enumeration Birds enumeration Fish enumeration Shellfish enumeration Habitats enumeration Nitrates enumeration UWWT enumeration Article 7 Abstraction for drinking water enumeration EuropeanOther enumeration National enumeration Local
annotation	documentation Defines all Protected Area types for use in the Register of Protected Areas (Article 6)

simpleType **QE3-1ParameterType**

facets	enumeration QE3-1-1-SecchiDepth enumeration QE3-1-1-Transparency enumeration QE3-1-2-Water temperature enumeration QE3-1-3-BOD5 enumeration QE3-1-3-BOD7 enumeration QE3-1-3-COD enumeration QE3-1-3-CODCr enumeration QE3-1-3-CODMn enumeration QE3-1-3-DissolvedOxygenConcentration enumeration QE3-1-3-OxygenSaturationPercentage enumeration QE3-1-3-DissolvedOrganicCarbon enumeration QE3-1-4-Salinity enumeration QE3-1-4-Conductivity enumeration QE3-1-4-Chloride enumeration QE3-1-4-Sulfate enumeration QE3-1-5-Alkalinity

	enumeration QE3-1-5-Hardness enumeration QE3-1-5-pH enumeration QE3-1-6-KjeldahlNitrogen enumeration QE3-1-6-Nitrate enumeration QE3-1-6-Nitrite enumeration QE3-1-6-OrganicNitrogen enumeration QE3-1-6-ParticulateOrganicNitroge enumeration QE3-1-6-Non-ionisedAmmonia enumeration QE3-1-6-Orthophosphate enumeration QE3-1-6-SolubleReactivePhosphorus enumeration QE3-1-6-Silicate enumeration QE3-1-6-TotalInorganicNitrogen enumeration QE3-1-6-TotalNitrogen enumeration QE3-1-6-TotalOxidisedNitrogen enumeration QE3-1-6-TotalAmmonium enumeration QE3-1-6-TotalOrganicCarbon enumeration QE3-1-6-TotalPhosphorus enumeration QE3-1-6-NitrateOrthophosphateRatio enumeration QE3-1-6-TotalNitrogenTotalPhosphorusRatio enumeration QE3-1-6-ChlorophyllA enumeration QE3-1-6-Nmineral enumeration QE3-1 Other
annotation	documentation An enumeration list of general physicochemical QE (QE3-1) and parameters indicative of QEs that MIGHT be used for the ecological status classification of water bodies: QE3-1-1-SecchiDepth QE3-1-1-Transparency QE3-1-2-Water temperature QE3-1-3-BOD5 QE3-1-3-BOD7 QE3-1-3-COD QE3-1-3-CODCr QE3-1-3-CODMn QE3-1-3-DissolvedOxygenConcentration QE3-1-3-OxygenSaturationPercentage QE3-1-3-DissolvedOrganicCarbon QE3-1-4-Salinity QE3-1-4-Conductivity QE3-1-4-Chloride QE3-1-4-Sulfate QE3-1-5-Alkalinity QE3-1-5-Hardness QE3-1-5-pH QE3-1-6-KjeldahlNitrogen QE3-1-6-Nitrate QE3-1-6-Nitrite QE3-1-6-OrganicNitrogen QE3-1-6-ParticulateOrganicNitrogen QE3-1-6-Non-ionisedAmmonia QE3-1-6-Orthophosphate QE3-1-6-SolubleReactivePhosphorus QE3-1-6-Silicate QE3-1-6-TotalInorganicNitrogen QE3-1-6-TotalNitrogen QE3-1-6-TotalOxidisedNitrogen QE3-1-6-TotalAmmonium QE3-1-6-TotalOrganicCarbon QE3-1-6-TotalPhosphorus QE3-1-6-NitrateOrthophosphateRatio QE3-1-6-TotalNitrogenTotalPhosphorusRatio QE3-1-6-ChlorophyllA QE3-1-6-Nmineral

simpleType **QEBiologicalCoastalCode**

facets	enumeration QE1-1 Phytoplankton enumeration QE1-2 Other aquatic flora enumeration QE1-2-1 Macroalgae enumeration QE1-2-2 Angiosperms

	enumeration QE1-3 Benthic invertebrates enumeration QE1-5 Other species
annotation	documentation Defines all the QE Biological Coastal codes that might be used for the classification of status of Coastal Water Bodies

simpleType **QEBiologicalLakeCode**

facets	enumeration QE1-1 Phytoplankton enumeration QE1-2 Other aquatic flora enumeration QE1-2-3 Macrophytes enumeration QE1-2-4 Phytobenthos enumeration QE1-3 Benthic invertebrates enumeration QE1-4 Fish enumeration QE1-5 Other species
annotation	documentation Defines all the QE Biological Lake codes that might be used for the classification of status of Lake Water Bodies

simpleType **QEBiologicalRiverCode**

facets	enumeration QE1-1 Phytoplankton enumeration QE1-2 Other aquatic flora enumeration QE1-2-3 Macrophytes enumeration QE1-2-4 Phytobenthos enumeration QE1-3 Benthic invertebrates enumeration QE1-4 Fish enumeration QE1-5 Other species
annotation	documentation Defines all the QE Biological River codes that might be used for the classification of status of River Water Bodies. Phytoplankton is not a mandatory QE for rivers but Article 8 reports show that it is monitored in many large rivers and hence might be used for the classification of large River Water Bodies.

simpleType **QEBiologicalTransitionalCode**

facets	enumeration QE1-1 Phytoplankton enumeration QE1-2 Other aquatic flora enumeration QE1-2-1 Macroalgae enumeration QE1-2-2 Angiosperms enumeration QE1-3 Benthic invertebrates enumeration QE1-4 Fish enumeration QE1-5 Other species
annotation	documentation Defines all the QE Biological Transitional codes that might be used for the classification of status of Transitional Water Bodies

simpleType **QECode**

facets	enumeration QE1 Biological enumeration QE1-1 Phytoplankton enumeration QE1-2 Other aquatic flora enumeration QE1-2-1 Macroalgae enumeration QE1-2-2 Angiosperms enumeration QE1-2-3 Macrophytes enumeration QE1-2-4 Phytobenthos enumeration QE1-3 Benthic invertebrates enumeration QE1-4 Fish enumeration QE1-5 Other species enumeration QE2 Hydromorphological QEs enumeration QE2-1 Hydrological regime - rivers enumeration QE2-1-1 Water flow enumeration QE2-1-2 Connection to groundwater bodies enumeration QE2-2 River continuity enumeration QE2-3 Morphological conditions - rivers enumeration QE2-3-1 River depth and width variation enumeration QE2-3-2 Structure and substrate of river bed

	enumeration QE2-3-3 Structure of riparian zone enumeration QE2-4 Hydrological regime - lakes enumeration QE2-4-1 Water flow enumeration QE2-4-2 Residence time enumeration QE2-4-3 Connection to groundwater bodies enumeration QE2-5 Morphological conditions - lakes enumeration QE2-5-1 Lake depth variation enumeration QE2-5-2 Lake bed enumeration QE2-5-3 Structure of lake shore enumeration QE2-6 Morphological conditions - transitional and coastal waters enumeration QE2-6-1 Depth variation enumeration QE2-6-2 Quantity, structure and substrate of bed enumeration QE2-6-3 Structure of the intertidal zone enumeration QE2-7 Tidal regime - transitional waters enumeration QE2-7-1 Freshwater flow enumeration QE2-7-2 Wave exposure enumeration QE2-8 Tidal regime - coastal waters enumeration QE2-8-1 Direction of dominant currents enumeration QE2-8-2 Wave exposure enumeration QE3 Chemical and Physico-chemical enumeration QE3-1General Parameters enumeration QE3-1-1 Transparency enumeration QE3-1-2 Thermal conditions enumeration QE3-1-3 Oxygenation conditions enumeration QE3-1-4 Salinity enumeration QE3-1-5 Acidification status enumeration QE3-1-6 Nutrient conditions enumeration QE3-2 Priority Substances enumeration QE3-3 Non priority specific pollutants enumeration QE3-4 Other national pollutants
annotation	documentation Complete list of QEs and codes as reported for Article 8 monitoring programmes. QE1 Biological quality elements (e.g. those indicated in WFD Annex V) are determined QE1-1 Composition, abundance and biomass of phytoplankton QE1-2 Composition and abundance of other aquatic flora (e.g. angiosperms, macrophytes, phytobenthos and macroalgae) QE1-2-1 Composition and abundance of macroalgae QE1-2-2 Composition and abundance of angiosperms QE1-2-3 Composition and abundance of macropyhtes QE1-2-4 Composition and abundance of phytobenthos QE1-3 Composition, abundance and diversity of benthic invertebrate fauna QE1-4 Composition, abundance and age structure of fish QE1-5 Other non-mandatory species (e.g. zooplankton) QE2 Hydromorphological quality elements (e.g. those indicated in WFD, Annex V) are determined QE2-1 Hydrological regime rivers – hydrological parameters (e.g. those indicated by Annex 5) are determined QE2-1-1 Quantity and dynamics of water flow QE2-1-2 Connection to groundwater bodies QE2-2 River continuity QE2-3 Morphological conditions rivers - morphological parameters (e.g. those indicated by Annex 5) are determined QE2-3-1 River depth and width variation QE2-3-2 Structure and substrate of the river bed QE2-3-3 Structure of the riparian zone QE2-4 Hydrological regime lakes – hydrological parameters (e.g. those indicated by Annex 5) are determined QE2-4-1 Quantity and dynamics of water flow QE2-4-2 Residence time QE2-4-3 Connection to groundwater bodies QE2-5 Morphological conditions lakes morphological parameters (e.g. those indicated by Annex 5) are determined QE2-5-1 Lake depth variation QE2-5-2 Quantity, structure and substrate of the lake bed QE2-5-3 Structure of the lake shore QE2-6 Morphological conditions transitional and coastal waters – morphological parameters (e.g. those indicated by Annex 5) are determined QE2-6-1 Depth variation QE2-6-2 Quantity, structure and substrate of the bed QE2-6-3 Structure of the intertidal zone QE2-7 Tidal regime transitional waters – tidal parameters (e.g. those indicated by Annex 5) are determined QE2-7-1 Freshwater flow

	QE2-7-2 Wave exposure QE2-8 Tidal regime coastal waters – tidal parameters (e.g. those indicated by Annex 5) are determined QE2-8-1 Direction of dominant currents QE2-8-2 Wave exposure QE3 Chemical and physico-chemical quality elements (e.g. those indicated in WFD, Annex V) are determined QE3-1 General parameters – parameters (e.g. those indicated by Annex 5) are determined QE3-1-1 Transparency QE3-1-2 Thermal Conditions QE3-1-3 Oxygenation conditions QE3-1-4 Salinity QE3-1-5 Acidification status QE3-1-6 Nutrient conditions QE3-2 Priority Substances (as indicated in Annex 10) are determined QE3-3 Non-priority specific pollutants (as indicated in Annex 8/9) are determined QE3-4 Other pollutants (e.g. other pollutants not covered by Annex 8,9 and 10) are determined

simpleType **QEEcologicalCode**

facets	enumeration	QE0 Ecological
	enumeration	QE1 Biological
	enumeration	QE2 Hydromorphological QEs
	enumeration	QE3 Chemical and Physico-chemical
	enumeration	QE1-1 Phytoplankton
	enumeration	QE1-2 Other aquatic flora
	enumeration	QE1-3 Benthic invertebrates
	enumeration	QE1-4 Fish
	enumeration	QE1-5 Other species
	enumeration	QE2-1 Hydrological regime - rivers
	enumeration	QE2-2 River continuity
	enumeration	QE2-3 Morphological conditions - rivers
	enumeration	QE2-4 Hydrological regime - lakes
	enumeration	QE2-5 Morphological conditions - lakes
	enumeration	QE2-6 Morphological conditions - transitional and coastal waters
	enumeration	QE2-7 Tidal regime - transitional waters
	enumeration	QE2-8 Tidal regime - coastal waters
	enumeration	QE3-3 Non priority specific pollutants
	enumeration	QE3-4 Other national pollutants
annotation	documentation	
	Defines all the QE Ecological codes for which exemptions to the achievement of good status might have been applied.	

simpleType **QEHydromorphCoastalCode**

facets	enumeration	QE2 Hydromorphological QEs
	enumeration	QE2-6 Morphological conditions - transitional and coastal waters
	enumeration	QE2-6-1 Depth variation
	enumeration	QE2-6-2 Quantity, structure and substrate of bed
	enumeration	QE2-8 Tidal regime - coastal waters
	enumeration	QE2-8-1 Direction of dominant currents
	enumeration	QE2-8-2 Wave exposure
annotation	documentation	
	Defines all the Hydromorphological QE codes that might be used for the classification of status of Coastal Water Bodies	

simpleType **QEHydromorphLakeCode**

facets	enumeration	QE2 Hydromorphological QEs
	enumeration	QE2-4 Hydrological regime - lakes
	enumeration	QE2-4-1 Water flow
	enumeration	QE2-4-2 Residence time
	enumeration	QE2-4-3 Connection to groundwater bodies
	enumeration	QE2-5 Morphological conditions - lakes
	enumeration	QE2-5-1 Lake depth variation
	enumeration	QE2-5-2 Lake bed
	enumeration	QE2-5-3 Structure of lake shore
annotation	documentation	
	Defines all the Hydromorphological QE codes that might be used for the classification of status of Lake Water	

	Bodies

simpleType **QEHydromorphRiverCode**

facets	enumeration	QE2 Hydromorphological QEs
	enumeration	QE2-1 Hydrological regime - rivers
	enumeration	QE2-1-1 Water flow
	enumeration	QE2-1-2 Connection to groundwater bodies
	enumeration	QE2-2 River continuity
	enumeration	QE2-3 Morphological conditions - rivers
	enumeration	QE2-3-1 River depth and width variation
	enumeration	QE2-3-2 Structure and substrate of river bed
	enumeration	QE2-3-3 Structure of riparian zone
annotation	documentation	
	Defines all the Hydromorphological QE codes that might be used for the classification of status of River Water Bodies	

simpleType **QEHydromorphTransitionalCode**

facets	enumeration	QE2 Hydromorphological QEs
	enumeration	QE2-6 Morphological conditions - transitional and coastal waters
	enumeration	QE2-6-1 Depth variation
	enumeration	QE2-6-2 Quantity, structure and substrate of bed
	enumeration	QE2-7 Tidal regime - transitional waters
	enumeration	QE2-7-1 Freshwater flow
	enumeration	QE2-7-2 Wave exposure
annotation	documentation	
	Defines all the Hydromorphological QE codes that might be used for the classification of status of Transitional Water Bodies	

simpleType **ReportingLevelCode**

facets	enumeration	I
	enumeration	N
	enumeration	R
	enumeration	S
annotation	documentation	
	Codes for describing the reporting level: I = international RBD, N= National part of international RBD, R = national RBD, S = regional part or sub-unit of RBD	

simpleType **ScaleType**

annotation	documentation
	Format for Scale: 1:nnnnnnnn

simpleType **StatusConfidenceType**

facets	enumeration	0
	enumeration	1
	enumeration	2
	enumeration	3
annotation	documentation	
	Defines the confidence in the classification of the QEs used for ecological status. Types 0=no information, 1=low confidence, 2=medium confidence, 3=high confidence	

simpleType **StatusOrPotentialType**

facets	enumeration	S
	enumeration	P
annotation	documentation	
	Defines whether classification information is given for S=status (All natural water bodies) or P=potential (Artificial or heavily modified water bodies)	

simpleType **String1000Type**

annotation	documentation String of up to 1000 characters

simpleType **String100Type**

annotation	documentation String of up to 100 characters

simpleType **String2000Type**

annotation	documentation Type to enter string of 1 to 2000 characters

simpleType **String250Type**

annotation	documentation String of up to 250 characters

simpleType **String5000Type**

annotation	documentation Type to enter string of 1 to 5000 characters

simpleType **String500Type**

annotation	documentation String of up to 500 characters

simpleType **String50Type**

annotation	documentation String of up to 50 characters

simpleType **SWCategoryAllCode**

facets	enumeration SW enumeration CW enumeration LW enumeration RW enumeration TW
annotation	documentation An enumeration list of SurfaceWater Categories icnluding All: SW=All Surface Waters; CW =Coastal Waters; LW =Lakes; RW =Rivers; TW =Transitional Waters

simpleType **SWCategoryCode**

facets	enumeration CW enumeration LW enumeration RW enumeration TW
annotation	documentation SurfaceWater Categories: CW =Coastal Water; LW =Lake; RW =River; TW =Transitional water

simpleType **SWImpactType**

facets	enumeration Nutrient enrichment

	enumeration	Organic enrichment
	enumeration	Contamination by priority substances
	enumeration	Contaminated sediments
	enumeration	Acidification
	enumeration	Saline intrusion
	enumeration	Elevated temperatures
	enumeration	Altered habitats
	enumeration	Other Significant Impacts
annotation	documentation	
	Defines the types of surface water Impacts. These are as follows - Nutrient enrichment (at risk of becoming eutrophic) (unless information already provided under UWWTD); - Organic enrichment; - Contamination by priority substances or other specific pollutants; - Contaminated sediments; - Acidification; - Saline intrusion; - Elevated temperatures; - Altered habitats as a result of hydromorphological alterations	

simpleType **SWNaturalCode**

facets	enumeration	Natural
	enumeration	Artificial
	enumeration	Heavily Modified
	enumeration	Unknown
annotation	documentation	
	Codes for natural state of the water body. Codes are Natural, Artificial, Heavily Modified and Unknown	

simpleType **SWPressureAbstractionType**

facets	enumeration	3 Water Abstraction
	enumeration	3.1 Abstraction - Agriculture
	enumeration	3.2 Abstraction - Public Water Supply
	enumeration	3.3 Abstraction - Manufacturing
	enumeration	3.4 Abstraction - Electricity cooling
	enumeration	3.5 Abstraction - Fish farms
	enumeration	3.6 Abstraction - Hydro-energy not cooling
	enumeration	3.7 Abstraction - Quarries
	enumeration	3.8 Abstraction - Navigation
	enumeration	3.9 Abstraction - Water transfer
	enumeration	3.10 Abstraction - Other
annotation	documentation	
	Defines the list of SW Abstraction pressures	

simpleType **SWPressureAggregatedType**

facets	enumeration	1 Point Source
	enumeration	2 Diffuse Source
	enumeration	3 Water Abstraction
	enumeration	4 Water flow regulations and morphological alterations of surface water
	enumeration	5 River management
	enumeration	6. Transitional and coastal water management
	enumeration	7 Other morphological alterations
	enumeration	8 Other Pressures
annotation	documentation	
	Defines the list of SW Aggregated pressures	

simpleType **SWPressureType**

facets	enumeration	1 Point Source
	enumeration	2 Diffuse Source
	enumeration	3 Water Abstraction
	enumeration	4 Water flow regulations and morphological alterations of surface water
	enumeration	5 River management
	enumeration	6. Transitional and coastal water management
	enumeration	7 Other morphological alterations

	enumeration 8 Other Pressures enumeration 1.1 Point - UWWT_General enumeration 1.1.1 Point - UWWT_2000 enumeration 1.1.2 Point - UWWT_10000 enumeration 1.1.3 Point - UWWT_15000 enumeration 1.1.4 Point - UWWT_150000 enumeration 1.1.5 Point - UWWT_150000PLUS enumeration 1.2 Point - Storm Overflows enumeration 1.3 Point - IPPC plants (EPRTR) enumeration 1.4 Point - Non IPPC enumeration 1.5 Point - Other enumeration 2.1 Diffuse - Urban run off enumeration 2.2 Diffuse - Agricultural enumeration 2.3 Diffuse - Transport and infrastructure enumeration 2.4 Diffuse - Abandoned industrial sites enumeration 2.5 Diffuse - Releases from facilities not connected to sewerage network enumeration 2.6 Diffuse - Other enumeration 3.1 Abstraction - Agriculture enumeration 3.2 Abstraction - Public Water Supply enumeration 3.3 Abstraction - Manufacturing enumeration 3.4 Abstraction - Electricity cooling enumeration 3.5 Abstraction - Fish farms enumeration 3.6 Abstraction - Hydro-energy not cooling enumeration 3.7 Abstraction - Quarries enumeration 3.8 Abstraction - Navigation enumeration 3.9 Abstraction - Water transfer enumeration 3.10 Abstraction - Other enumeration 4.1 FlowMorph - Groundwater recharge enumeration 4.2 FlowMorph - Hydroelectric dam enumeration 4.3 FlowMorph - Water supply reservoir enumeration 4.4 FlowMorph - Flood defence dams enumeration 4.5 FlowMorph - Water Flow Regulation enumeration 4.6 FlowMorph - Diversions enumeration 4.7 FlowMorph - Locks enumeration 4.8 FlowMorph - Weirs enumeration 5.1 RiverManagement - Physical alteration of channel enumeration 5.2 RiverManagement - Engineering activities enumeration 5.3 RiverManagement - Agricultural enhancement enumeration 5.4 RiverManagement - Fisheries enhancement enumeration 5.5 RiverManagement - Land infrastructure enumeration 5.6 RiverManagement - dredging enumeration 6.1 TRACManagement - Estuarine/coastal dredging enumeration 6.2 TRACManagement - Marine constructions enumeration 6.3 TRACManagement - Land reclamation enumeration 6.4 TRACManagement - Coastal sand suppletion (safety) enumeration 6.5 TRACManagement - Tidal barrages enumeration 7.1 OtherMorph - Barriers enumeration 7.2 OtherMorph - Land sealing enumeration 8.1 OtherPressures - Litter/fly tipping enumeration 8.2 OtherPressures - Sludge disposal to sea enumeration 8.3 OtherPressures - Exploitation/removal of animals/plants enumeration 8.4 OtherPressures - Recreation enumeration 8.5 OtherPressures - Fishing enumeration 8.6 OtherPressures - Introduced species enumeration 8.7 OtherPressures - Introduced disease enumeration 8.8 OtherPressures - Climate change enumeration 8.9 OtherPressures - Land drainage enumeration 8.10 OtherPressures- Other
annotation	documentation Defines the list of SW pressures requiring supplementary or additional measures. The types are: 1. Point Source. 2. Diffuse Source. 3. Water Abstraction. 4. Water flow regulations and morphological alterations of surface water. 5. River management. 6. Transitional and coastal water management 7. Other morphological alterations. 8. Other Pressures 1.1 Point - UWWT plants 1.1.1 Point - UWWT_2000 1.1.2 Point - UWWT_10000

	1.1.3 Point - UWWT_15000 1.1.4 Point - UWWT_150000 1.1.5 Point - UWWT_150000PLUS 1.2 Point - Storm Overflows 1.3 Point - IPPC plants (EPRTR) 1.4 Point - Non IPPC 1.5 Point - Other 2.1 Diffuse - Urban run off 2.2 Diffuse - Agricultural 2.3 Diffuse - Transport and infrastructure 2.4 Diffuse - Abandoned industrial sites 2.5 Diffuse - Releases from facilities not connected to sewerage network 2.6 Diffuse - Other 3.1 Abstraction - Agriculture 3.2 Abstraction - Public Water Supply 3.3 Abstraction - Manufacturing 3.4 Abstraction - Electricity cooling 3.5 Abstraction - Fish farms 3.6 Abstraction - Hydro-energy not cooling 3.7 Abstraction - Quarries 3.8 Abstraction - Navigation 3.9 Abstraction - Water transfer 3.10 Abstraction - Other 4.1 FlowMorph - Groundwater recharge 4.2 FlowMorph - Hydroelectric dam 4.3 FlowMorph - Water supply reservoir 4.4 FlowMorph - Flood defence dams 4.5 FlowMorph - Water Flow Regulation 4.6 FlowMorph - Diversions 4.7 FlowMorph - Locks 4.8 FlowMorph - Weirs 5.1 RiverManagement - Physical alteration of channel 5.2 RiverManagement - Engineering activities 5.3 RiverManagement - Agricultural enhancement 5.4 RiverManagement - Fisheries enhancement 5.5 RiverManagement - Land infrastructure 5.6 RiverManagement - dredging 6.1 TRACManagement - Estuarine/coastal dredging 6.2 TRACManagement - Marine constructions 6.3 TRACManagement - Land reclamation 6.4 TRACManagement - Coastal sand suppletion (safety) 6.5 TRACManagement - Tidal barrages 7.1 OtherMorph - Barriers 7.2 OtherMorph - Land sealing 8.1 OtherPressures - Litter/fly tipping 8.2 OtherPressures - Sludge disposal to sea 8.3 OtherPressures - Exploitation/removal of animals/plants 8.4 OtherPressures - Recreation 8.5 OtherPressures - Fishing 8.6 OtherPressures - Introduced species 8.7 OtherPressures - Introduced diseases 8.8 OtherPressures - Climate change 8.9 OtherPressures - Land drainage 8.10 OtherPressures- Other

simpleType **SWStatusChemicalCode**

facets	enumeration 2 enumeration 3 enumeration U
annotation	documentation Codes for chemical status: 2=good (potential = good and above), 3=failure to achieve good, U=unknown no information.

simpleType **SWStatusEcologicalCode**

facets	enumeration 1 enumeration 2 enumeration 3

	enumeration 4 enumeration 5 enumeration U
annotation	documentation Codes for ecological status: 1=high, 2=good, 3=moderate, 4=poor, 5=bad, U=Unclassified. For heavily modified and artificial water bodies there is no high status=1 and good status=2 is interpreted as good or above.

simpleType **SWStatusGeneralPhysicoChemicalCode**

facets	enumeration 1 enumeration 2 enumeration 3 enumeration U
annotation	documentation Codes for chemical status: 1=high (status only), 2=good status (potential = good and above), 3=moderate status, U=unknown no information.

simpleType **SWStatusHydroMorphCode**

facets	enumeration 1 enumeration 2 enumeration U
annotation	documentation Codes for chemical status 1=high (status only), 2=good (potential = good and above), U=unknown no information.

simpleType **SWStatusNonPrioritySubstanceCode**

facets	enumeration 1 enumeration 2 enumeration 3 enumeration U enumeration N
annotation	documentation Codes for the classification of ecological status according to non-priority specific pollutants: 1= high status, 2=good status, 3=failing to achieve good status, U=unknown no information, N=Not Applicable.

simpleType **SWStatusProtAreaCode**

facets	enumeration 1 enumeration 2 enumeration 3 enumeration U
annotation	documentation Codes for reporting the status of Protected Areas associated with Surface Water Bodies (see section 2.2.5 of this guide for further information): For Article 7 drinking water and Nitrates Directive Protected Areas: 2=good, 3=failing to achieve good, U=unknown. For Freshwater Fish and Shellfish Directive Protected Areas: 1=high, 2=good, 3=failing to achieve good, U = unknown.

simpleType **TypologyCoastalIntercalibrationCode**

facets	enumeration CW B0 enumeration CW B12 a enumeration CW B12 b enumeration CW B13 enumeration CW B14 enumeration CW B2 enumeration CW B3 a enumeration CW B3 b enumeration CW-BL1 enumeration NEA1/26a enumeration NEA1/26b enumeration NEA1/26c enumeration NEA1/26d

	enumeration NEA1/26e enumeration NEA10 enumeration NEA3/4 enumeration NEA7 enumeration NEA8 enumeration NEA9 enumeration Type I enumeration Type IIA enumeration Type IIIE enumeration Type IIIW
annotation	documentation Defines all Intercalibration type codes for coastal waters.

simpleType **TypologyLakeIntercalibrationCode**

facets	enumeration LA1/2 enumeration L-AL3 enumeration L-AL4 enumeration L-CB1 enumeration L-CB2 enumeration L-CB3 enumeration L-M5/7 enumeration L-M8 enumeration LN1 enumeration LN2a enumeration LN2b enumeration LN3a enumeration LN5 enumeration LN6a enumeration LN8a
annotation	documentation Defines all Intercalibration type codes for lakes.

simpleType **TypologyRiverIntercalibrationCode**

facets	enumeration R-A1 enumeration R-A2 enumeration R-C1 enumeration R-C2 enumeration R-C3 enumeration R-C4 enumeration R-C5 enumeration R-C6 enumeration R-E1 enumeration R-E2 enumeration R-E4 enumeration R-M1 enumeration R-M2 enumeration R-M4 enumeration R-M5 enumeration R-N1 enumeration R-N3 enumeration R-N4 enumeration R-N5
annotation	documentation Defines all Intercalibration type codes for rivers.

simpleType **TypologyTransitionalIntercalibrationCode**

facets	enumeration NEA11 enumeration TW B13
annotation	documentation Defines all Intercalibration type codes for transitional waters.

simpleType **YesNoCode**

facets	enumeration Y

	enumeration N enumeration
annotation	documentation Yes/No Code: Yes=Y; No=N

simpleType **YesNoNotApplicableCode**

facets	enumeration Y enumeration N enumeration NA
annotation	documentation For Yes, No or Unknown/Not Applicable: Y=Yes; N=No; NA=Unknown/Not Applicable

simpleType **YesNoUnknownCode**

facets	enumeration Y enumeration N enumeration U enumeration NA
annotation	documentation For Yes, No or Unknown: Y=Yes; N=No; U=Unknown

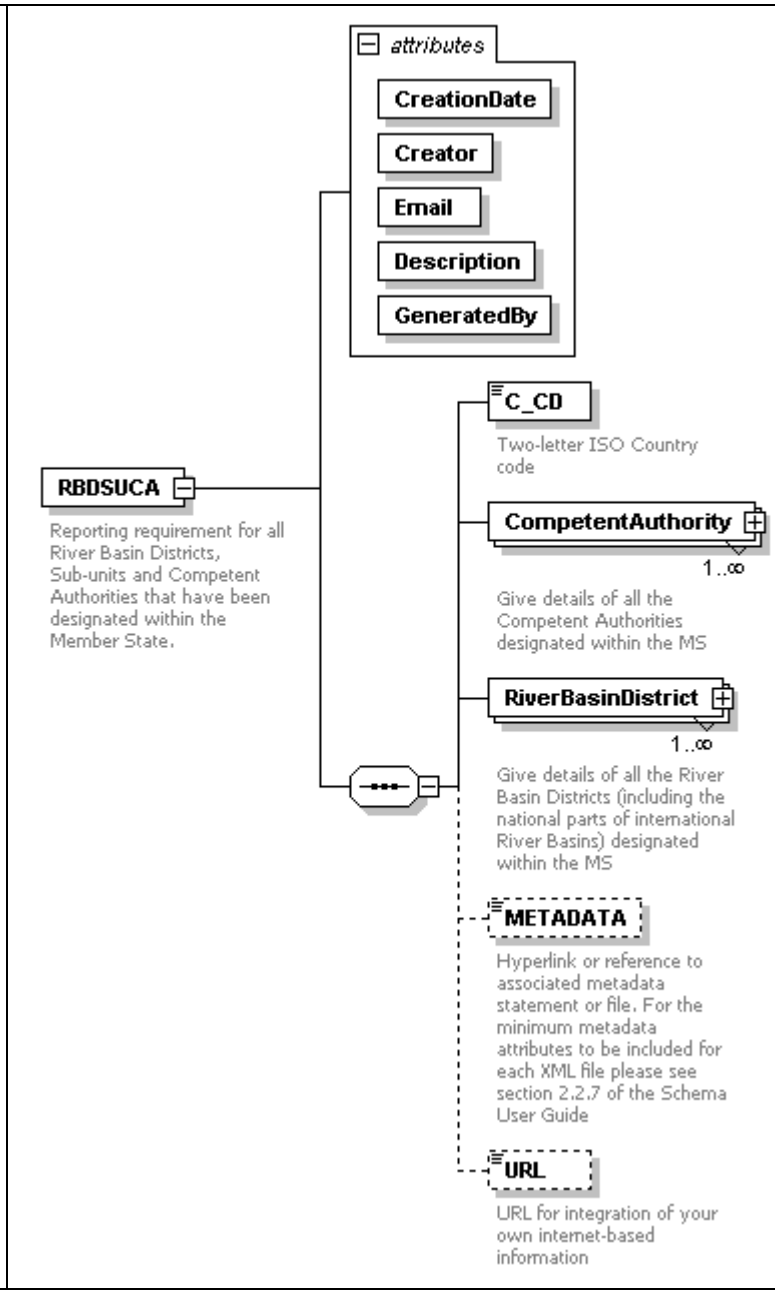
5. SCHEMA: ADMINISTRATIVE ARRANGEMENTS (COMPETENT AUTHORITIES, RIVER BASIN DISTRICTS AND SUB-UNITS)

Schema **RBDSUCA.xsd**

This schema deals with the reporting requirements for Competent Authorities, River Basin Districts and Sub-units. In principle it is expected that there will only be one file per Member State.

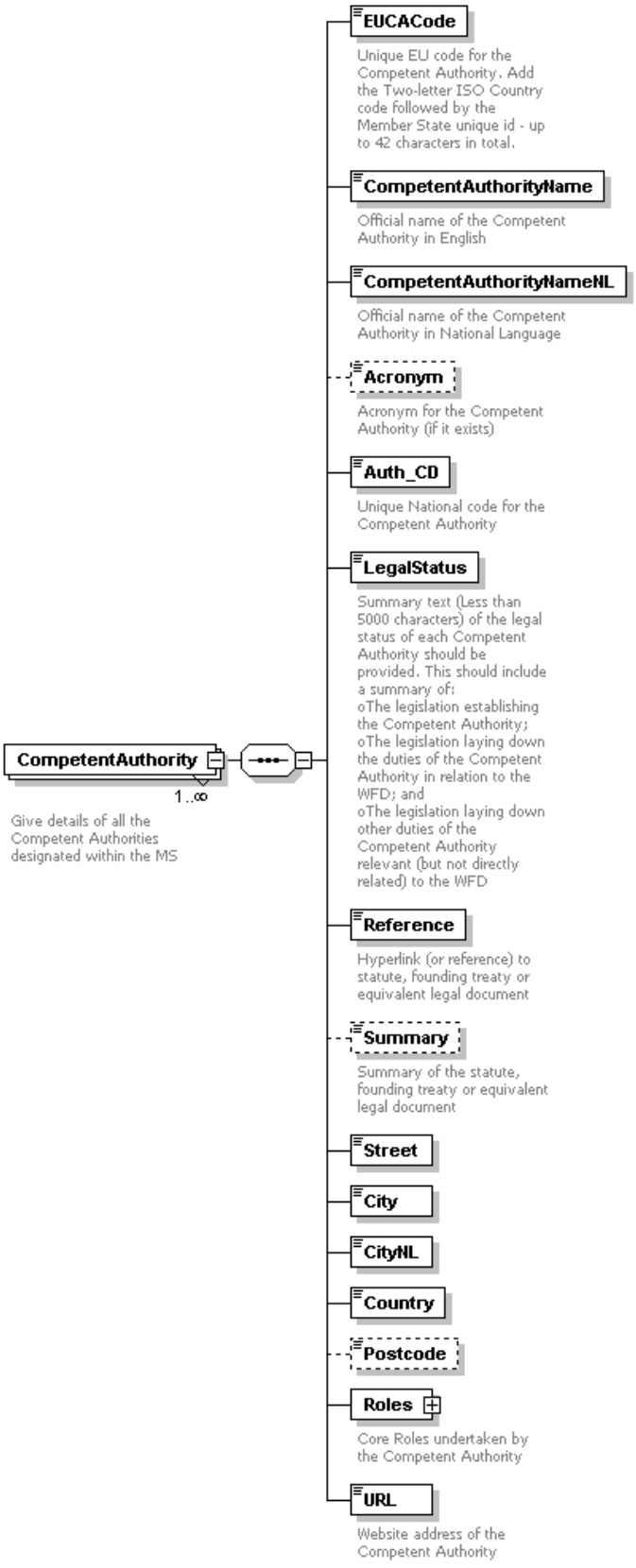
element **RBDSUCA**

diagram



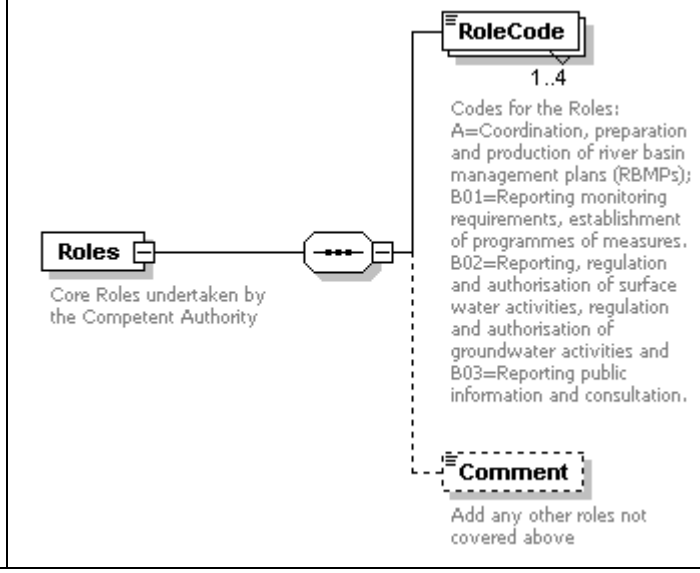
element **RBDSUCA/CompetentAuthority**

diagram



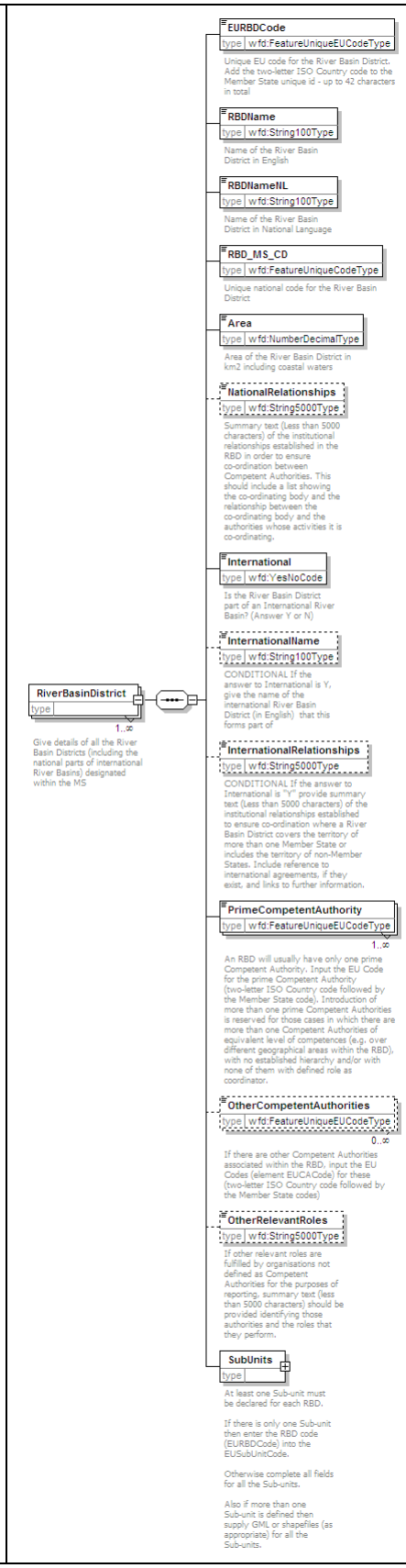
element **RBDSUCA/CompetentAuthority/Roles**

diagram



element **RBDSUCA/RiverBasinDistrict**

diagram



For the element RBDName, f there is no specific name of the RBD in English then use the national language (RBDNameNL) but always using Latin characters.

Please note that the Area of the river basin district should include the coastal waters.

In most cases there will be only one PrimeCompetentAuthority in a RBD, which has a coordination role and the main responsibility over water management, implementation of the WFD and production of the RBMP. Other relevant Competent Authorities can be added as appropriate using the optional element provided. More than one entry in the element PrimeCompetentAuthority is allowed in cases in which it is not possible to define clearly a prime Competent Authority because the existence of more than one Competent Authority of the same administrative level, with the same or similar levels of competence over water, covering for instance different geographical areas within the RBD or different water categories, without a clear coordination role attributed to any of them. It is up to the Member State to judge how best to report the situation in each particular RBD using the flexibility provided in the schema.

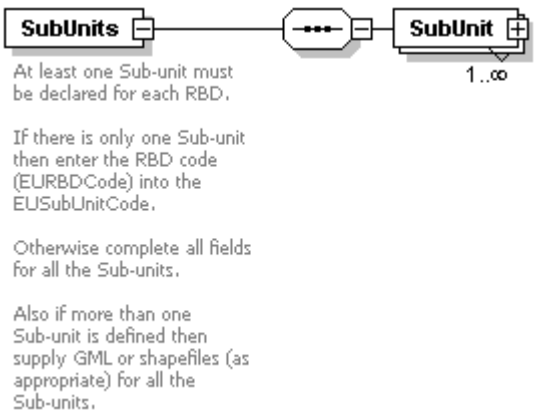
The following part of the schema deals with reporting on Sub-units.

The principle of Sub-units as a reporting unit was discussed within Working Group D and is now generally accepted as a way forward for reporting more comparable data and better data management.

When completing the schema for Sub-units, at least one Sub-unit must be declared for each RBD, i.e. the default position is that the RBD = Sub-unit.

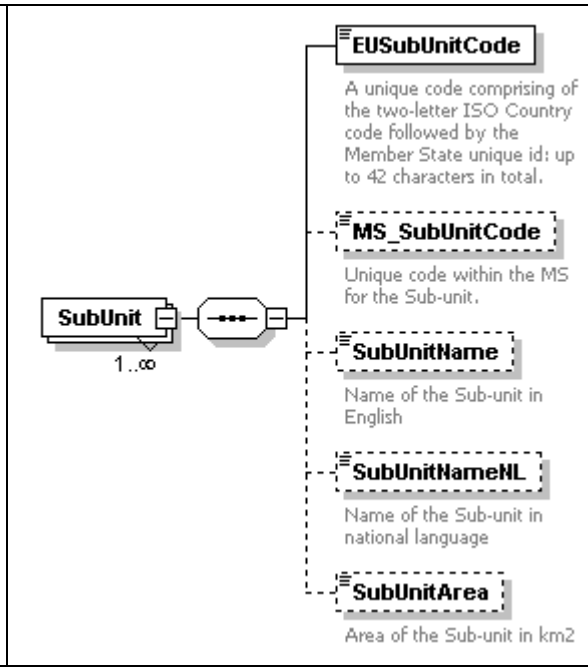
element **RBDSUCA/RiverBasinDistrict/SubUnits**

diagram



element **RBDSUCA/RiverBasinDistrict/SubUnits/SubUnit**

diagram



Please note that the are of the sub-units, if provided, should include the coastal waters.

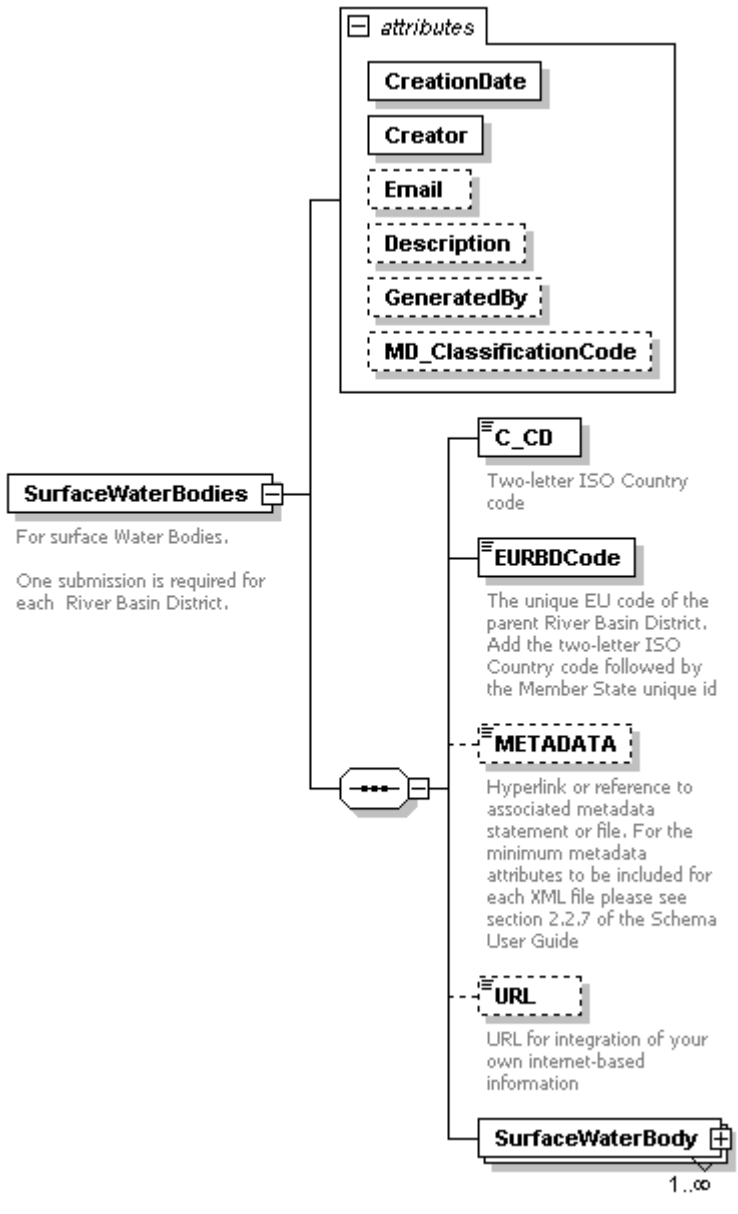
6. SCHEMA: SURFACE WATER BODIES

Schema **SWB.xsd**

This schema deals with the reporting requirements for Surface Water Bodies.

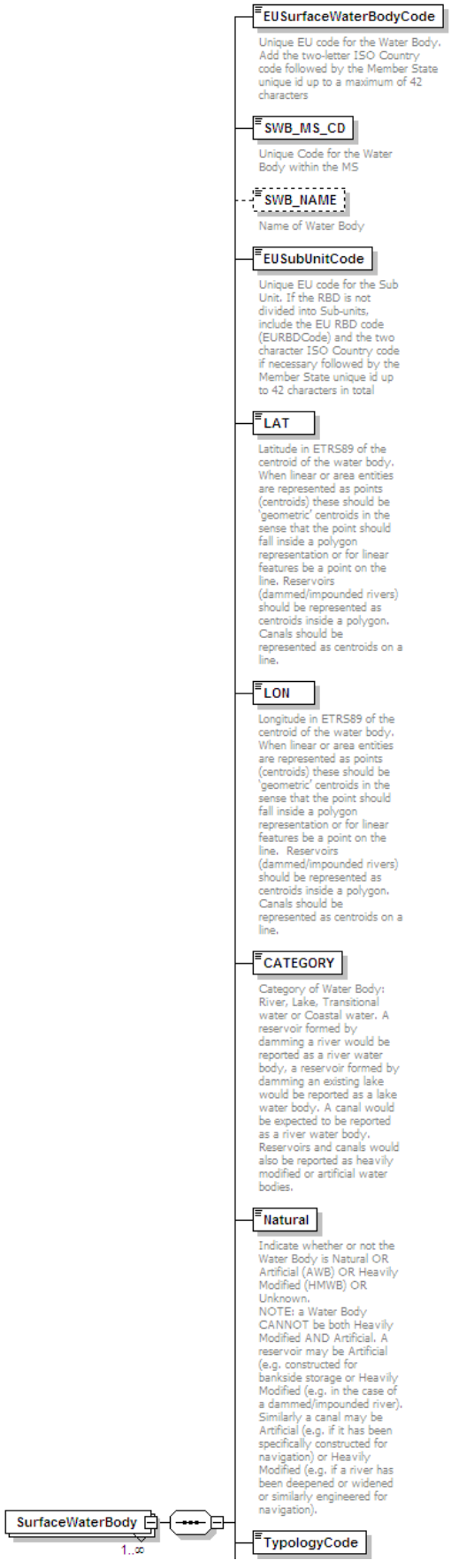
element **SurfaceWaterBodies**

diagram



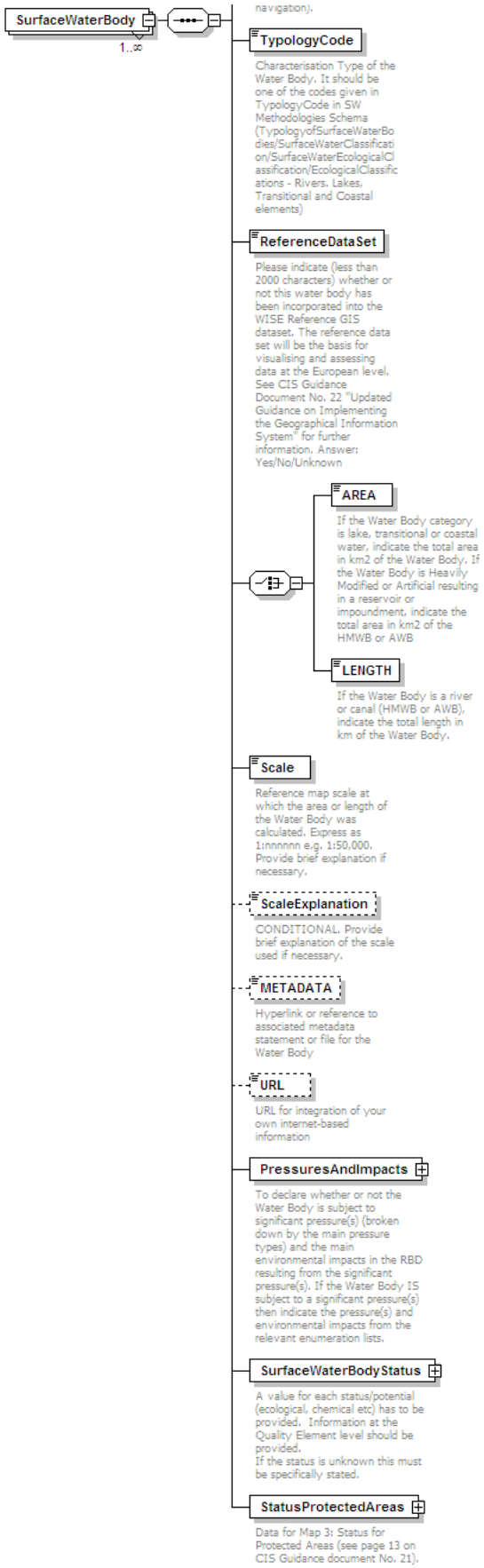
element **SurfaceWaterBodies/SurfaceWaterBody (top part of element)**

diagram


EUSurfaceWaterBodyCode
Unique EU code for the Water Body. Add the two-letter ISO Country code followed by the Member State unique id up to a maximum of 42 characters
SWB_MS_CD
Unique Code for the Water Body within the MS
SWB_NAME
Name of Water Body
EUSubUnitCode
Unique EU code for the Sub Unit. If the RBD is not divided into Sub-units, include the EU RBD code (EURBDCode) and the two character ISO Country code if necessary followed by the Member State unique id up to 42 characters in total
LAT
Latitude in ETRS89 of the centroid of the water body. When linear or area entities are represented as points (centroids) these should be 'geometric' centroids in the sense that the point should fall inside a polygon representation or for linear features be a point on the line. Reservoirs (dammed/impounded rivers) should be represented as centroids inside a polygon. Canals should be represented as centroids on a line.
LON
Longitude in ETRS89 of the centroid of the water body. When linear or area entities are represented as points (centroids) these should be 'geometric' centroids in the sense that the point should fall inside a polygon representation or for linear features be a point on the line. Reservoirs (dammed/impounded rivers) should be represented as centroids inside a polygon. Canals should be represented as centroids on a line.
CATEGORY
Category of Water Body: River, Lake, Transitional water or Coastal water. A reservoir formed by damming a river would be reported as a river water body, a reservoir formed by damming an existing lake would be reported as a lake water body. A canal would be expected to be reported as a river water body. Reservoirs and canals would also be reported as heavily modified or artificial water bodies.
Natural
Indicate whether or not the Water Body is Natural OR Artificial (AWB) OR Heavily Modified (HMWB) OR Unknown.
NOTE: a Water Body CANNOT be both Heavily Modified AND Artificial. A reservoir may be Artificial (e.g. constructed for bankside storage or Heavily Modified (e.g. in the case of a dammed/impounded river). Similarly a canal may be Artificial (e.g. if it has been specifically constructed for navigation) or Heavily Modified (e.g. if a river has been deepened or widened or similarly engineered for navigation).
SurfaceWaterBody
1..∞
TypologyCode

element **SurfaceWaterBodies/SurfaceWaterBody (bottom part of element)**

diagram


SurfaceWaterBody
1..∞
navigation).
TypologyCode
Characterisation Type of the Water Body. It should be one of the codes given in TypologyCode in SW Methodologies Schema (TypologyofSurfaceWaterBodies/SurfaceWaterClassification/SurfaceWaterEcologicalClassification/EcologicalClassifications - Rivers, Lakes, Transitional and Coastal elements)
ReferenceDataSet
Please indicate (less than 2000 characters) whether or not this water body has been incorporated into the WISE Reference GIS dataset. The reference data set will be the basis for visualising and assessing data at the European level. See CIS Guidance Document No. 22 "Updated Guidance on Implementing the Geographical Information System" for further information. Answer: Yes/No/Unknown
AREA
If the Water Body category is lake, transitional or coastal water, indicate the total area in km2 of the Water Body. If the Water Body is Heavily Modified or Artificial resulting in a reservoir or impoundment, indicate the total area in km2 of the HMWB or AWB
LENGTH
If the Water Body is a river or canal (HMWB or AWB), indicate the total length in km of the Water Body.
Scale
Reference map scale at which the area or length of the Water Body was calculated. Express as 1:nnnnnn e.g. 1:50,000. Provide brief explanation if necessary.
ScaleExplanation
CONDITIONAL. Provide brief explanation of the scale used if necessary.
METADATA
Hyperlink or reference to associated metadata statement or file for the Water Body
URL
URL for integration of your own internet-based information
PressuresAndImpacts
To declare whether or not the Water Body is subject to significant pressure(s) (broken down by the main pressure types) and the main environmental impacts in the RBD resulting from the significant pressure(s). If the Water Body IS subject to a significant pressure(s) then indicate the pressure(s) and environmental impacts from the relevant enumeration lists.
SurfaceWaterBodyStatus
A value for each status/potential (ecological, chemical etc) has to be provided. Information at the Quality Element level should be provided.
If the status is unknown this must be specifically stated.
StatusProtectedAreas
Data for Map 3: Status for Protected Areas (see page 13 on CIS Guidance document No. 21).

Element “CATEGORY” requires the category of water body to be reported. The options are River, Lake, Transitional water or Coastal water body. A reservoir formed by damming a river would be reported as a river water body, a reservoir formed by damming an existing lake would be reported as a lake water body. A canal would be expected to be reported as a river water body. Reservoirs and canals would also be reported as heavily modified or artificial water bodies.

Element "Natural": Indicate whether or not the Water Body is Natural OR Artificial (AWB) OR Heavily Modified (HMWB) OR Unknown. NOTE: a Water Body CANNOT be both Heavily Modified AND Artificial. A reservoir may be Artificial (e.g. constructed for bankside storage or Heavily Modified (e.g. in the case of a dammed/impounded river). Similarly a canal may be Artificial (e.g. if it has been specifically constructed for navigation) or Heavily Modified (e.g. if a river has been deepened or widened or similarly engineered for navigation).

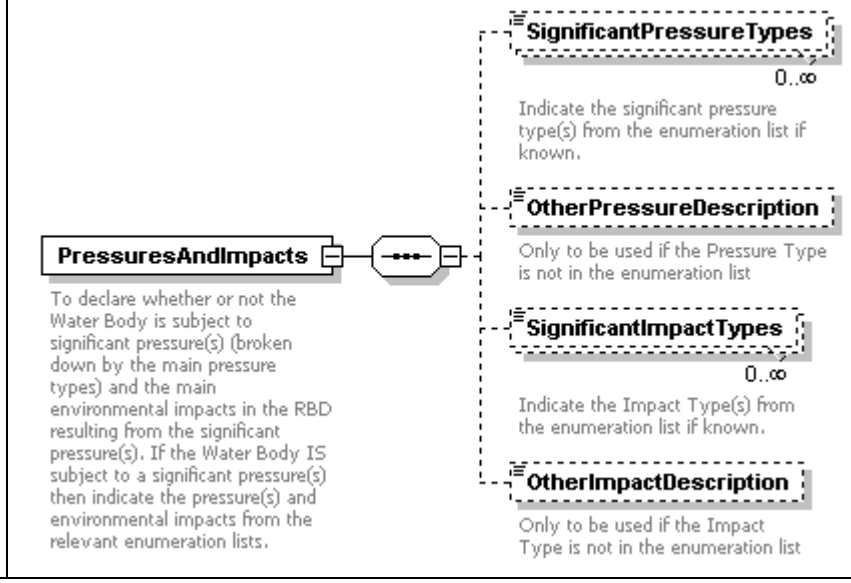
The identification of the water category for HMWB and AWB as described in the preceding paragraphs does not preclude any decision as regards the factors to use in deriving typology and quality elements to be used in the assessment of the HMWB or AWB. According to the WFD, for artificial and heavily modified surface water bodies the typology differentiation should be undertaken in accordance with the descriptors for whichever of the surface water categories most closely resembles the heavily modified or artificial water body concerned (WFD Annex II, 1.1.v). In a similar way, the quality elements should be those applicable to whichever of the four natural surface water categories that most closely resembles the heavily modified or artificial water body concerned (WFD Annex V, 1.1.5).

Element ReferenceDataSet: Please indicate (less than 2000 characters) whether or not this water body has been incorporated into the WISE Reference GIS dataset. The reference data set will be the basis for visualising and assessing data at the European level. See CIS Guidance Document No. 22 "Updated Guidance on Implementing the Geographical Information System" for further information. Answer: Yes/No/Unknown.

Element "LENGTH": if the water body is the result of grouping of various interconnected stretches of rivers, provide the full length of the water body including tributaries.

element **SurfaceWaterBodies/SurfaceWaterBody/PressuresAndImpacts**

diagram



Please select all the significant pressures (in turn) that are affecting the water body from the enumeration list (see element SWPressureTypes in section 4 of this guide for the possible values). The enumeration list allows significant pressures to be reported at different levels of aggregation e.g.

Level 1: Point sources (not differentiated);

Level 2: Point sources from UWWT plants (not differentiated) or

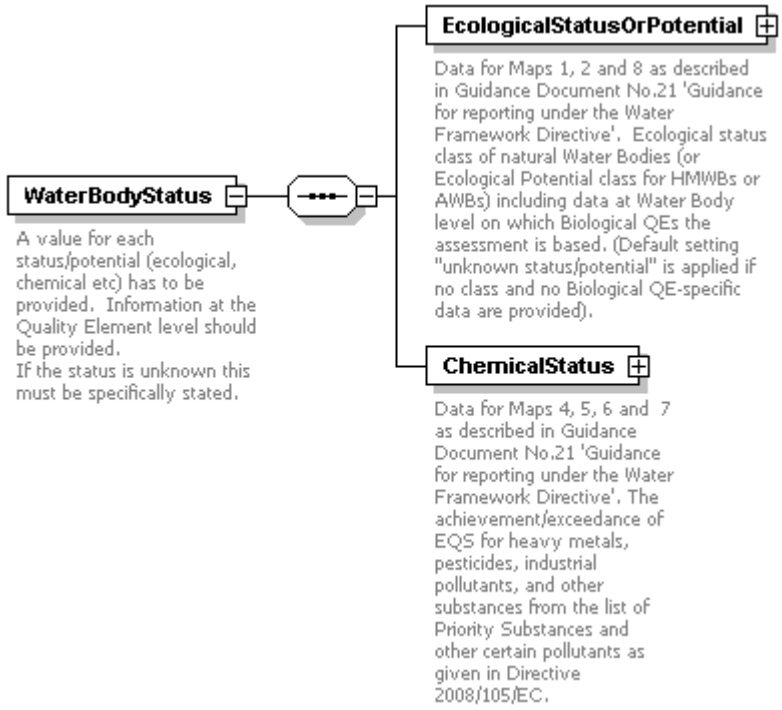
Level 3: UWWT plants serving agglomerations in the following categories:

- Population equivalent (pe) < 2000;
- 2000 ≤ pe ≤ 10 000 (if this has been reported to WISE for the purposes of the UWWT Directive it does NOT need to reported again);
- 10 000 < pe ≤ 15 000 (if this has been reported to WISE for the purposes of the UWWT Directive it does NOT need to reported again);
- 15 000 < pe ≤ 150 000 (if this has been reported to WISE for the purposes of the UWWT Directive it does NOT need to reported again);
- pe > 150 000 (if this has been reported to WISE for the purposes of the UWWT Directive it does NOT need to reported again).

Note: Redundant information should be avoided, e.g. if information reported at level 3, there is no need to select level 2 or level 1.

element **SurfaceWaterBodies/SurfaceWaterBody/WaterBodyStatus**

diagram

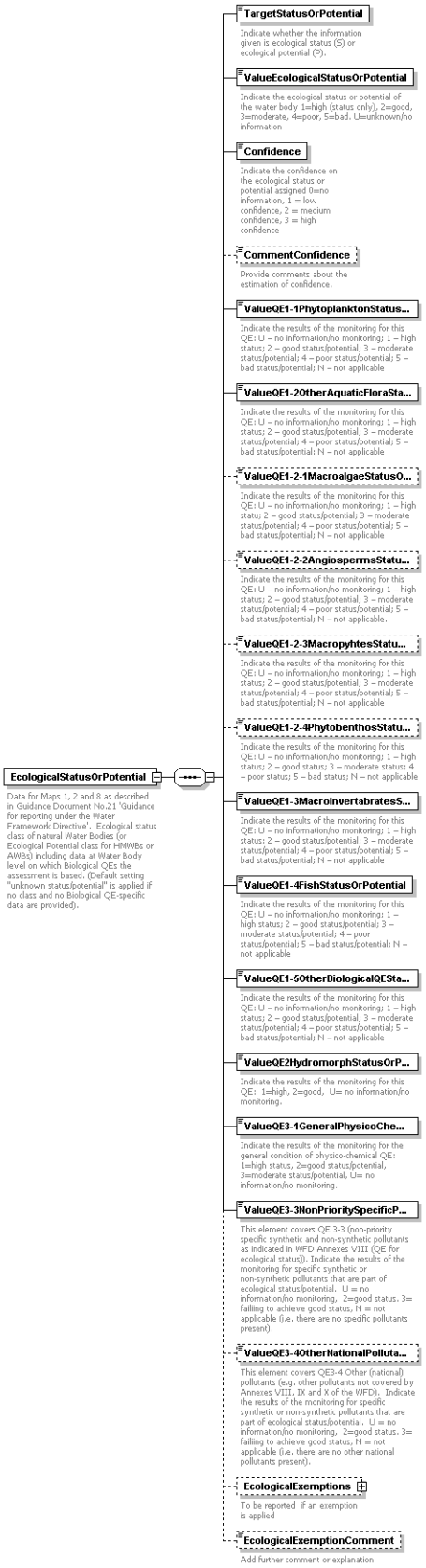


NOTE: The principles of reporting of ecological status were laid out in the document "Reporting WFD ecological status of water bodies at the European Level, V2, 7 May 2008" which was agreed by SCG at their meeting 14-15 May and endorsed by Water Directors at their meeting in Brdo, Slovenia 16-17 June 208. This report is available on the SCG folder in CIRCA.

In essence the agreement is that in addition to the presentation of overall status (which may give a too negative or non-informative picture), there will be presentation in WISE of maps at RBD or Sub-unit level of various quality elements - ecological, chemical, hydromorphological impacts. The way that the status associated with the various quality elements is described in section 2.2.5 of this guidance.

element **SurfaceWaterBodies/SurfaceWaterBody/WaterBodyStatus/EcologicalStatusOrPotential**

diagram

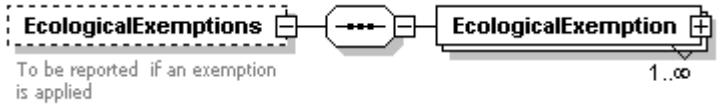


A status value should be given for each of the relevant QEs that have been monitored and subsequently used to classify the ecological status of the water body. Note that the general physicochemical and hydromorphological QEs and non priority specific pollutants are presented at different levels of aggregation than for the biological QEs. In terms of the biological QEs, QE1-2 other aquatic flora can instead be reported as the component third level QEs e.g. QE1-2-1 macroalgae.

Note: if a QE is not selected it is assumed that it is NOT monitored and hence not used in the classification of the ecological status of the water body.

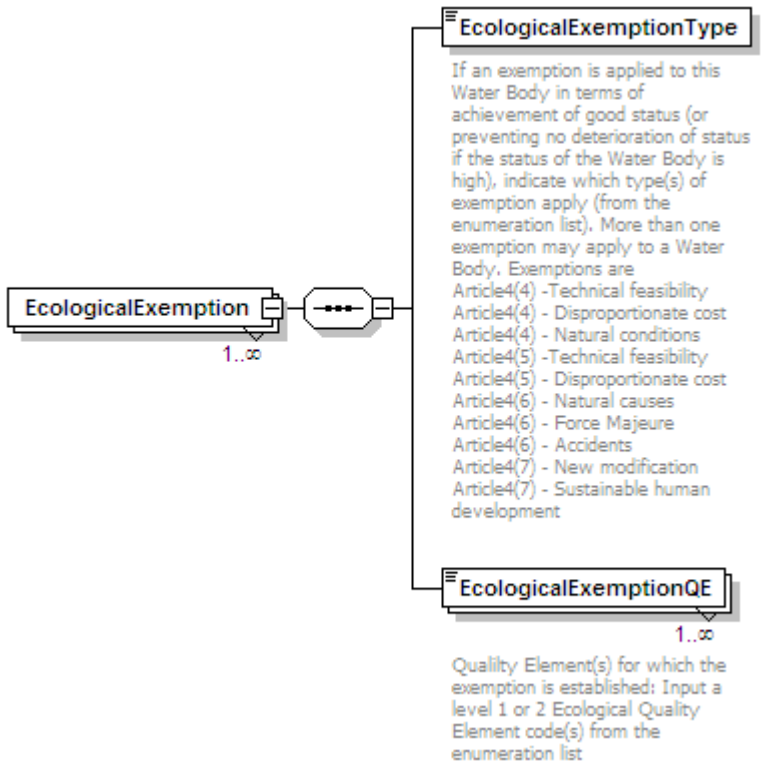
element
SurfaceWaterBodies/SurfaceWaterBody/WaterBodyStatus/EcologicalStatusOrPotential/EcologicalExemptions

diagram



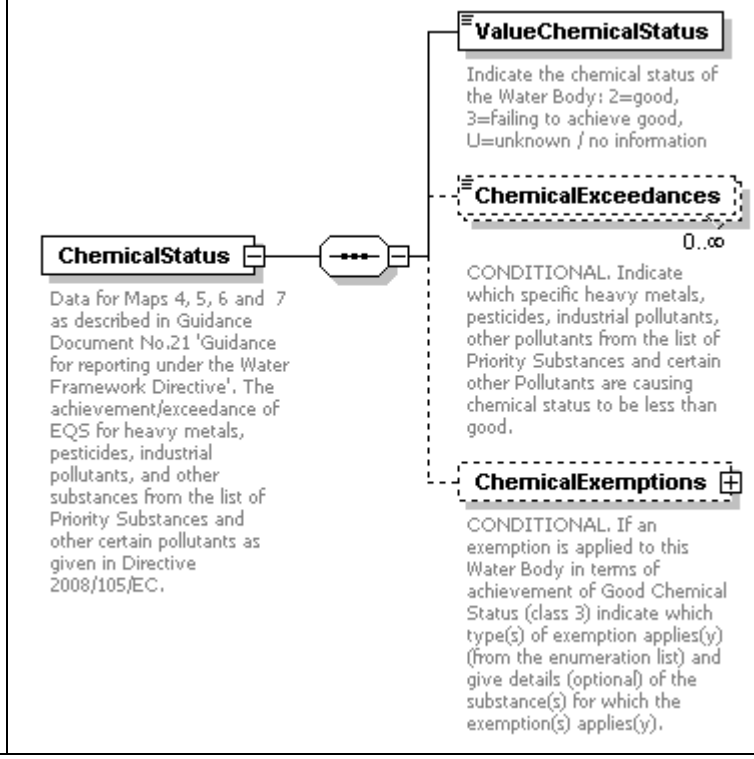
element
SurfaceWaterBodies/SurfaceWaterBody/WaterBodyStatus/EcologicalStatusOrPotential/EcologicalExemptions/EcologicalExemption

diagram



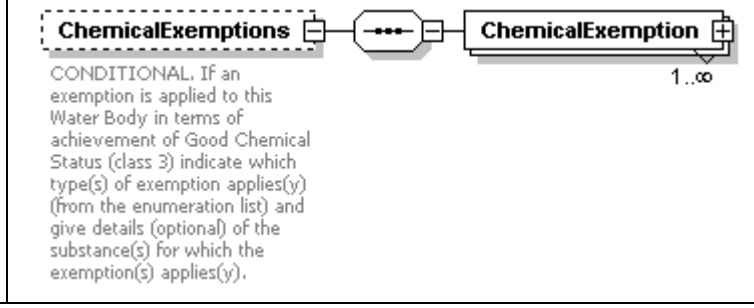
element **SurfaceWaterBodies/SurfaceWaterBody/WaterBodyStatus/ChemicalStatus**

diagram

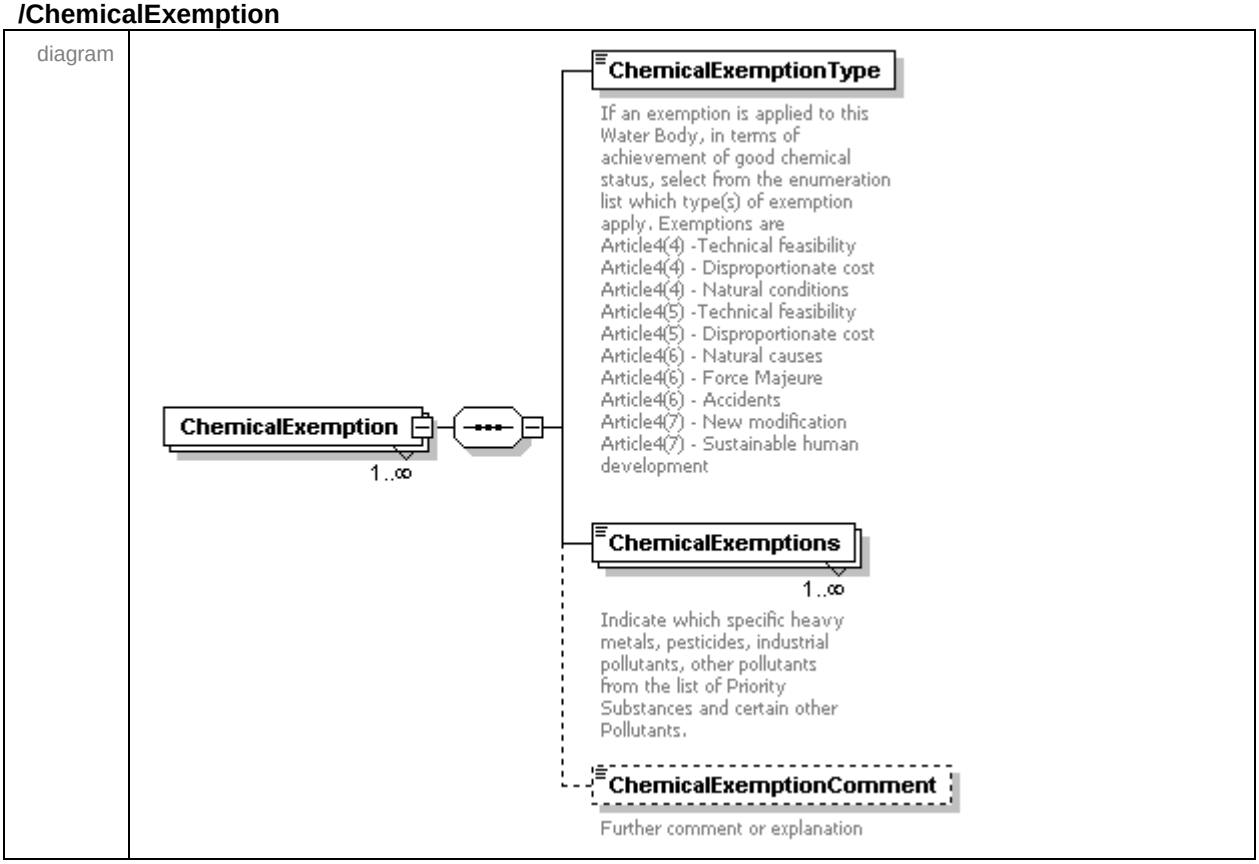


element **SurfaceWaterBodies/SurfaceWaterBody/WaterBodyStatus/ChemicalStatus/ChemicalExemptions**

diagram



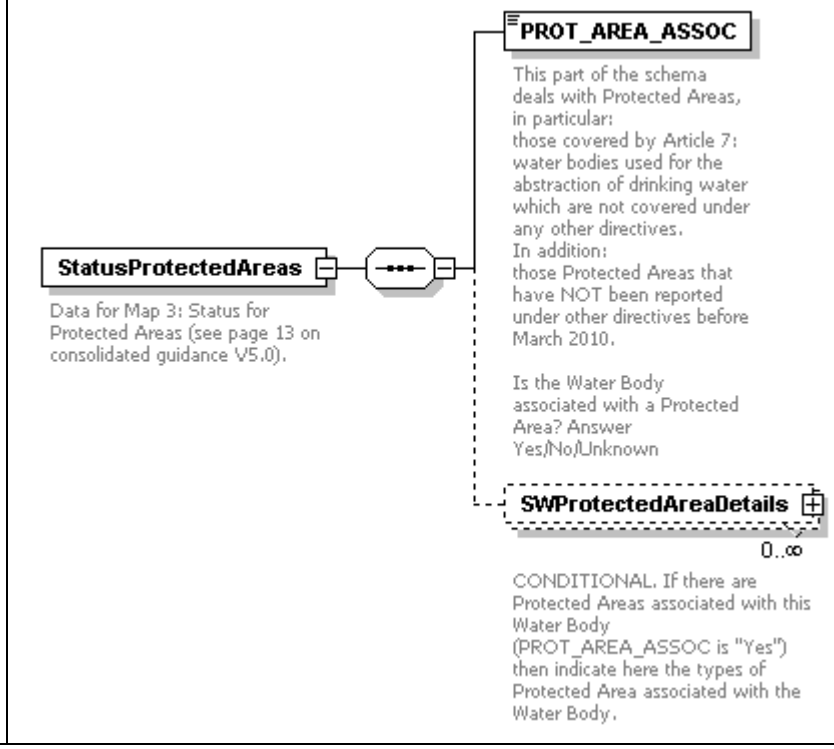
element
SurfaceWaterBodies/SurfaceWaterBody/WaterBodyStatus/ChemicalStatus/ChemicalExemptions/ChemicalExemption



The element ChemicalExemptions allows indicating on the basis of which of the pollutants that are causing exceedance (element ChemicalExceedances, see previous page) the exemptions are justified. The information is required if exemptions are applied.

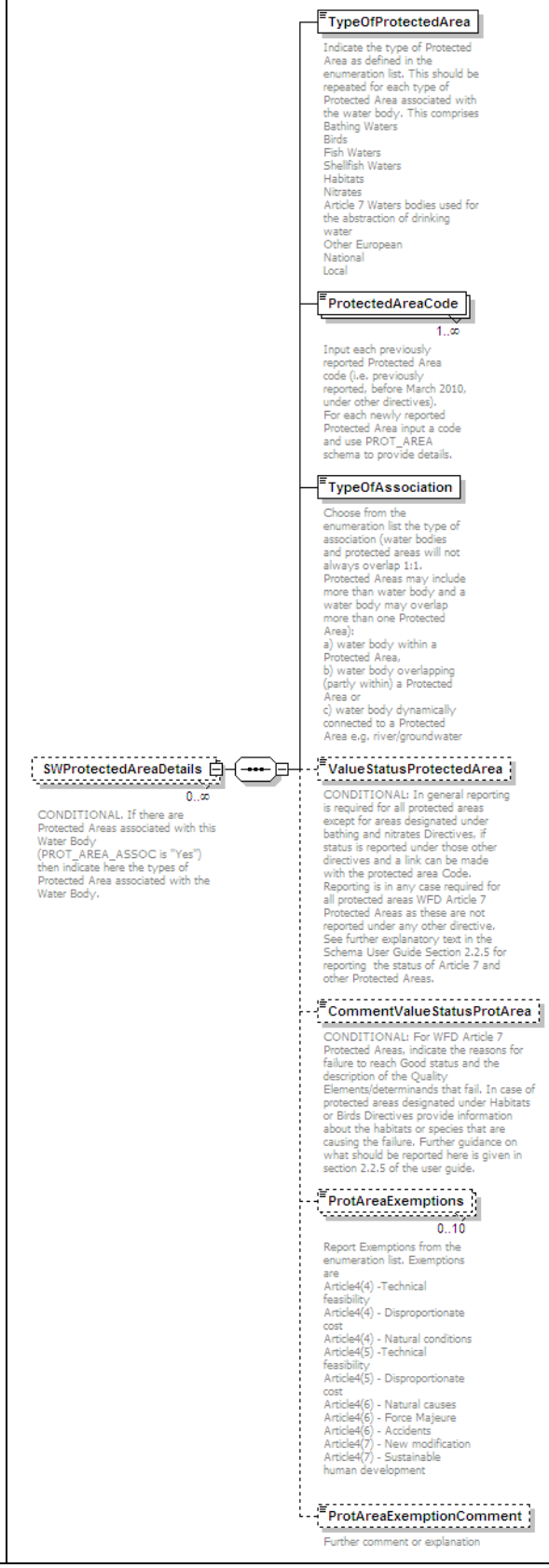
element **SurfaceWaterBodies/SurfaceWaterBody/StatusProtectedAreas**

diagram



element **SurfaceWaterBodies/SurfaceWaterBody/StatusProtectedAreas/SWProtectedAreaDetails**

diagram



In general reporting is required for all protected areas except for areas designated under Bathing and Nitrates Directives, if status has been reported before March 2010 under those other directives and a link can be made through the protected area Code. In this case the information does not need to be reported again.

If status has not been reported before March 2010, it has to be reported in this part of the schema.

Reporting is in any case required for all WFD Article 7 Protected Areas as these are not reported under any other directive.

For WFD Article 7 Protected Areas, indicate the reasons for failure to reach Good status and the description of the Quality Elements/determinands that fail in the text element CommentValueStatusProtArea. In case of protected areas designated under Habitats or Birds Directives provide information about the habitats or species that are causing the failure.

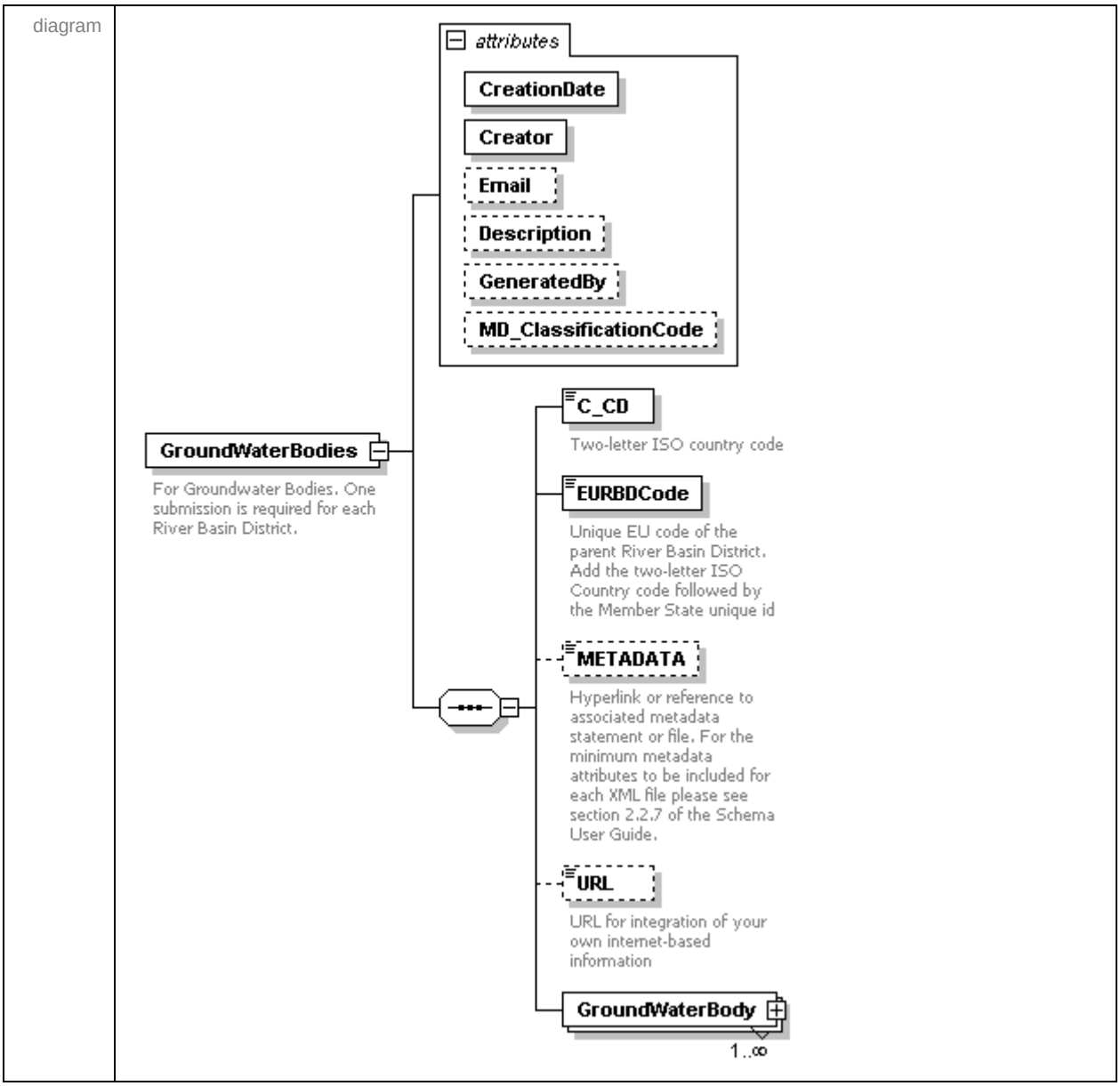
See further explanatory text in the Schema User Guide Section 2.2.5 for reporting the status of Article 7 and other Protected Areas.

7. SCHEMA: GROUNDWATER BODIES

Schema **GWB.xsd**

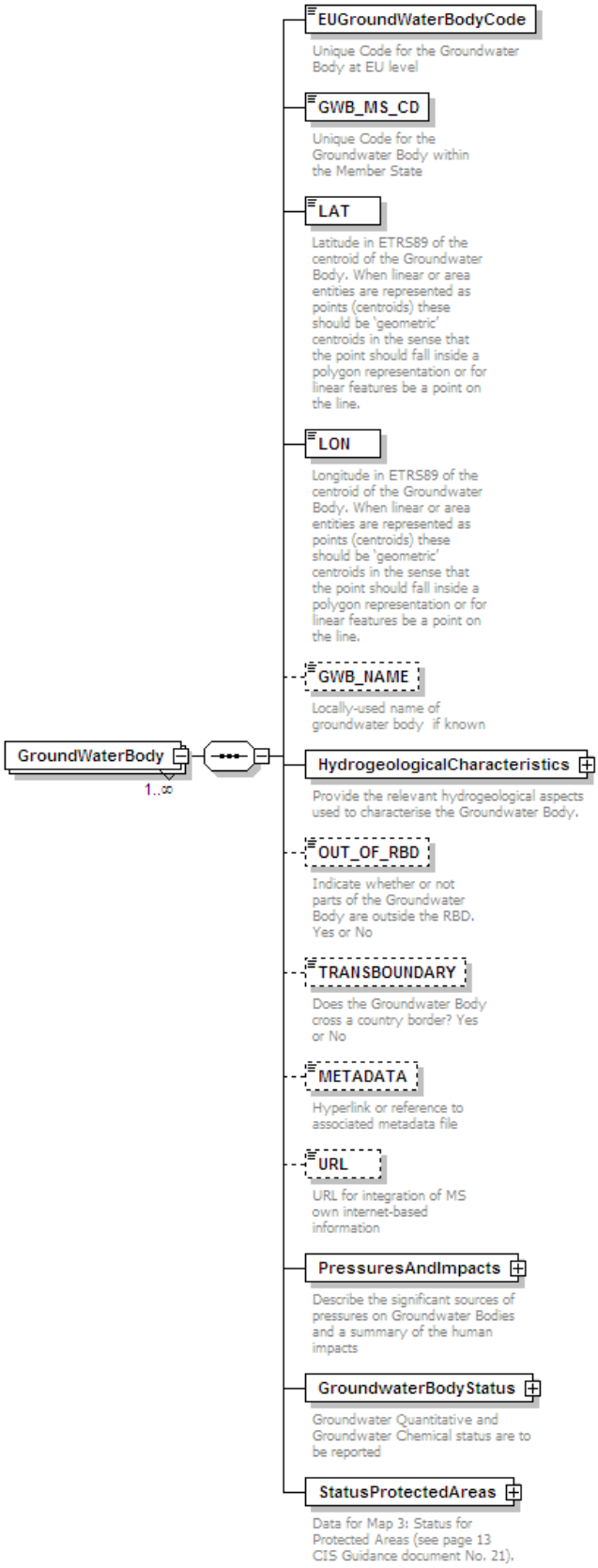
This schema deals with the reporting requirements for Groundwater Bodies.

element **GroundWaterBodies**



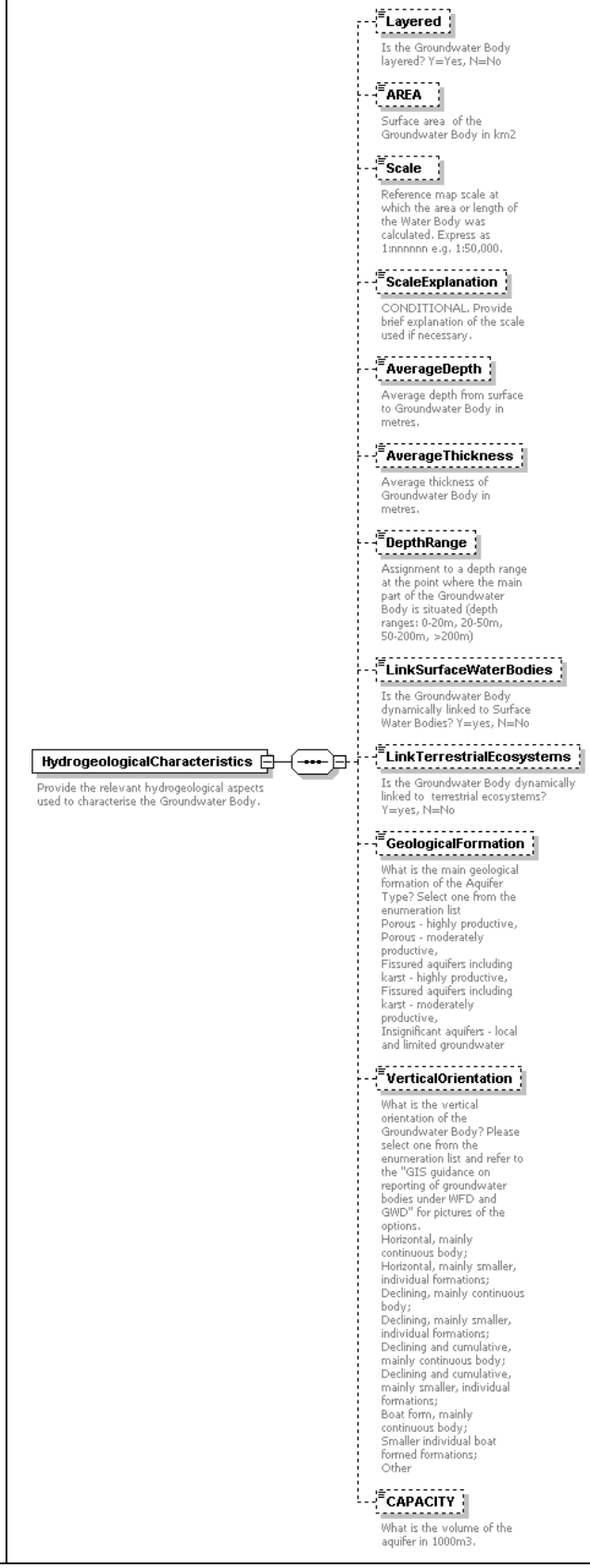
element **GroundWaterBodies/GroundWaterBody**

diagram



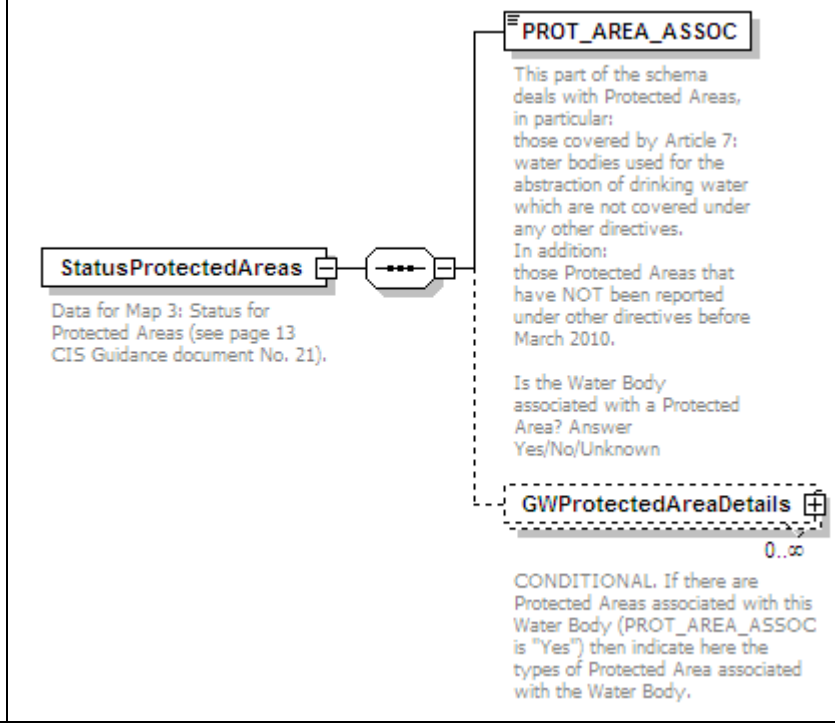
element **GroundWaterBodies/GroundWaterBody/HydrogeologicalCharacteristics**

diagram



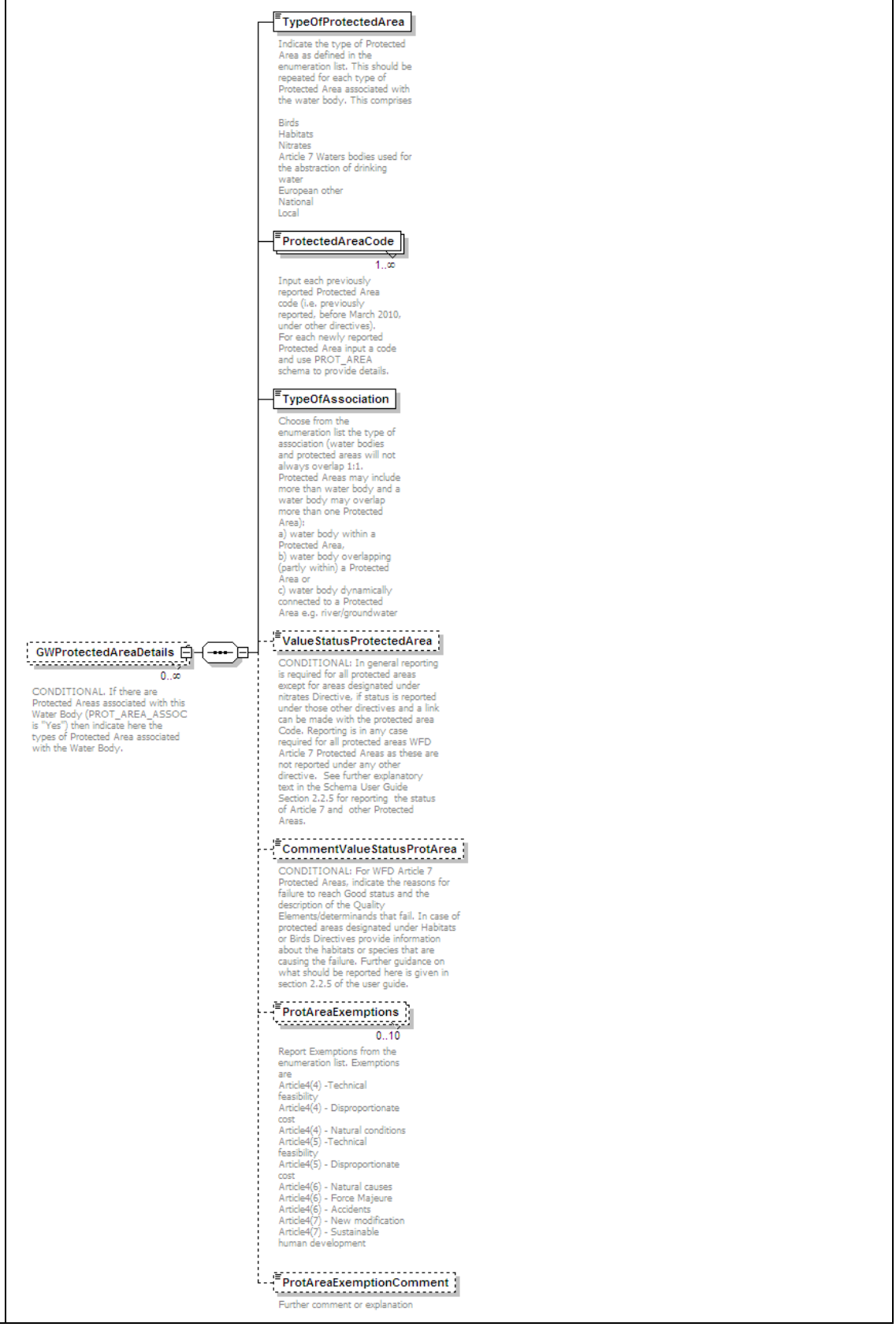
element **element GroundWaterBodies/GroundWaterBody/StatusProtectedAreas**

diagram



element **GroundWaterBodies/GroundWaterBody/StatusProtectedAreas/GWProtectedAreaDetails**

diagram



The types of Protected Area primarily associated with groundwater bodies are Article 7 Drinking Water Protected Areas and Protected Areas associated with the Birds, Habitats and Nitrates Directives (see section 2.2.5). Protected Areas associated with other EU legislation and nationally or locally designated Protected Areas can also be reported.

In general reporting is required for all protected areas except for areas designated under the Nitrates Directive, if status has been reported before March 2010 under this other directive and a link can be made through the protected area Code. In this case the information does not need to be reported again.

If status has not been reported before March 2010, it has to be reported in this part of the schema.

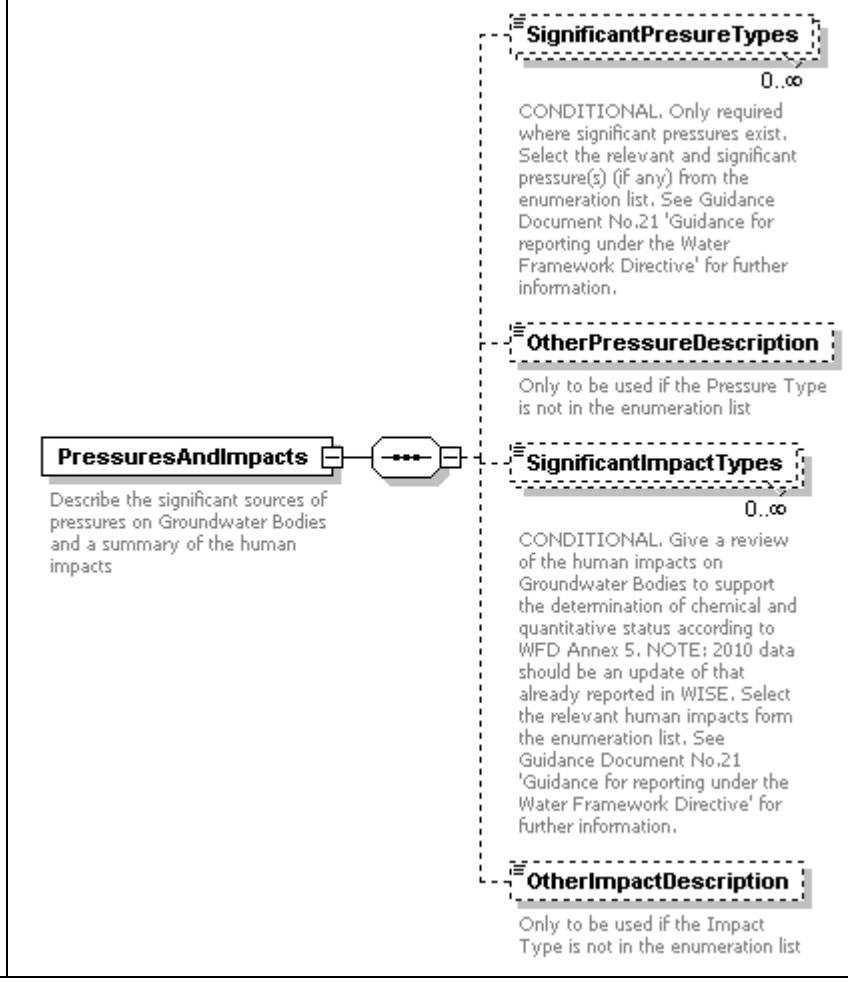
Reporting is in any case required for all WFD Article 7 Protected Areas as these are not reported under any other directive.

For WFD Article 7 Protected Areas, indicate the reasons for failure to reach Good status and the description of the Quality Elements/determinands that fail in the text element CommentValueStatusProtArea. In case of protected areas designated under Habitats or Birds Directives linked to the groundwater body, provide information about the water dependent habitats or species that are causing the failure.

See further explanatory text in the Schema User Guide Section 2.2.5 for reporting the status of Article 7 and other Protected Areas.

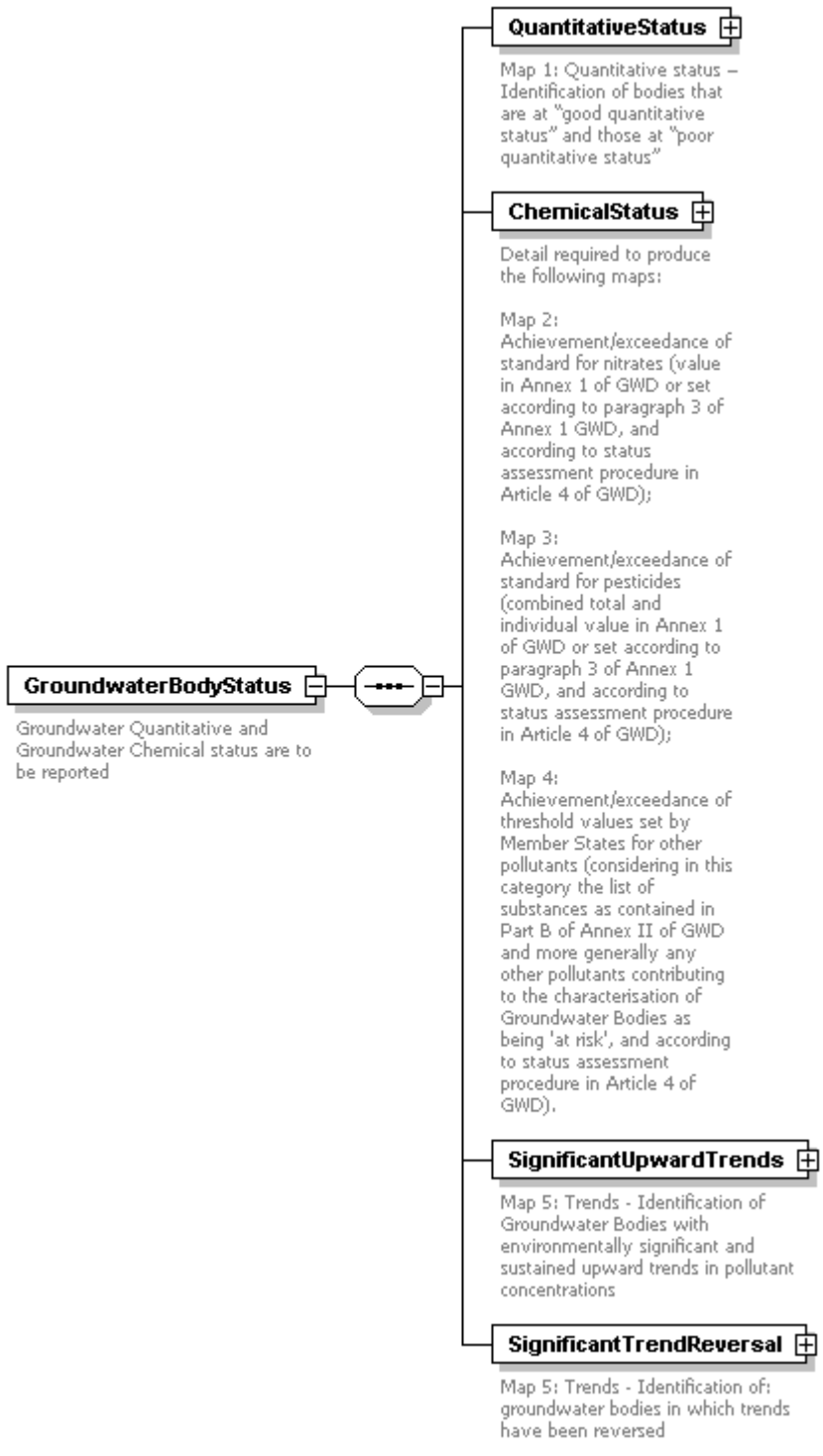
element **GroundWaterBodies/GroundWaterBody/PressuresAndImpacts**

diagram



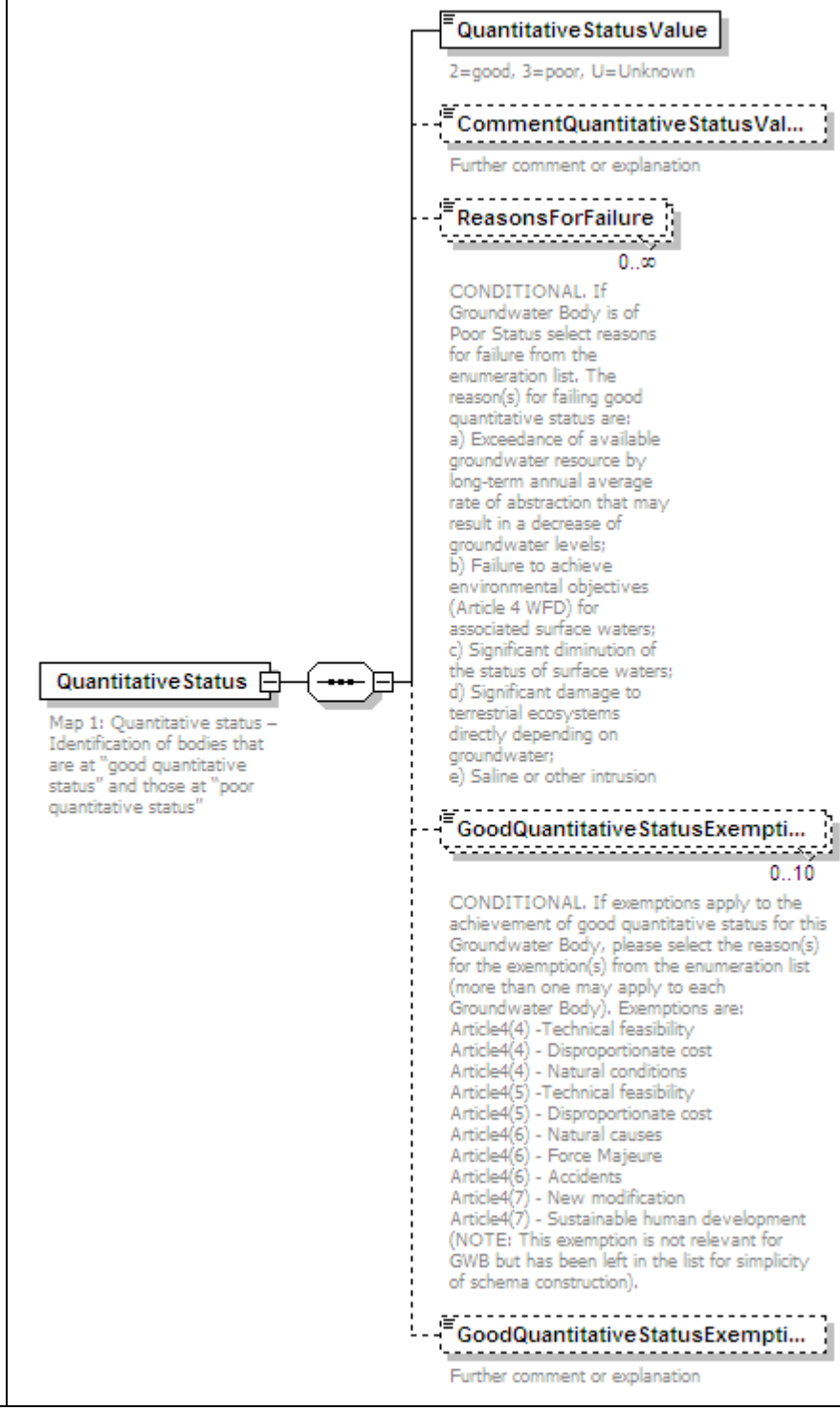
element **GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus**

diagram



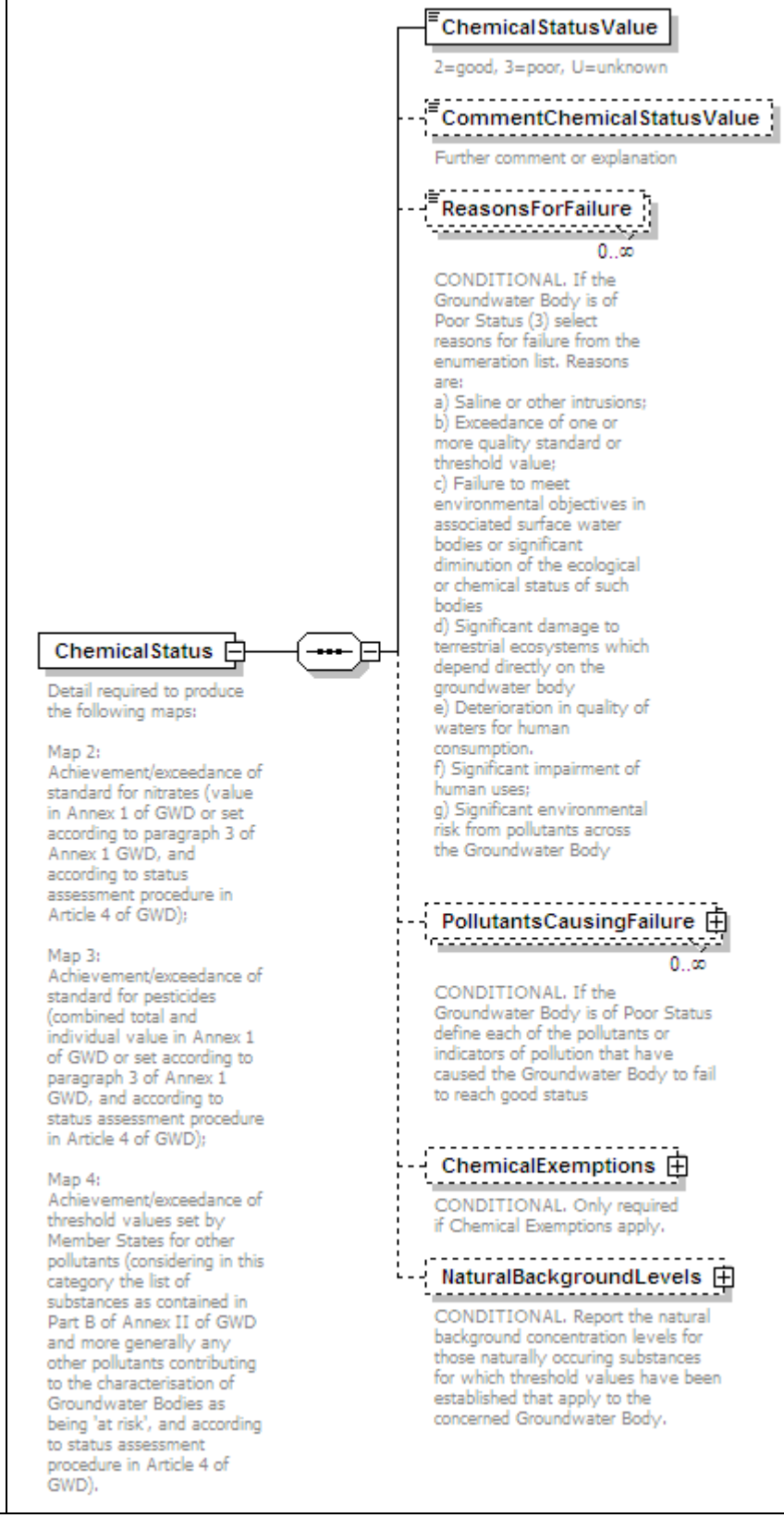
element **GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus/QuantitativeStatus**

diagram



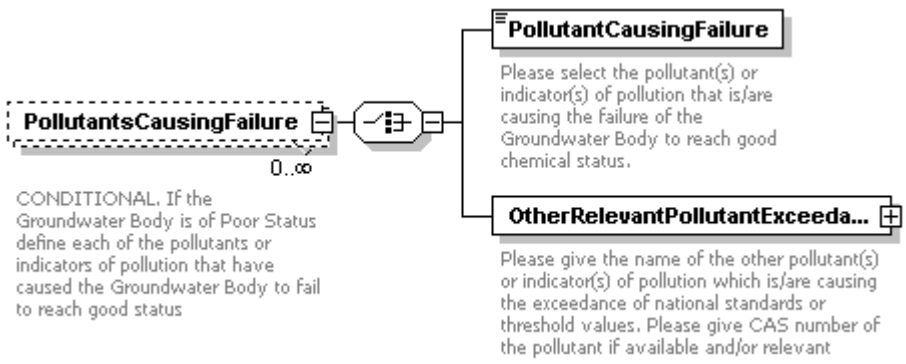
element **GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus/ChemicalStatus**

diagram



element
GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus/ChemicalStatus/PollutantsCausingFailure

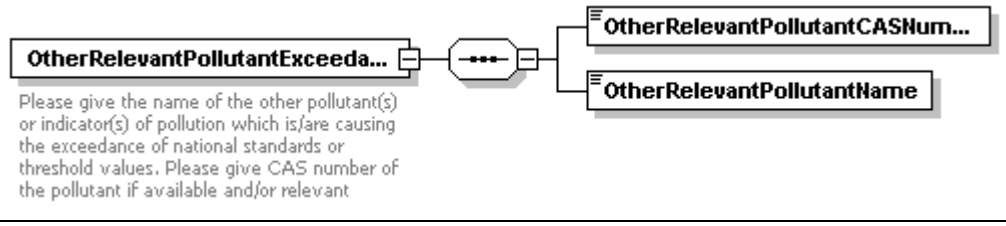
diagram



If the groundwater body is reported to be at poor chemical status then the pollutant(s) or indicator of pollution responsible for the failure to achieve good status should be reported. The enumeration list allows the reporting of the parameter “total pesticides” (i.e. 2 Pesticides) or of individual pesticides for which indicative examples (e.g. 2.1 alachlor) are given. Groundwater Directive Annex II Part B pollutants can be reported as an aggregated value (3 Annex II pollutants) or as individual parameters (e.g. 3.1 Arsenic).

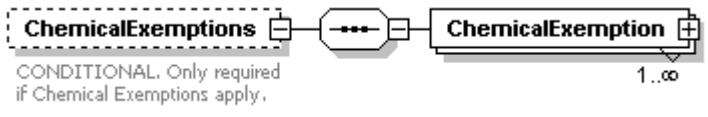
element
GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus/ChemicalStatus/PollutantsCausingFailure/OtherRelevantPollutantExceedance

diagram

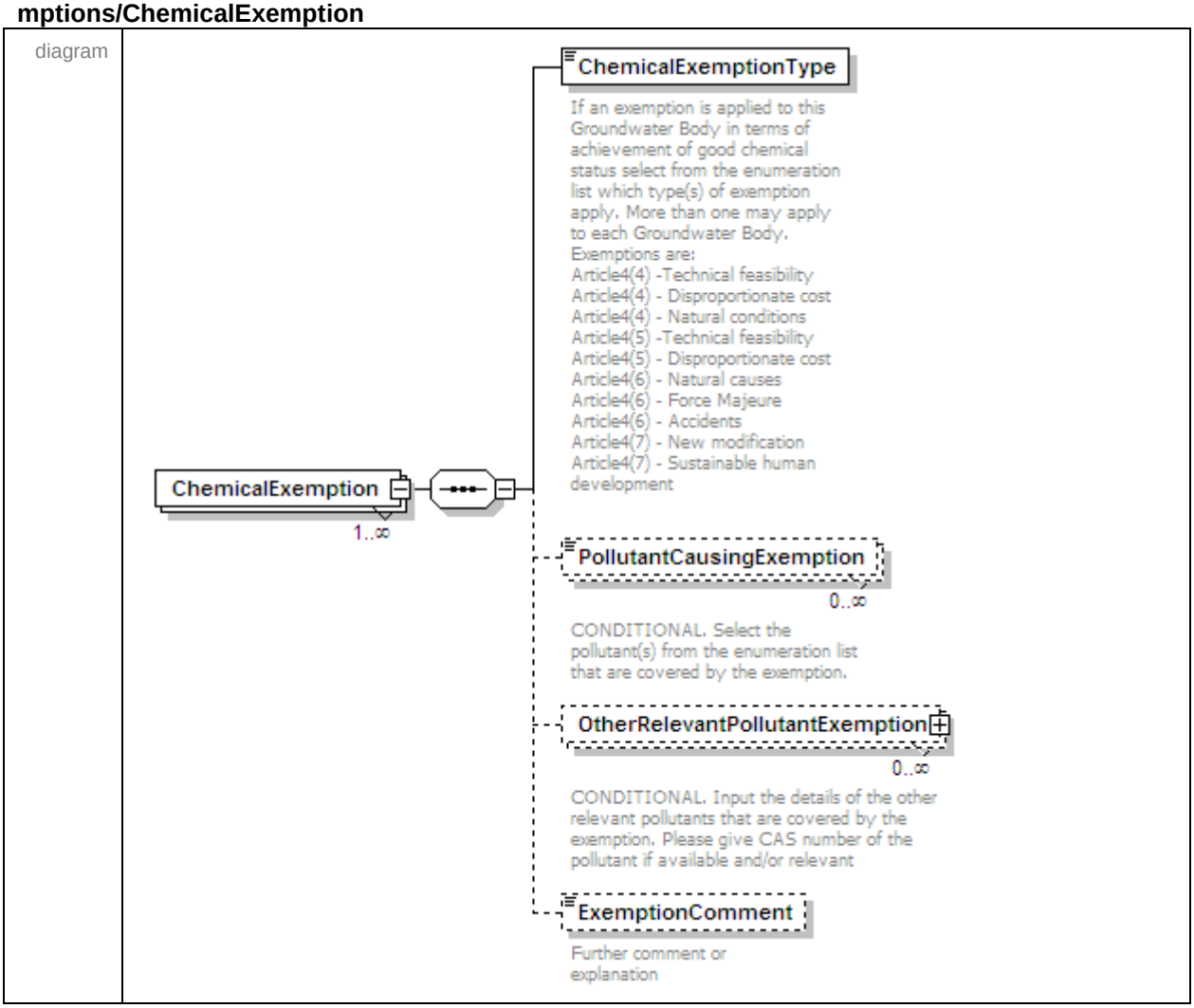


element
GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus/ChemicalStatus/ChemicalExemptions

diagram



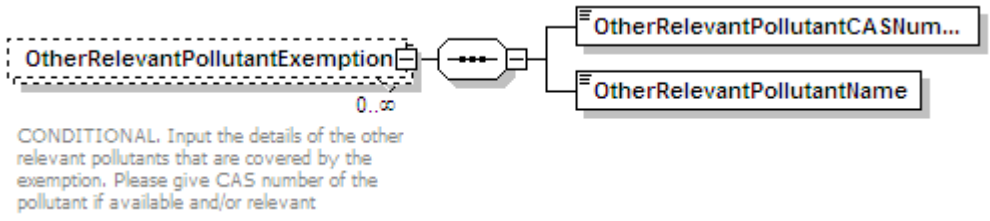
element
GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus/ChemicalStatus/ChemicalExemptions/ChemicalExemption



If exemptions are applied, the pollutant or pollutants causing the exemption have to be reported. For this purpose the elements PollutantCausingExemption and OtherRelevantPollutantExemption can be used, either one of them or both, as necessary, but at least one pollutant (or group of pollutants) has to be identified. The pollutants driving exemptions have to be selected among those identified in the element PollutantsCausingFailure.

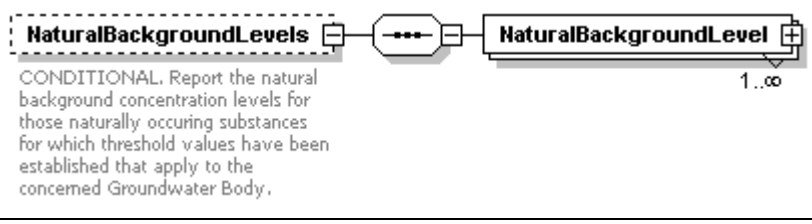
element
GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus/ChemicalStatus/ChemicalExemptions/ChemicalExemption/OtherRelevantPollutantExemption

diagram



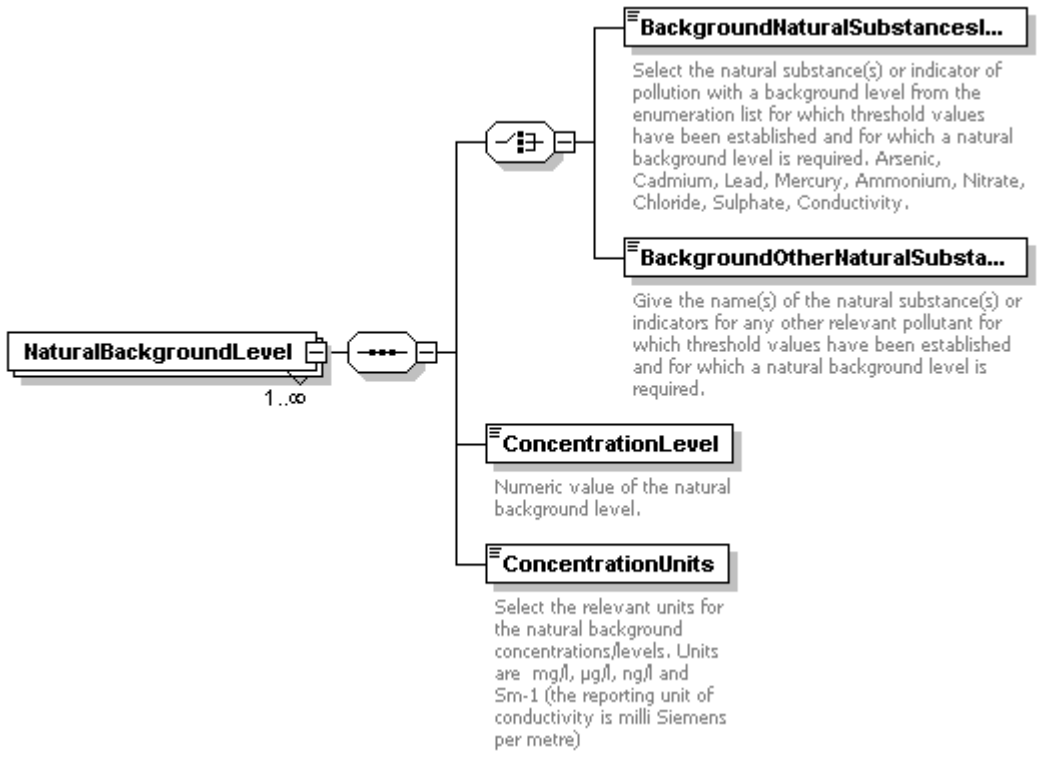
element
GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus/ChemicalStatus/NaturalBackgroundLevels

diagram



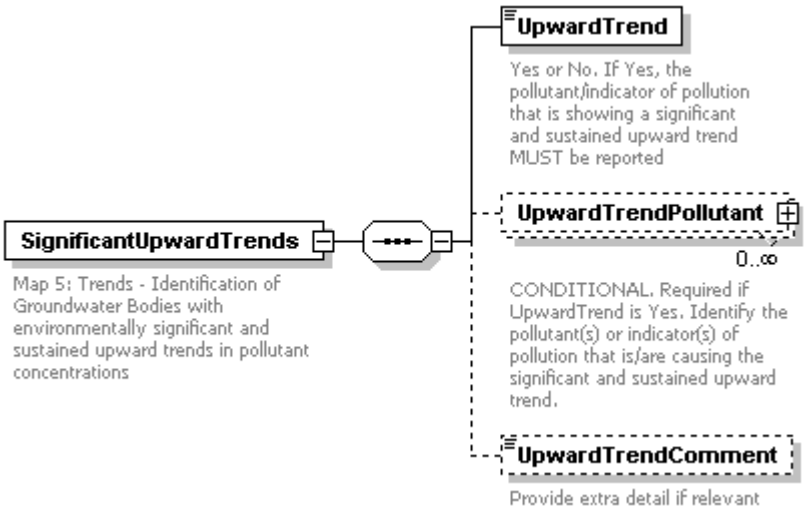
element
GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus/ChemicalStatus/NaturalBackgroundLevels/NaturalBackgroundLevel

diagram



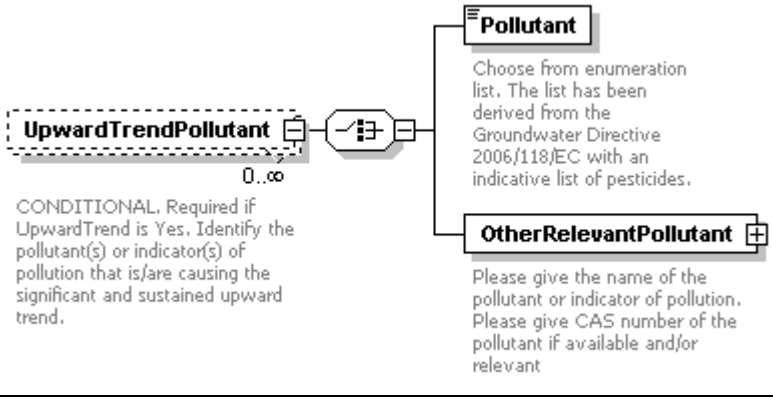
element
GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus/SignificantUpwardTrends

diagram



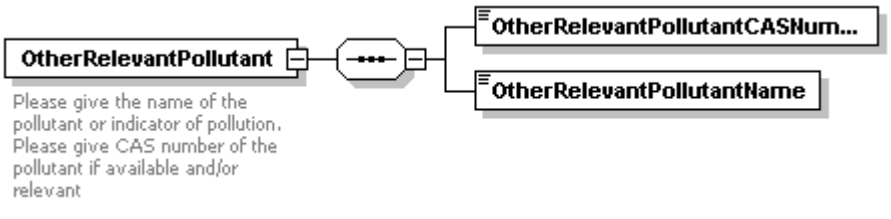
element
GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus/SignificantUpwardTrends/UpwardTrendPollutant

diagram



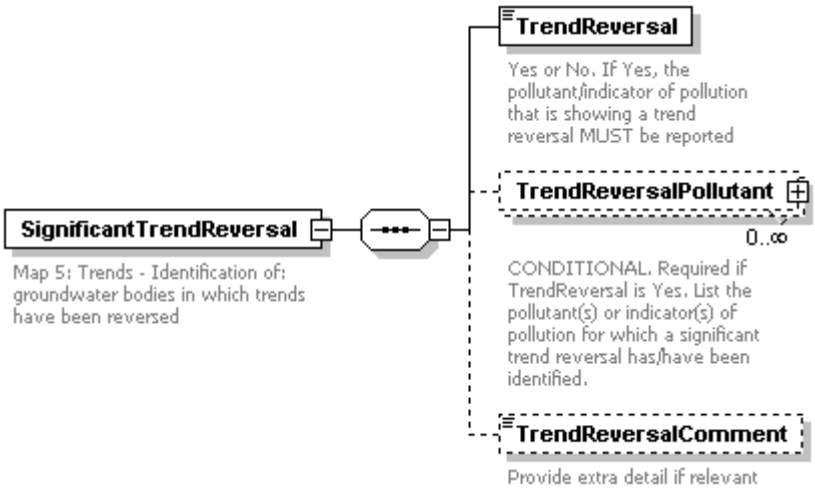
element
GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus/SignificantUpwardTrends/UpwardTrendPollutant/OtherRelevantPollutant

diagram



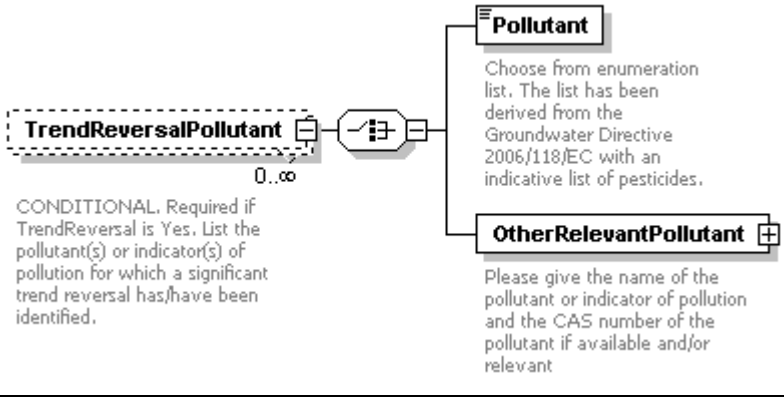
element
GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus/SignificantTrendReversal

diagram



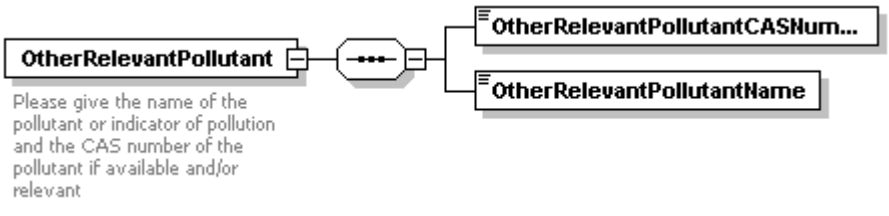
element
GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus/SignificantTrendReversal/TrendReversalPollutant

diagram



element
GroundWaterBodies/GroundWaterBody/GroundwaterBodyStatus/SignificantTrendReversal/TrendReversalPollutant/OtherRelevantPollutant

diagram



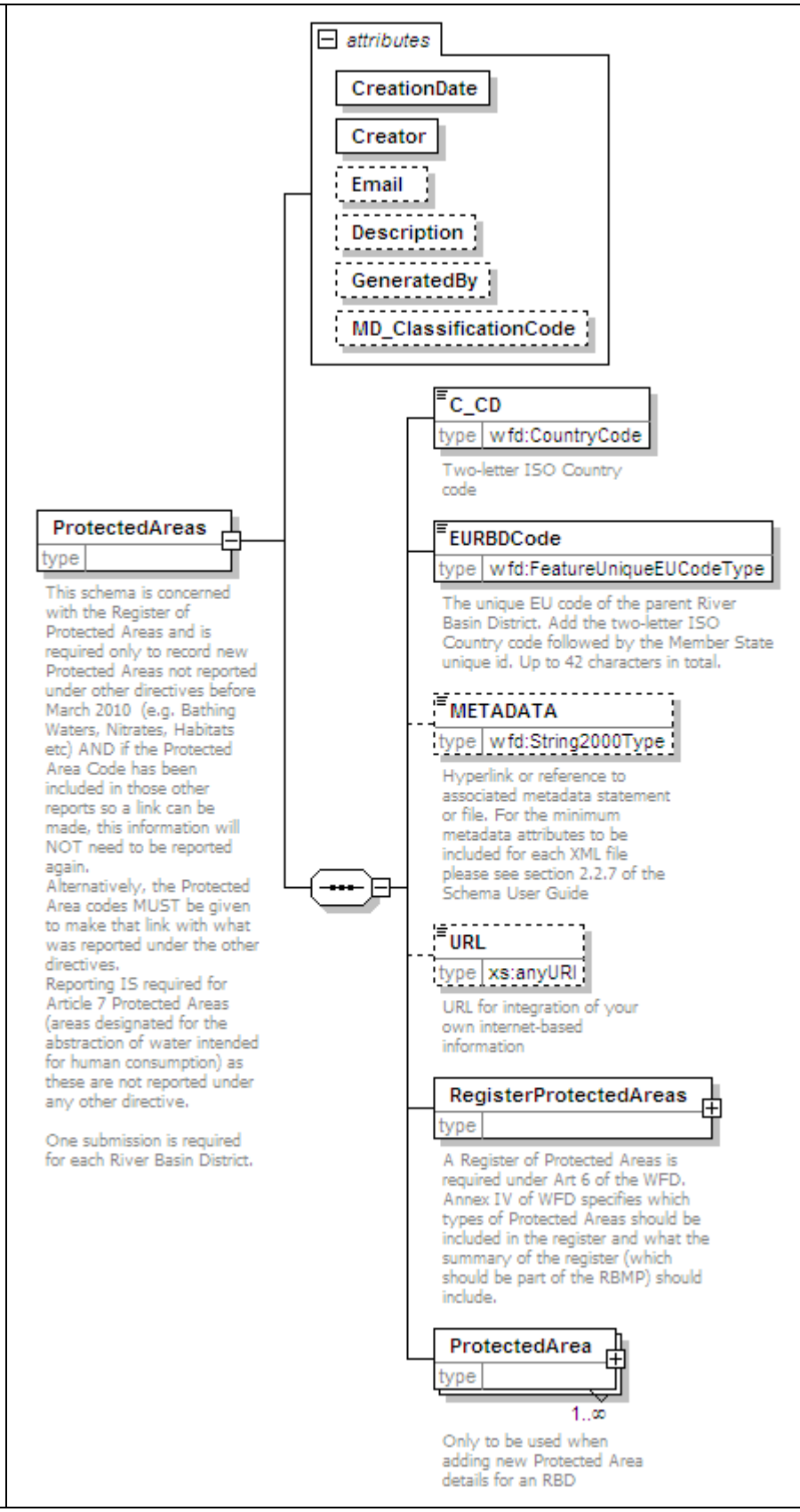
8. SCHEMA: PROTECTED AREAS

Schema **ProtArea.xsd**

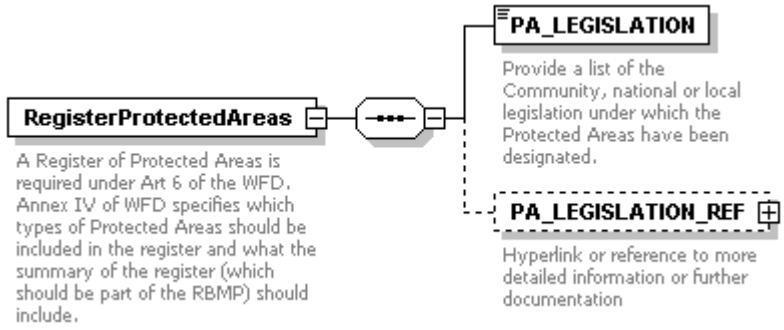
This schema deals with the reporting requirements for Protected Areas.

element **ProtectedAreas**

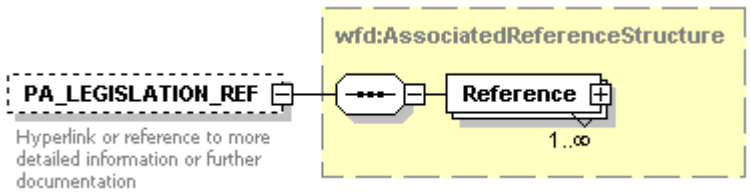
diagram



element **ProtectedAreas/RegisterProtectedAreas**

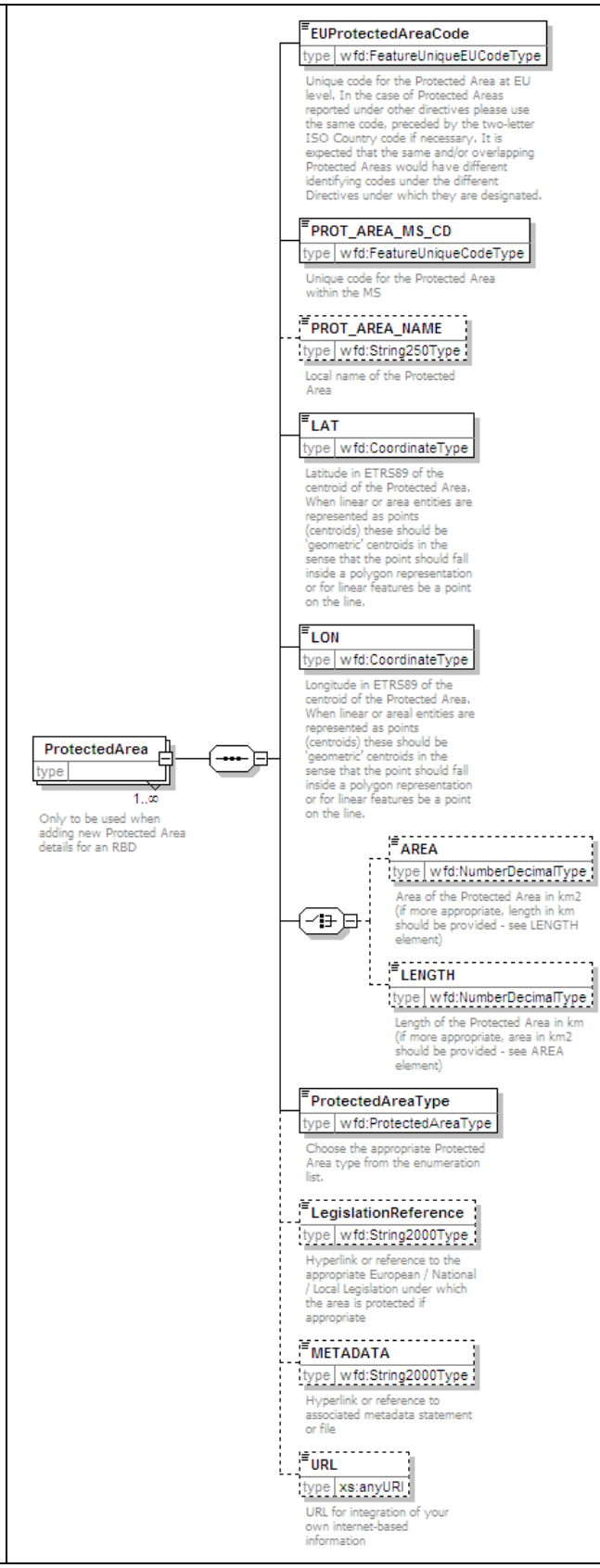
diagram	

element **ProtectedAreas/RegisterProtectedAreas/PA_LEGISLATION_REF**

diagram	

element **ProtectedAreas/ProtectedArea**

diagram



9. SCHEMA: SURFACE WATER AND GROUNDWATER BODIES METHODOLOGIES

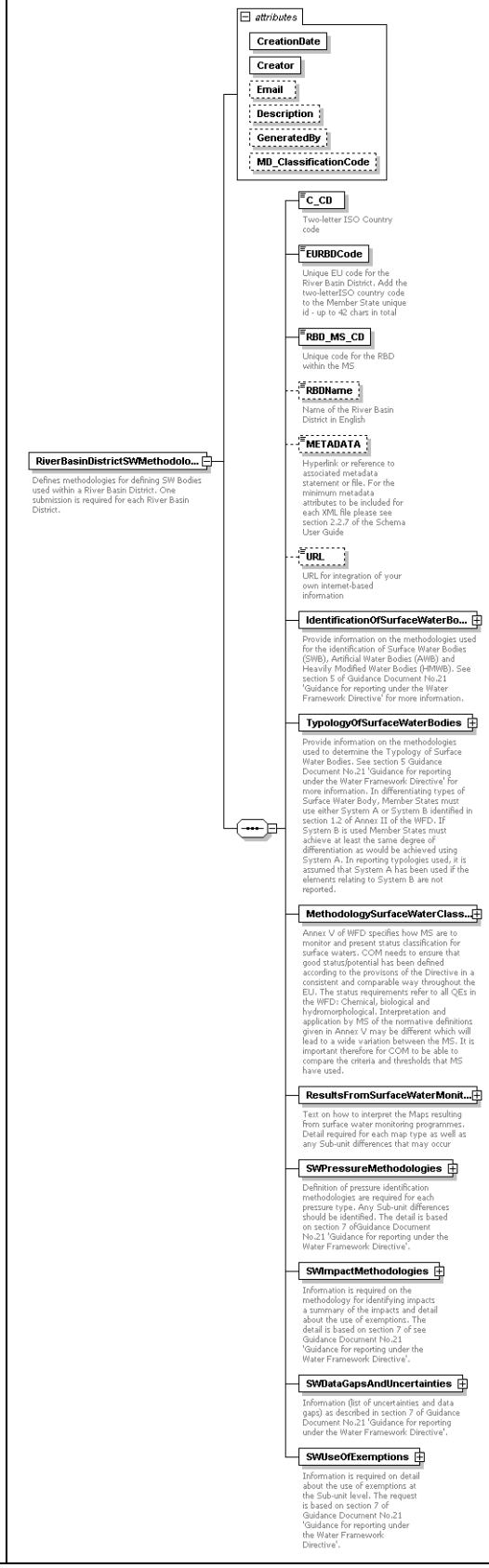
9.1 SURFACE WATER BODY METHODOLOGIES

Schema **SWMethods.xsd**

This schema deals with the summary reporting of methodologies used for Surface Water Bodies.

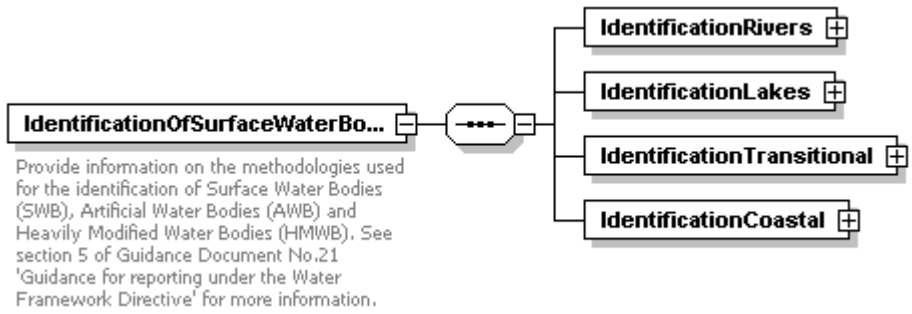
element **RiverBasinDistrictSWMethodologies**

diagram



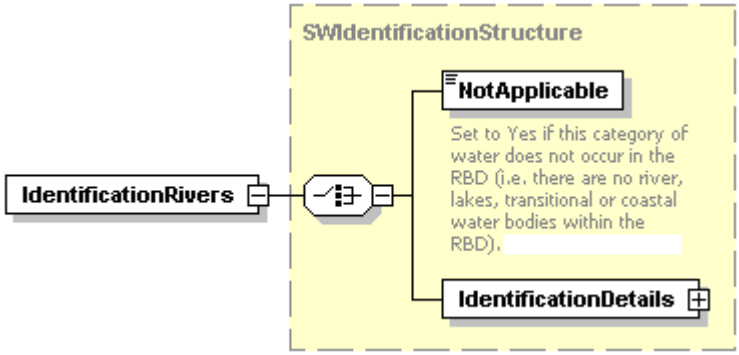
element **RiverBasinDistrictSWMethodologies/IdentificationOfSurfaceWaterBodies**

diagram



element
RiverBasinDistrictSWMethodologies/IdentificationOfSurfaceWaterBodies/IdentificationRivers

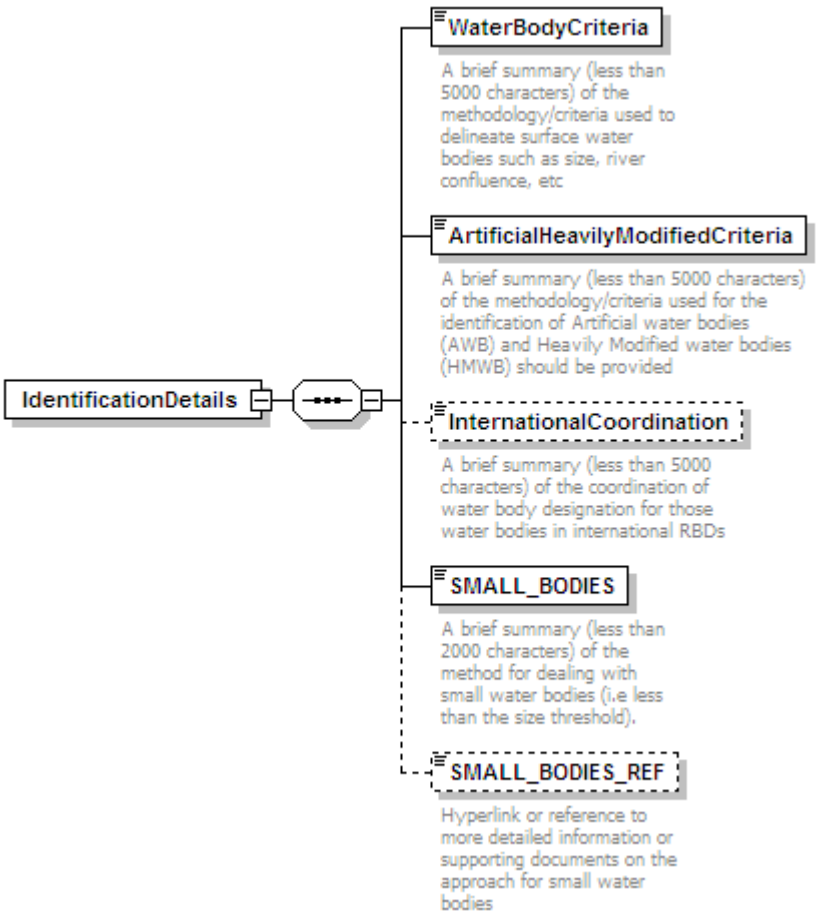
diagram



IdentificationLakes, IdentificationTransitional and IdentificationCoastal follow the same structure as IdentificationRivers.

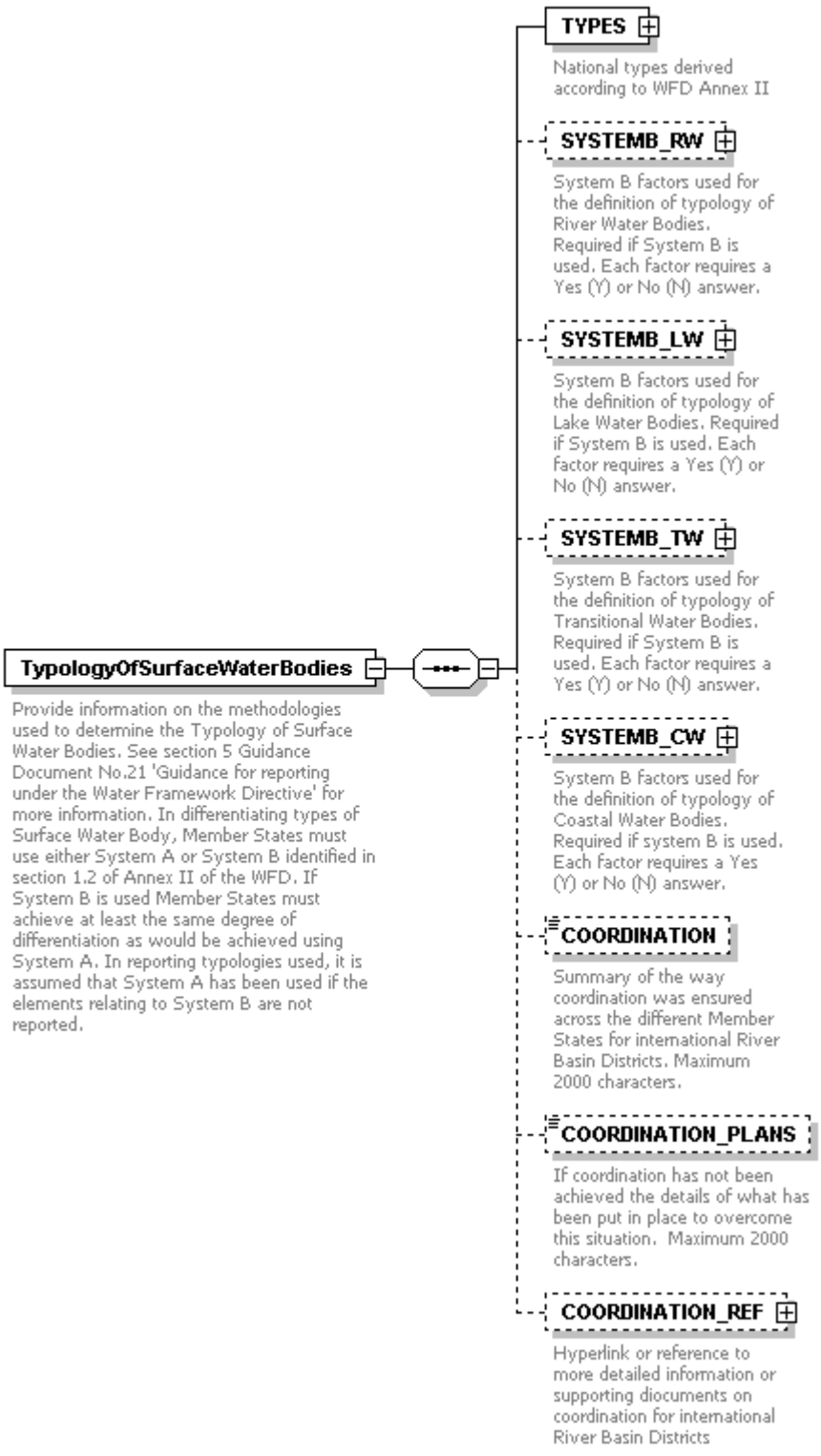
element **SWIdentificationStructure/IdentificationDetails**

diagram

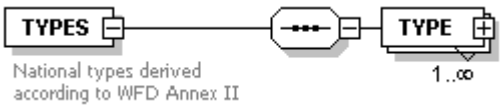


element **RiverBasinDistrictSWMethodologies/TypologyOfSurfaceWaterBodies**

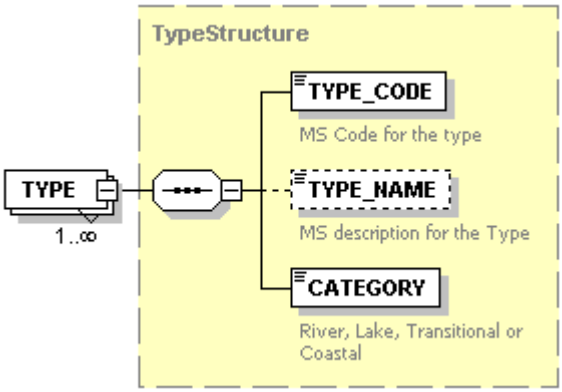
diagram



element **RiverBasinDistrictSWMethodologies/TypologyOfSurfaceWaterBodies/TYPES**

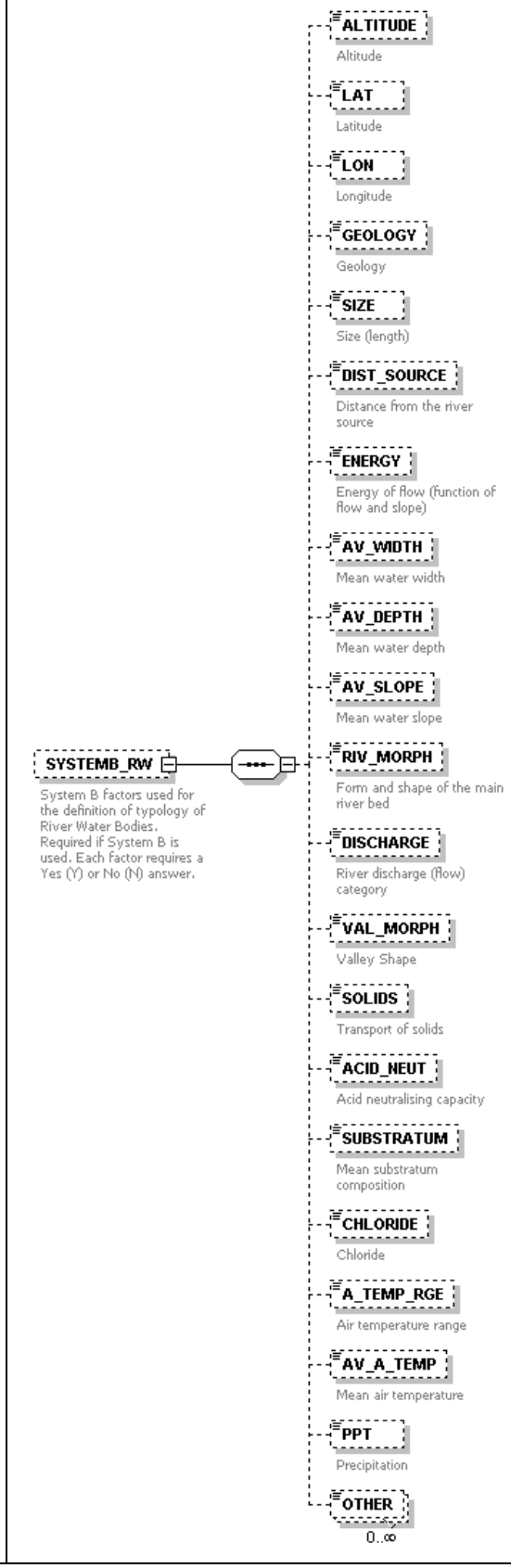
diagram	

element **RiverBasinDistrictSWMethodologies/TypologyOfSurfaceWaterBodies/TYPES/TYPE**

diagram	

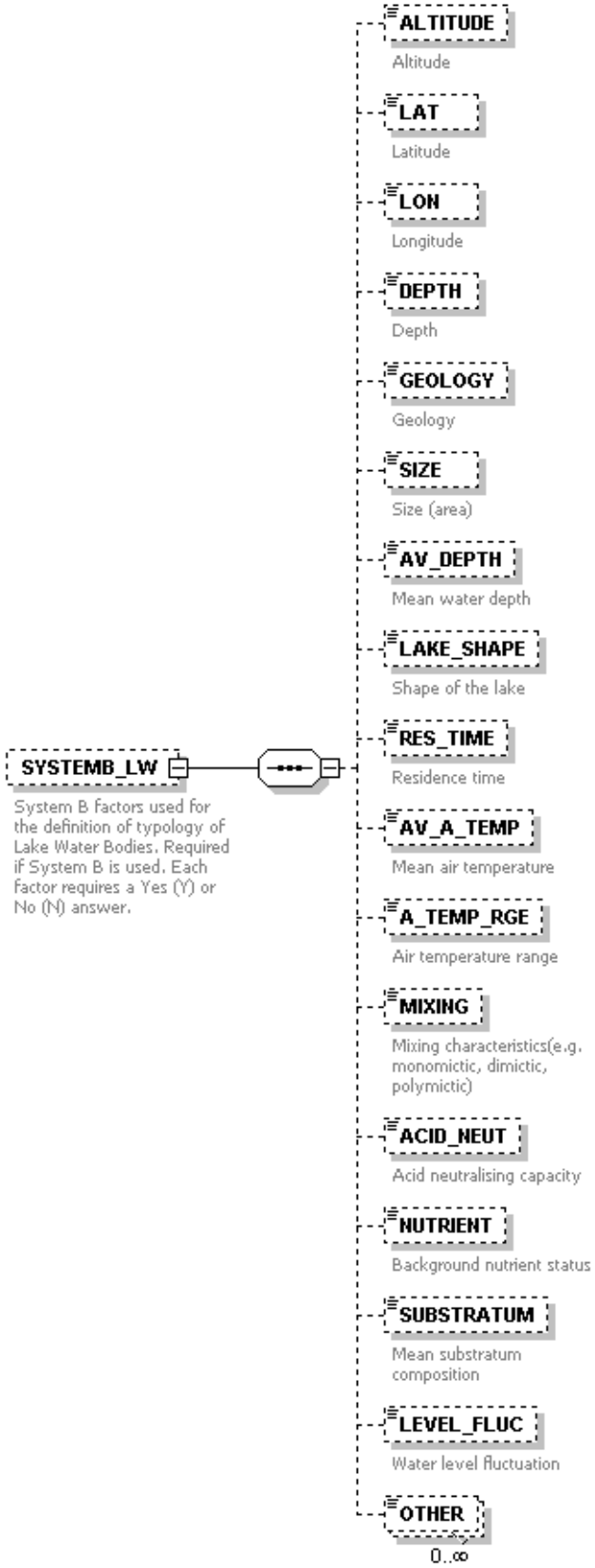
element **RiverBasinDistrictSWMethodologies/TypologyOfSurfaceWaterBodies/SYSTEMB_RW**

diagram



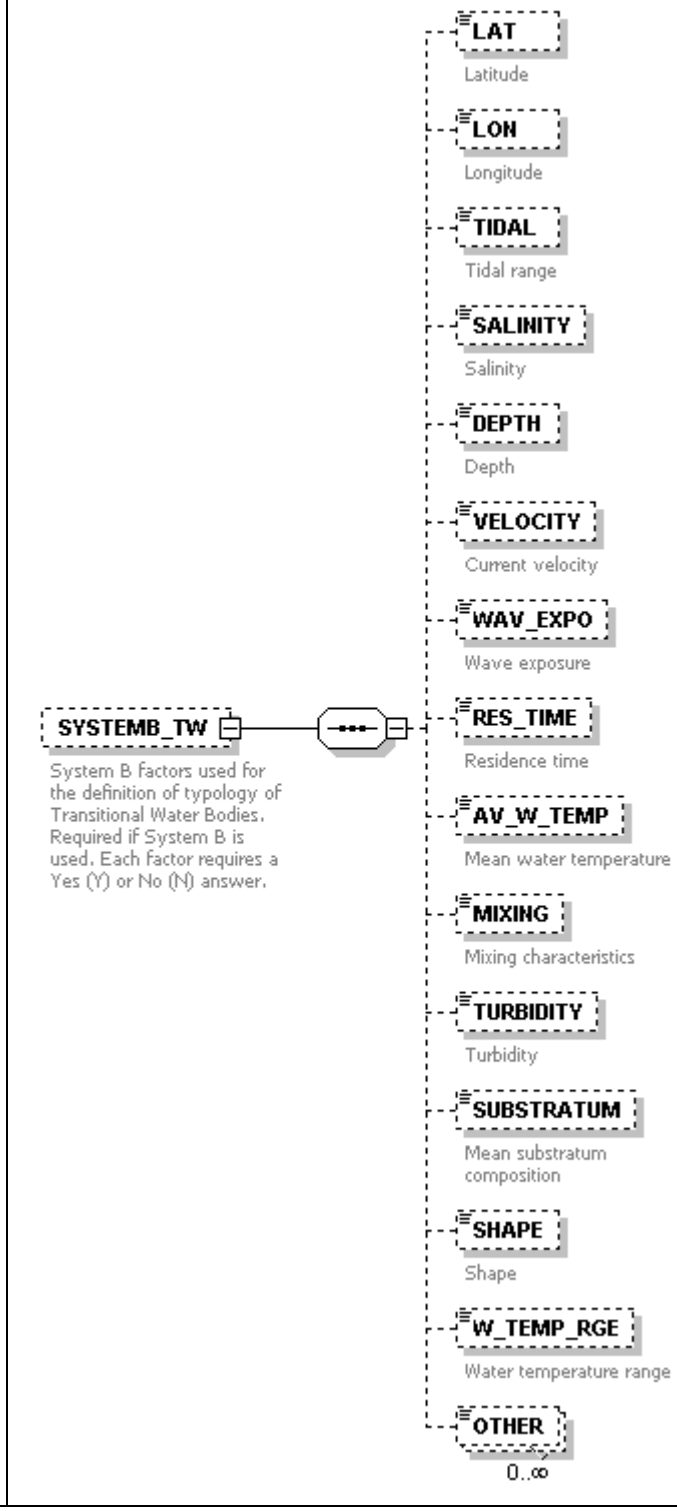
element **RiverBasinDistrictSWMethodologies/TypologyOfSurfaceWaterBodies/SYSTEMB_LW**

diagram



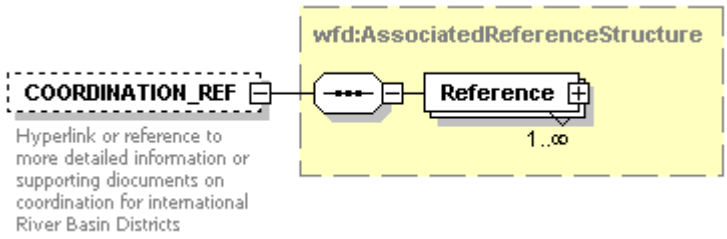
element **RiverBasinDistrictSWMethodologies/TypologyOfSurfaceWaterBodies/SYSTEMB_TW**

diagram



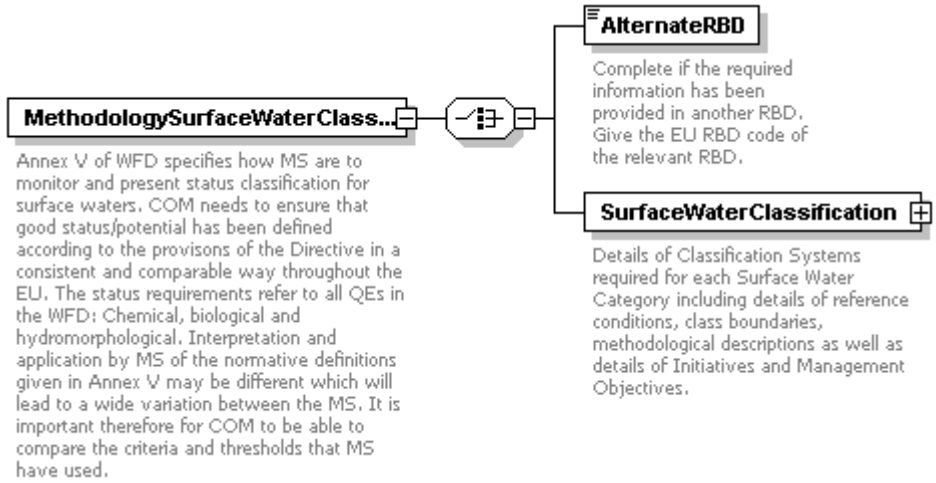
element
RiverBasinDistrictSWMethodologies/TypologyOfSurfaceWaterBodies/COORDINATION_REF

diagram



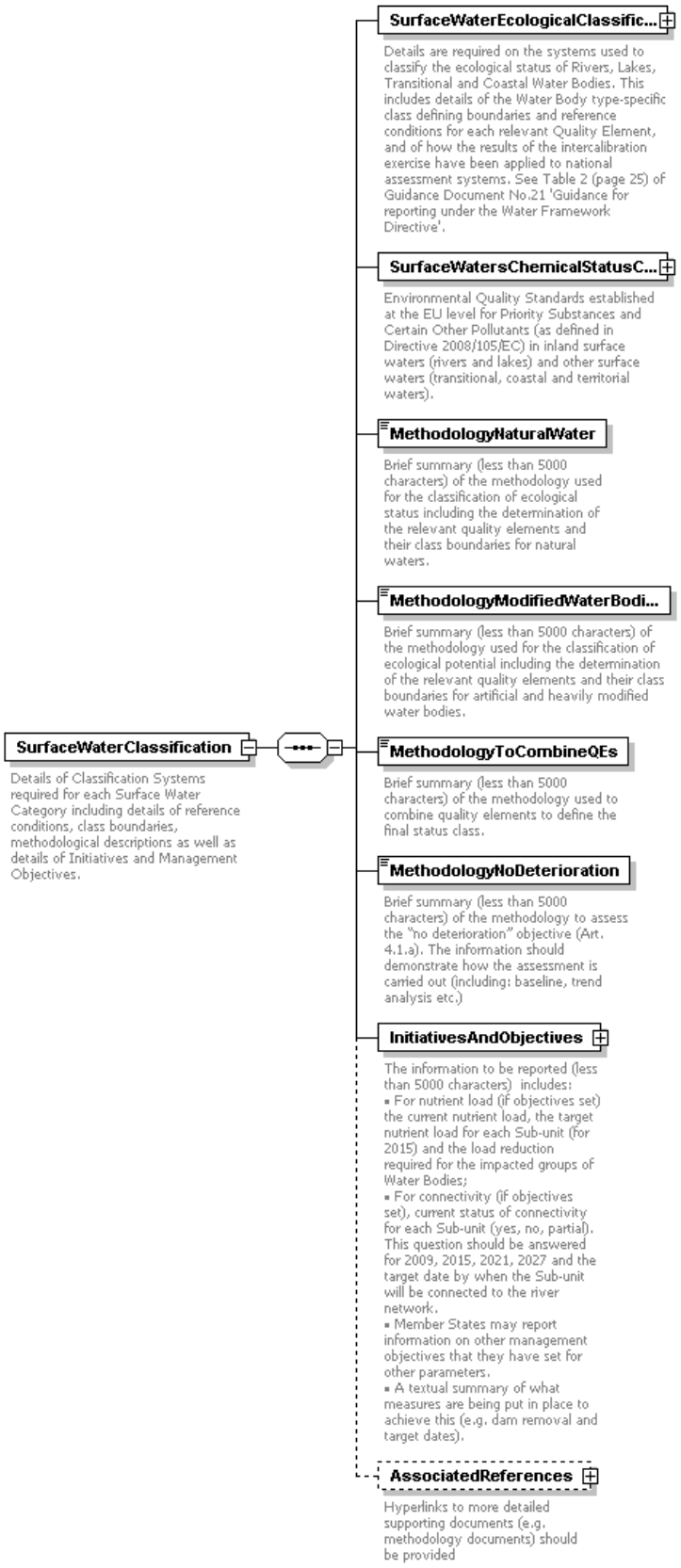
element **RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification**

diagram



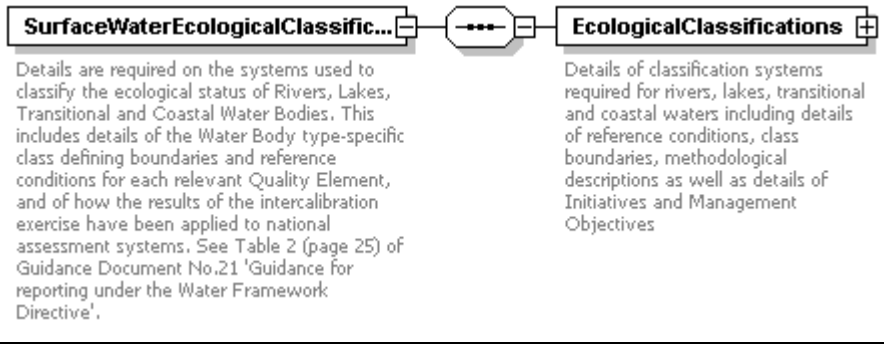
element
RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification

diagram


SurfaceWaterClassification
Details of Classification Systems required for each Surface Water Category including details of reference conditions, class boundaries, methodological descriptions as well as details of Initiatives and Management Objectives.
SurfaceWaterEcologicalClassific...
Details are required on the systems used to classify the ecological status of Rivers, Lakes, Transitional and Coastal Water Bodies. This includes details of the Water Body type-specific class defining boundaries and reference conditions for each relevant Quality Element, and of how the results of the intercalibration exercise have been applied to national assessment systems. See Table 2 (page 25) of Guidance Document No.21 'Guidance for reporting under the Water Framework Directive'.
SurfaceWatersChemicalStatusC...
Environmental Quality Standards established at the EU level for Priority Substances and Certain Other Pollutants (as defined in Directive 2008/105/EC) in inland surface waters (rivers and lakes) and other surface waters (transitional, coastal and territorial waters).
MethodologyNaturalWater
Brief summary (less than 5000 characters) of the methodology used for the classification of ecological status including the determination of the relevant quality elements and their class boundaries for natural waters.
MethodologyModifiedWaterBodi...
Brief summary (less than 5000 characters) of the methodology used for the classification of ecological potential including the determination of the relevant quality elements and their class boundaries for artificial and heavily modified water bodies.
MethodologyToCombineQEs
Brief summary (less than 5000 characters) of the methodology used to combine quality elements to define the final status class.
MethodologyNoDeterioration
Brief summary (less than 5000 characters) of the methodology to assess the "no deterioration" objective (Art. 4.1.a). The information should demonstrate how the assessment is carried out (including: baseline, trend analysis etc.)
InitiativesAndObjectives
The information to be reported (less than 5000 characters) includes:
▪ For nutrient load (if objectives set) the current nutrient load, the target nutrient load for each Sub-unit (for 2015) and the load reduction required for the impacted groups of Water Bodies;
▪ For connectivity (if objectives set), current status of connectivity for each Sub-unit (yes, no, partial). This question should be answered for 2009, 2015, 2021, 2027 and the target date by when the Sub-unit will be connected to the river network.
▪ Member States may report information on other management objectives that they have set for other parameters.
▪ A textual summary of what measures are being put in place to achieve this (e.g. dam removal and target dates).
AssociatedReferences
Hyperlinks to more detailed supporting documents (e.g. methodology documents) should be provided

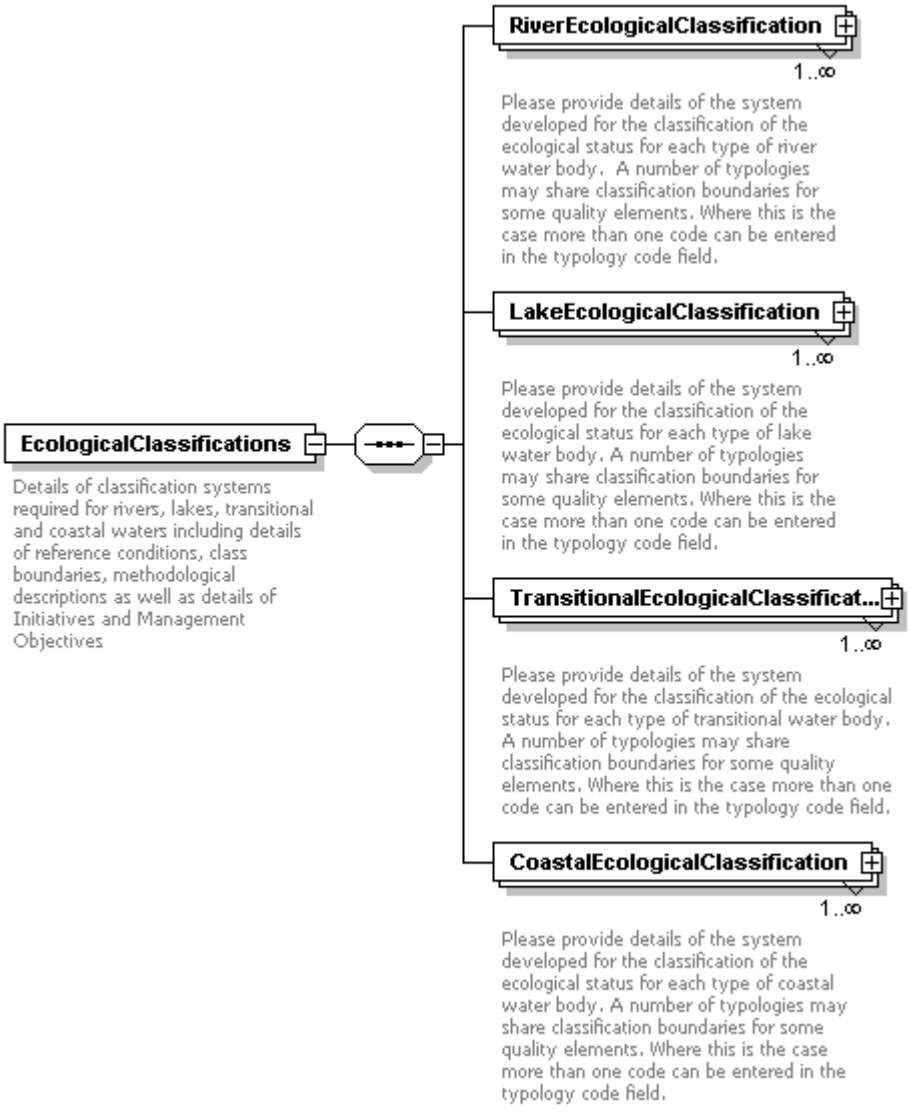
element
RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification/SurfaceWaterEcologicalClassification

diagram



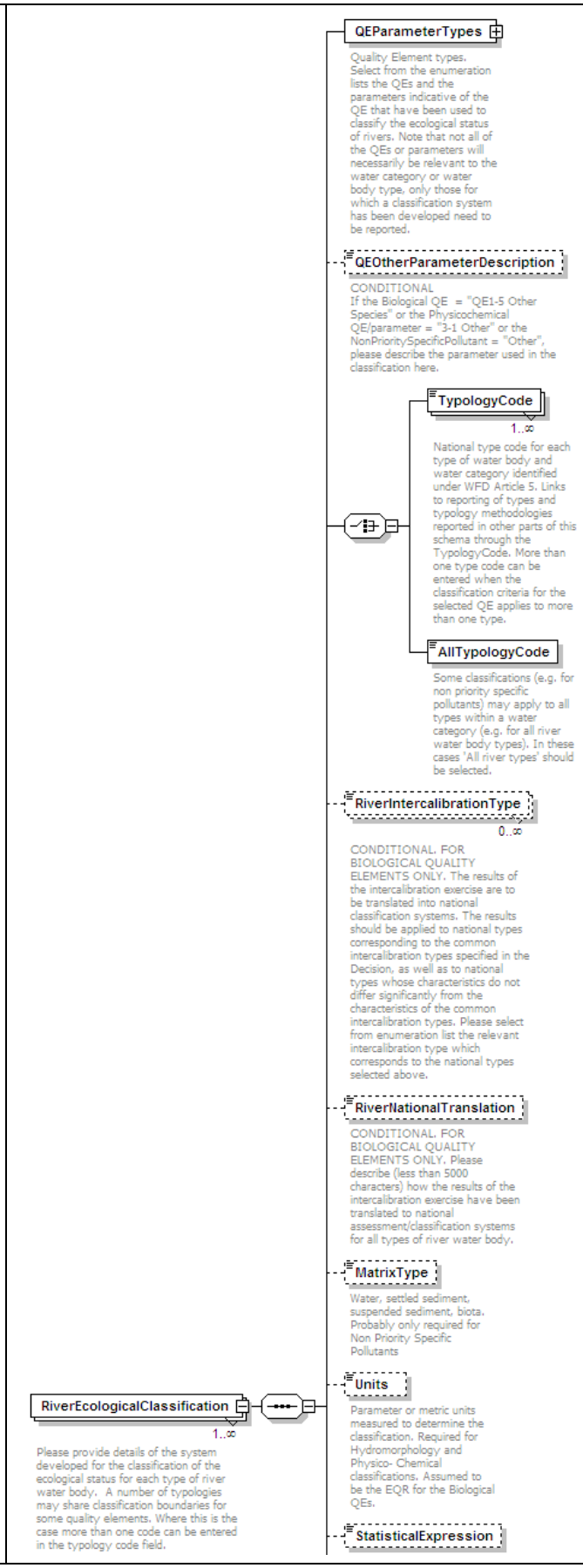
element
RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification/SurfaceWaterEcologicalClassification/EcologicalClassifications

diagram



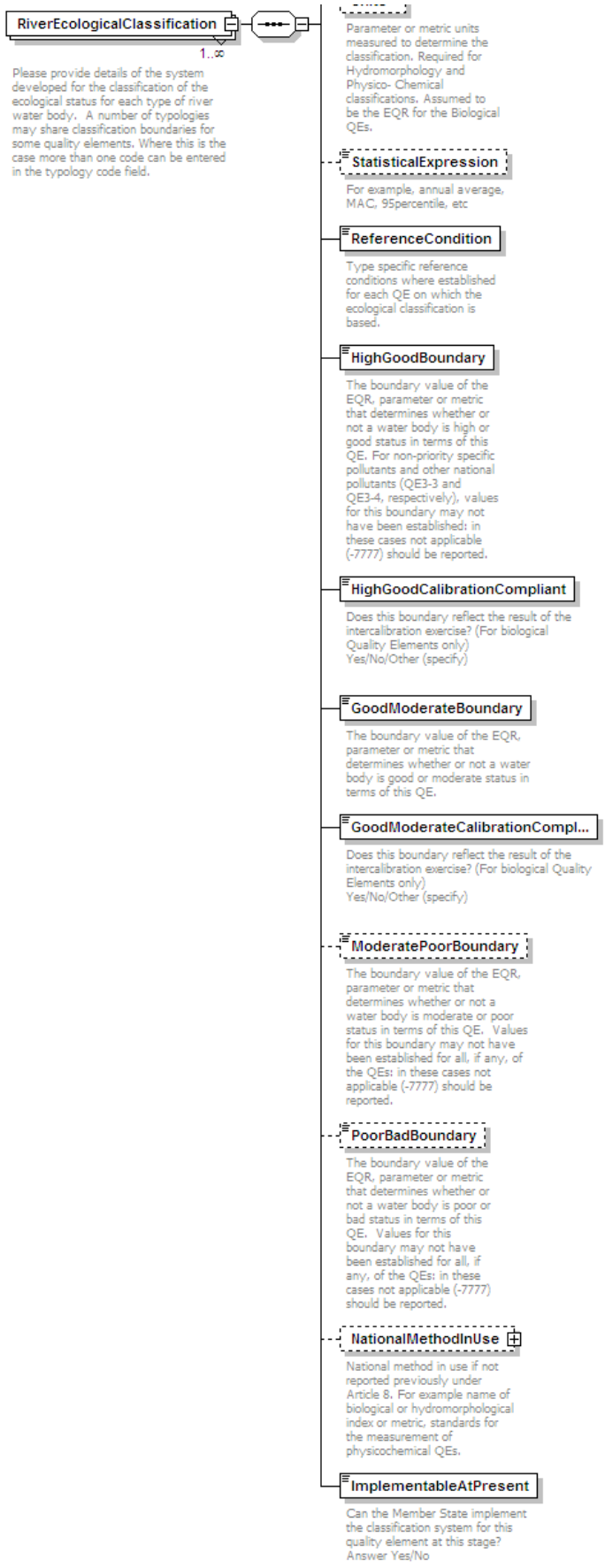
element
RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification/SurfaceWaterEcologicalClassification/EcologicalClassifications/RiverEcologicalClassification (top part of element)

diagram

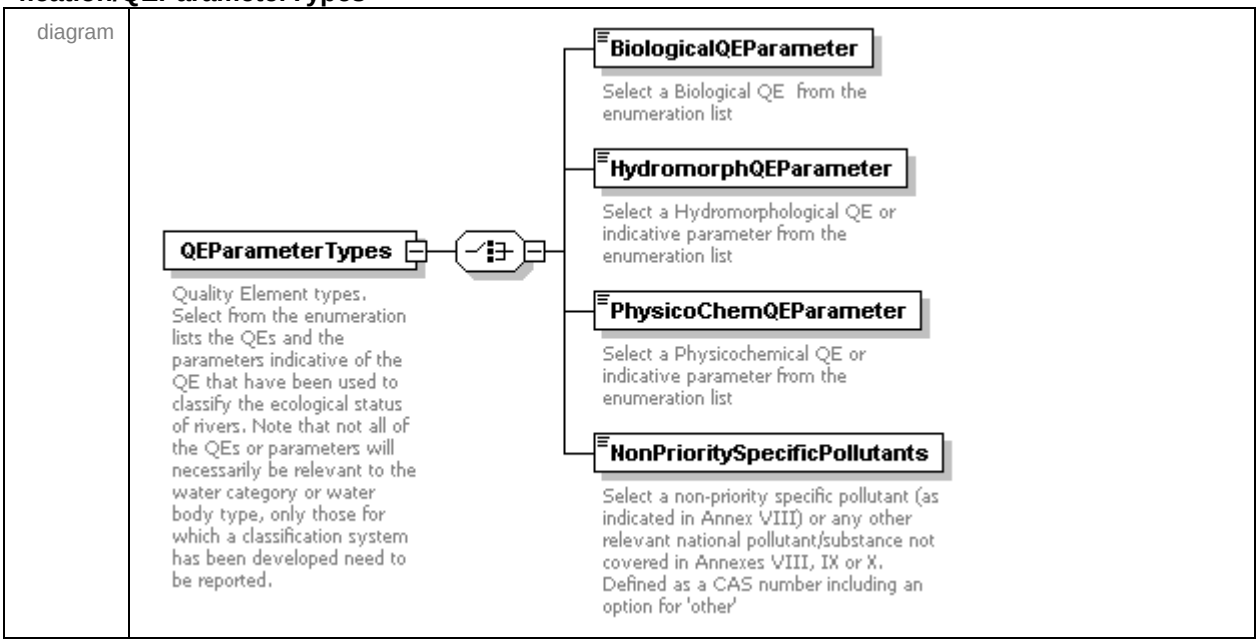

RiverEcologicalClassification
1..∞
Please provide details of the system developed for the classification of the ecological status for each type of river water body. A number of typologies may share classification boundaries for some quality elements. Where this is the case more than one code can be entered in the typology code field.
QEParameterTypes
Quality Element types. Select from the enumeration lists the QEs and the parameters indicative of the QE that have been used to classify the ecological status of rivers. Note that not all of the QEs or parameters will necessarily be relevant to the water category or water body type, only those for which a classification system has been developed need to be reported.
QEOtherParameterDescription
CONDITIONAL If the Biological QE = "QE1-5 Other Species" or the Physicochemical QE/parameter = "3-1 Other" or the NonPrioritySpecificPollutant = "Other", please describe the parameter used in the classification here.
TypologyCode
1..∞
National type code for each type of water body and water category identified under WFD Article 5. Links to reporting of types and typology methodologies reported in other parts of this schema through the TypologyCode. More than one type code can be entered when the classification criteria for the selected QE applies to more than one type.
AllTypologyCode
Some classifications (e.g. for non priority specific pollutants) may apply to all types within a water category (e.g. for all river water body types). In these cases 'All river types' should be selected.
RiverIntercalibrationType
0..∞
CONDITIONAL FOR BIOLOGICAL QUALITY ELEMENTS ONLY. The results of the intercalibration exercise are to be translated into national classification systems. The results should be applied to national types corresponding to the common intercalibration types specified in the Decision, as well as to national types whose characteristics do not differ significantly from the characteristics of the common intercalibration types. Please select from enumeration list the relevant intercalibration type which corresponds to the national types selected above.
RiverNationalTranslation
CONDITIONAL FOR BIOLOGICAL QUALITY ELEMENTS ONLY. Please describe (less than 5000 characters) how the results of the intercalibration exercise have been translated to national assessment/classification systems for all types of river water body.
MatrixType
Water, settled sediment, suspended sediment, biota. Probably only required for Non Priority Specific Pollutants
Units
Parameter or metric units measured to determine the classification. Required for Hydromorphology and Physico- Chemical classifications. Assumed to be the EQR for the Biological QEs.
StatisticalExpression

element
RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification/SurfaceWaterEcologicalClassification/EcologicalClassifications/RiverEcologicalClassification (bottom part of element)

diagram


RiverEcologicalClassification
1..∞
Please provide details of the system developed for the classification of the ecological status for each type of river water body. A number of typologies may share classification boundaries for some quality elements. Where this is the case more than one code can be entered in the typology code field.
Parameter or metric units measured to determine the classification. Required for Hydromorphology and Physico- Chemical classifications. Assumed to be the EQR for the Biological QEs.
StatisticalExpression
For example, annual average, MAC, 95percentile, etc
ReferenceCondition
Type specific reference conditions where established for each QE on which the ecological classification is based.
HighGoodBoundary
The boundary value of the EQR, parameter or metric that determines whether or not a water body is high or good status in terms of this QE. For non-priority specific pollutants and other national pollutants (QE3-3 and QE3-4, respectively), values for this boundary may not have been established: in these cases not applicable (-7777) should be reported.
HighGoodCalibrationCompliant
Does this boundary reflect the result of the intercalibration exercise? (For biological Quality Elements only)
Yes/No/Other (specify)
GoodModerateBoundary
The boundary value of the EQR, parameter or metric that determines whether or not a water body is good or moderate status in terms of this QE.
GoodModerateCalibrationCompl...
Does this boundary reflect the result of the intercalibration exercise? (For biological Quality Elements only)
Yes/No/Other (specify)
ModeratePoorBoundary
The boundary value of the EQR, parameter or metric that determines whether or not a water body is moderate or poor status in terms of this QE. Values for this boundary may not have been established for all, if any, of the QEs: in these cases not applicable (-7777) should be reported.
PoorBadBoundary
The boundary value of the EQR, parameter or metric that determines whether or not a water body is poor or bad status in terms of this QE. Values for this boundary may not have been established for all, if any, of the QEs: in these cases not applicable (-7777) should be reported.
NationalMethodInUse
National method in use if not reported previously under Article 8. For example name of biological or hydromorphological index or metric, standards for the measurement of physicochemical QEs.
ImplementableAtPresent
Can the Member State implement the classification system for this quality element at this stage?
Answer Yes/No

element
RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification/SurfaceWaterEcologicalClassification/EcologicalClassifications/RiverEcologicalClassification/QEParameterTypes



The enumeration lists contain Quality Elements and parameters indicative of QEs which MIGHT have been used in national classification schemes. There are separate elements for the biological QEs and hydromorphological QEs that are specific to, or possibly will be used for, classifying rivers. They contain elements at different levels of aggregation. For example, classifications may be reported at the other aquatic flora level (QE1-2) or separately for the component QEs, macrophytes (QE1-2-3) or phytobenthos (QE1-2-4). The most appropriate level of aggregation should be selected. If other non-listed taxonomic groups have been used (e.g. zooplankton) then QE1-5 should be reported and information provided on what taxonomic group has been classified.

Hydromorphological QEs can be reported at 3 levels of aggregation depending upon which QE and/or metrics have been used in the classification. For example, “QE2 Hydromorphological QEs” is the generic level 1 option which can be disaggregated into “QE2-1 Hydrological regime – rivers” and further disaggregated as “QE2-1-1 Water flow” as appropriate and relevant.

There are separate elements and enumeration lists for each of the 4 water categories (rivers, lakes, transitional and coastal waters) as there are differences between the mandatory QEs for each.

The focus for the reporting of classifications for QE3-1 General physicochemical QEs is at the level of the parameters that might have been used to be indicative of this QE for monitoring and classification purposes. There is a comprehensive list of parameters in the enumeration list from which the relevant ones should be selected. There is also an opportunity to report “others” in cases where the parameter is not included in the enumeration list. Similarly a comprehensive

enumeration list of non priority specific pollutants (QE3-3) is provided from which any relevant ones should be selected.

The CIS "guidelines to translate the intercalibration results into national classification systems and to derive reference conditions" (version 4.3, 20 November 2007[7]) states that the intercalibration results should be applied to national types corresponding to the common intercalibration types specified in the Intercalibration Decision (2008/915/EC) as well as to national types whose characteristics do not differ significantly from the characteristics of the common intercalibration types.

There are separate enumeration lists for rivers, lakes, transitional and coastal waters each containing the intercalibrated types published in Commission Decision (2008/915/EC). For each national type selected in TypologyCode above please select the equivalent intercalibration type from the lists as appropriate.

The relation between national and intercalibration types can be complex. The schema allows representing a many to many relation. For each quality element a minimum of one national type has to be selected. This may correspond to none, one or several intercalibration types. Some (fictitious) examples:

Example 1:
QEParameterTypes/BiologicalQEParameter = QE1-3 Benthic invertebrates
TypologyCode = 12
RiverIntercalibrationType = R-C2
This means that national type 12 corresponds with intercalibration type R-C2 (one-to-one relationship).

Example 2:
QEParameterTypes/BiologicalQEParameter = QE1-3 Benthic invertebrates
TypologyCode = 15, 17, 23
RiverIntercalibrationType = R-C4
This means that national types 15, 17 and 23 correspond with intercalibration type R-C4 (several-to-one relationship).

Example 3:
QEParameterTypes/BiologicalQEParameter = QE1-2-4 Phytobenthos
TypologyCode = 33
RiverIntercalibrationType = R-C1, R-C2
This means that national type 33 corresponds with intercalibration types R-C1 and R-C2. In this case the national type is broader than the intercalibration types or is defined in such a way that it overlaps with the two intercalibration types (one-to-many relationship).

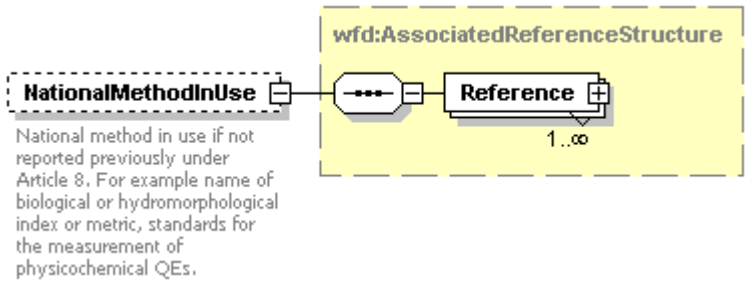
Example 4:
QEParameterTypes/BiologicalQEParameter = QE1-2-4 Phytobenthos

[7] http://circa.europa.eu/Members/irc/env/wfd/library?l=/water_directors/documents_portuguese/meeting_documents&vm=detailed&sb=Title

TypologyCode = 21
RiverIntercalibrationType = [none]
This means that there is no corresponding intercalibration type for national type 21.

element
RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification/SurfaceWaterEcologicalClassification/EcologicalClassifications/RiverEcologicalClassification/NationalMethodInUse

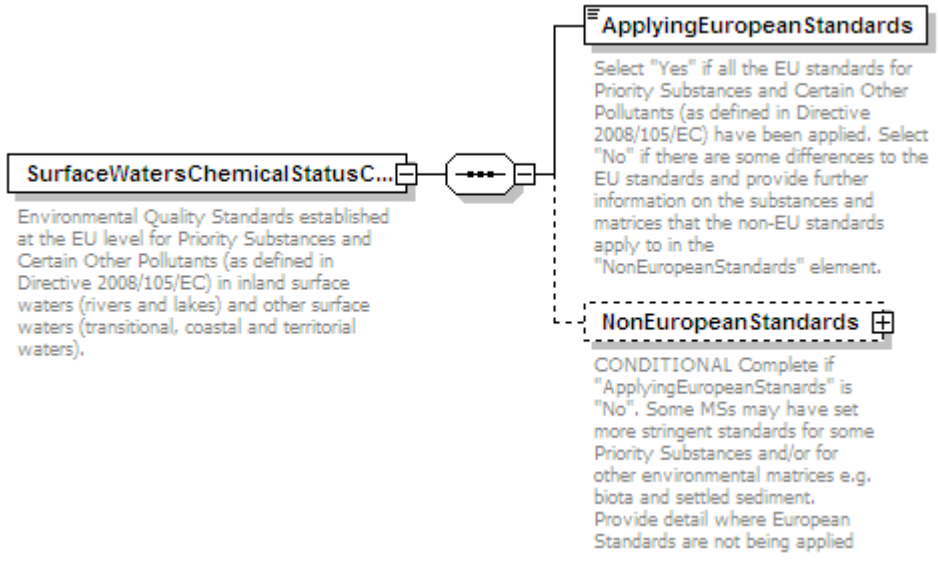
diagram



LakeEcologicalClassification, TransitionalEcologicalClassification and CoastalEcologicalClassification follow the same structure as RiverEcologicalClassification.

element
RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification/SurfaceWatersChemicalStatusClassification

diagram



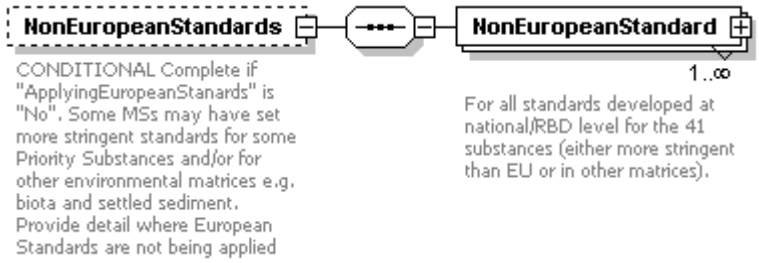
Answering “yes” to the ApplyingEuropeanStandards element would mean that all the standards associated with ALL the Priority Substances and certain other pollutants as published

in Annex I of the EQS Directive (2008/105/EC) would have been applied.

Answering ‘no’ would indicate that either less or more stringent standards would have been applied and/or standards have been established in other matrices e.g. sediment or biota. In the case of “no” only select the substances for which the standards are different from the EU standards. It will be assumed that EU standards are applicable to any substances not selected.

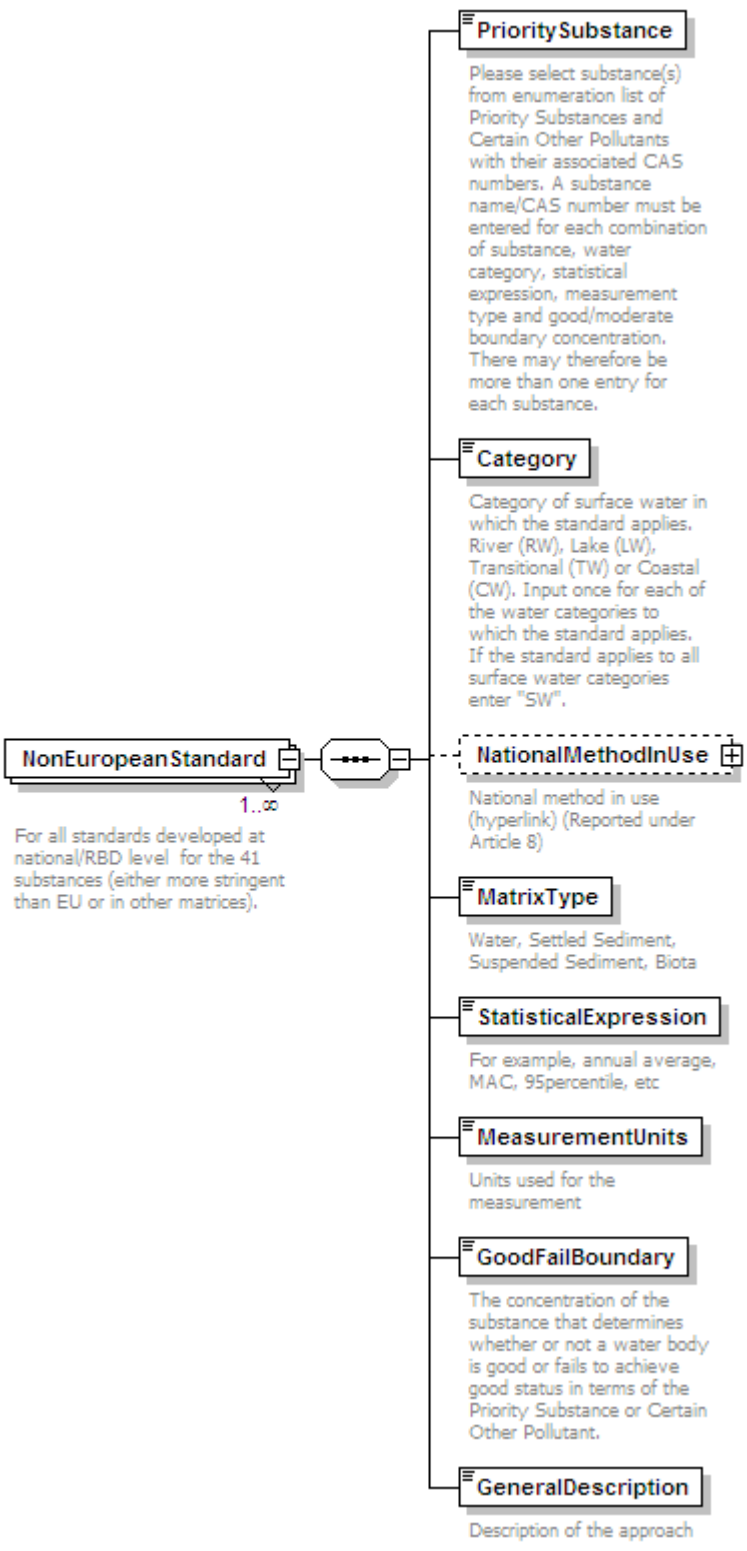
element
RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification/SurfaceWatersChemicalStatusClassification/QE3-2PrioritySubstances/NonEuropeanStandards

diagram



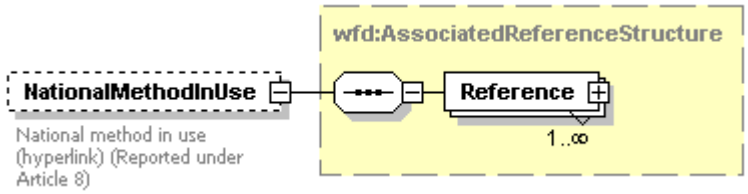
element
RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification/SurfaceWatersChemicalStatusClassification/QE3-2PrioritySubstances/NonEuropeanStandards/NonEuropeanStandard

diagram



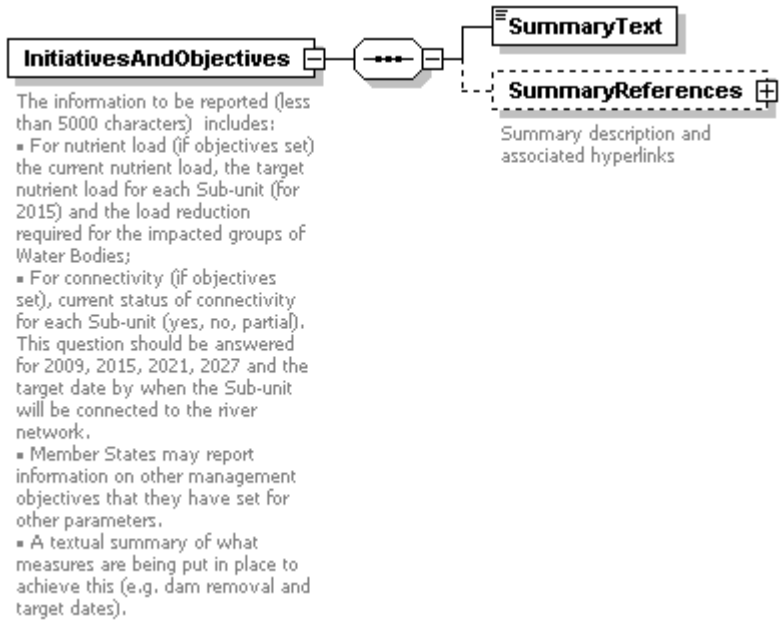
element
RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification/SurfaceWatersChemicalStatusClassification/QE3-2PrioritySubstances/NonEuropeanStandards/NonEuropeanStandard/NationalMethodInUse

diagram



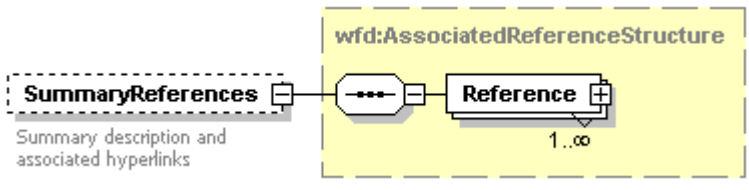
element
RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification/InitiativesAndObjectives

diagram



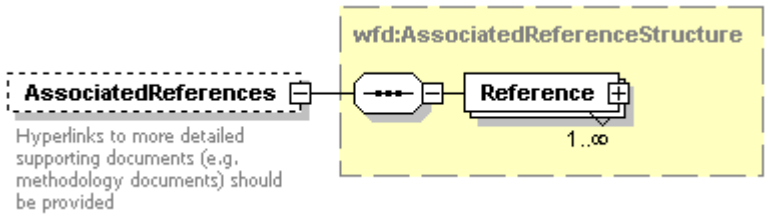
element
RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification/InitiativesAndObjectives/SummaryReferences

diagram



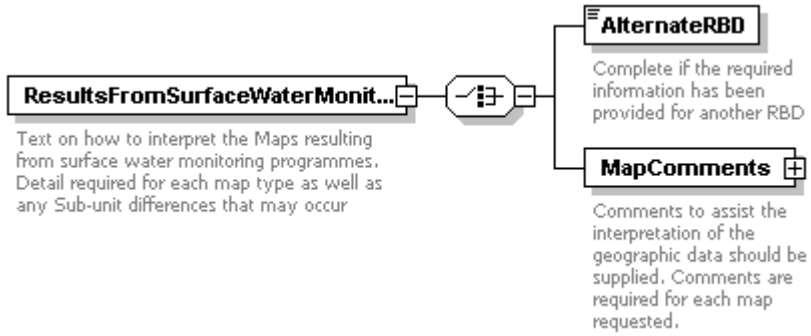
element
RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification/AssociatedReferences

diagram



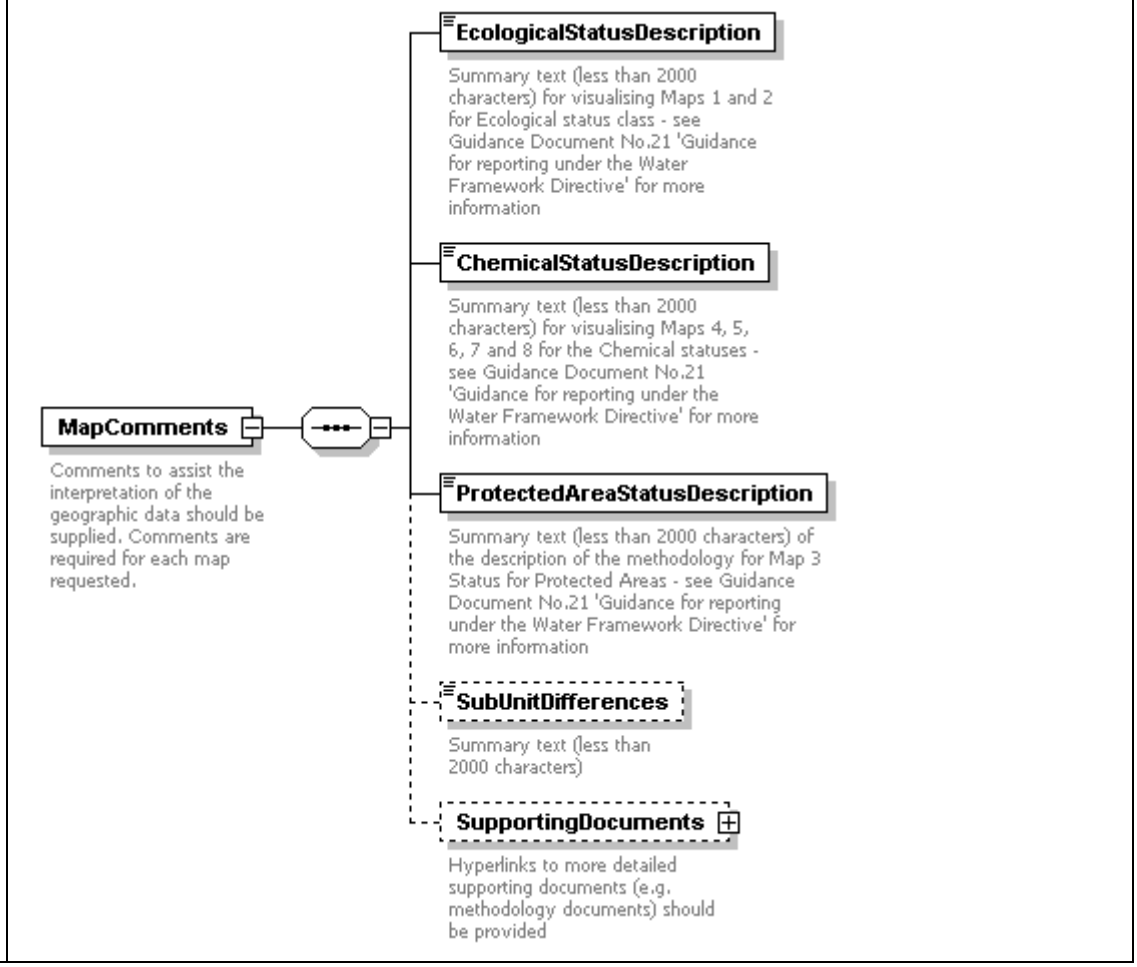
element **RiverBasinDistrictSWMethodologies/ResultsFromSurfaceWaterMonitoring**

diagram



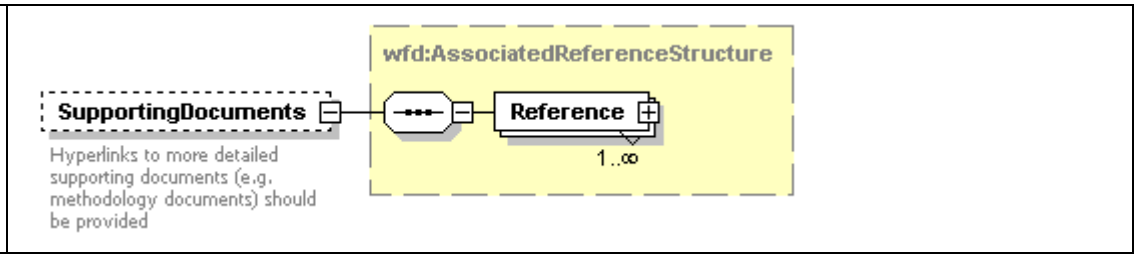
element
RiverBasinDistrictSWMethodologies/ResultsFromSurfaceWaterMonitoring/MapComments

diagram



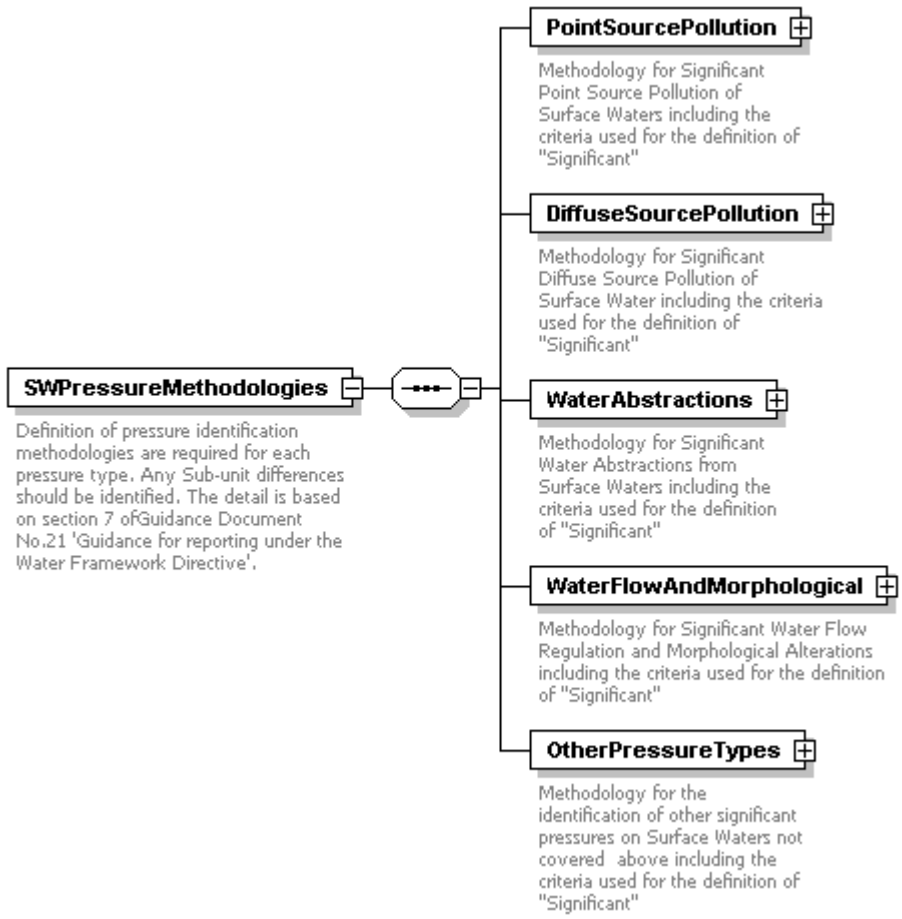
element
RiverBasinDistrictSWMethodologies/ResultsFromSurfaceWaterMonitoring/MapComments/SupportingDocuments

diagram



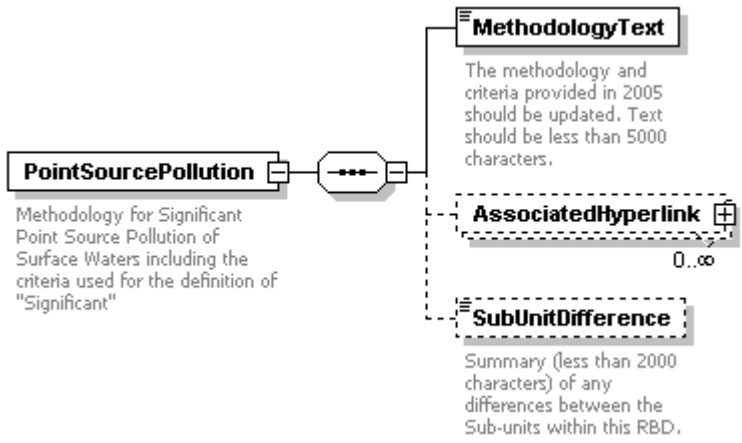
element **RiverBasinDistrictSWMethodologies/SWPressureMethodologies**

diagram



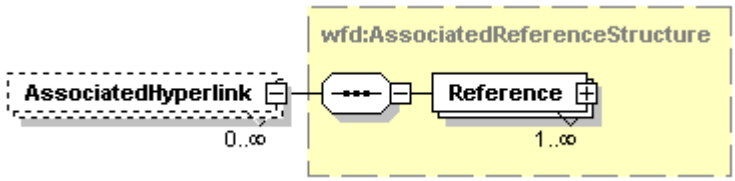
element **RiverBasinDistrictSWMethodologies/SWPressureMethodologies/PointSourcePollution**

diagram



element **RiverBasinDistrictSWMethodologies/SWPressureMethodologies/PointSourcePollution/AssociatedHyperlink**

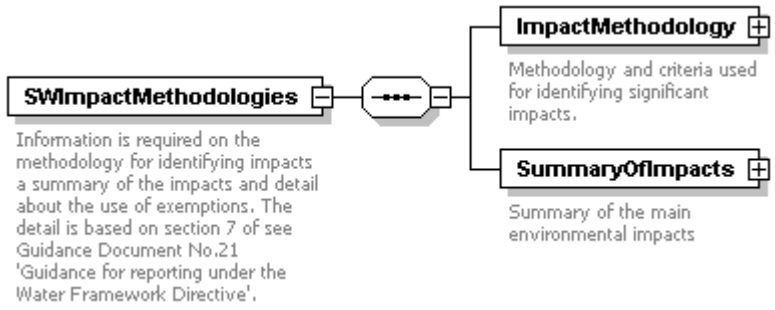
diagram



DiffuseSourcePollution, WaterAbstractions, WaterFlowAndMorphological and OtherPressureTypes follow the same structure as PointSourcePollution.

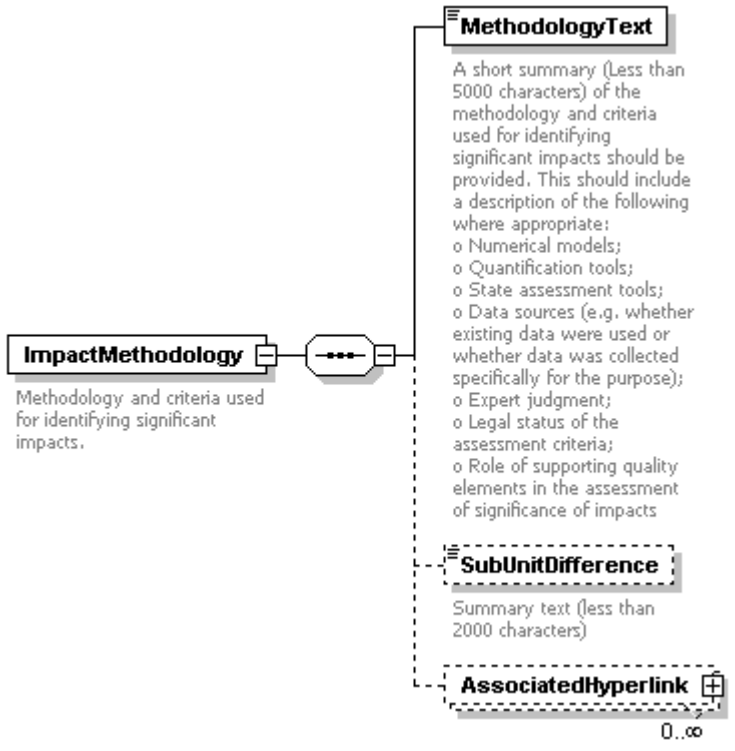
element **RiverBasinDistrictSWMethodologies/SWImpactMethodologies**

diagram



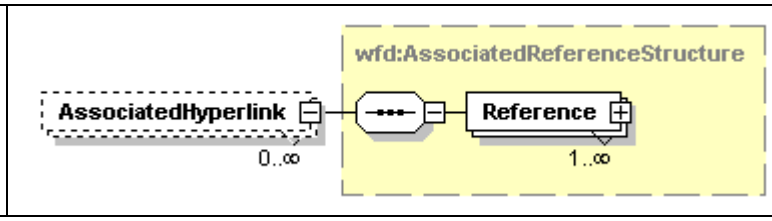
element **RiverBasinDistrictSWMethodologies/SWImpactMethodologies/ImpactMethodology**

diagram



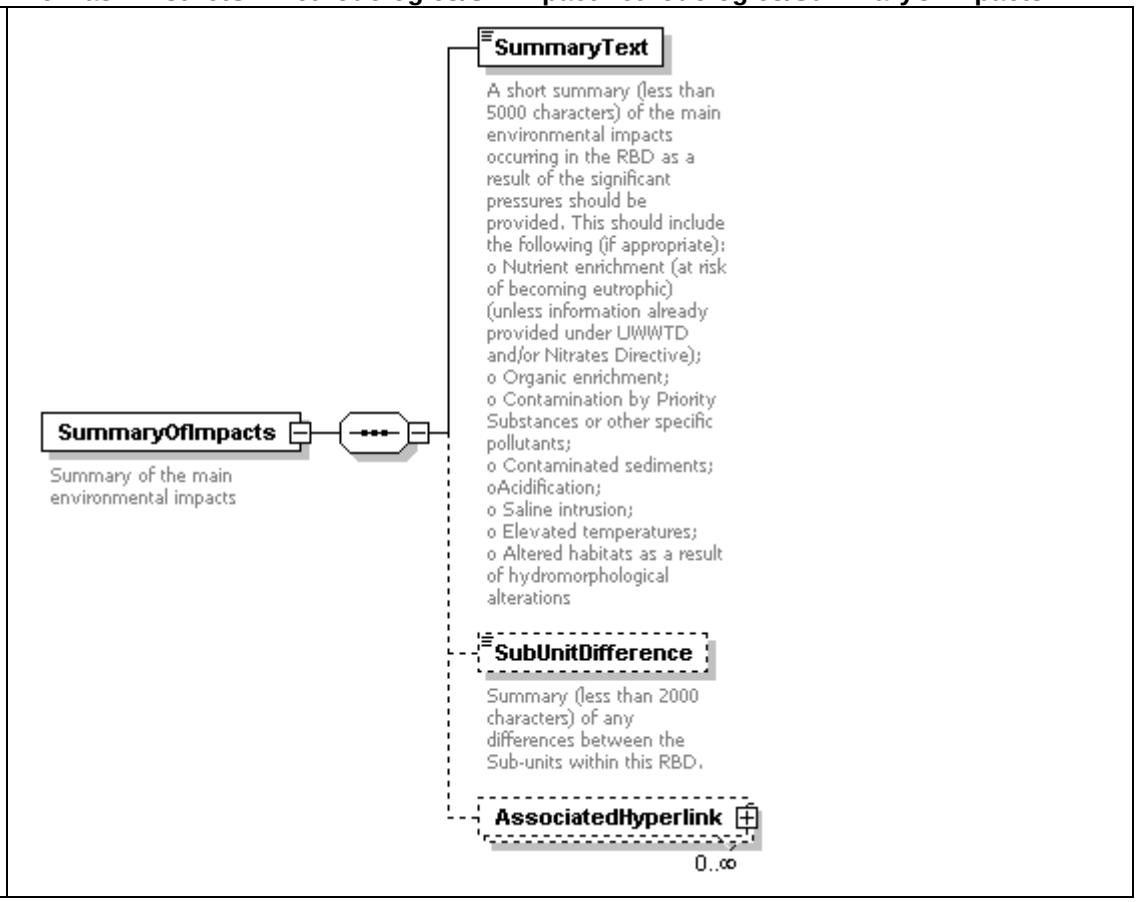
element
RiverBasinDistrictSWMethodologies/SWImpactMethodologies/ImpactMethodology/AssociatedHyperlink

diagram



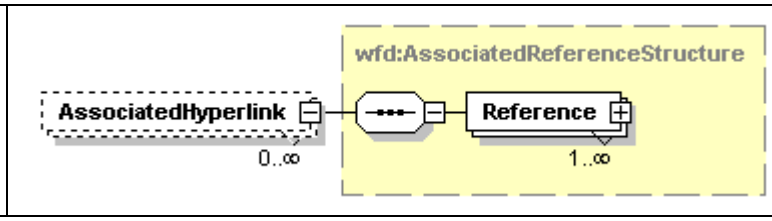
element **RiverBasinDistrictSWMethodologies/SWImpactMethodologies/SummaryOfImpacts**

diagram



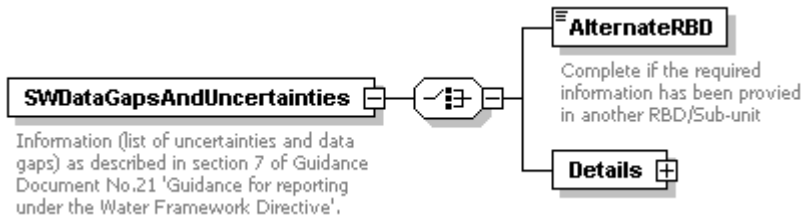
element
RiverBasinDistrictSWMethodologies/SWImpactMethodologies/SummaryOfImpacts/AssociatedHyperlink

diagram



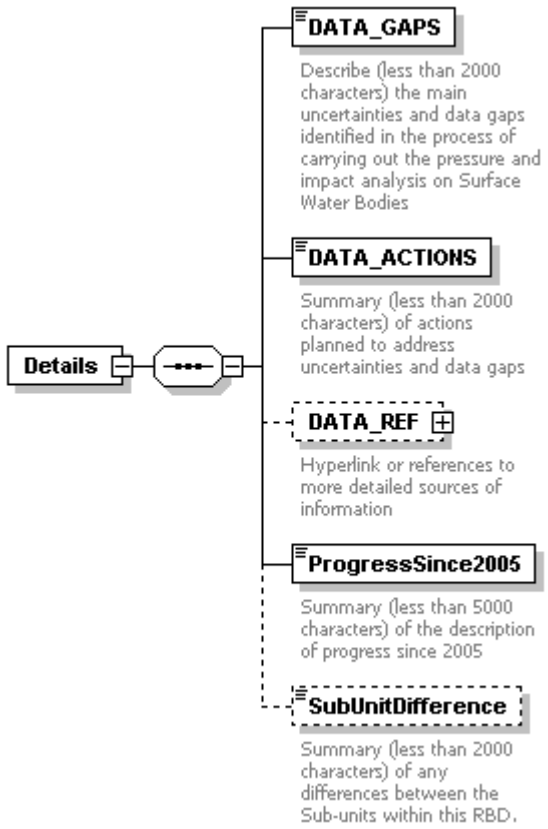
element **RiverBasinDistrictSWMethodologies/SWDataGapsAndUncertainties**

diagram



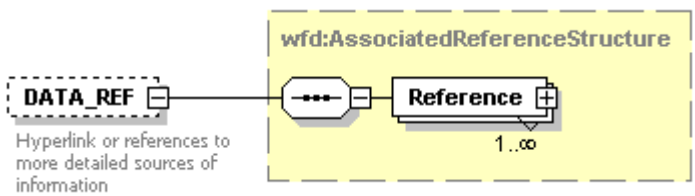
element **RiverBasinDistrictSWMethodologies/SWDataGapsAndUncertainties/Details**

diagram

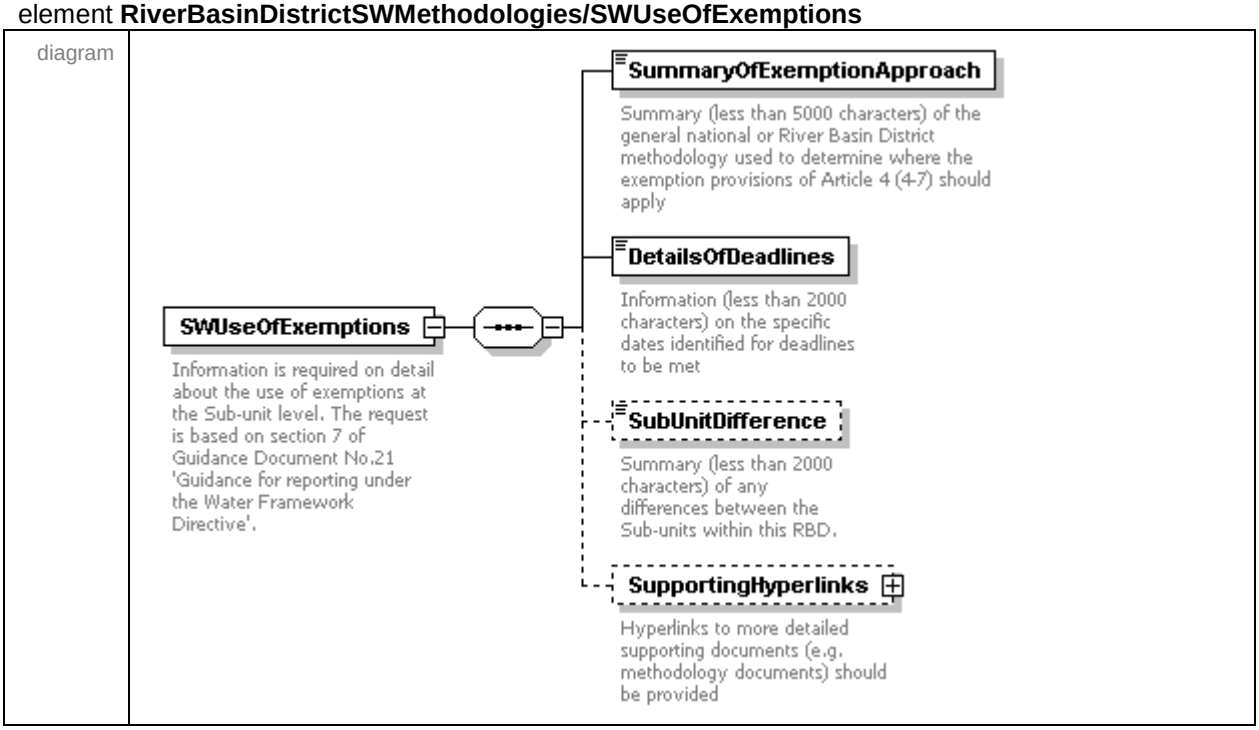


element **RiverBasinDistrictSWMethodologies/SWDataGapsAndUncertainties/Details/DATA_REF**

diagram

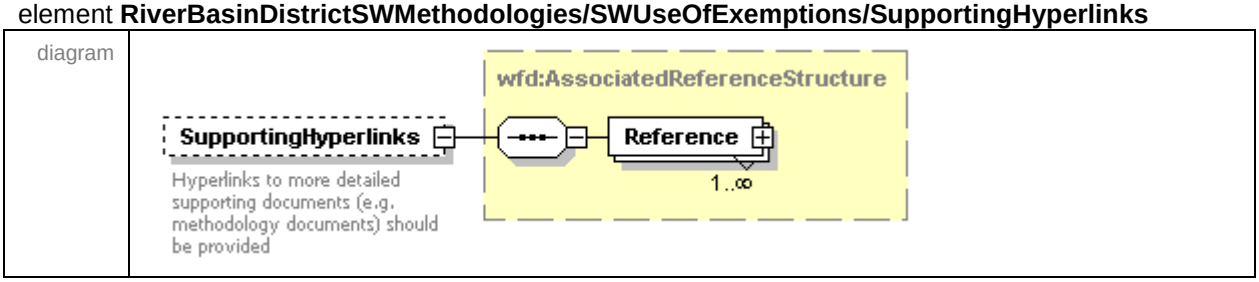


element **RiverBasinDistrictSWMethodologies/SWUseOfExemptions**



Articles 4.4, 4.5, 4.6 and 4.7 describe the conditions and the process in which exemptions to the achievement of environmental objectives can be applied. Article 4.4 indicates that the 2015 deadline for the achievement of good status may be extended to 2021 or 2027 at the latest, or as soon as natural conditions permit after 2027. Please provide details of the deadlines applicable to any exemption applied.

element **RiverBasinDistrictSWMethodologies/SWUseOfExemptions/SupportingHyperlinks**



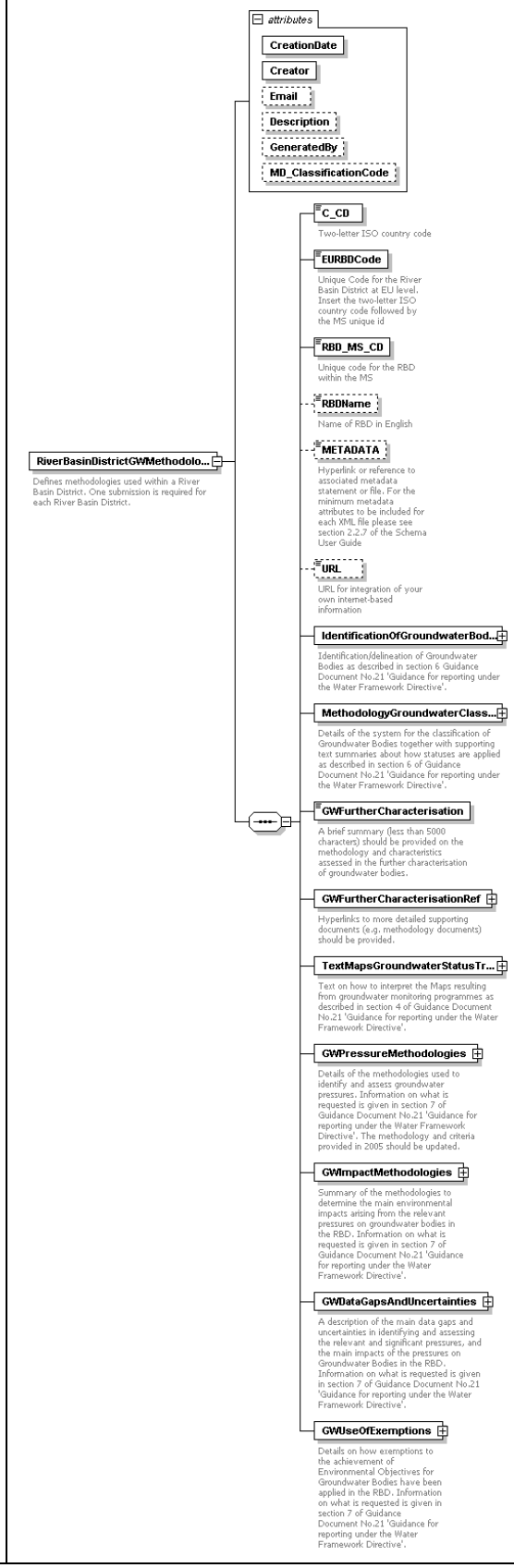
9.2 GROUNDWATER BODIES METHODOLOGIES

Schema **GWMethods.xsd**

This schema deals with the summary reporting of methodologies used for Groundwaters.

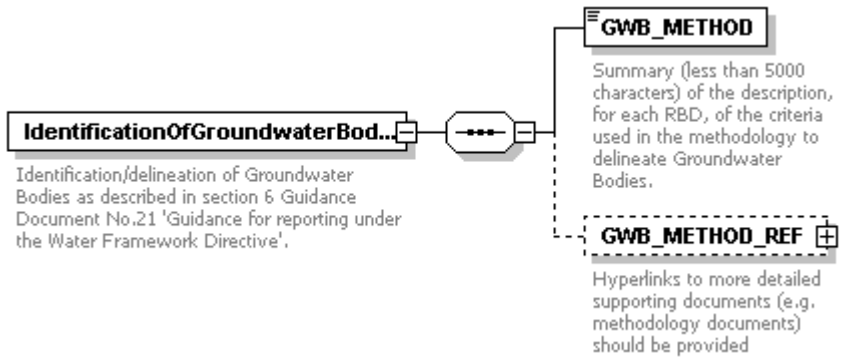
element **RiverBasinDistrictGWMethodologies**

diagram



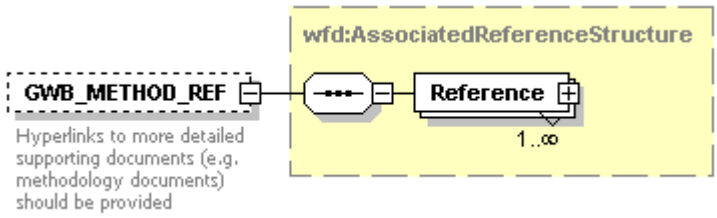
element **RiverBasinDistrictGWMethodologies/IdentificationOfGroundwaterBodies**

diagram



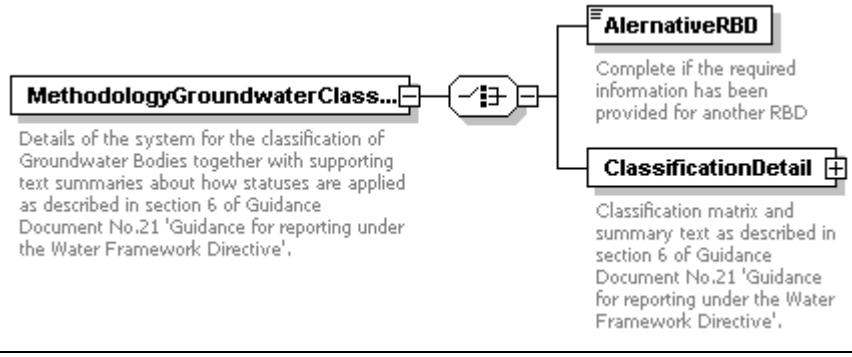
element **RiverBasinDistrictGWMethodologies/IdentificationOfGroundwaterBodies/GWB_METHOD_REF**

diagram



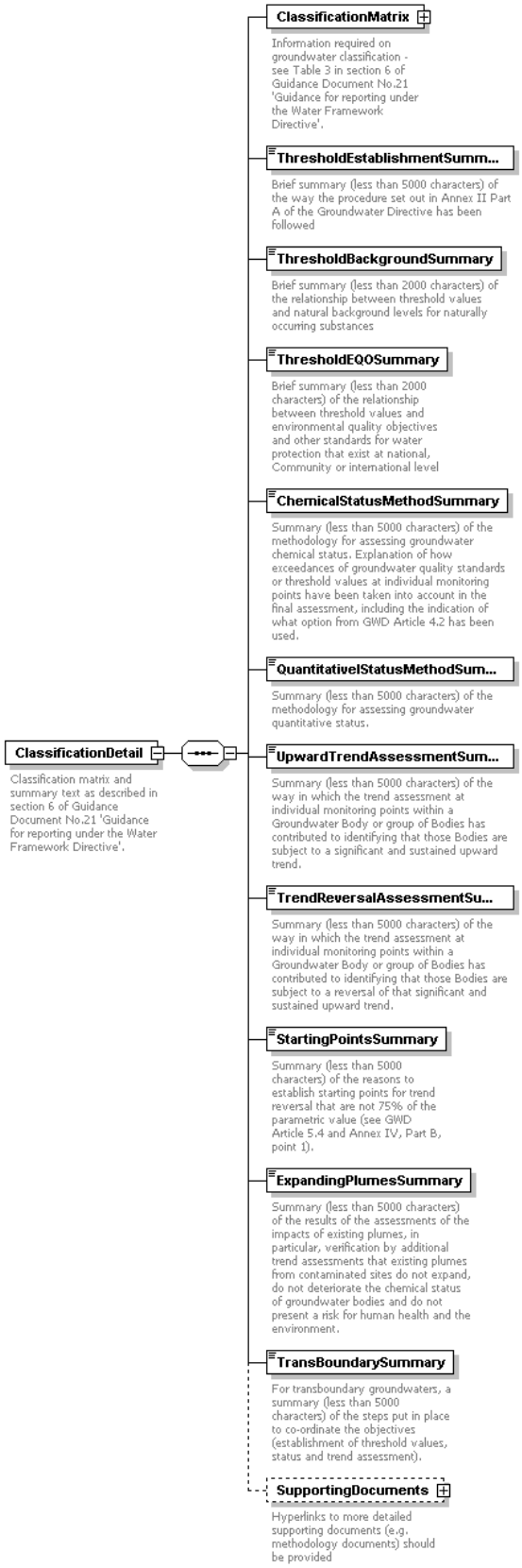
element **RiverBasinDistrictGWMethodologies/MethodologyGroundwaterClassification**

diagram



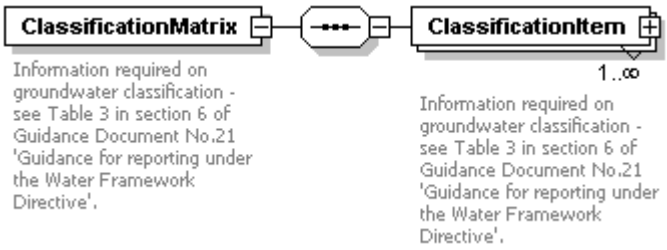
element
RiverBasinDistrictGWMethodologies/MethodologyGroundwaterClassification/ClassificationDetail

diagram


ClassificationMatrix
Information required on groundwater classification - see Table 3 in section 6 of Guidance Document No.21 'Guidance for reporting under the Water Framework Directive'.
ThresholdEstablishmentSumm...
Brief summary (less than 5000 characters) of the way the procedure set out in Annex II Part A of the Groundwater Directive has been followed
ThresholdBackgroundSummary
Brief summary (less than 2000 characters) of the relationship between threshold values and natural background levels for naturally occuring substances
ThresholdEQOSummary
Brief summary (less than 2000 characters) of the relationship between threshold values and environmental quality objectives and other standards for water protection that exist at national, Community or international level
ChemicalStatusMethodSummary
Summary (less than 5000 characters) of the methodology for assessing groundwater chemical status. Explanation of how exceedances of groundwater quality standards or threshold values at individual monitoring points have been taken into account in the final assessment, including the indication of what option from GWD Article 4.2 has been used.
QuantitativeIStatusMethodSum...
Summary (less than 5000 characters) of the methodology for assessing groundwater quantitative status.
ClassificationDetail
Classification matrix and summary text as described in section 6 of Guidance Document No.21 'Guidance for reporting under the Water Framework Directive'.
UpwardTrendAssessmentSum...
Summary (less than 5000 characters) of the way in which the trend assessment at individual monitoring points within a Groundwater Body or group of Bodies has contributed to identifying that those Bodies are subject to a significant and sustained upward trend.
TrendReversalAssessmentSu...
Summary (less than 5000 characters) of the way in which the trend assessment at individual monitoring points within a Groundwater Body or group of Bodies has contributed to identifying that those Bodies are subject to a reversal of that significant and sustained upward trend.
StartingPointsSummary
Summary (less than 5000 characters) of the reasons to establish starting points for trend reversal that are not 75% of the parametric value (see GWD Article 5.4 and Annex IV, Part B, point 1).
ExpandingPlumesSummary
Summary (less than 5000 characters) of the results of the assessments of the impacts of existing plumes, in particular, verification by additional trend assessments that existing plumes from contaminated sites do not expand, do not deteriorate the chemical status of groundwater bodies and do not present a risk for human health and the environment.
TransBoundarySummary
For transboundary groundwaters, a summary (less than 5000 characters) of the steps put in place to co-ordinate the objectives (establishment of threshold values, status and trend assessment).
SupportingDocuments
Hyperlinks to more detailed supporting documents (e.g. methodology documents) should be provided

element
RiverBasinDistrictGWMethodologies/MethodologyGroundwaterClassification/ClassificationDetail/ClassificationMatrix

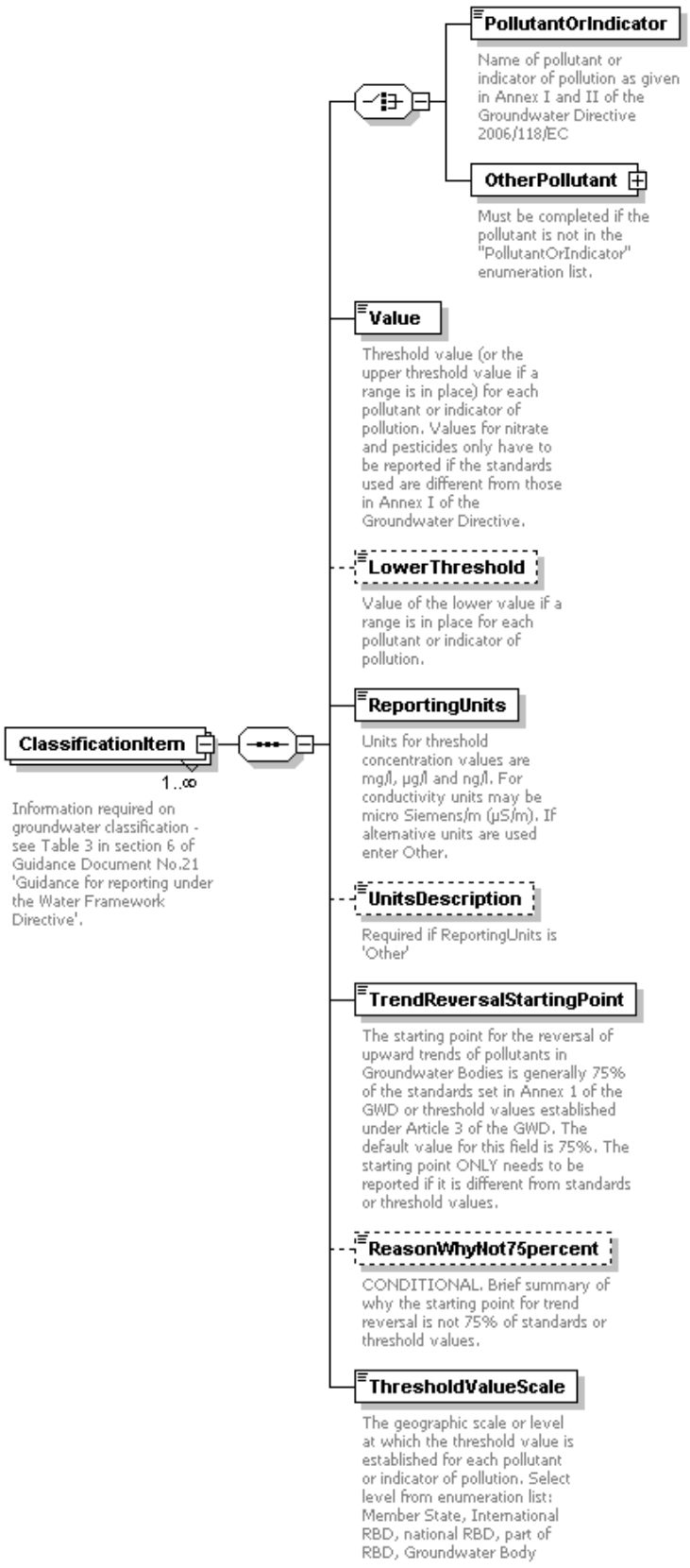
diagram



The structure of the “ClassificationMatrix” allows the reporting of more stringent quality standards (e.g. for nitrate and pesticides) than those laid down in Annex 1 of the Groundwater Directive (2006/118/EC) as well as threshold values established under Annex II.

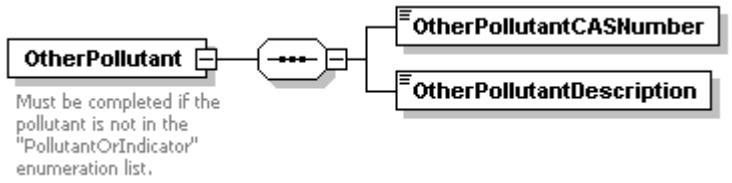
element
RiverBasinDistrictGWMethodologies/MethodologyGroundwaterClassification/ClassificationDetail/ClassificationMatrix/ClassificationItem

diagram


ClassificationItem
1..∞
Information required on groundwater classification - see Table 3 in section 6 of Guidance Document No.21 'Guidance for reporting under the Water Framework Directive'.
PollutantOrIndicator
Name of pollutant or indicator of pollution as given in Annex I and II of the Groundwater Directive 2006/118/EC
OtherPollutant
Must be completed if the pollutant is not in the "PollutantOrIndicator" enumeration list.
Value
Threshold value (or the upper threshold value if a range is in place) for each pollutant or indicator of pollution. Values for nitrate and pesticides only have to be reported if the standards used are different from those in Annex I of the Groundwater Directive.
LowerThreshold
Value of the lower value if a range is in place for each pollutant or indicator of pollution.
ReportingUnits
Units for threshold concentration values are mg/l, µg/l and ng/l. For conductivity units may be micro Siemens/m (µS/m). If alternative units are used enter Other.
UnitsDescription
Required if ReportingUnits is 'Other'
TrendReversalStartingPoint
The starting point for the reversal of upward trends of pollutants in Groundwater Bodies is generally 75% of the standards set in Annex 1 of the GWD or threshold values established under Article 3 of the GWD. The default value for this field is 75%. The starting point ONLY needs to be reported if it is different from standards or threshold values.
ReasonWhyNot75percent
CONDITIONAL. Brief summary of why the starting point for trend reversal is not 75% of standards or threshold values.
ThresholdValueScale
The geographic scale or level at which the threshold value is established for each pollutant or indicator of pollution. Select level from enumeration list: Member State, International RBD, national RBD, part of RBD, Groundwater Body

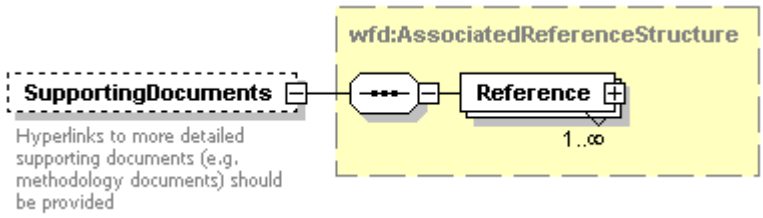
element **RiverBasinDistrictGWMethodologies/MethodologyGroundwaterClassification/ClassificationDetail/ClassificationMatrix/ClassificationItem/OtherPollutant**

diagram



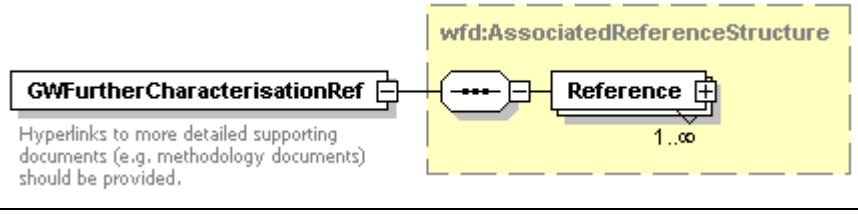
element **RiverBasinDistrictGWMethodologies/MethodologyGroundwaterClassification/ClassificationDetail/SupportingDocuments**

diagram



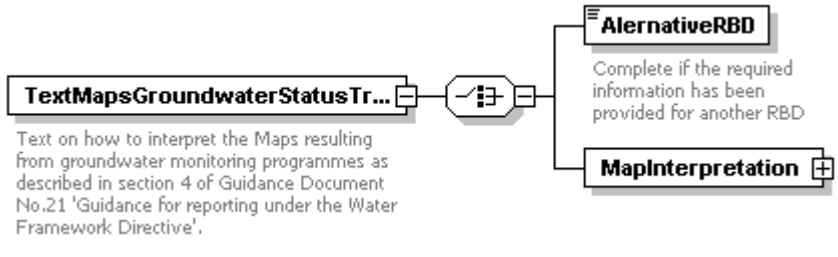
element **RiverBasinDistrictGWMethodologies/GWFurtherCharacterisationRef**

diagram



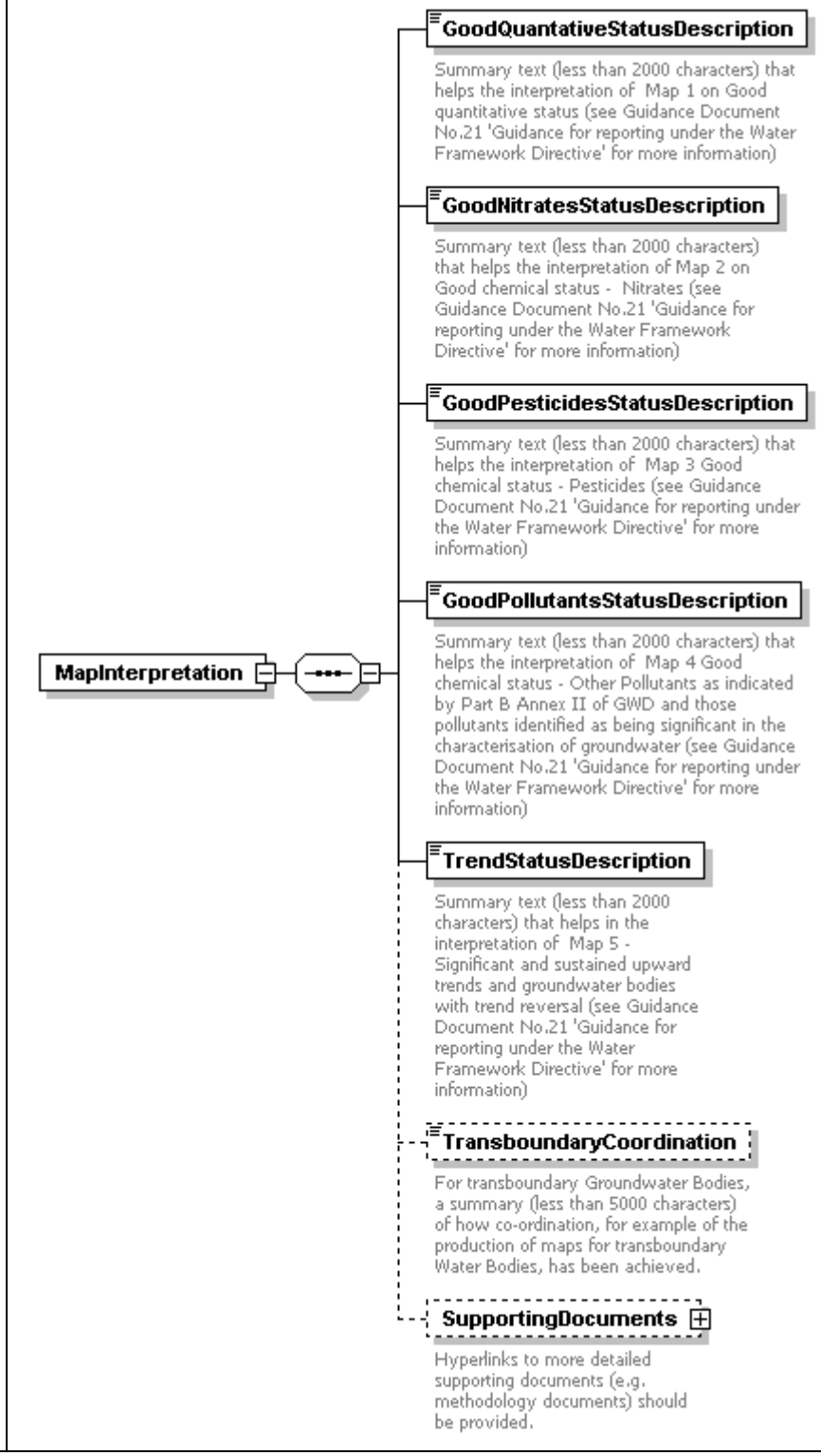
element **RiverBasinDistrictGWMethodologies/TextMapsGroundwaterStatusTrends**

diagram



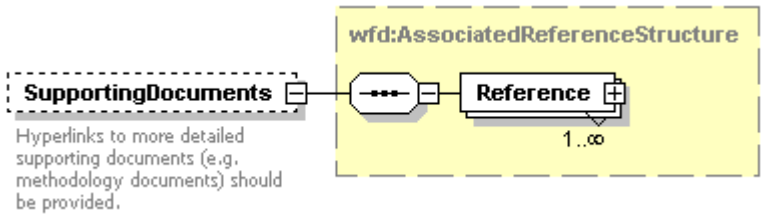
element
RiverBasinDistrictGWMethodologies/TextMapsGroundwaterStatusTrends/MapInterpretation

diagram



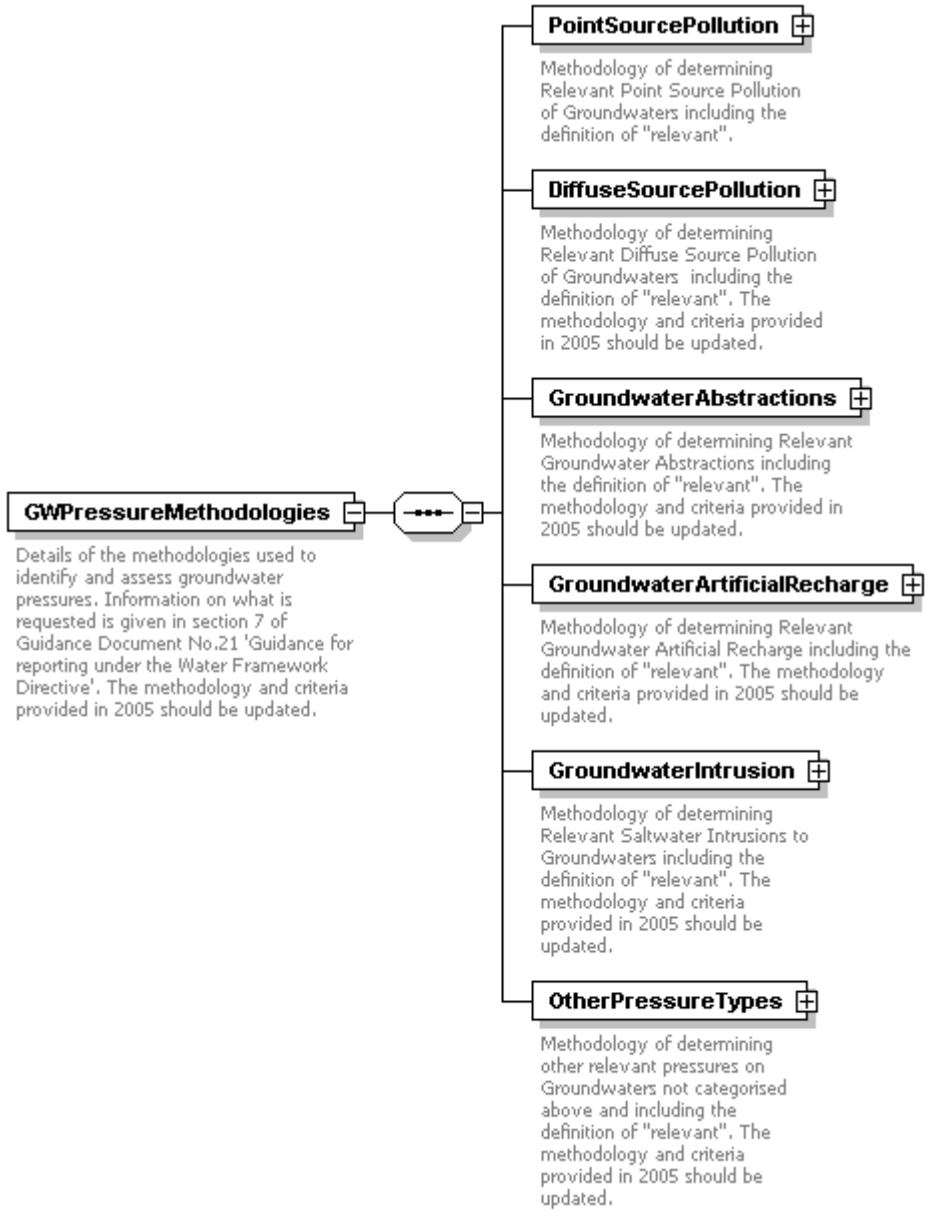
element
RiverBasinDistrictGWMethodologies/TextMapsGroundwaterStatusTrends/MapInterpretation/SupportingDocuments

diagram



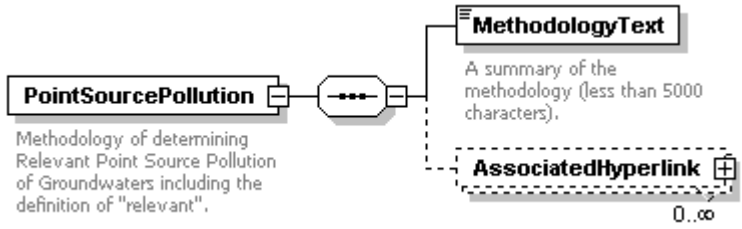
element **RiverBasinDistrictGWMethodologies/GWPressureMethodologies**

diagram



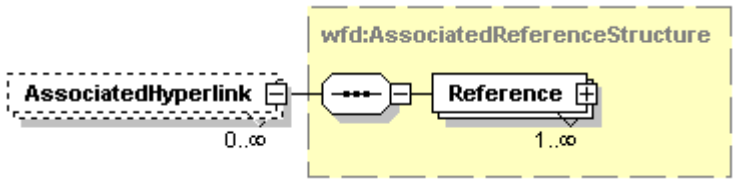
element **RiverBasinDistrictGWMethodologies/GWPressureMethodologies/PointSourcePollution**

diagram



element **RiverBasinDistrictGWMethodologies/GWPressureMethodologies/PointSourcePollution/AssociatedHyperlink**

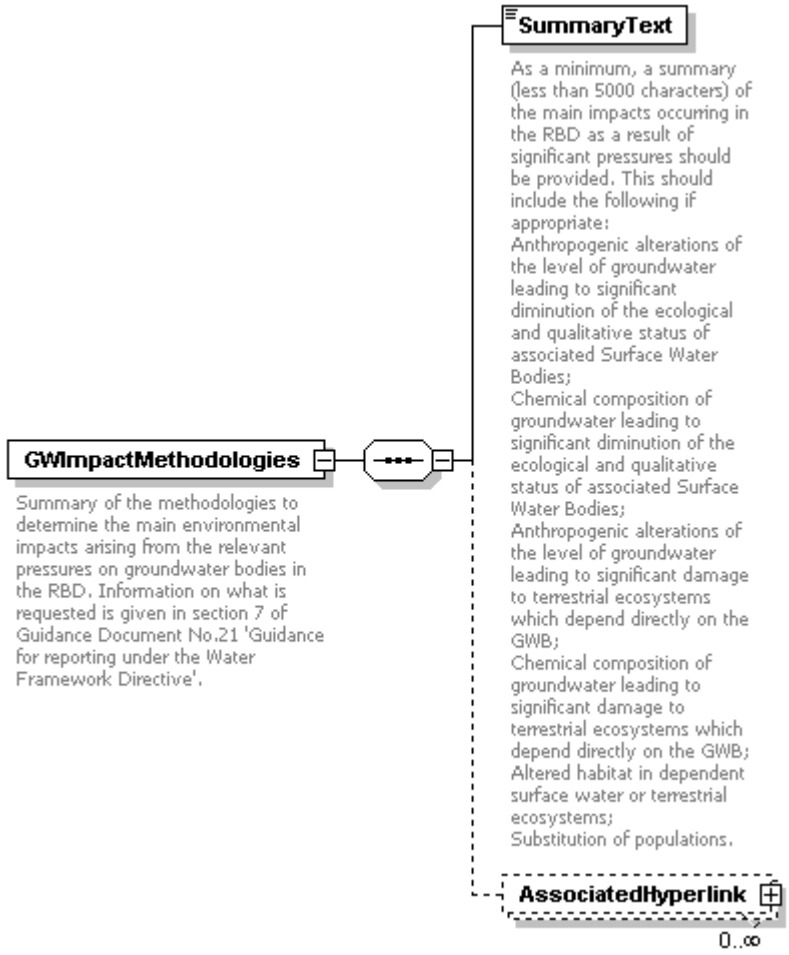
diagram



DiffuseSourcePollution, GroundwaterAbstractions, GroundwaterArtificialRecharge, GroundwaterIntrusion and OtherPressureTypes follow the same structure as PointSourcePollution.

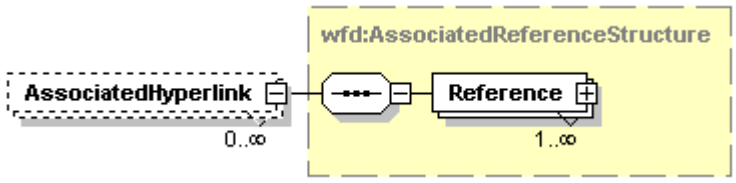
element **RiverBasinDistrictGWMethodologies/GWImpactMethodologies**

diagram



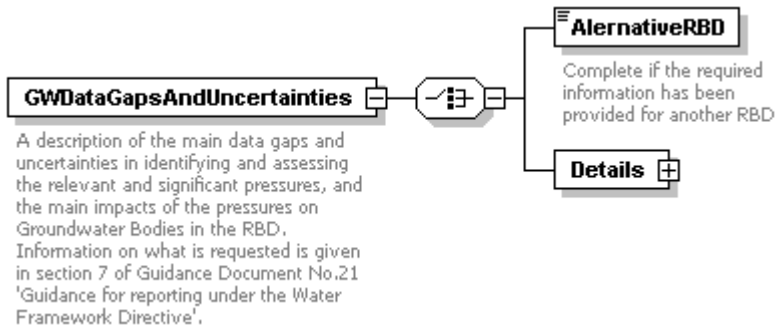
element **RiverBasinDistrictGWMethodologies/GWImpactMethodologies/AssociatedHyperlink**

diagram



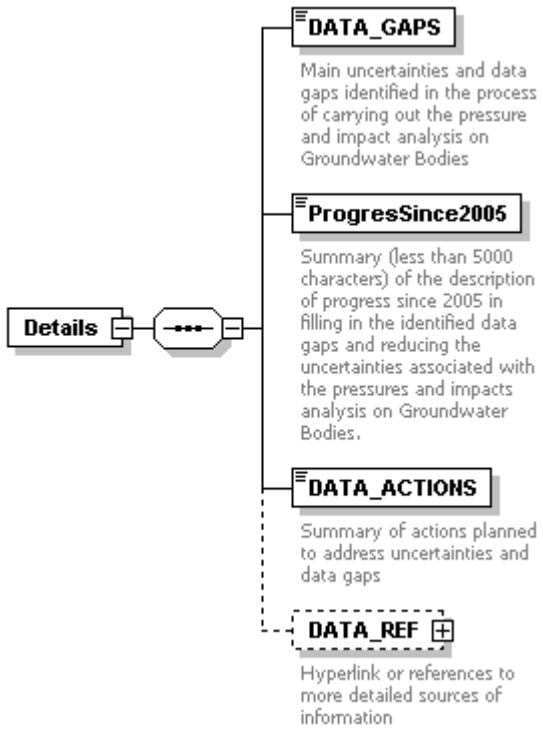
element **RiverBasinDistrictGWMethodologies/GWDataGapsAndUncertainties**

diagram



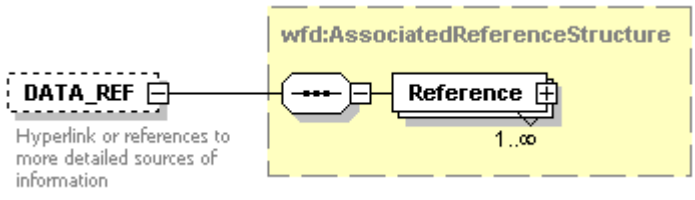
element **RiverBasinDistrictGWMethodologies/GWDataGapsAndUncertainties/Details**

diagram

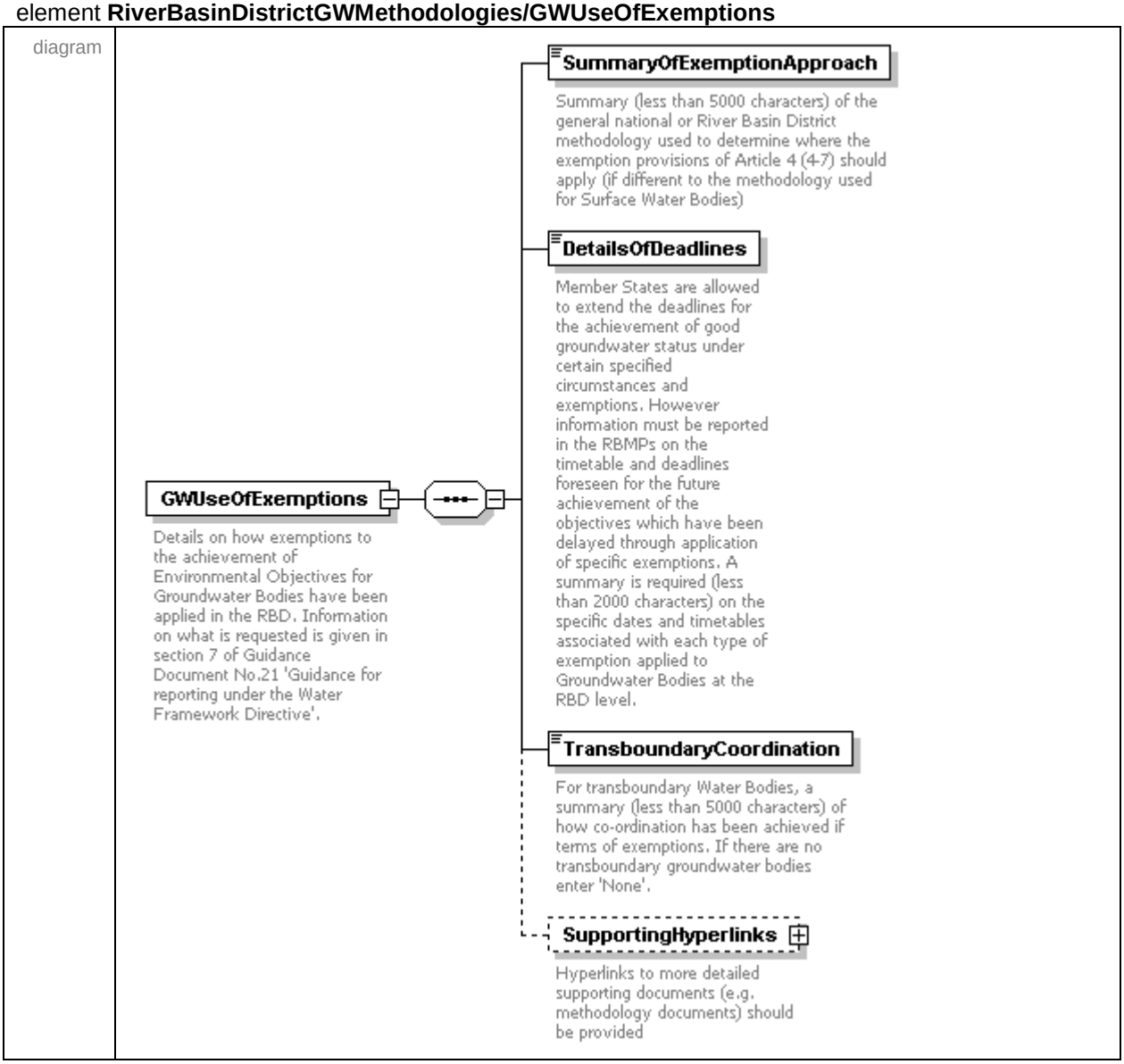


element **RiverBasinDistrictGWMethodologies/GWDataGapsAndUncertainties/Details/DATA_REF**

diagram

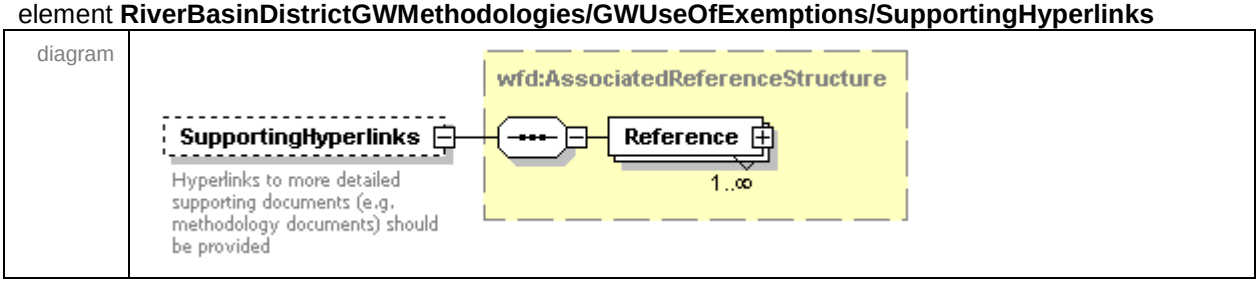


element **RiverBasinDistrictGWMethodologies/GWUseOfExemptions**



Articles 4.4, 4.5, 4.6 and 4.7 describe the conditions and the process in which exemptions to the achievement of environmental objectives can be applied. Article 4.4 indicates that the 2015 deadline for the achievement of good status may be extended to 2021 or 2027 at the latest, or as soon as natural conditions permit after 2027. Please provide details of the deadlines applicable to any exemption applied.

element **RiverBasinDistrictGWMethodologies/GWUseOfExemptions/SupportingHyperlinks**



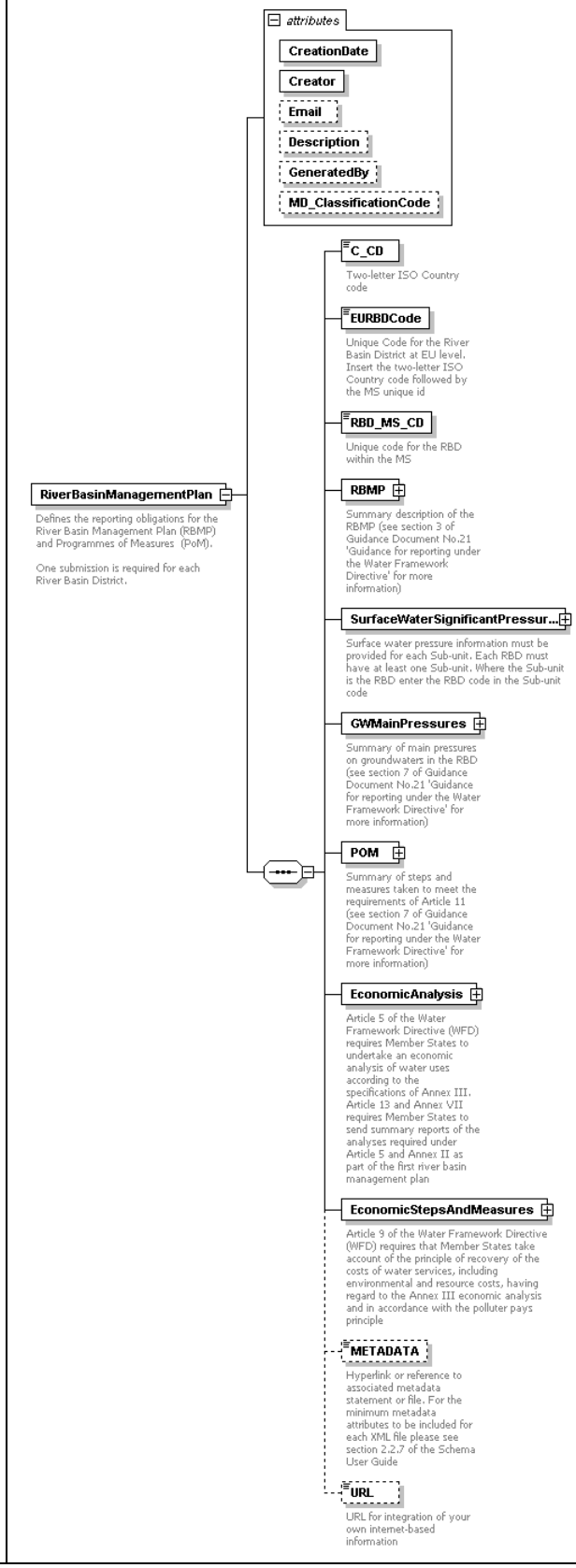
10. SCHEMA: RIVER BASIN MANAGEMENT PLANS AND PROGRAMMES OF MEASURES

Schema **RBMP_POM.xsd**

This schema deals with the reporting obligations for the River Basin Management Plans and the Programmes of Measures.

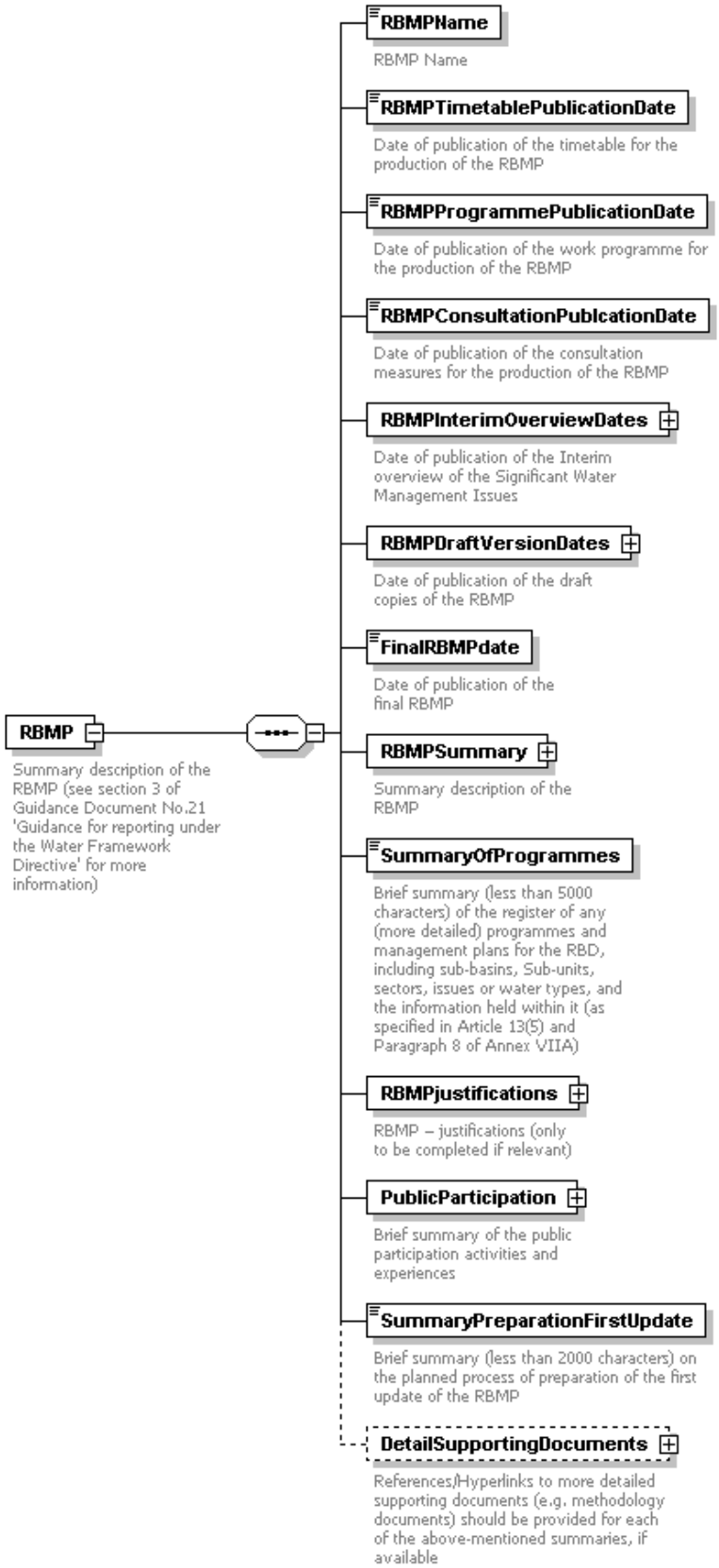
element **RiverBasinManagementPlan**

diagram



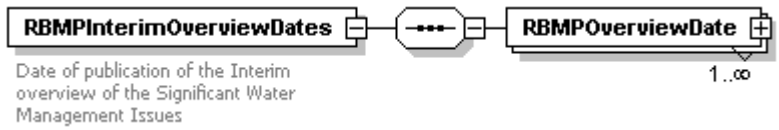
element **RiverBasinManagementPlan/RBMP**

diagram



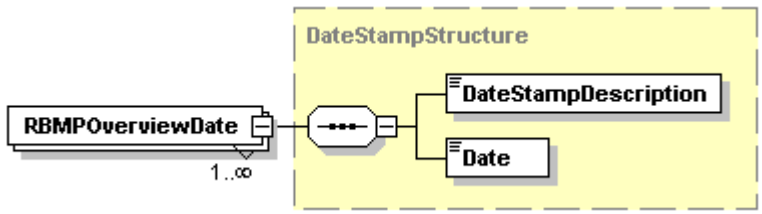
element **RiverBasinManagementPlan/RBMP/RBMPInterimOverviewDates**

diagram



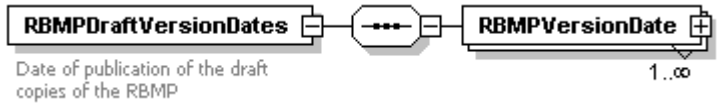
element **RiverBasinManagementPlan/RBMP/RBMPInterimOverviewDates/RBMPOverviewDate**

diagram



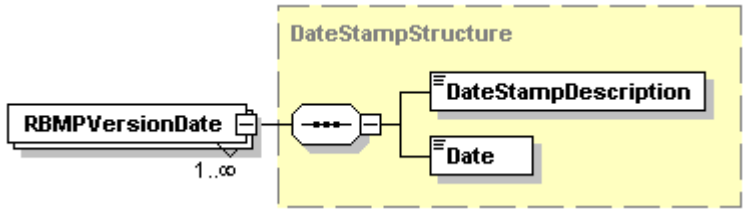
element **RiverBasinManagementPlan/RBMP/RBMPDraftVersionDates**

diagram



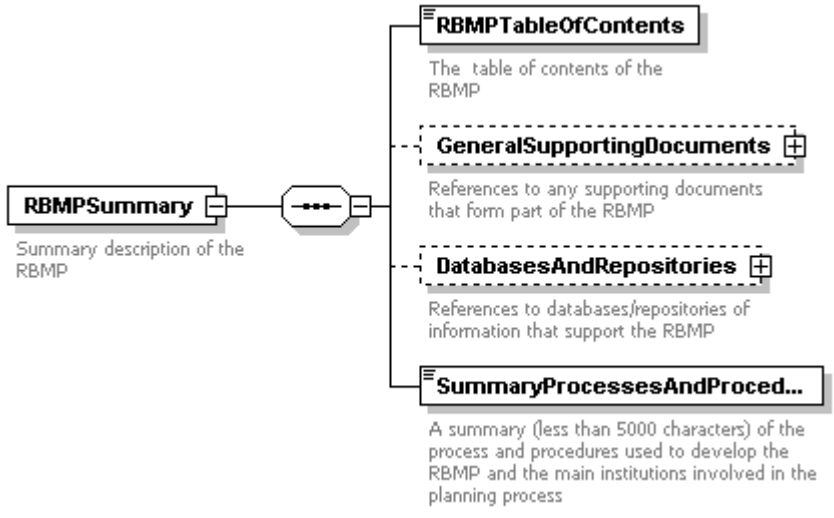
element **RiverBasinManagementPlan/RBMP/RBMPDraftVersionDates/RBMPVersionDate**

diagram



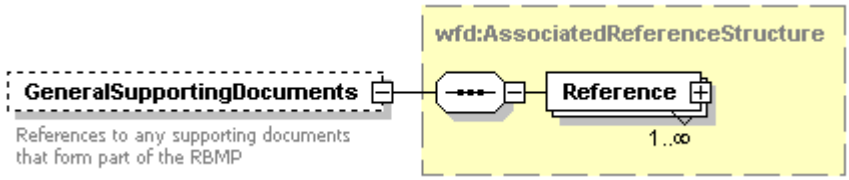
element **RiverBasinManagementPlan/RBMP/RBMPSummary**

diagram



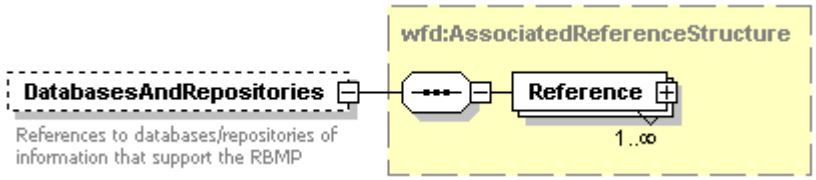
element **RiverBasinManagementPlan/RBMP/RBMPSummary/GeneralSupportingDocuments**

diagram



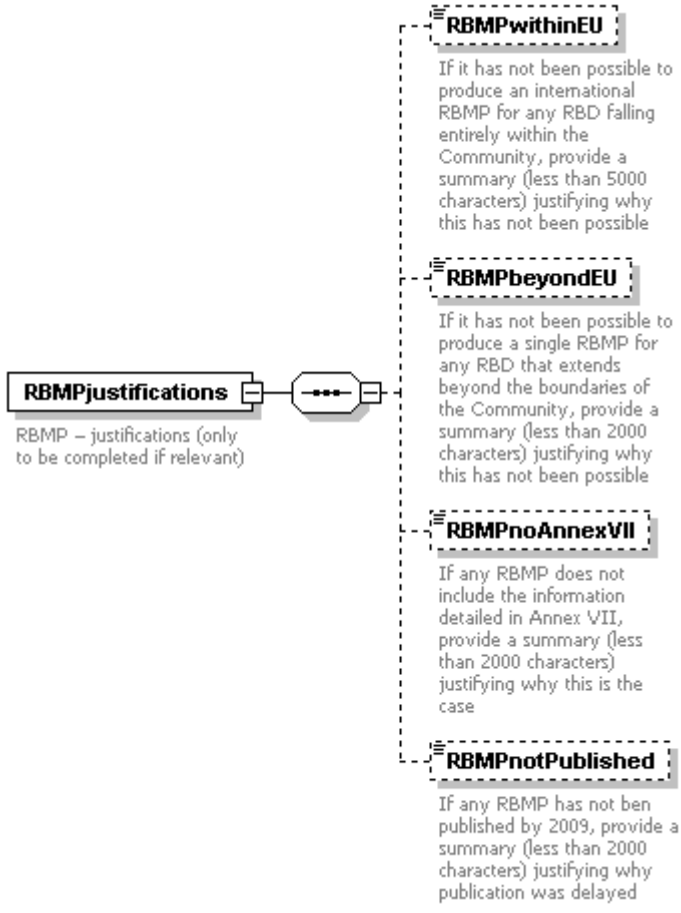
element **RiverBasinManagementPlan/RBMP/RBMPSummary/DatabasesAndRepositories**

diagram



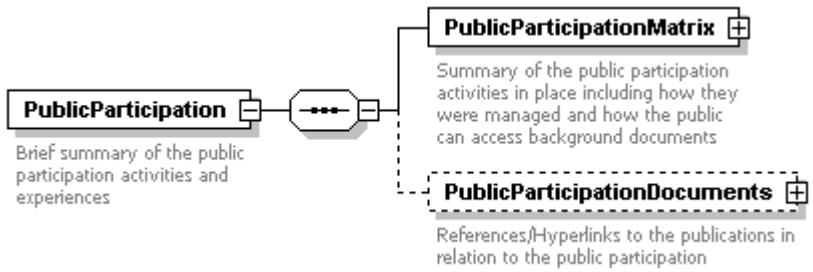
element **RiverBasinManagementPlan/RBMP/RBMPjustifications**

diagram



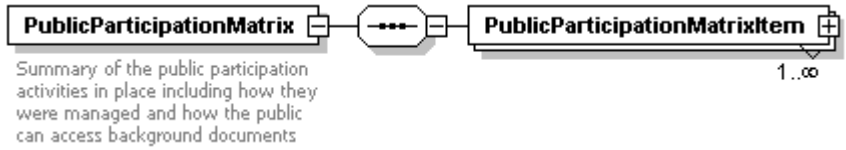
element **RiverBasinManagementPlan/RBMP/PublicParticipation**

diagram



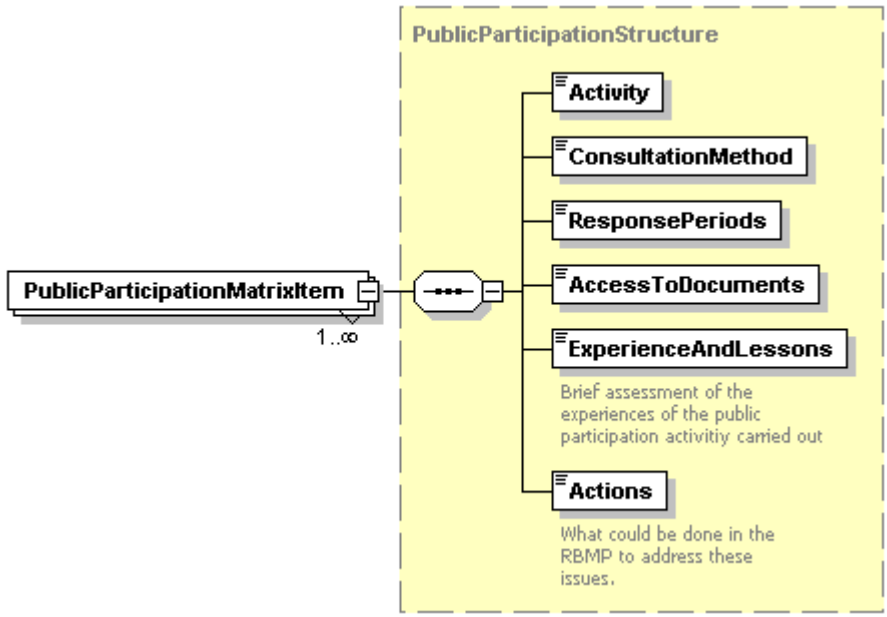
element **RiverBasinManagementPlan/RBMP/PublicParticipation/PublicParticipationMatrix**

diagram



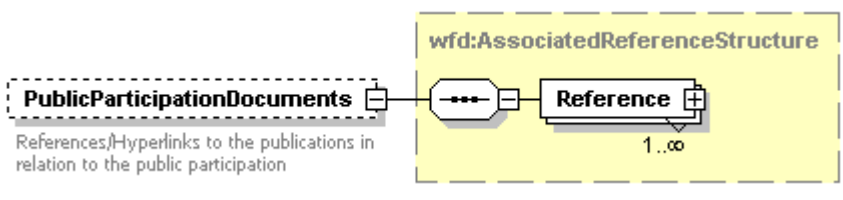
element **RiverBasinManagementPlan/RBMP/PublicParticipation/PublicParticipationMatrix/PublicParticipationMatrixItem**

diagram



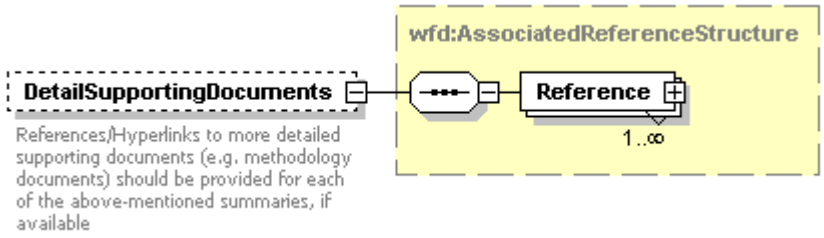
element **RiverBasinManagementPlan/RBMP/PublicParticipation/PublicParticipationDocuments**

diagram



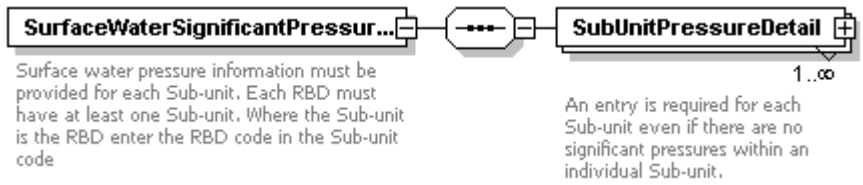
element **RiverBasinManagementPlan/RBMP/DetailSupportingDocuments**

diagram

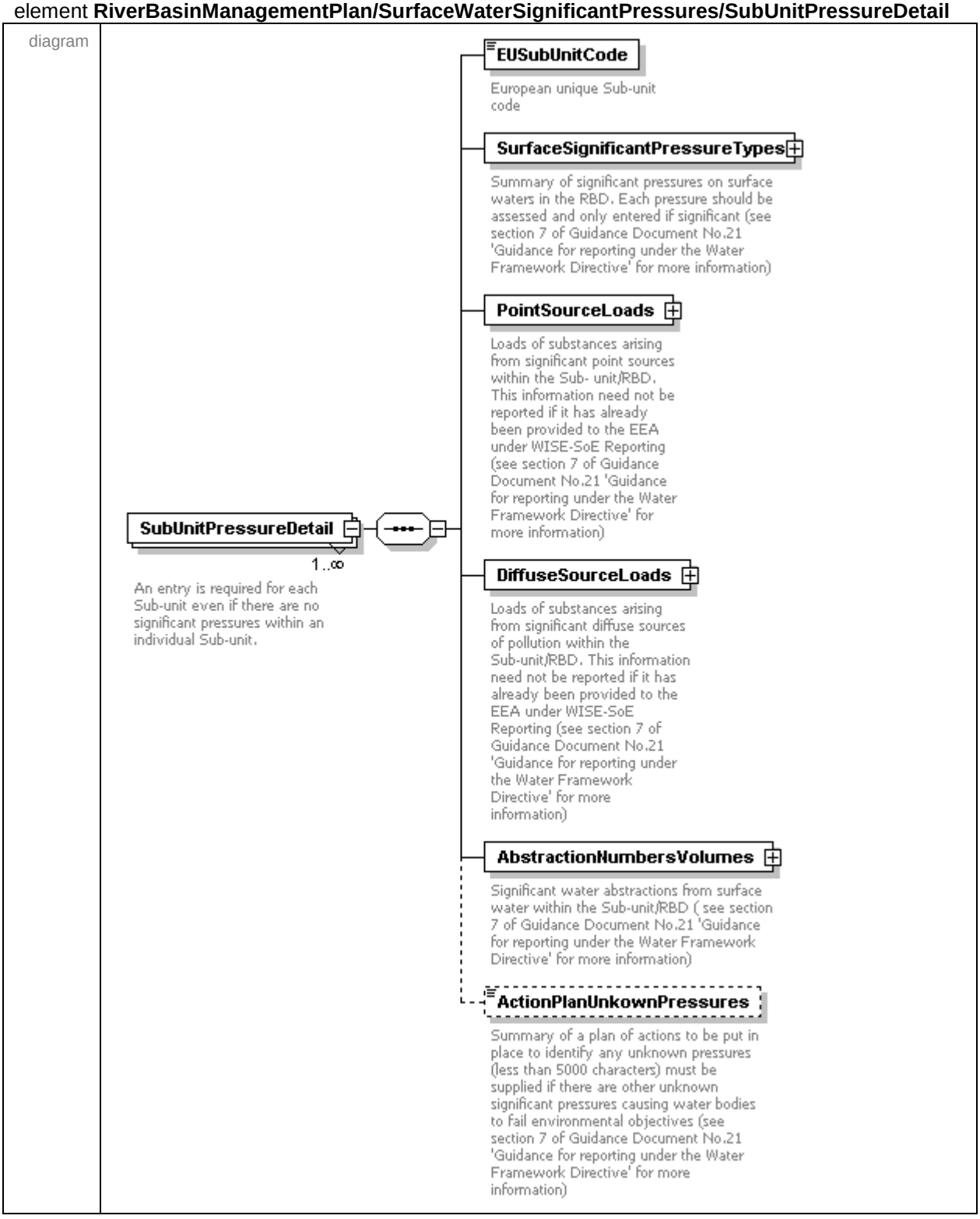


element **RiverBasinManagementPlan/SurfaceWaterSignificantPressures**

diagram



element **RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail**

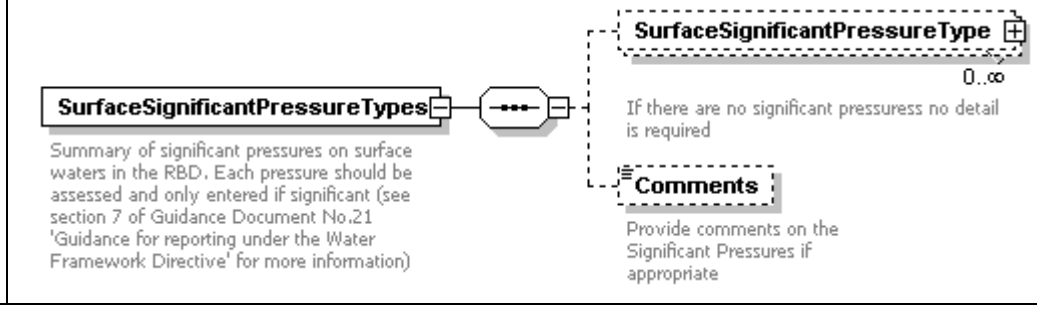


Information is requested for each Sub-unit within the RBD. If there are no Sub-units then the unique EU RBD code should be entered into element “EUSubUnitCode”.

element

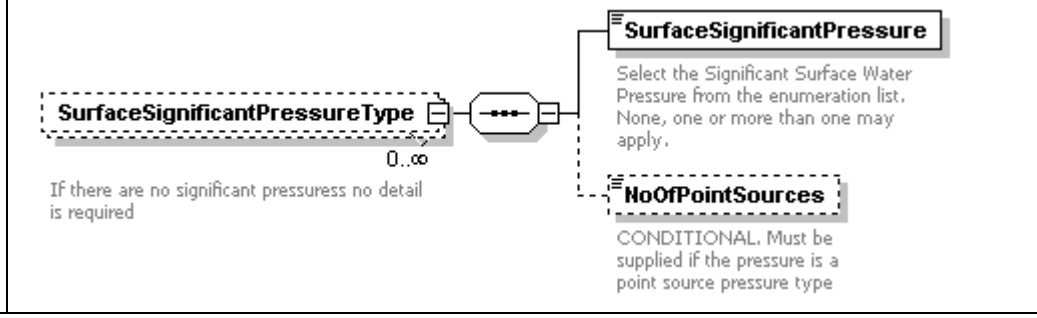
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/SurfaceSignificantPressureTypes

diagram



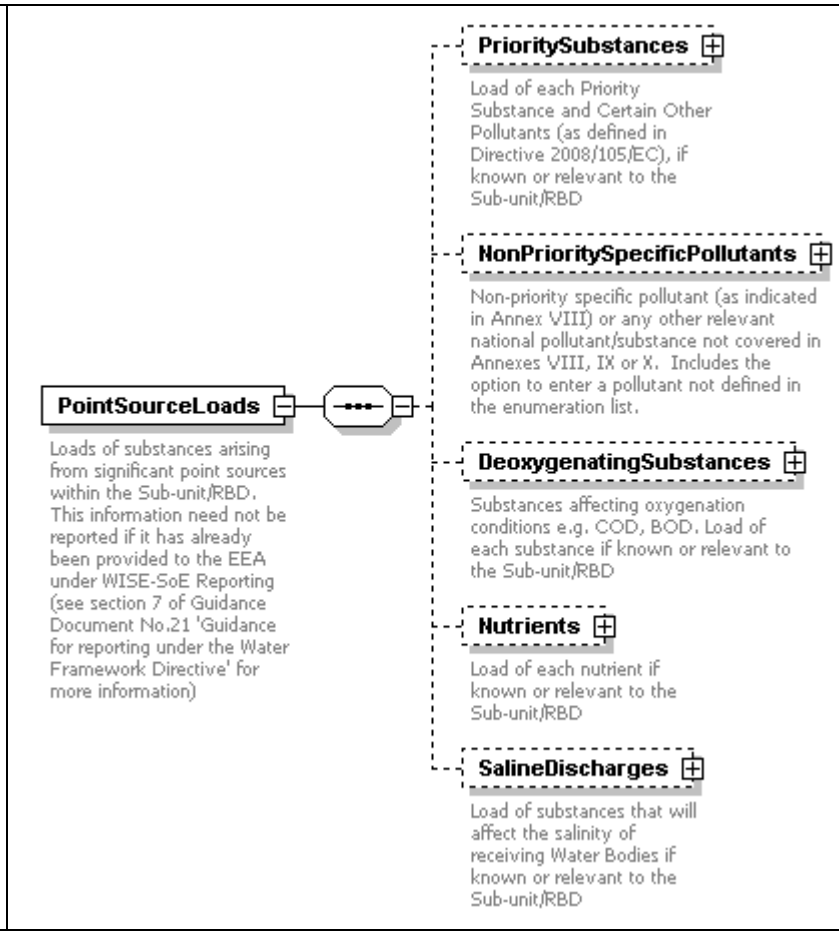
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/SurfaceSignificantPressureTypes/SurfaceSignificantPressureType

diagram



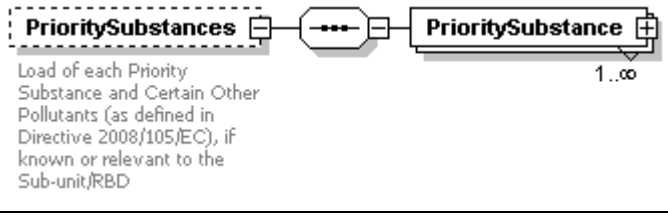
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads

diagram



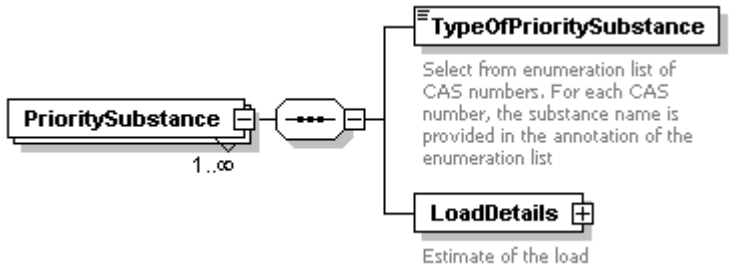
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads/PrioritySubstances

diagram



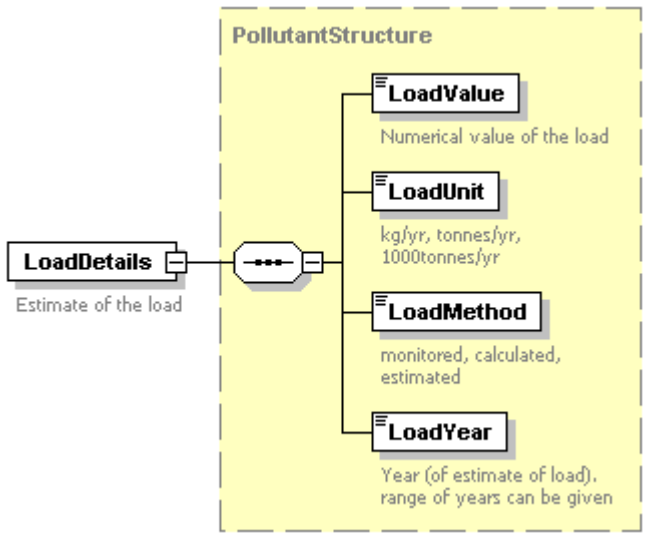
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads/PrioritySubstances/PrioritySubstance

diagram



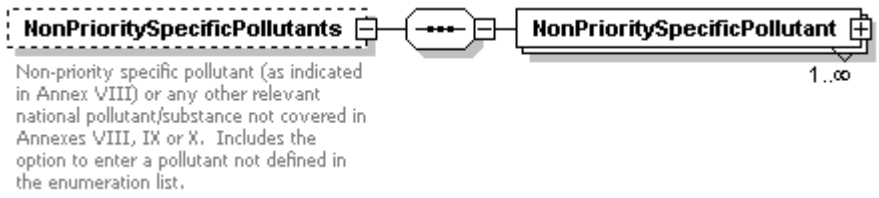
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads/PrioritySubstances/PrioritySubstance/LoadDetails

diagram



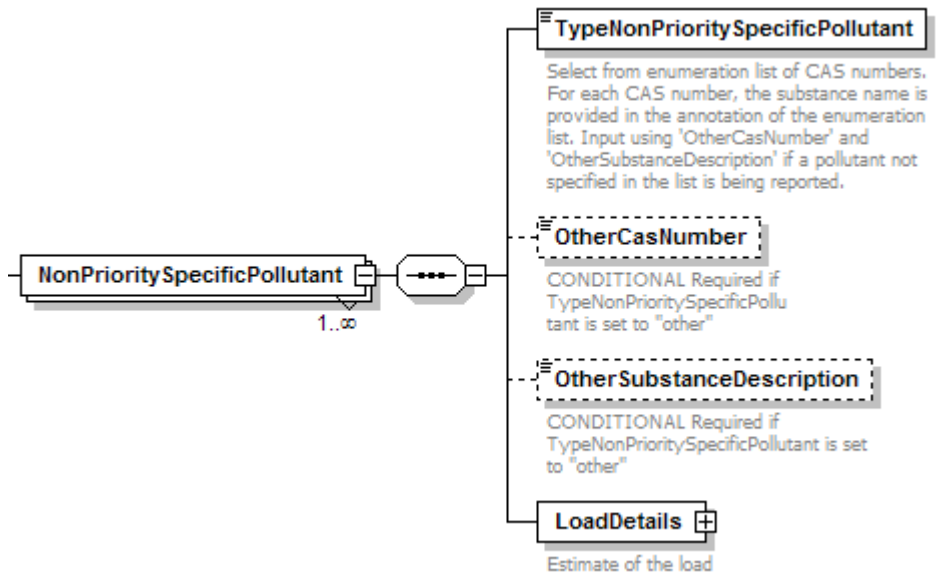
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads/NonPrioritySpecificPollutants

diagram



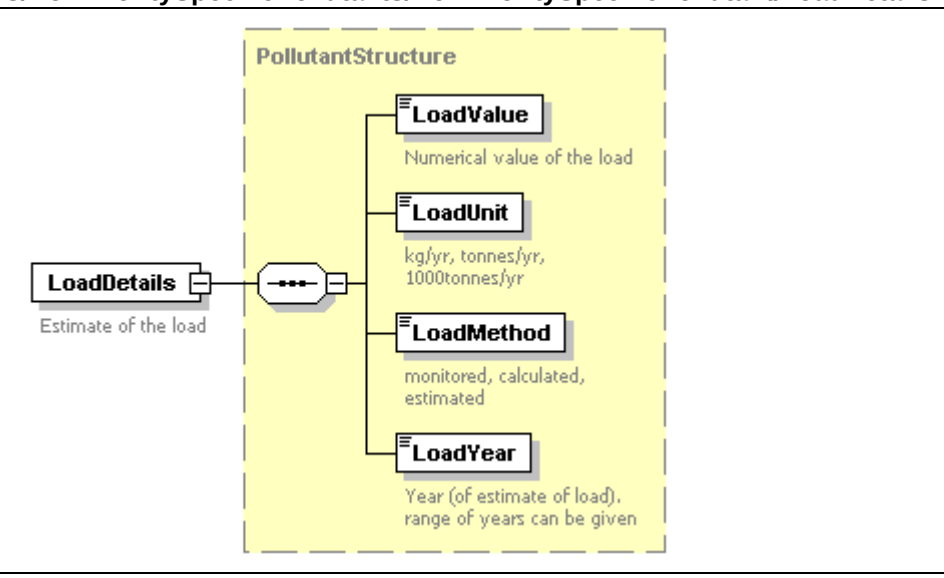
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads/NonPrioritySpecificPollutants/NonPrioritySpecificPollutant

diagram



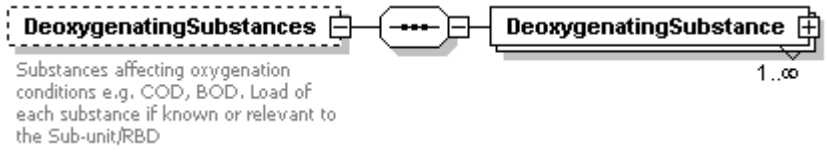
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads/NonPrioritySpecificPollutants/NonPrioritySpecificPollutant/LoadDetails

diagram



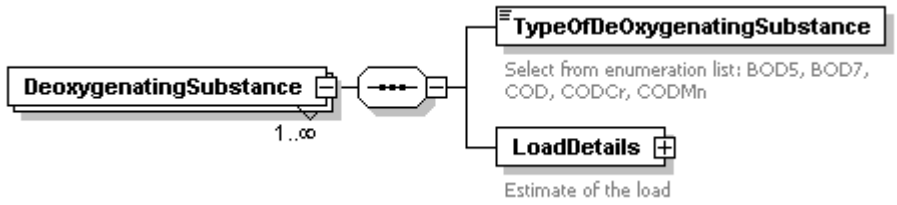
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads/DeoxygenatingSubstances

diagram



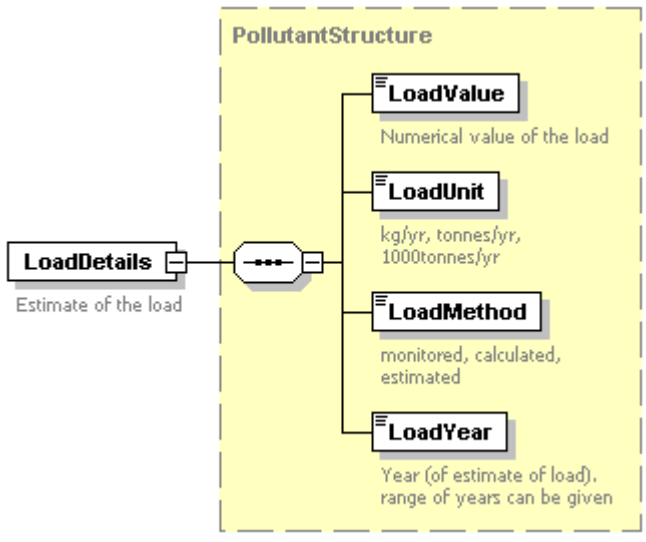
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads/DeoxygenatingSubstances/DeoxygenatingSubstance

diagram



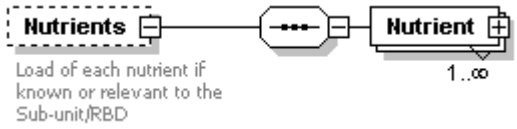
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads/DeoxygenatingSubstances/DeoxygenatingSubstance/LoadDetails

diagram



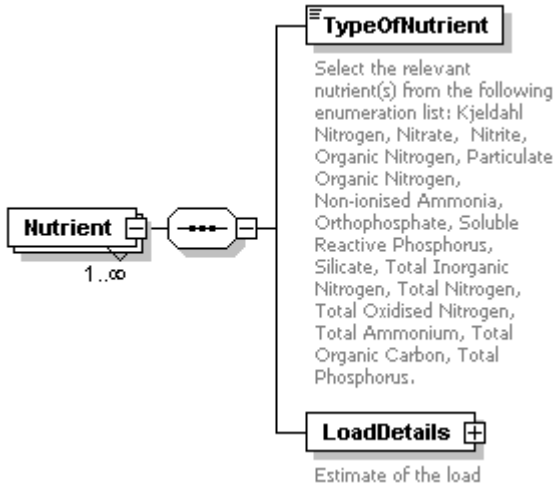
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads/Nutrients

diagram



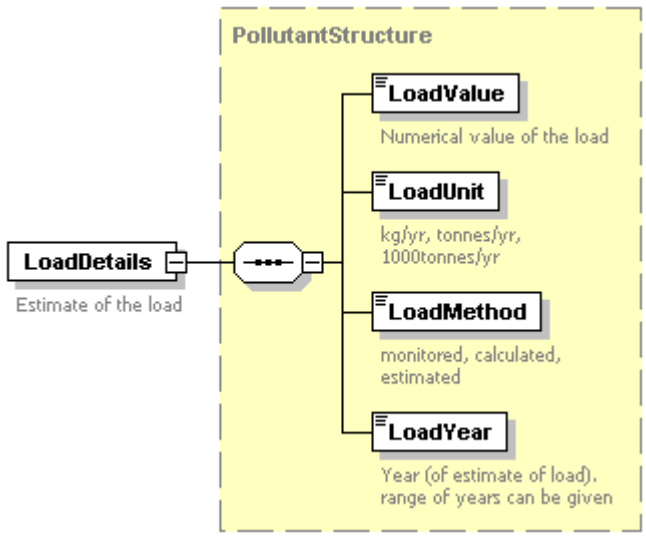
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads/Nutrients/Nutrient

diagram



element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads/Nutrients/Nutrient/LoadDetails

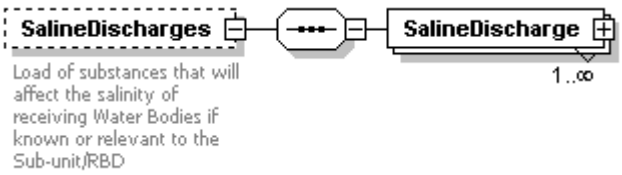
diagram



element

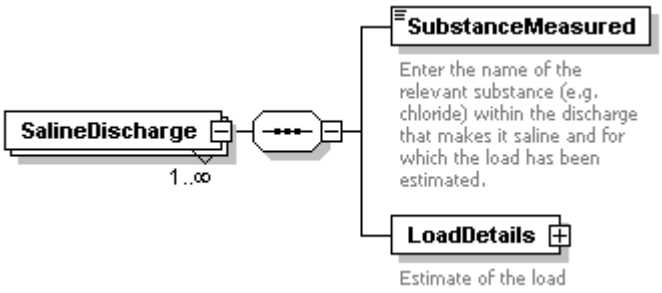
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads/SalineDischarges

diagram



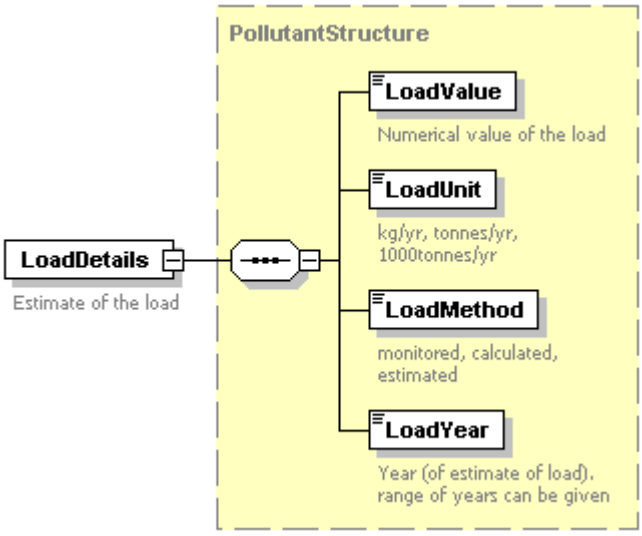
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads/SalineDischarges/SalineDischarge

diagram

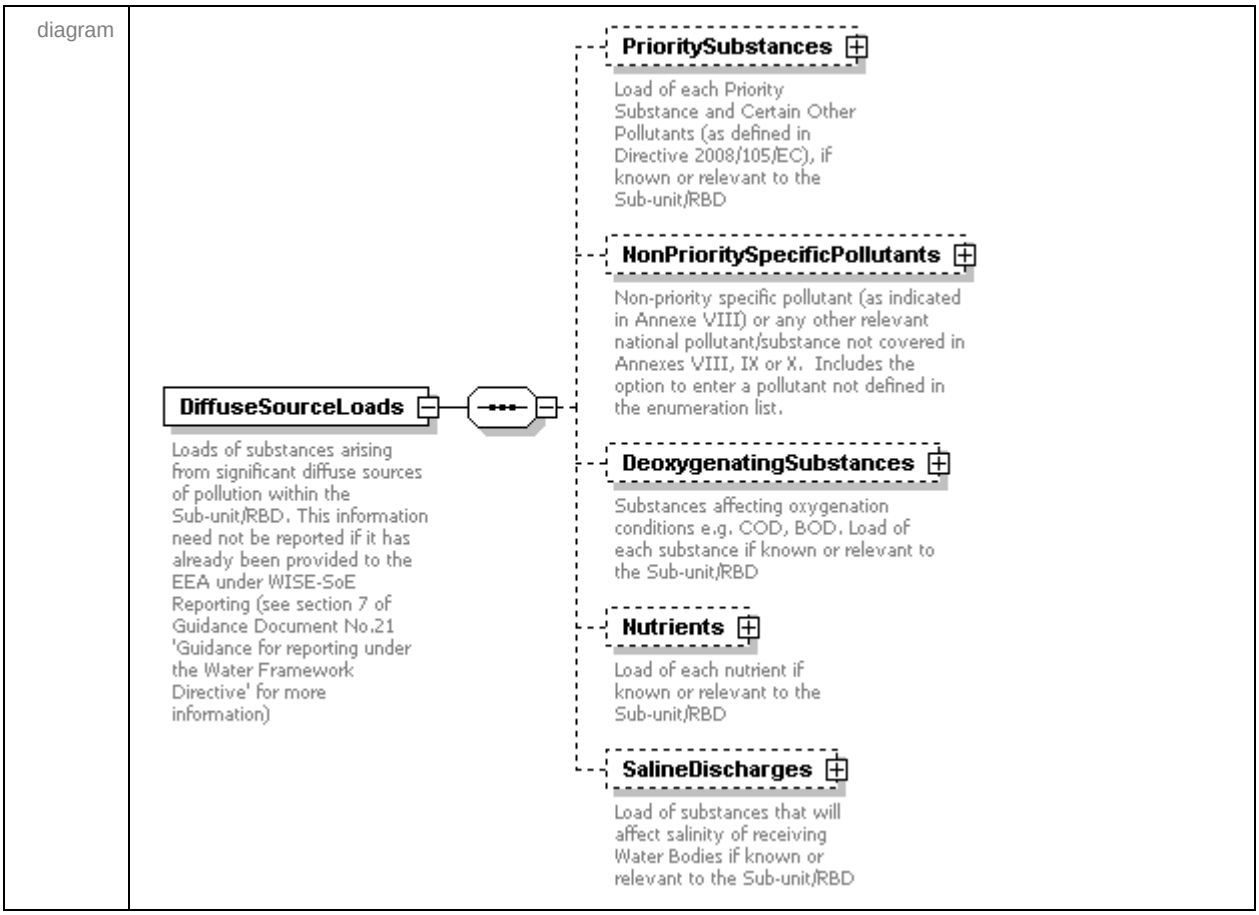


element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/PointSourceLoads/SalineDischarges/SalineDischarge/LoadDetails

diagram

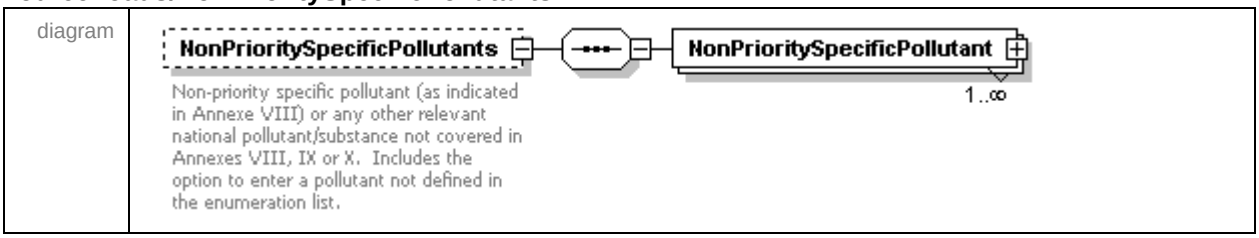


element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/DiffuseSourceLoads



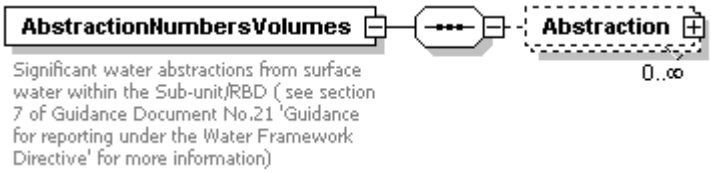
DiffuseSourceLoads follows the same structure as PointSourceLoads.

element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/DiffuseSourceLoads/NonPrioritySpecificPollutants



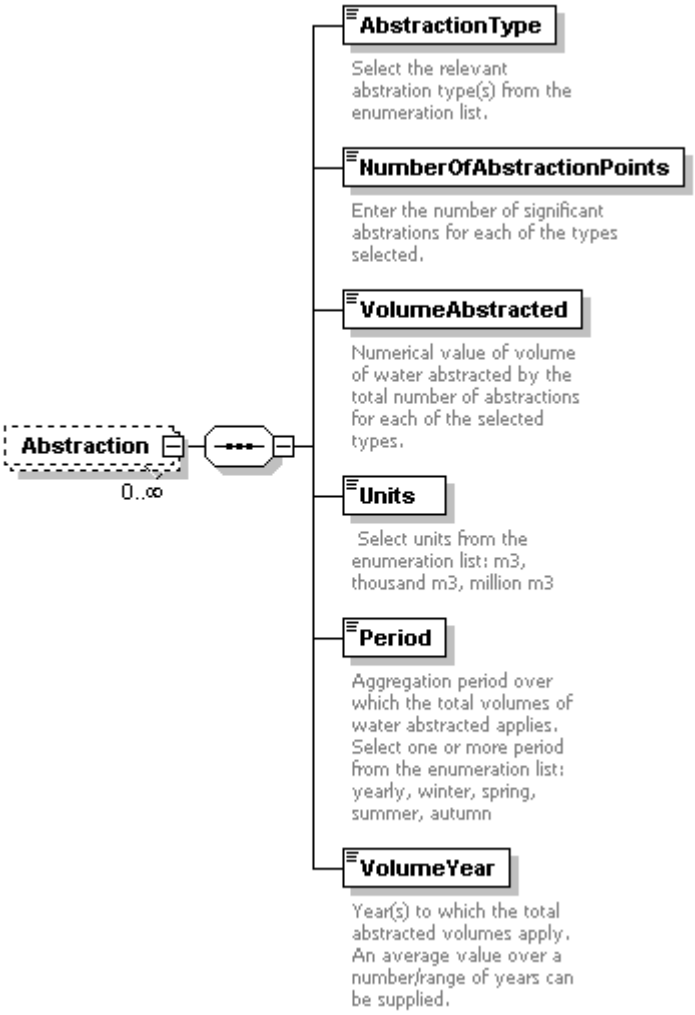
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/AbstractionNumbersVolumes

diagram



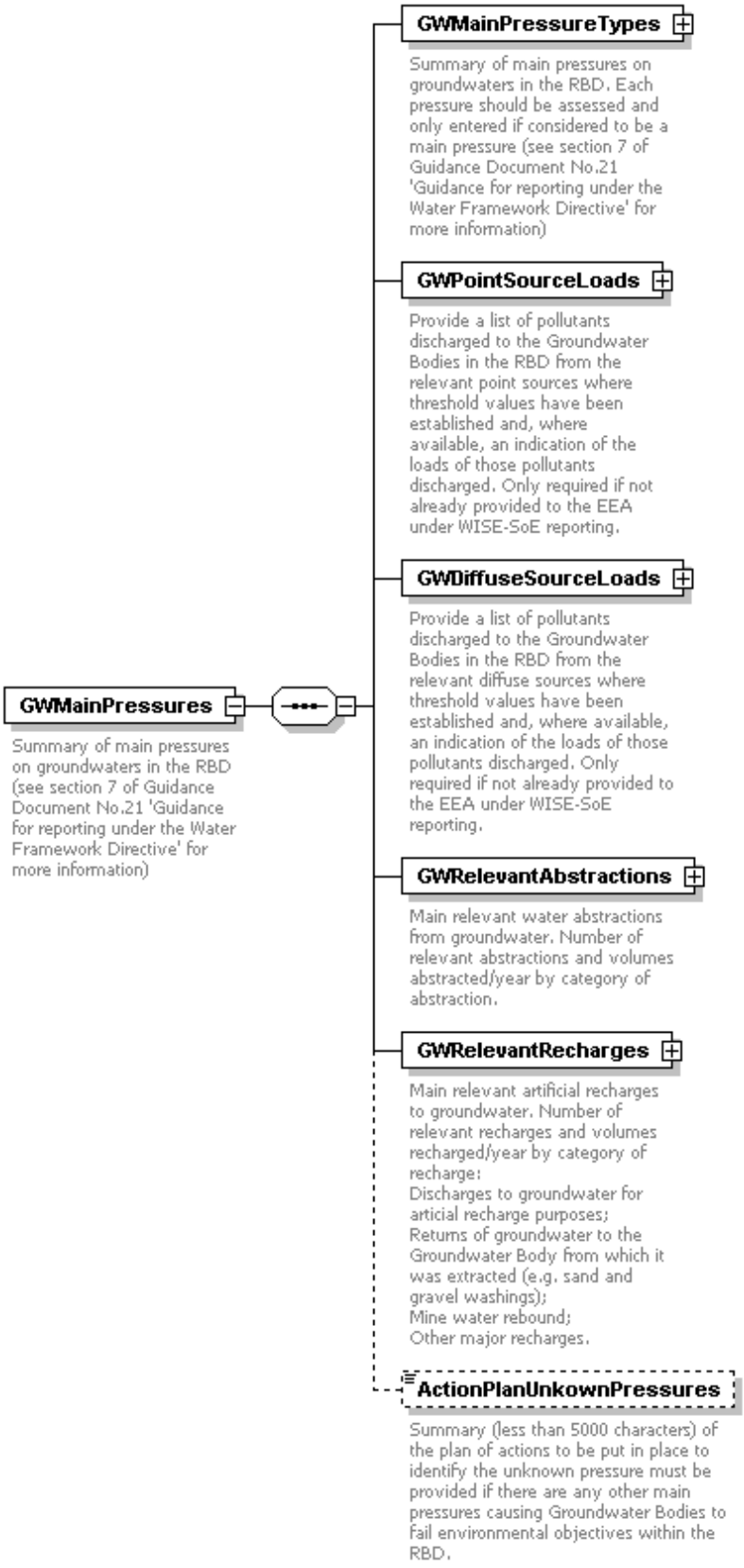
element
RiverBasinManagementPlan/SurfaceWaterSignificantPressures/SubUnitPressureDetail/AbstractionNumbersVolumes/Abstraction

diagram



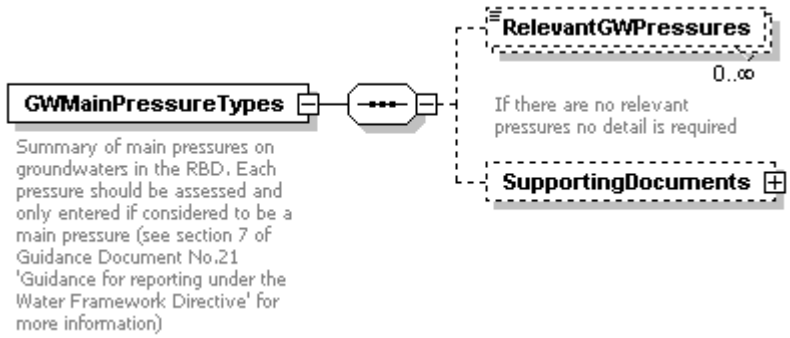
element **RiverBasinManagementPlan/GWMainPressures**

diagram



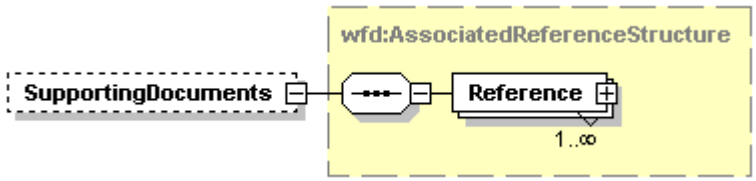
element **RiverBasinManagementPlan/GWMainPressures/GWMainPressureTypes**

diagram



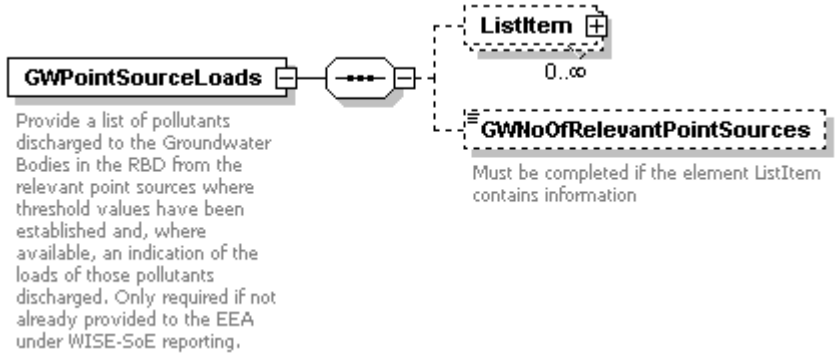
element **RiverBasinManagementPlan/GWMainPressures/GWMainPressureTypes/SupportingDocuments**

diagram



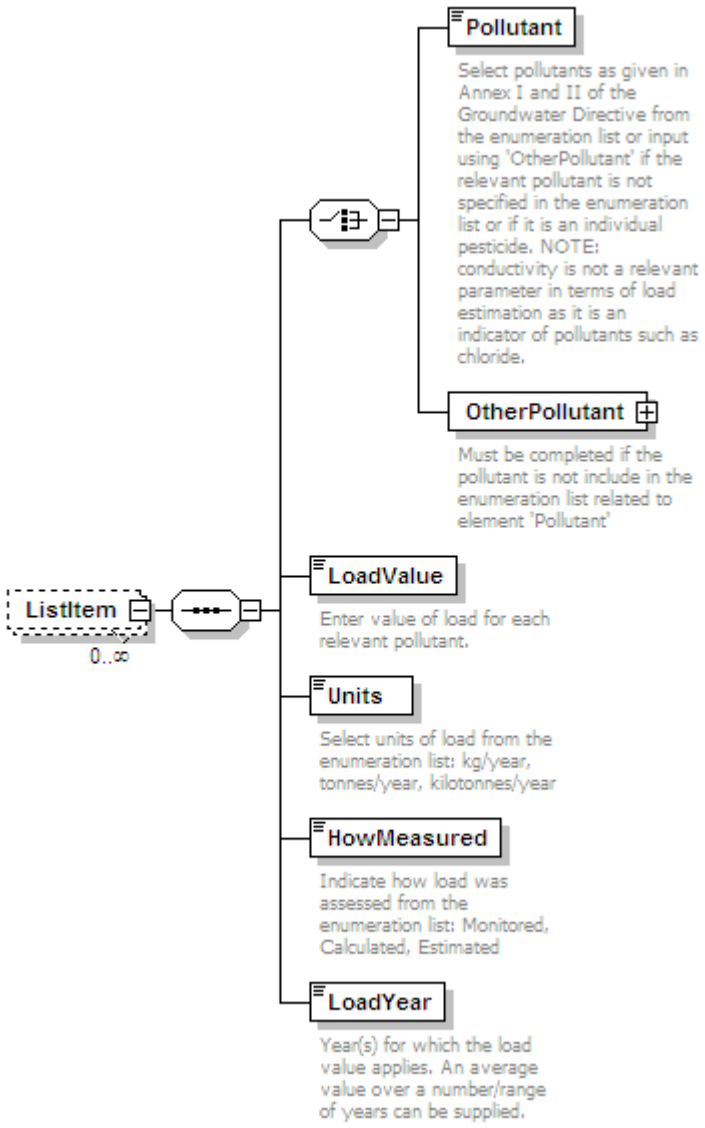
element **RiverBasinManagementPlan/GWMainPressures/GWPointSourceLoads**

diagram



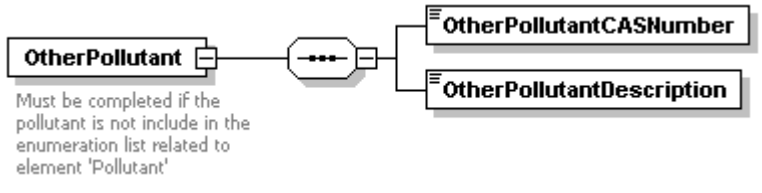
element **RiverBasinManagementPlan/GWMainPressures/GWPointSourceLoads/ListItem**

diagram



element **RiverBasinManagementPlan/GWMainPressures/GWPointSourceLoads/ListItem/OtherPollutant**

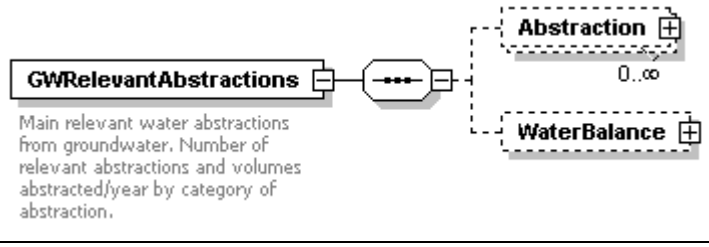
diagram



GWDiffuseSourceLoads follows the same structure as GWPointSourceLoads.

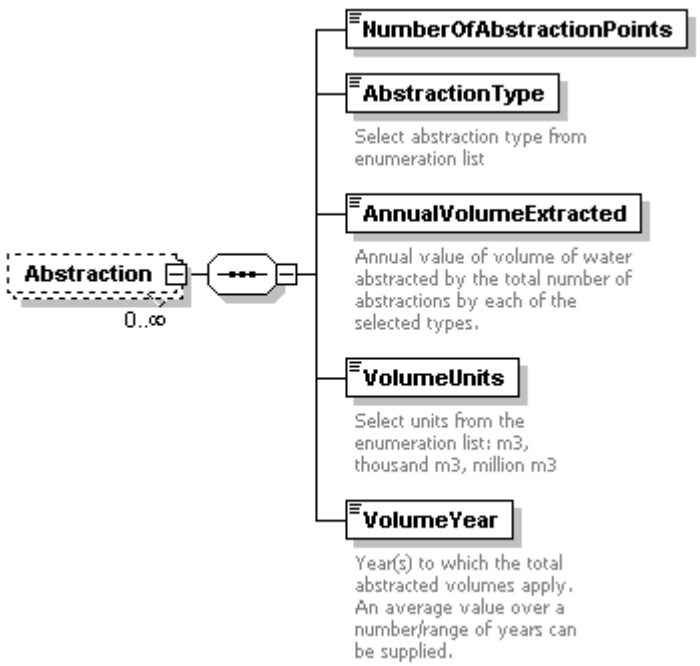
element **RiverBasinManagementPlan/GWMainPressures/GWRelevantAbstractions**

diagram



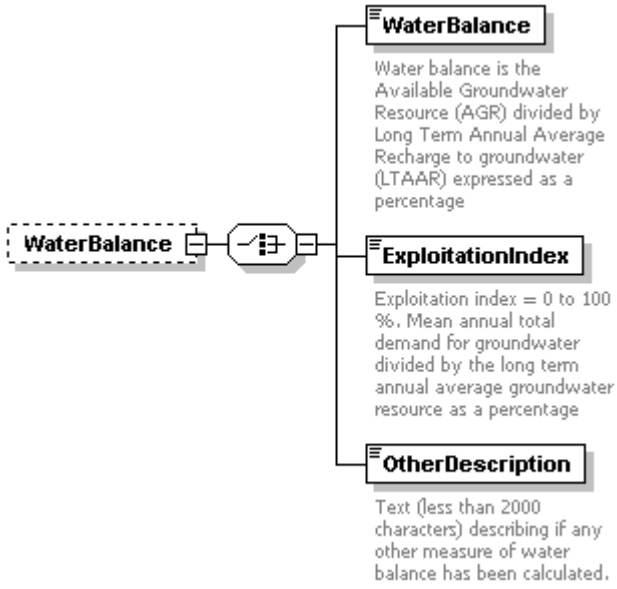
element **RiverBasinManagementPlan/GWMainPressures/GWRelevantAbstractions/Abstraction**

diagram



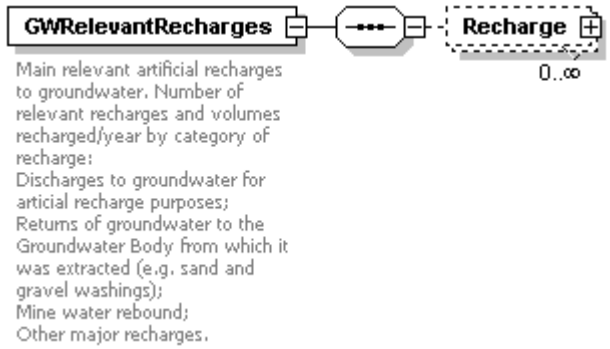
element **RiverBasinManagementPlan/GWMainPressures/GWRelevantAbstractions/WaterBalance**

diagram



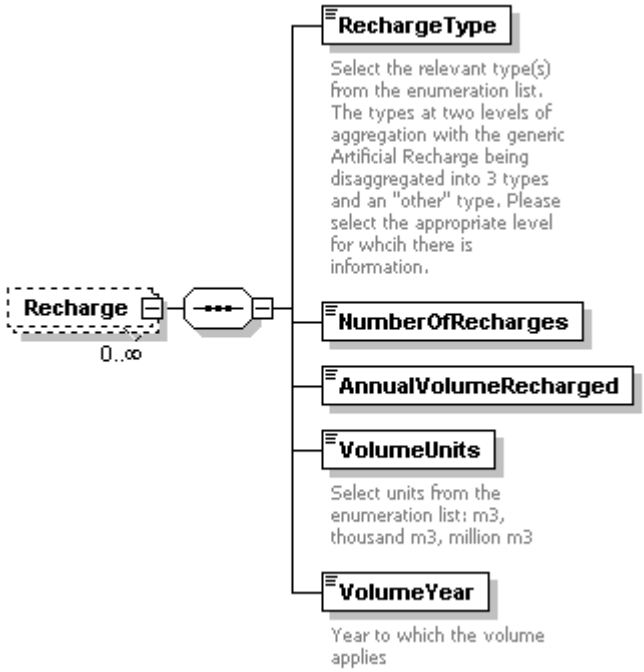
element **RiverBasinManagementPlan/GWMainPressures/GWRelevantRecharges**

diagram



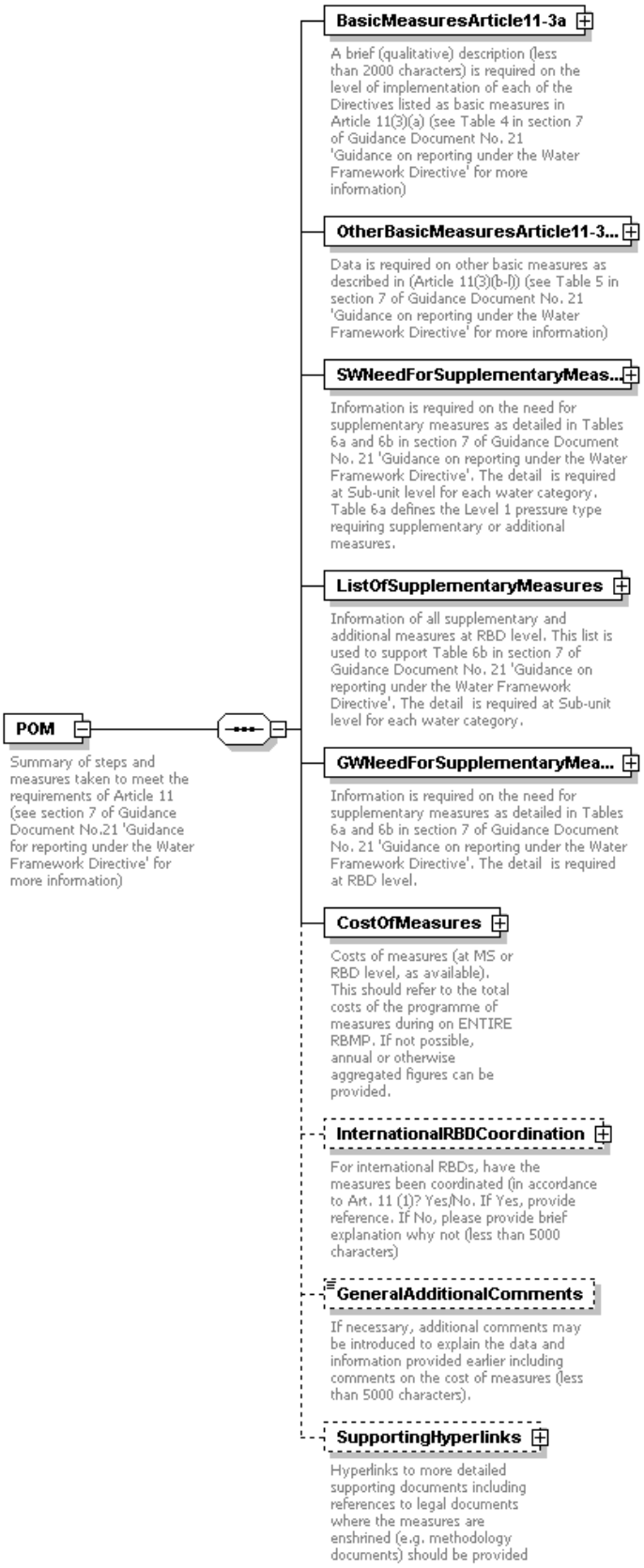
element **RiverBasinManagementPlan/GWMainPressures/GWRelevantRecharges/Recharge**

diagram



element **RiverBasinManagementPlan/POM**

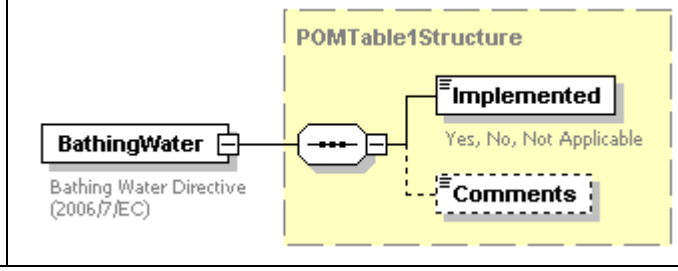
diagram



element **RiverBasinManagementPlan/POM/BasicMeasuresArticle11-3a**

diagram

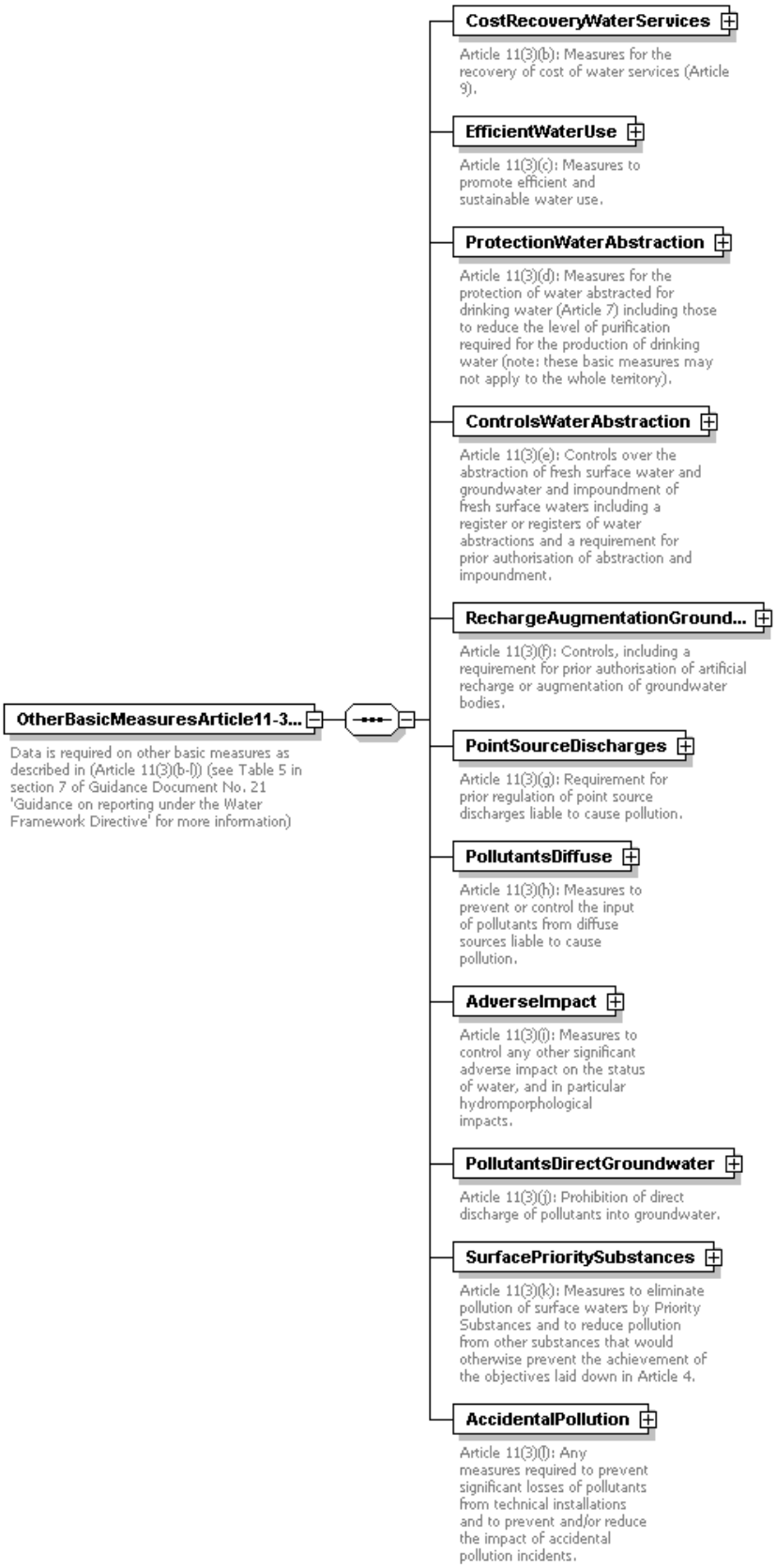
element **RiverBasinManagementPlan/POM/BasicMeasuresArticle11-3a/BathingWater**

diagram	

Birds, DrinkingWater, Seveso, EnvironmentalImpact, SewageSludge, UrbanWasteWater, PlantProtectionProducts, Nitrates, Habitats and IPPC follow the same structure as BathingWater.

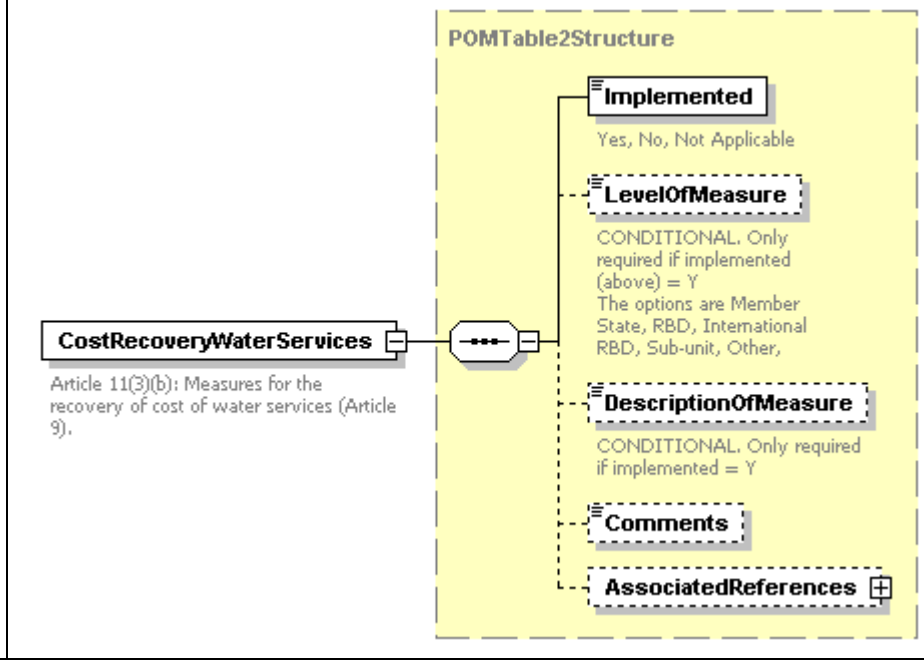
element **RiverBasinManagementPlan/POM/OtherBasicMeasuresArticle11-3b-1**

diagram



element **RiverBasinManagementPlan/POM/OtherBasicMeasuresArticle11-3b-1/CostRecoveryWaterServices**

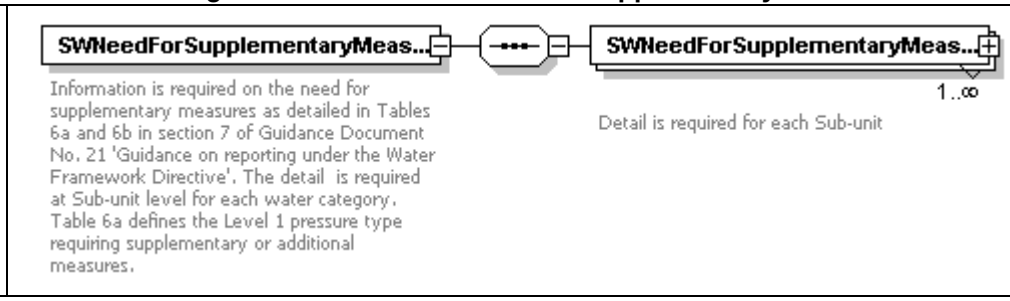
diagram



EfficientWaterUse, ProtectionWater Abstraction, ControlsWaterAbstraction, RechargeAugmentationGroundwaters, PointSourceDischarges, PollutantsDiffuse, AdverseImpact, PollutantsDirectGroundwater, SurfacePrioritySubstances and AccidentalPollution follow the same structure as CostRecoveryWaterServices.

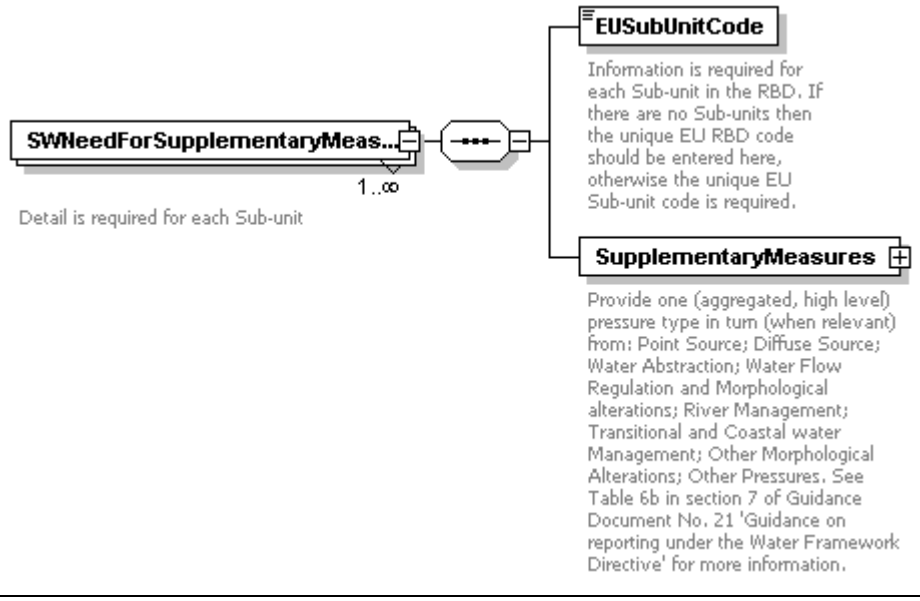
element **RiverBasinManagementPlan/POM/SWNeedForSupplementaryMeasures**

diagram



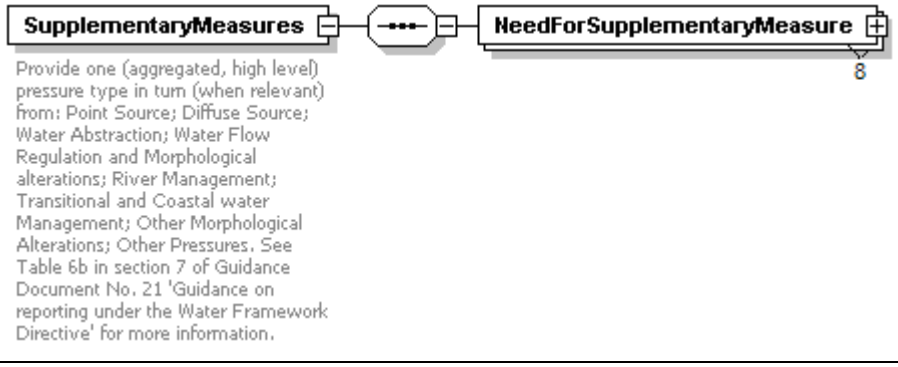
element
RiverBasinManagementPlan/POM/SWNeedForSupplementaryMeasures/SWNeedForSupplementaryMeasure

diagram



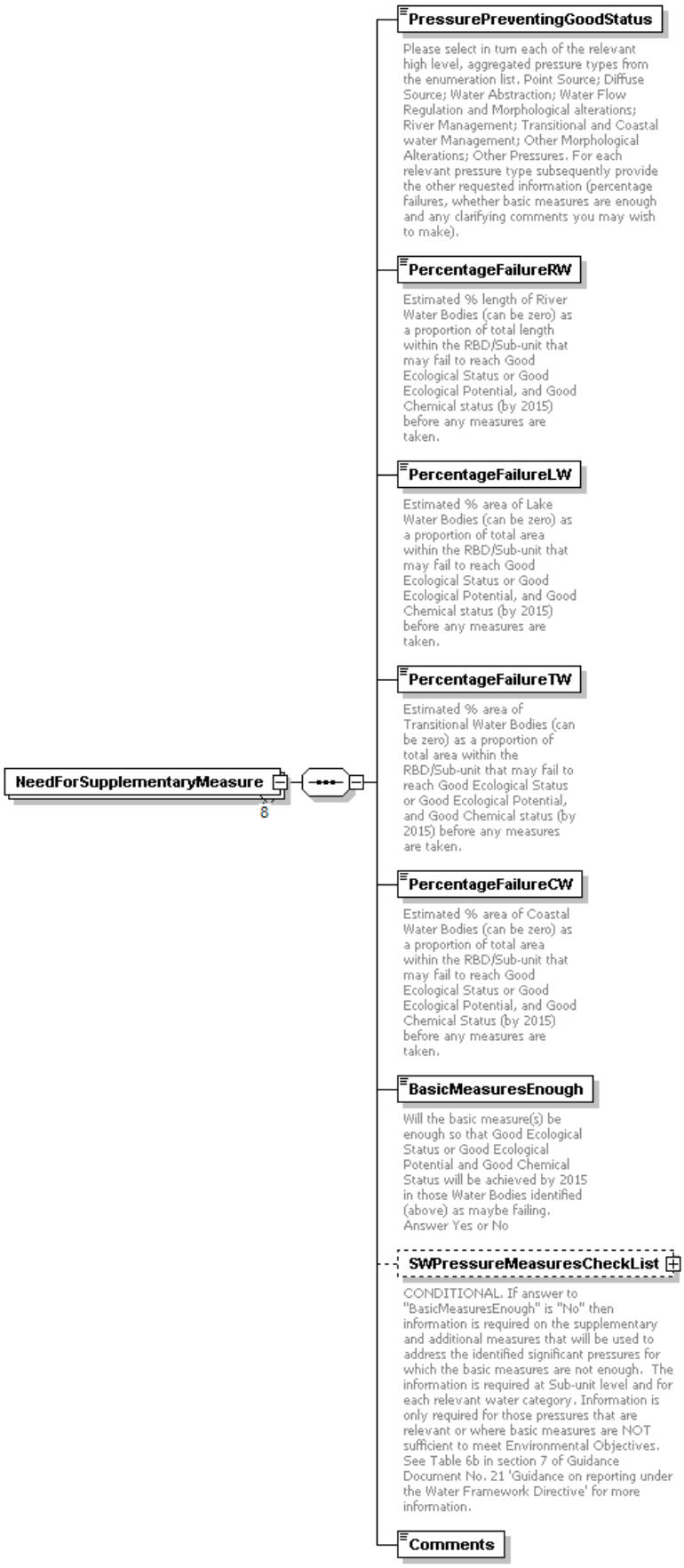
element
RiverBasinManagementPlan/POM/SWNeedForSupplementaryMeasures/SWNeedForSupplementaryMeasure/SupplementaryMeasures

diagram

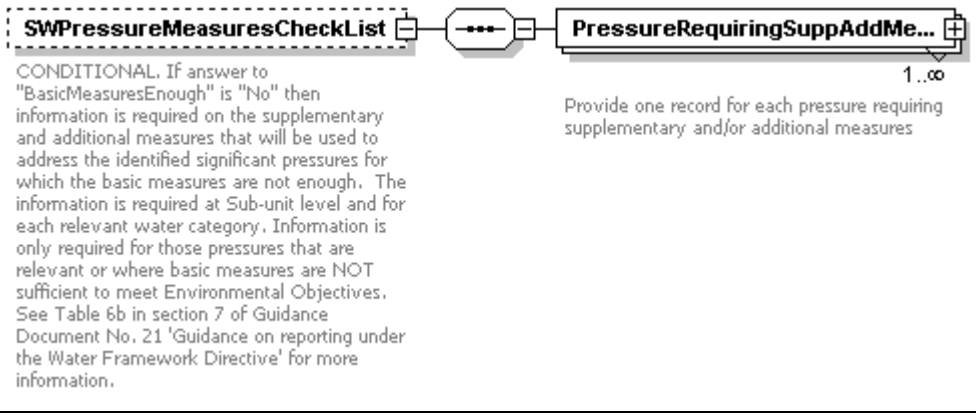


element
RiverBasinManagementPlan/POM/SWNeedForSupplementaryMeasures/SWNeedForSupplementaryMeasure/SupplementaryMeasures/NeedForSupplementaryMeasure

diagram

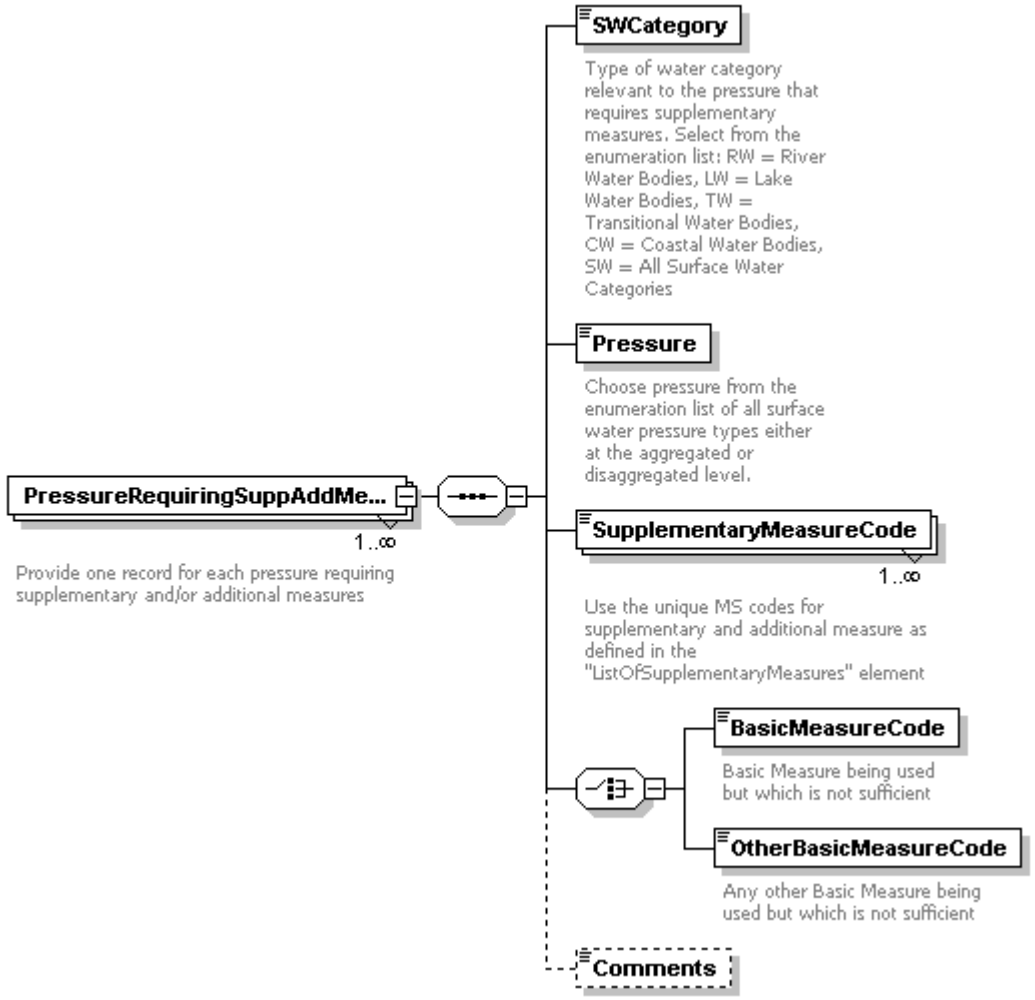

NeedForSupplementaryMeasure
8
PressurePreventingGoodStatus
Please select in turn each of the relevant high level, aggregated pressure types from the enumeration list. Point Source; Diffuse Source; Water Abstraction; Water Flow Regulation and Morphological alterations; River Management; Transitional and Coastal water Management; Other Morphological Alterations; Other Pressures. For each relevant pressure type subsequently provide the other requested information (percentage failures, whether basic measures are enough and any clarifying comments you may wish to make).
PercentageFailureRW
Estimated % length of River Water Bodies (can be zero) as a proportion of total length within the RBD/Sub-unit that may fail to reach Good Ecological Status or Good Ecological Potential, and Good Chemical status (by 2015) before any measures are taken.
PercentageFailureLW
Estimated % area of Lake Water Bodies (can be zero) as a proportion of total area within the RBD/Sub-unit that may fail to reach Good Ecological Status or Good Ecological Potential, and Good Chemical status (by 2015) before any measures are taken.
PercentageFailureTW
Estimated % area of Transitional Water Bodies (can be zero) as a proportion of total area within the RBD/Sub-unit that may fail to reach Good Ecological Status or Good Ecological Potential, and Good Chemical status (by 2015) before any measures are taken.
PercentageFailureCW
Estimated % area of Coastal Water Bodies (can be zero) as a proportion of total area within the RBD/Sub-unit that may fail to reach Good Ecological Status or Good Ecological Potential, and Good Chemical Status (by 2015) before any measures are taken.
BasicMeasuresEnough
Will the basic measure(s) be enough so that Good Ecological Status or Good Ecological Potential and Good Chemical Status will be achieved by 2015 in those Water Bodies identified (above) as maybe failing. Answer Yes or No
SWPressureMeasuresCheckList
CONDITIONAL. If answer to "BasicMeasuresEnough" is "No" then information is required on the supplementary and additional measures that will be used to address the identified significant pressures for which the basic measures are not enough. The information is required at Sub-unit level and for each relevant water category. Information is only required for those pressures that are relevant or where basic measures are NOT sufficient to meet Environmental Objectives. See Table 6b in section 7 of Guidance Document No. 21 'Guidance on reporting under the Water Framework Directive' for more information.
Comments

element
RiverBasinManagementPlan/POM/SWNeedForSupplementaryMeasures/SWNeedForSupplementaryMeasure/SupplementaryMeasures/NeedForSupplementaryMeasure/SWPressureMeasuresCheckList

diagram	

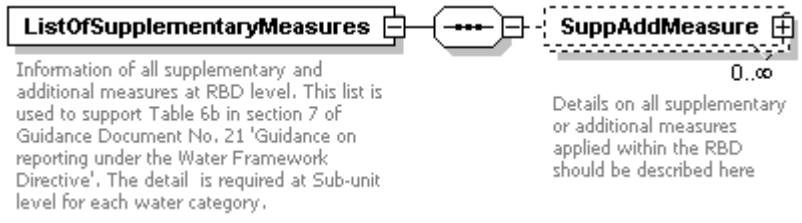
element
RiverBasinManagementPlan/POM/SWNeedForSupplementaryMeasures/SWNeedForSupplementaryMeasure/SupplementaryMeasures/NeedForSupplementaryMeasure/SWPressureMeasuresCheckList/PressureRequiringSuppAddMeasures

diagram



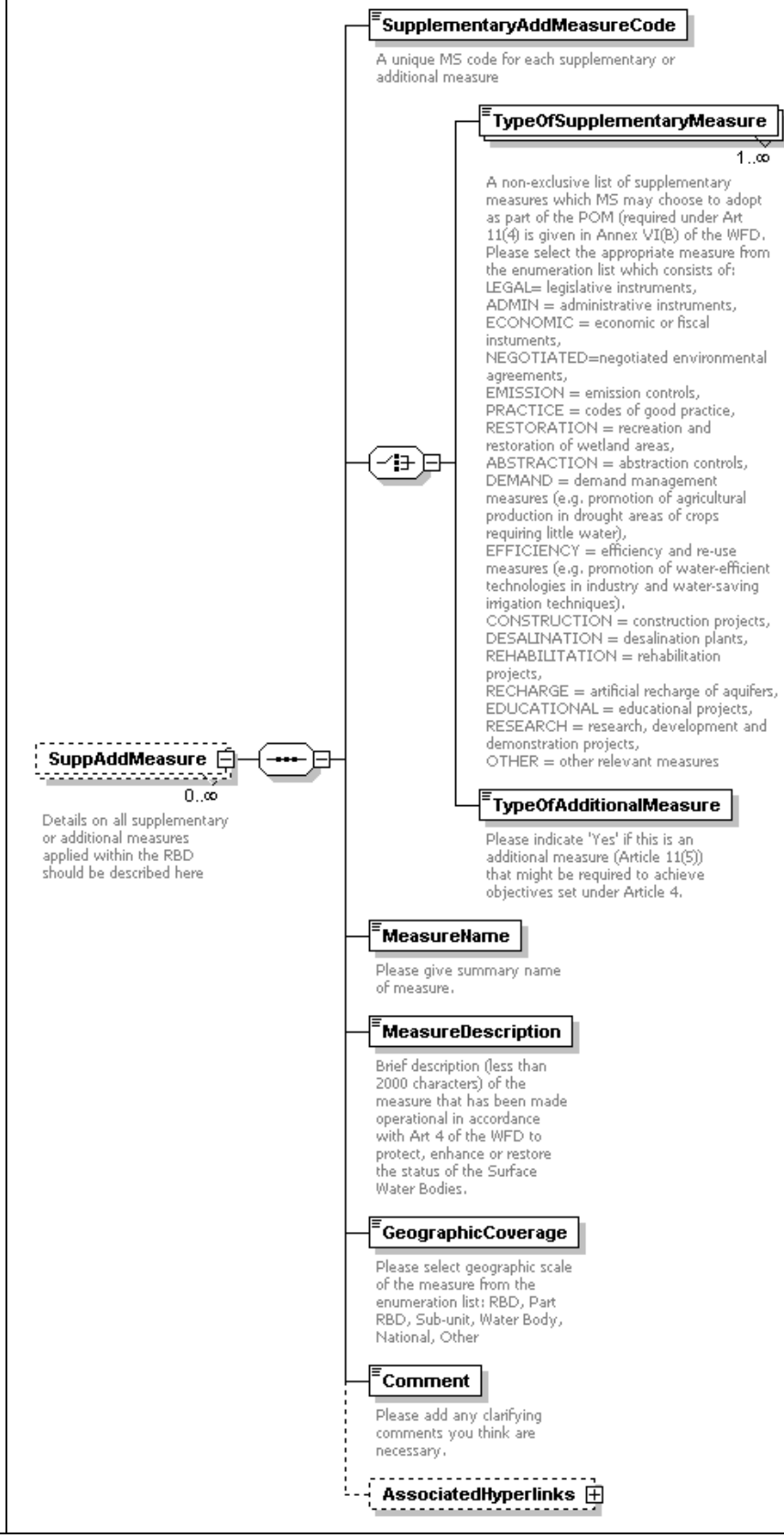
element **RiverBasinManagementPlan/POM/ListOfSupplementaryMeasures**

diagram



element **RiverBasinManagementPlan/POM/ListOfSupplementaryMeasures/SuppAddMeasure**

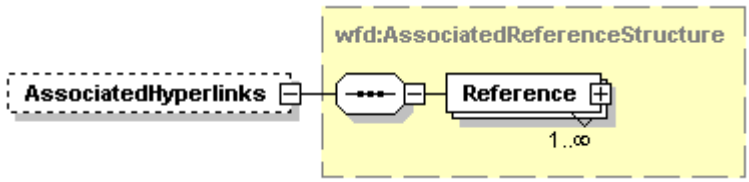
diagram



element

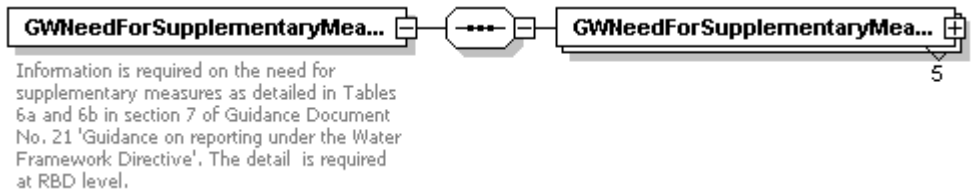
RiverBasinManagementPlan/POM/ListOfSupplementaryMeasures/SuppAddMeasure/Associated Hyperlinks

diagram



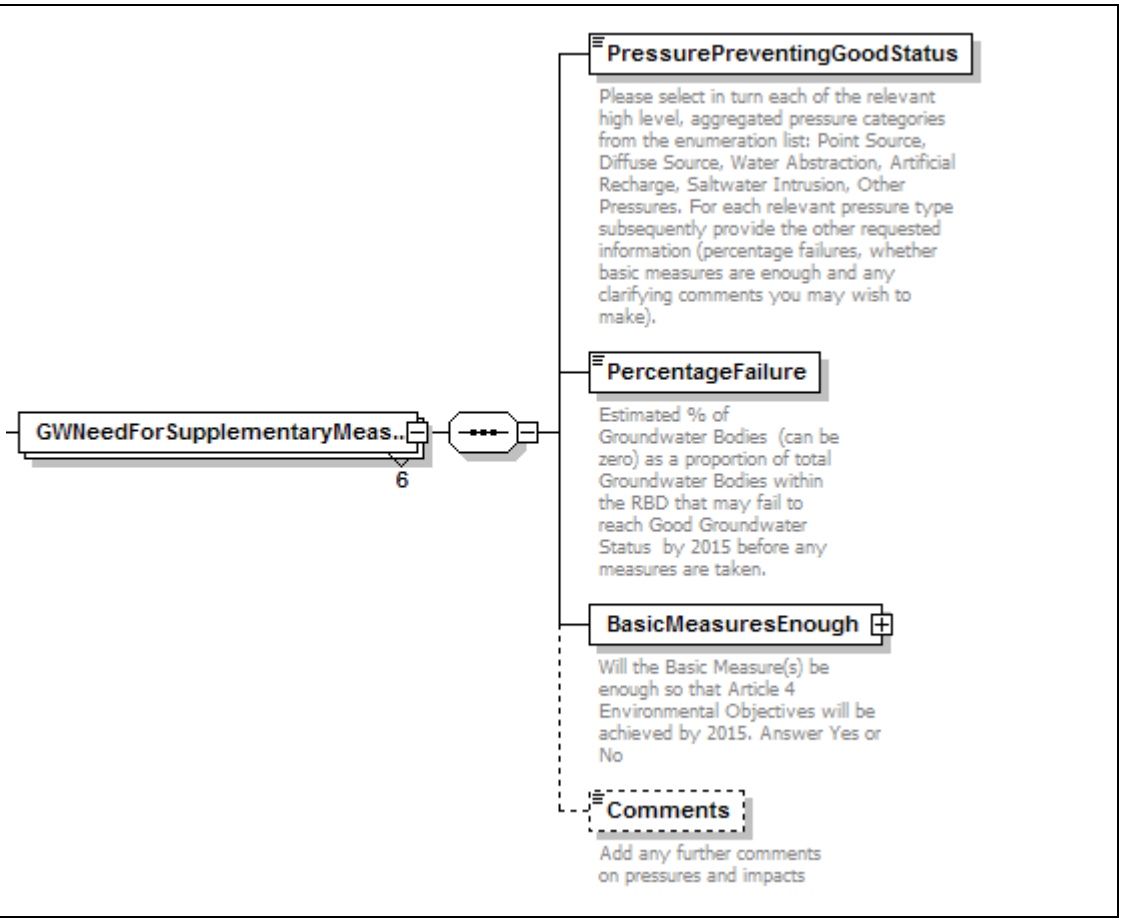
element **RiverBasinManagementPlan/POM/GWNeedForSupplementaryMeasures**

diagram



element **RiverBasinManagementPlan/POM/GWNeedForSupplementaryMeasures/GWNeedForSupplementaryMeasure**

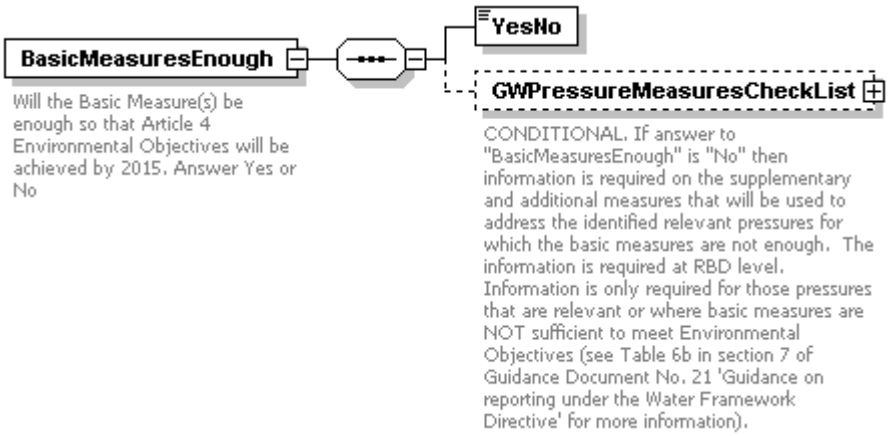
diagram



element

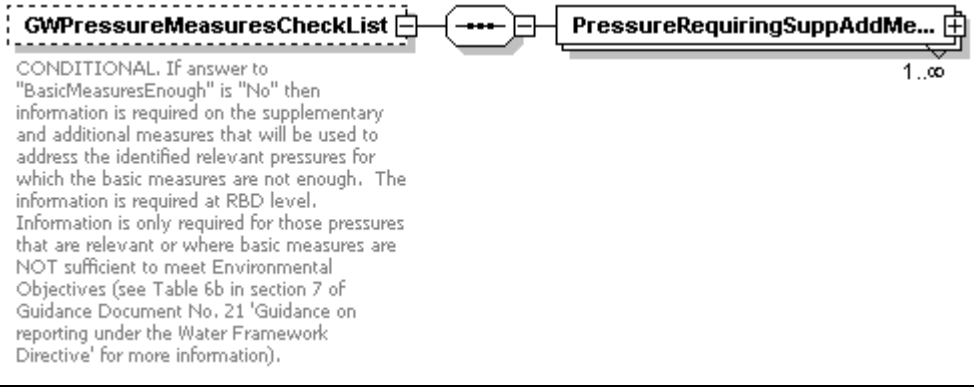
element
RiverBasinManagementPlan/POM/GWNeedForSupplementaryMeasures/GWNeedForSupplementaryMeasure/BasicMeasuresEnough

diagram



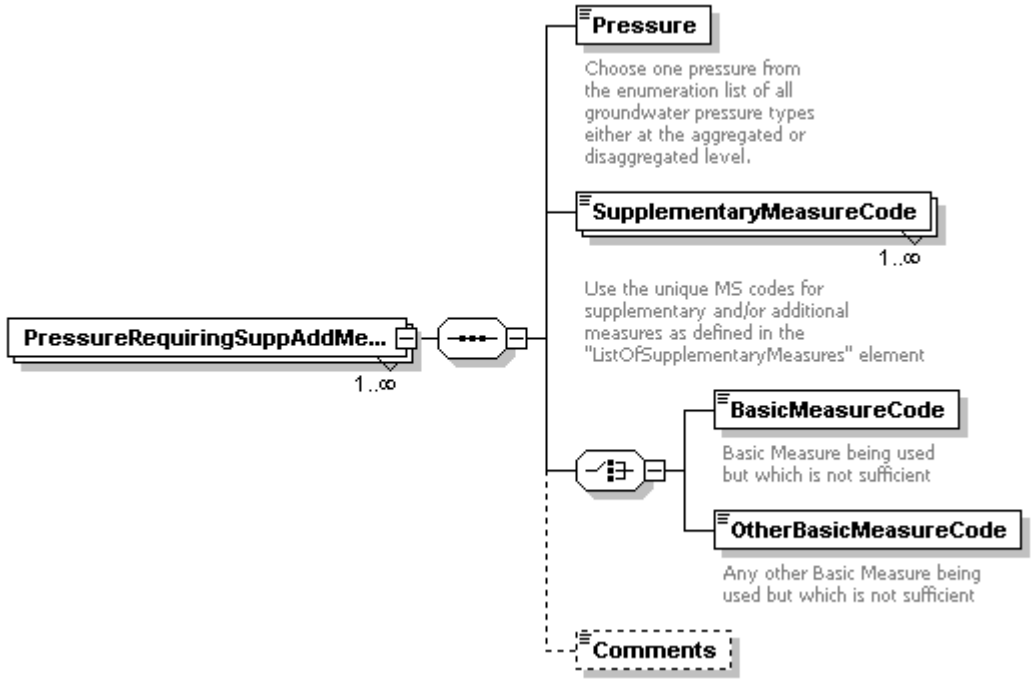
element
RiverBasinManagementPlan/POM/GWNeedForSupplementaryMeasures/GWNeedForSupplementaryMeasure/BasicMeasuresEnough/GWPressureMeasuresCheckList

diagram



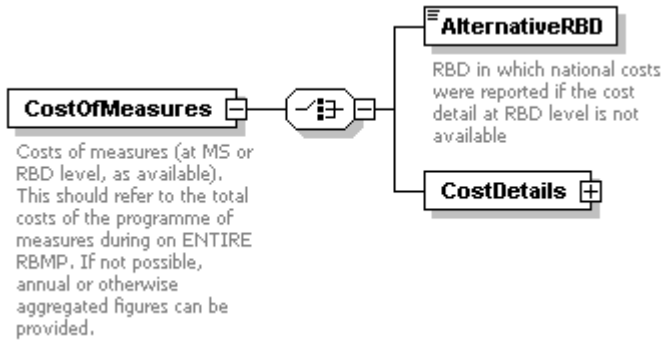
element
RiverBasinManagementPlan/POM/GWNeedForSupplementaryMeasures/GWNeedForSupplementaryMeasure/BasicMeasuresEnough/GWPressureMeasuresCheckList/PressureRequiringSuppAddMeasures

diagram



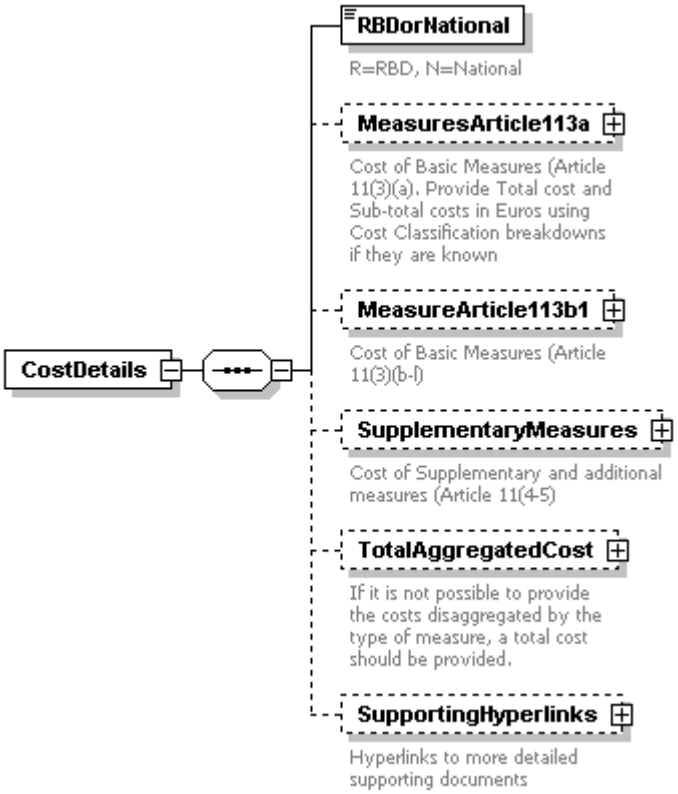
element **RiverBasinManagementPlan/POM/CostOfMeasures**

diagram



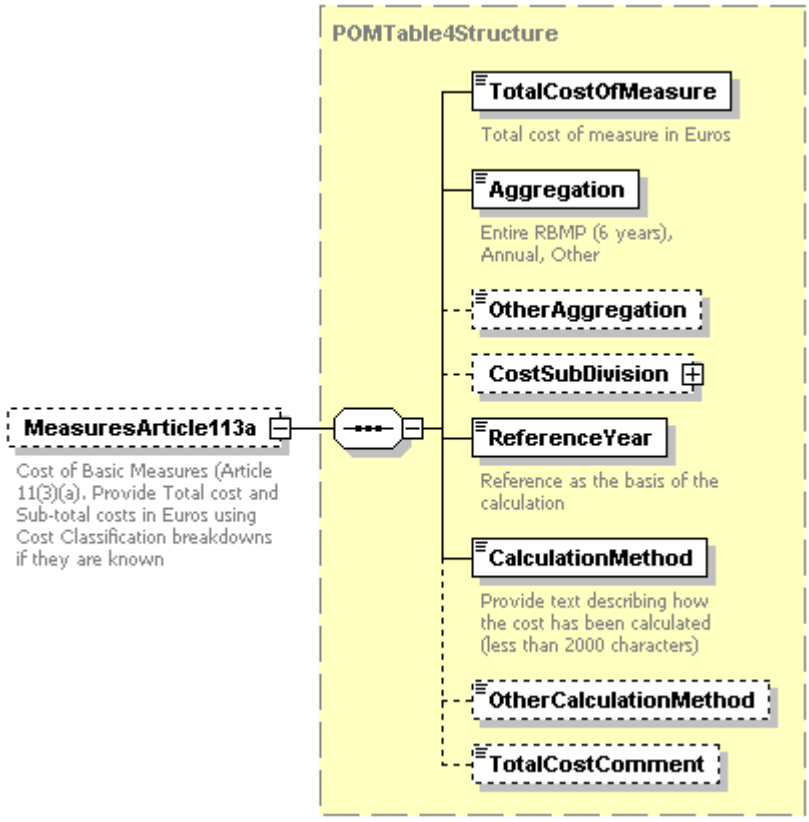
element **RiverBasinManagementPlan/POM/CostOfMeasures/CostDetails**

diagram



element **RiverBasinManagementPlan/POM/CostOfMeasures/CostDetails/MeasuresArticle113a**

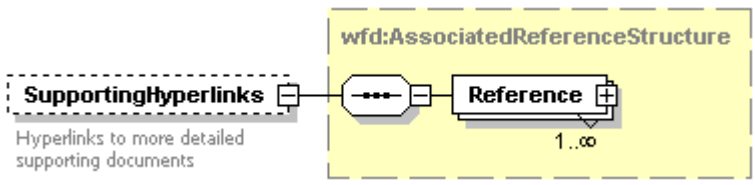
diagram



MeasureArticle113b1, SupplementaryMeasures and TotalAggregatedCost follow the same structure as MeasuresArticle113a.

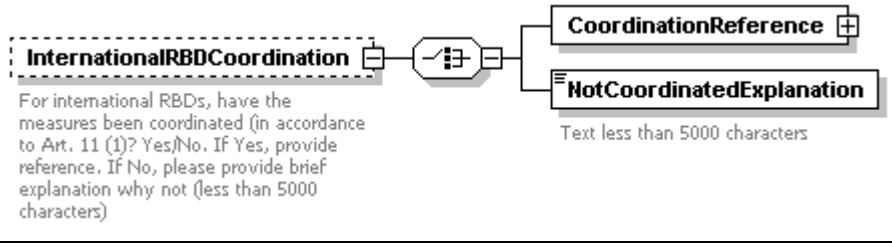
element **RiverBasinManagementPlan/POM/CostOfMeasures/CostDetails/SupportingHyperlinks**

diagram

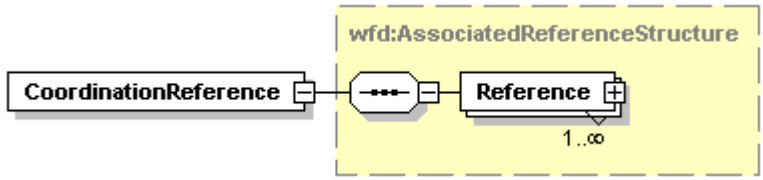


element **RiverBasinManagementPlan/POM/InternationalRBDCoordination**

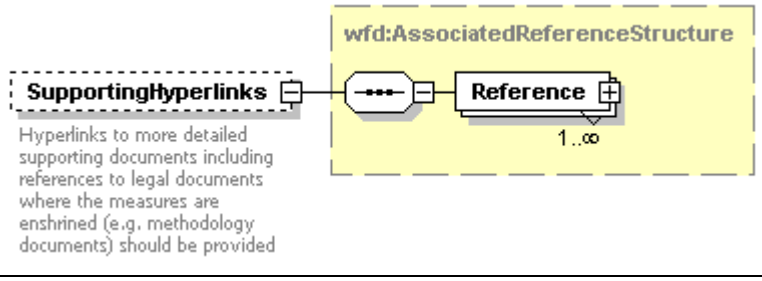
diagram



element **RiverBasinManagementPlan/POM/InternationalRBDCoordination/CoordinationReference**

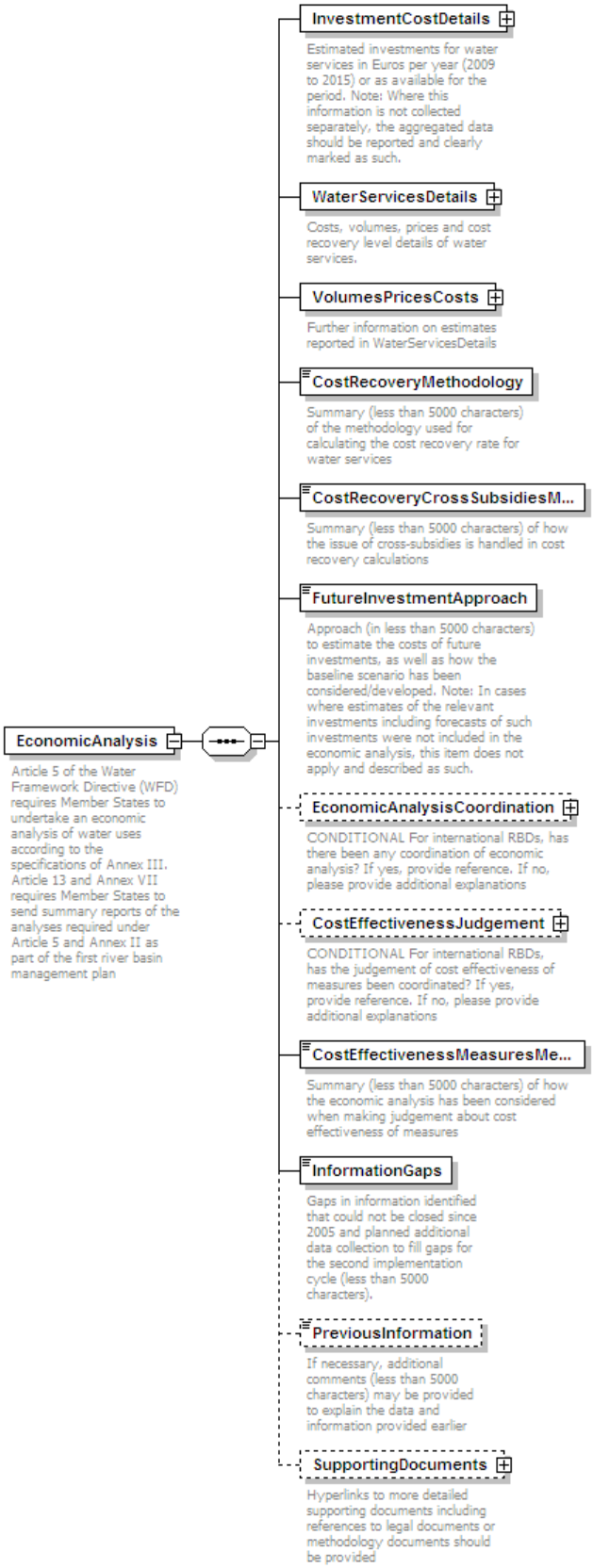
diagram	

element **RiverBasinManagementPlan/POM/SupportingHyperlinks**

diagram	

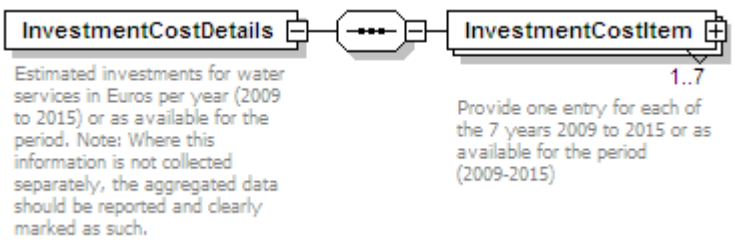
element **RiverBasinManagementPlan/EconomicAnalysis**

diagram



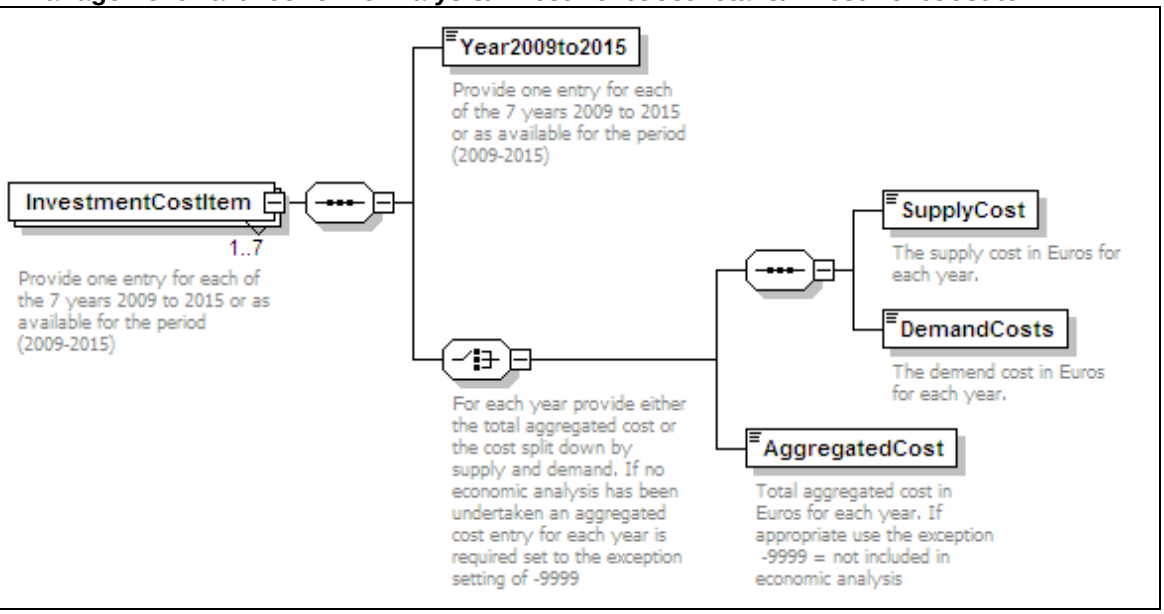
element **RiverBasinManagementPlan/EconomicAnalysis/InvestmentCostDetails**

diagram



element **RiverBasinManagementPlan/EconomicAnalysis/InvestmentCostDetails/InvestmentCostItem**

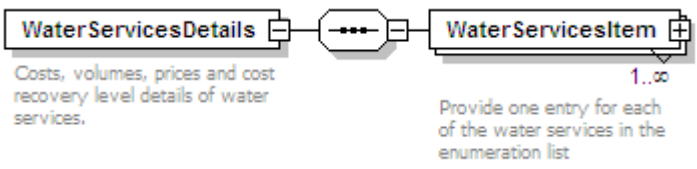
diagram



There are two options for reporting the cost information. It can be reported as annual estimates or one aggregated estimated. If cost information is only available in a different format, the estimates should be apportioned in some way to enable reporting as either annual or aggregate figures for the period 2009-2015.

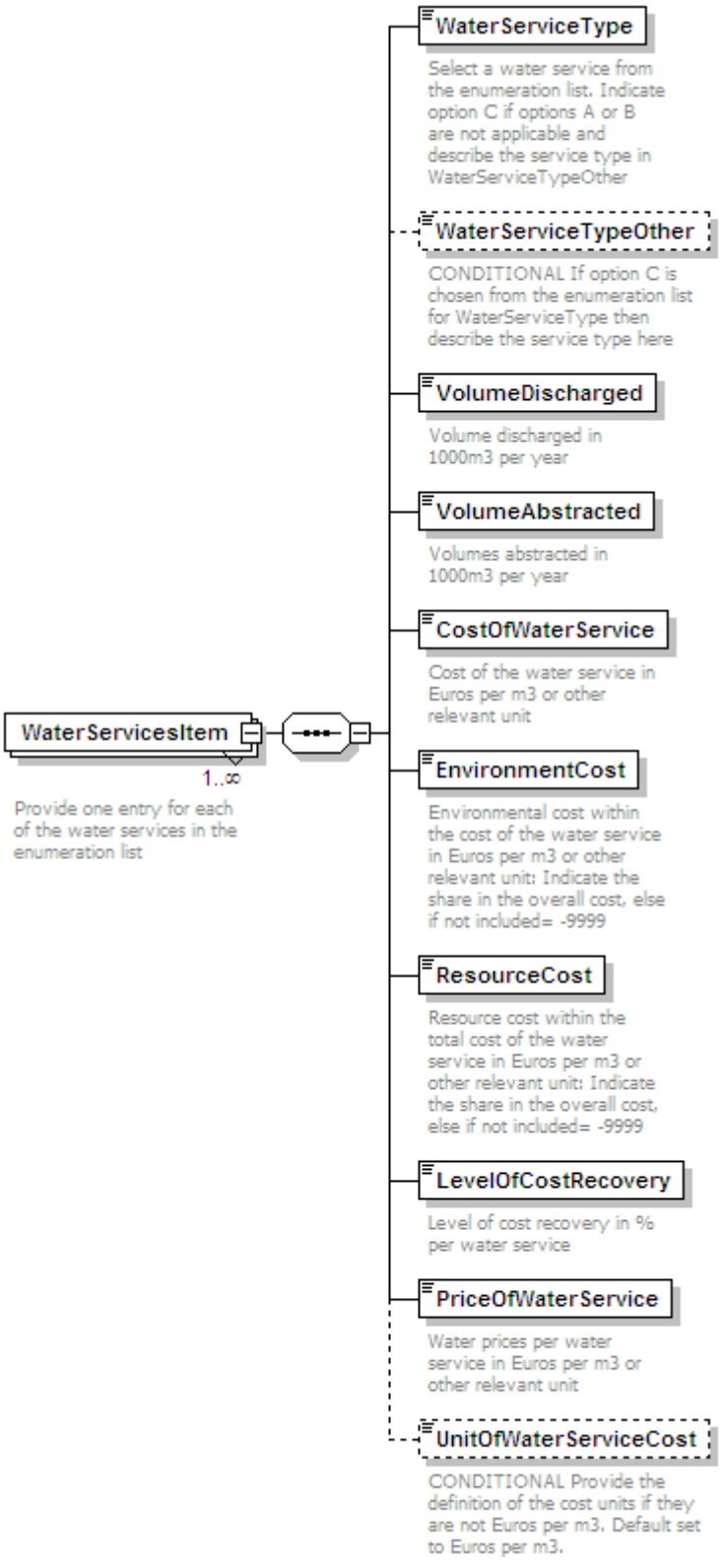
element **RiverBasinManagementPlan/EconomicAnalysis/WaterServicesDetails**

diagram



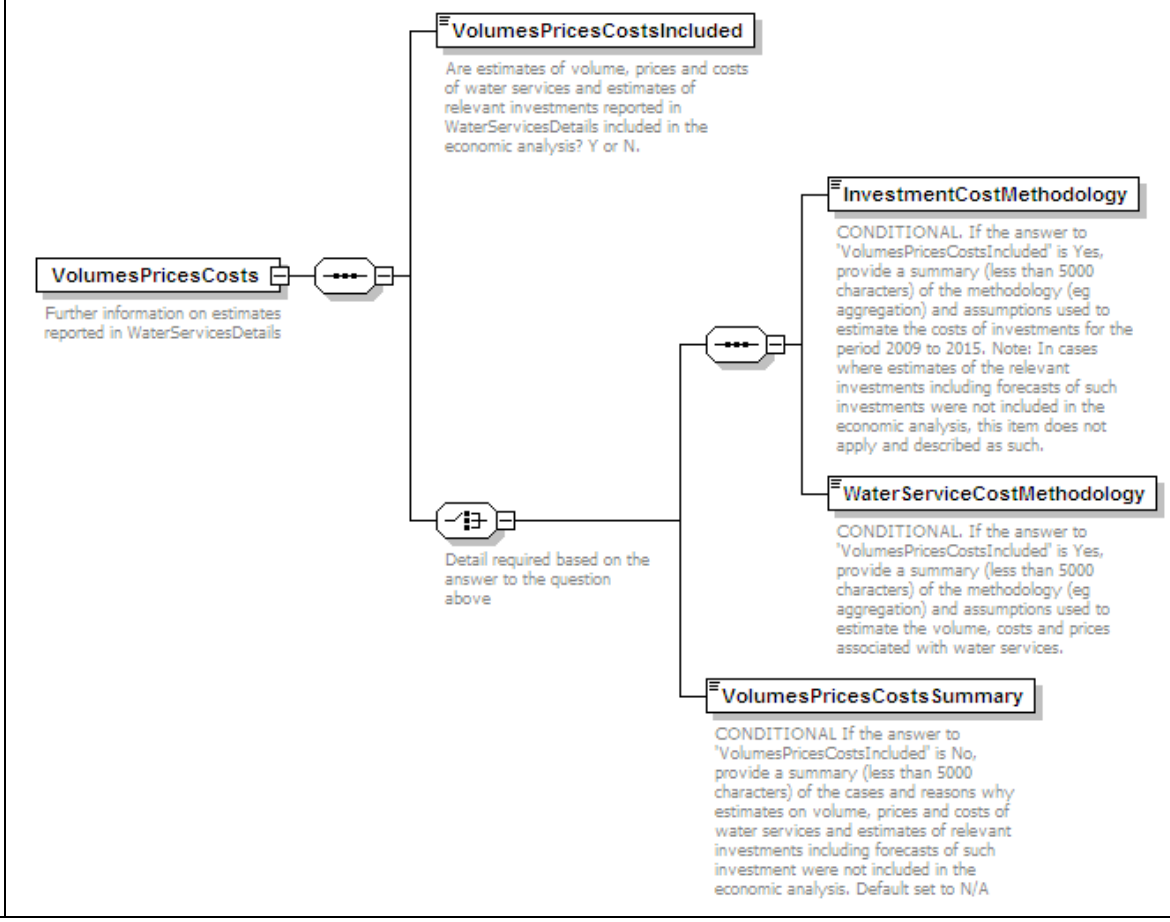
element
RiverBasinManagementPlan/EconomicAnalysis/WaterServicesDetails/WaterServicesItem

diagram



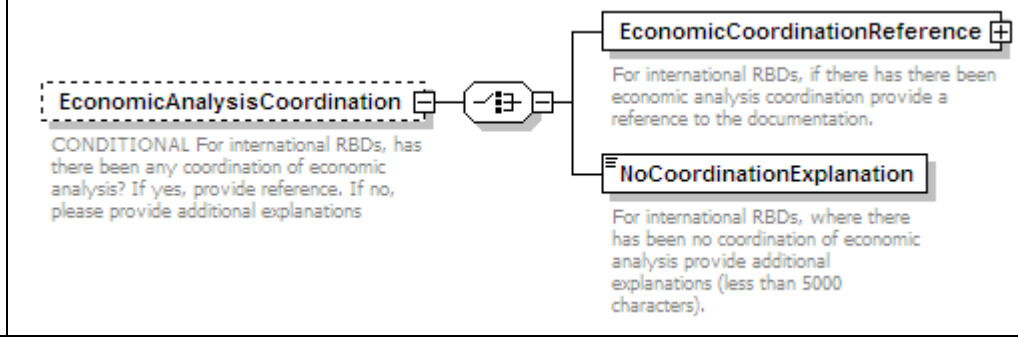
element **RiverBasinManagementPlan/EconomicAnalysis/VolumesPricesCosts**

diagram



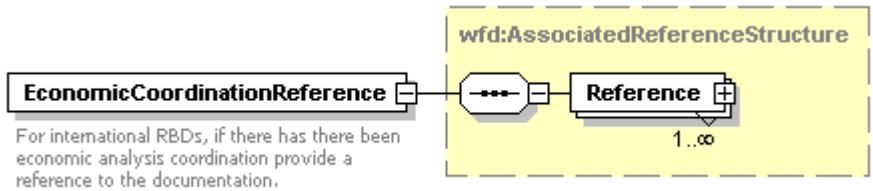
element **RiverBasinManagementPlan/EconomicAnalysis/EconomicAnalysisCoordination**

diagram



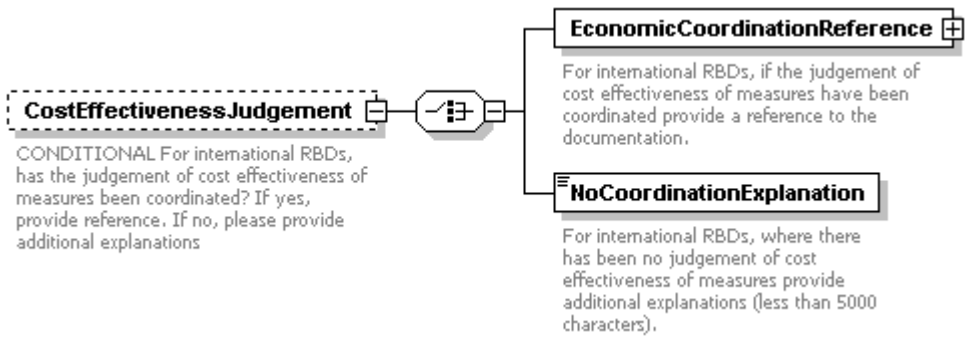
element **RiverBasinManagementPlan/EconomicAnalysis/EconomicAnalysisCoordination/EconomicCoordinationReference**

diagram



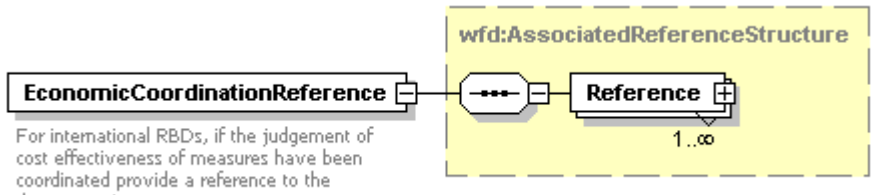
element **RiverBasinManagementPlan/EconomicAnalysis/CostEffectivenessJudgement**

diagram



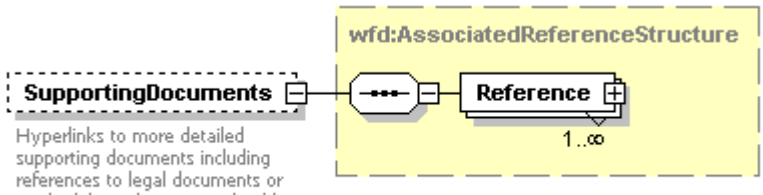
element **RiverBasinManagementPlan/EconomicAnalysis/CostEffectivenessJudgement/EconomicCoordinationReference**

diagram



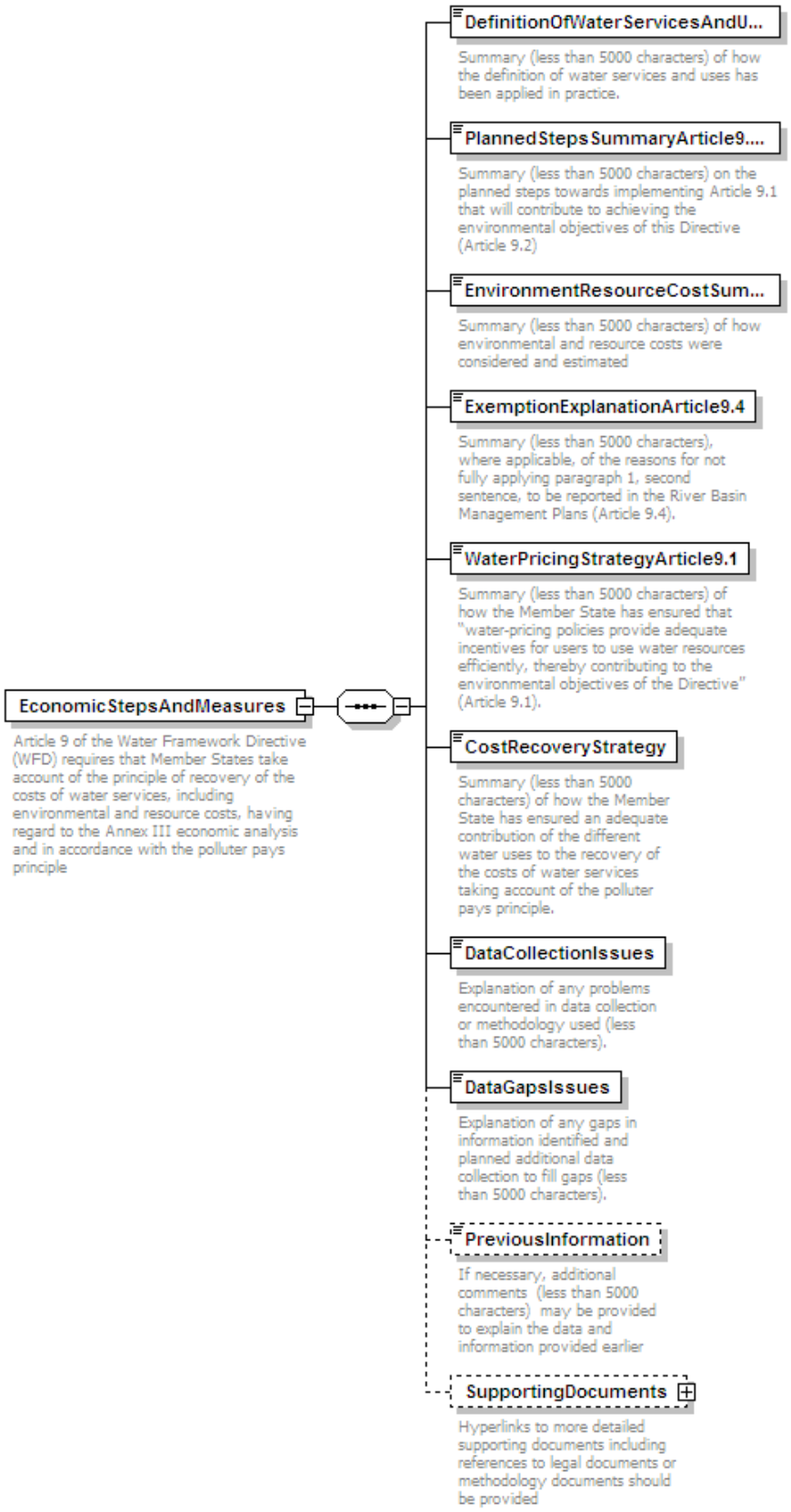
element **RiverBasinManagementPlan/EconomicAnalysis/SupportingDocuments**

diagram



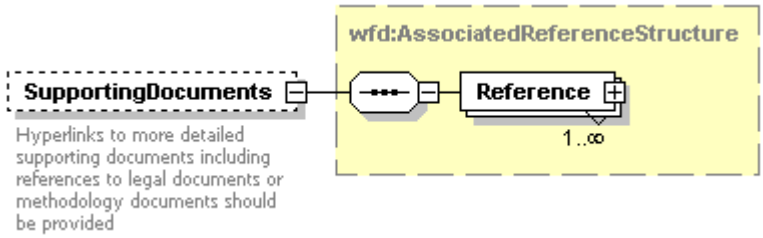
element **RiverBasinManagementPlan/EconomicStepsAndMeasures**

diagram



element **RiverBasinManagementPlan/EconomicStepsAndMeasures/SupportingDocuments**

diagram



Exemption Explanation Article 9.4

This exemption possibility is only possible to apply for "a given water-use activity", so Member States must specify which water uses are considered. It also needs to be transparently explained by Member States that applying the specific exemption does not compromise the purposes and the achievement of the objectives of the Directive

11. SCHEMA: MONITORING PROGRAMMES

11.1 Generic introduction to the three Article 8 monitoring schema

Guidance for the reporting of monitoring programmes for surface waters and groundwaters is given in sections 5 and 6, respectively, of 'Guidance document No. 21: Guidance for reporting under the Water Framework Directive'.[8]

There are three schema:

- Monitoring.xsd for reporting information at the monitoring programme levels for surface waters and groundwaters (this section);
- SurfaceWaterMonitoringStations.xsd for reporting information at the surface water monitoring station level (section 12);
- GroundWaterMonitoringStations.xsd for reporting information at the groundwater monitoring station level (section 13).

The following elements are **required** and **must** be provided for all schemas.

Element Name	Description	Status
C_CD	Member State	Required – not null
EURBDCode	River basin district code	Required – not null
REPORTING_LEVEL	Code to describe the reporting level	Required – not null

When elements are optional, and that element is not provided in the XML file by the Member State, this can mean either:

- The element was intentionally excluded ('no' means 'no');
- The element was unintentionally excluded ('no' means 'maybe').

In order to avoid this, several other elements have been designated as 'required' in the schemas. Where elements are 'required', options are provided to enable 'Not known', Not Applicable' etc to be provided as appropriate to enable the element to be populated.

Article 8 reporting is on an individual RBD basis. However, where, for example, reporting is done for a part of an RBD, it is possible to specify the reporting level and to clarify what is being reported. The schemas allow the user to specify what part of the RBD is being delivered:

[8]http://circa.europa.eu/Public/irc/env/wfd/library?l=/framework_directive/guidance_documents/guidance_guidance_report/_EN_1.0_&a=d

- An international RBD (should only be used by prior agreement);
- The national part of an international RBD;
- A national RBD;
- A regional part or Sub-unit of an RBD.

For each Quality Element, the standards and methodologies applied are required for each programme, as well as the frequency of monitoring. As many MS apply the same standards and/or methodologies etc for a Quality Element across all programmes, it is possible to define these at the RBD level. Thereafter, only deviations from the general need to be reported at either the programme or individual station level.

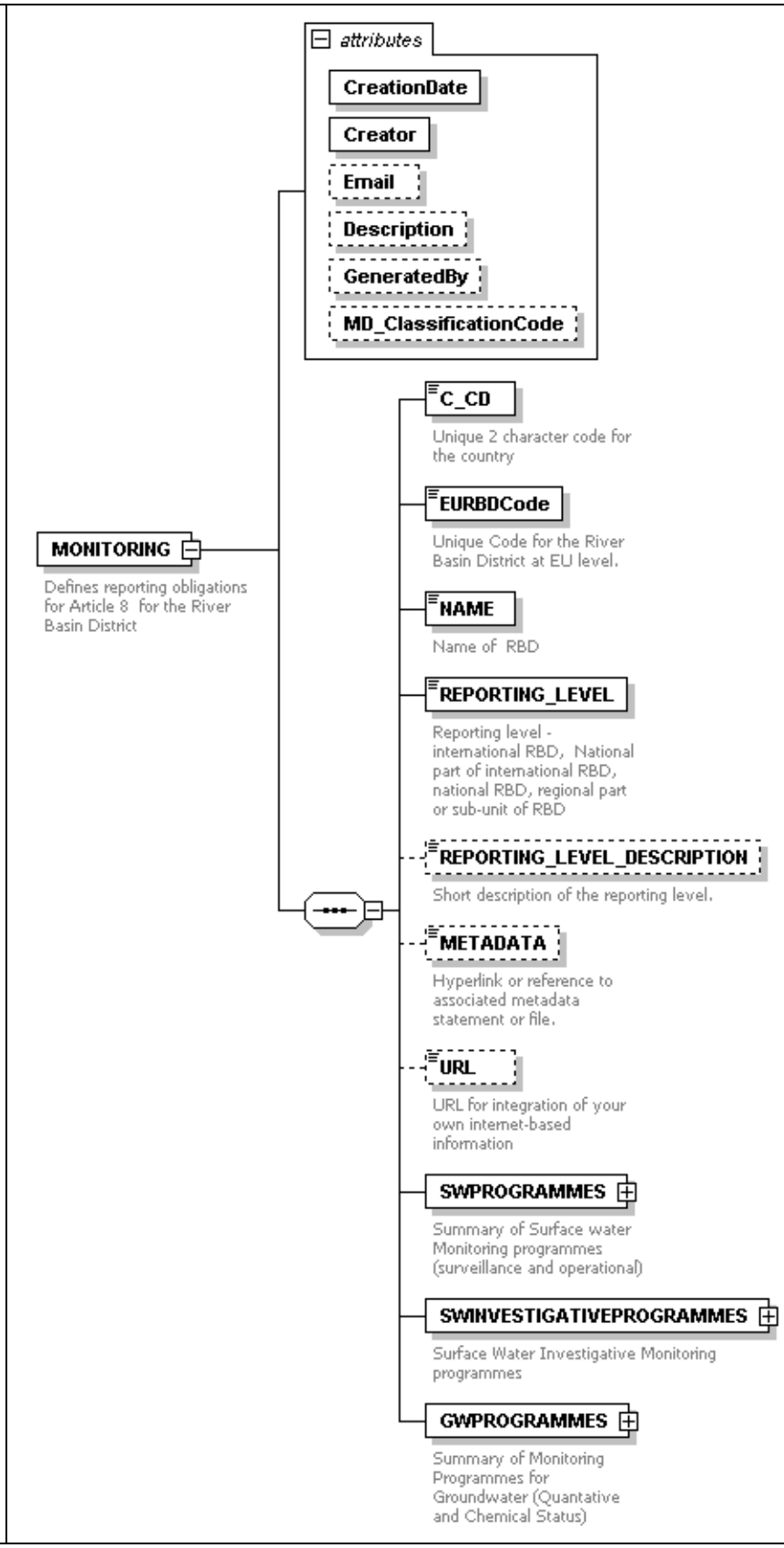
It is the responsibility of the MS to ensure that the standards, methodologies etc for each QE are provided at either the RBD, programme or monitoring station level.

11.2 Schema Monitoring.xsd

This schema deals with the reporting requirements for monitoring programmes at RBD level under Article 8.

element **MONITORING**

diagram

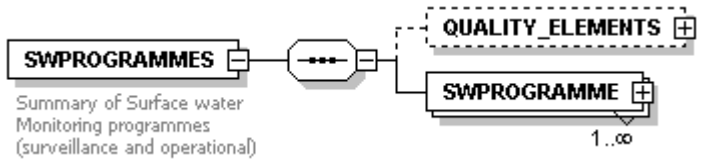


SWPROGRAMMES:
The requirement is that the data and information are reported at a RBD level, and that the information for each programme is split between the different appropriate surface water categories. In the schema, a programme is considered to comprise a number of sub-programmes and the surface water category an attribute of the sub-programme.

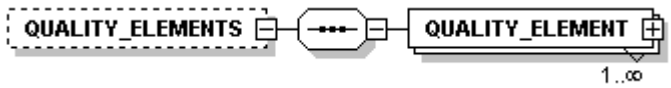
SWINVESTIGATIVEPROGRAMMES
Information is required at at two levels. A general summary of the strategy for setting up investigative monitoring should be provided. Where investigative monitoring has already taken place, information on the programme, the quality elements measured etc can be provided.

GWPROGRAMMES
For groundwater monitoring programmes extra information is required such as the usage of the site and any specific arrangements for trans-boundary GW bodies is required.

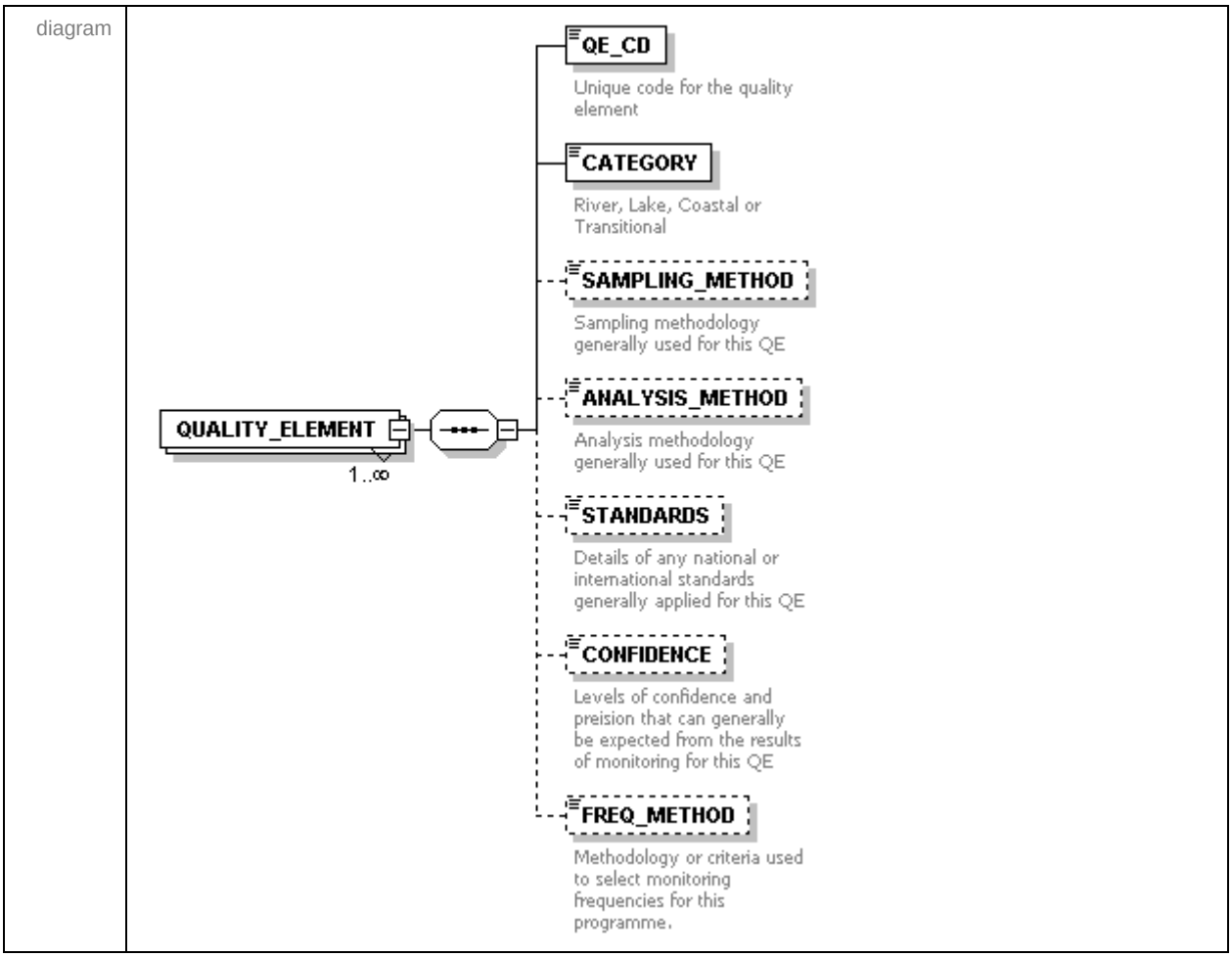
element **MONITORING/SWPROGRAMMES**

diagram	

element **MONITORING/SWPROGRAMMES/QUALITY_ELEMENTS**

diagram	

element **MONITORING/SWPROGRAMMES/QUALITY_ELEMENTS/QUALITY_ELEMENT**



There is an enumeration list (common element QECode) for the quality elements (QEs) that may be included in the monitoring of surface waters. Not all QEs are mandatory for all water categories. However MS may wish to report non-mandatory QEs for some water categories, for example, when phytoplankton is applicable to some river water body types. The codes for the four water categories are tabulated below.

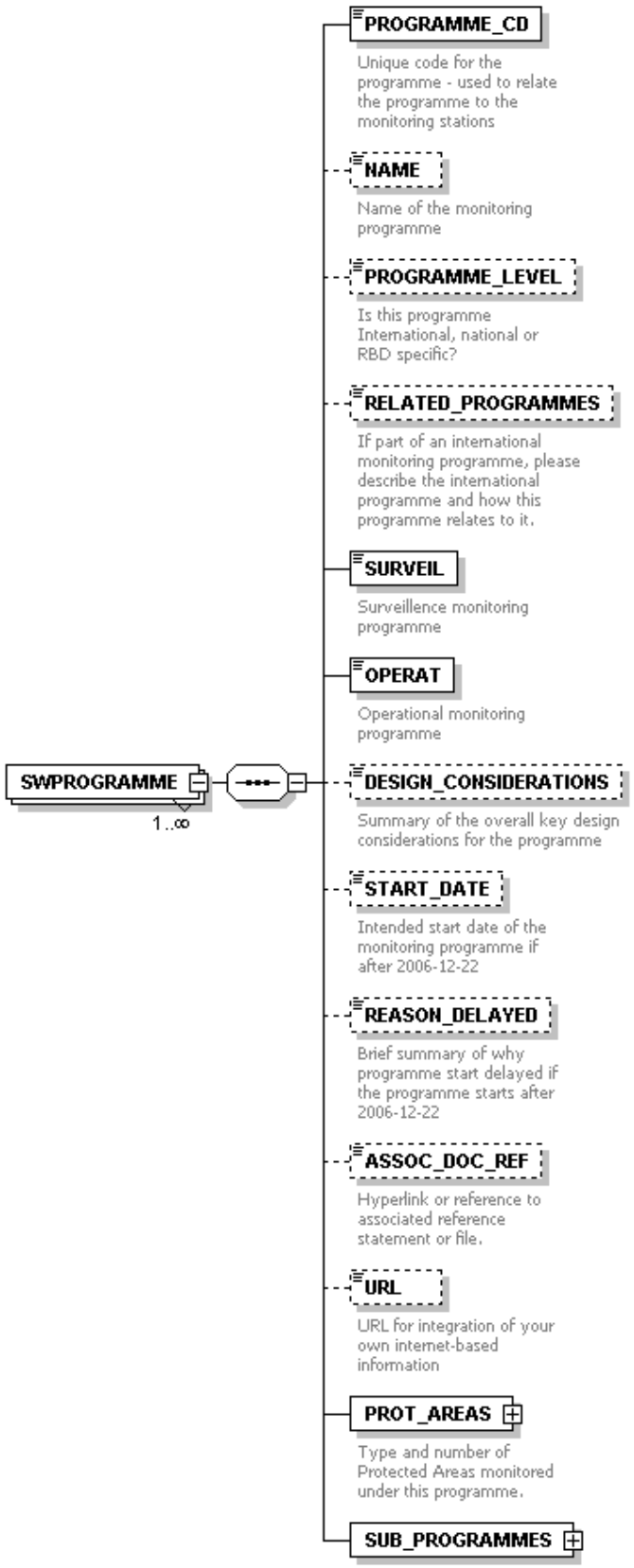
Quality Element Level 2 Documentation	**RW**	**LW**	**TW**	**CW**	**Enumeration Values**
Biological quality elements (e.g. those indicated in WFD Annex V) are determined	x	x	x	x	QE1
Composition, abundance and biomass of phytoplankton	-	x	x	x	QE1-1
Composition and abundance of other aquatic flora (e.g. angiosperms, macrophytes and phytobenthos)	x	x	x	x	QE1-2
Composition, abundance and diversity of benthic invertebrate fauna	x	x	x	x	QE1-3
Composition, abundance and age structure of fish	x	x	x	-	QE1-4
Other non-mandatory species (e.g. zooplankton)	x	x	x	x	QE1-5

Hydromorphological quality elements (e.g. those indicated in WFD, Annex V) are determined	x	x	x	x	QE2
Hydrological regime rivers – hydrological parameters (e.g. those indicated by Annex 5) are determined	x	-	-	-	QE2-1
- Quantity and dynamics of water flow	x				QE2-1-1
- Connection to groundwater bodies	x				QE2-1-2
River continuity	x				QE2-2
Morphological conditions rivers - morphological parameters (e.g. those indicated by Annex 5) are determined	x				QE2-3
- River depth and width variation	x				QE2-3-1
- Structure and substrate of the river bed	x				QE2-3-2
- Structure of the riparian zone	x				QE2-3-3
Hydrological regime lakes – hydrological parameters (e.g. those indicated by Annex 5) are determined	-	x	-	-	QE2-4
- Quantity and dynamics of water flow		x			QE2-4-1
- Residence time		X			QE2-4-2
- Connection to groundwater bodies		x			QE2-4-3
Morphological conditions lakes morphological parameters (e.g. those indicated by Annex 5) are determined	-	x	-	-	QE2-5
- Lake depth variation		x			QE2-5-1
- Quantity, structure and substrate of the lake bed		x			QE2-5-2
- Structure of the lake shore		x			QE2-5-3
Morphological conditions transitional and coastal waters – morphological parameters (e.g. those indicated by Annex 5) are determined	-	-	x	x	QE2-6
- Depth variation			X	X	QE2-6-1
- Quantity, structure and substrate of the bed			X	X	QE2-6-2
Tidal regime transitional waters – tidal parameters (e.g. those indicated by Annex 5) are determined	-	-	x	-	QE2-7
- Freshwater flow			X		QE2-7-1
- Wave exposure			X		QE2-7-2
Tidal regime coastal waters – tidal parameters (e.g. those indicated by Annex 5) are determined	-	-	-	x	QE2-8
- direction of dominant currents				X	QE2-8-1
- wave exposure				X	QE2-8-2

The QEs are expressed at three levels of aggregation: e.g level 1, biological QEs (QE1); level 2, other aquatic flora (QE1-2); and level 3, macroalgae (QE1-2-1). Level 2 (highlighted in yellow) is the minimum recommended level for the reporting of monitoring programmes.

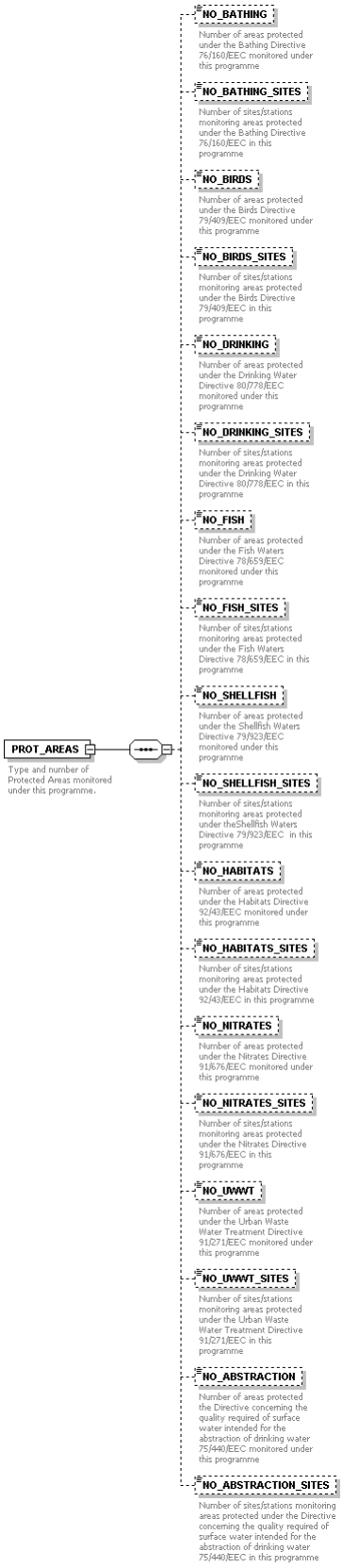
element **MONITORING/SWPROGRAMMES/SWPROGRAMME**

diagram

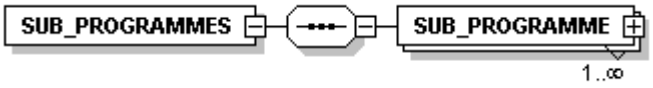


element **MONITORING/SWPROGRAMMES/SWPROGRAMME/PROT_AREAS**

diagram

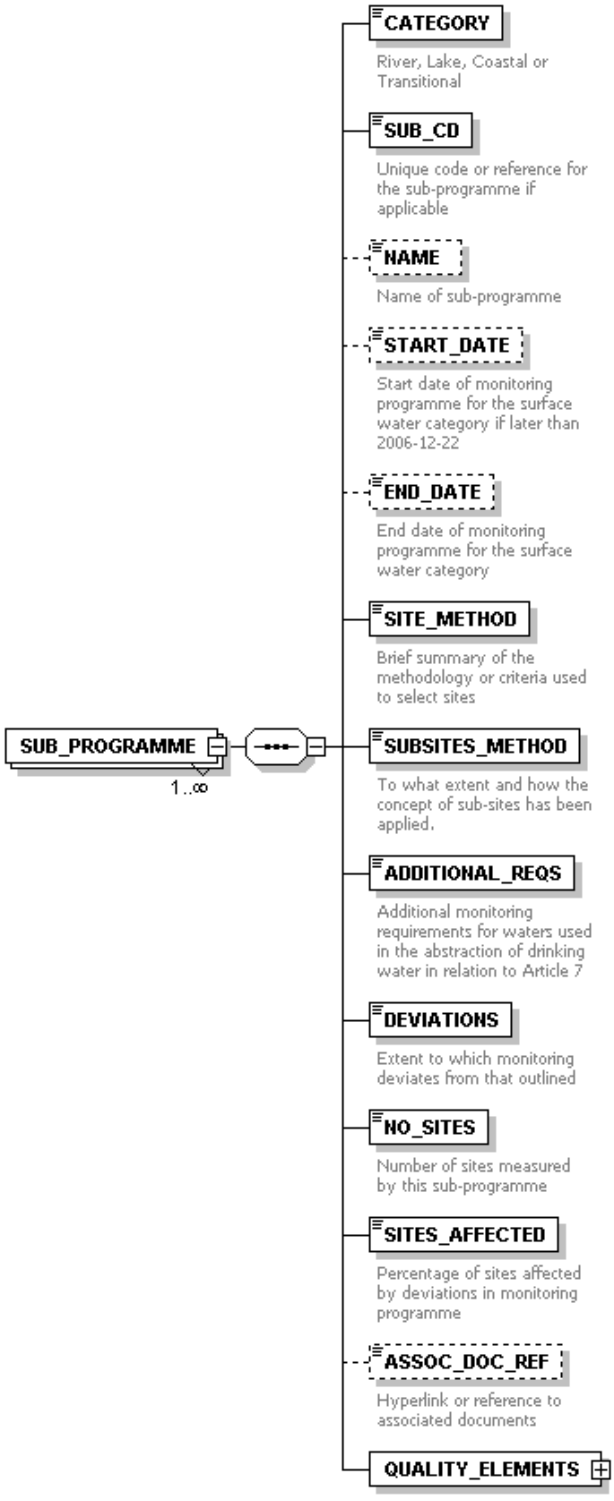


element **MONITORING/SWPROGRAMMES/SWPROGRAMME/SUB_PROGRAMMES**

diagram	

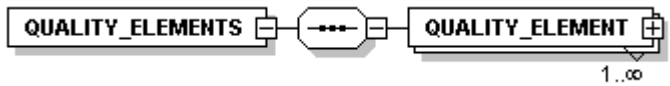
element
MONITORING/SWPROGRAMMES/SWPROGRAMME/SUB_PROGRAMMES/SUB_PROGRAMME

diagram



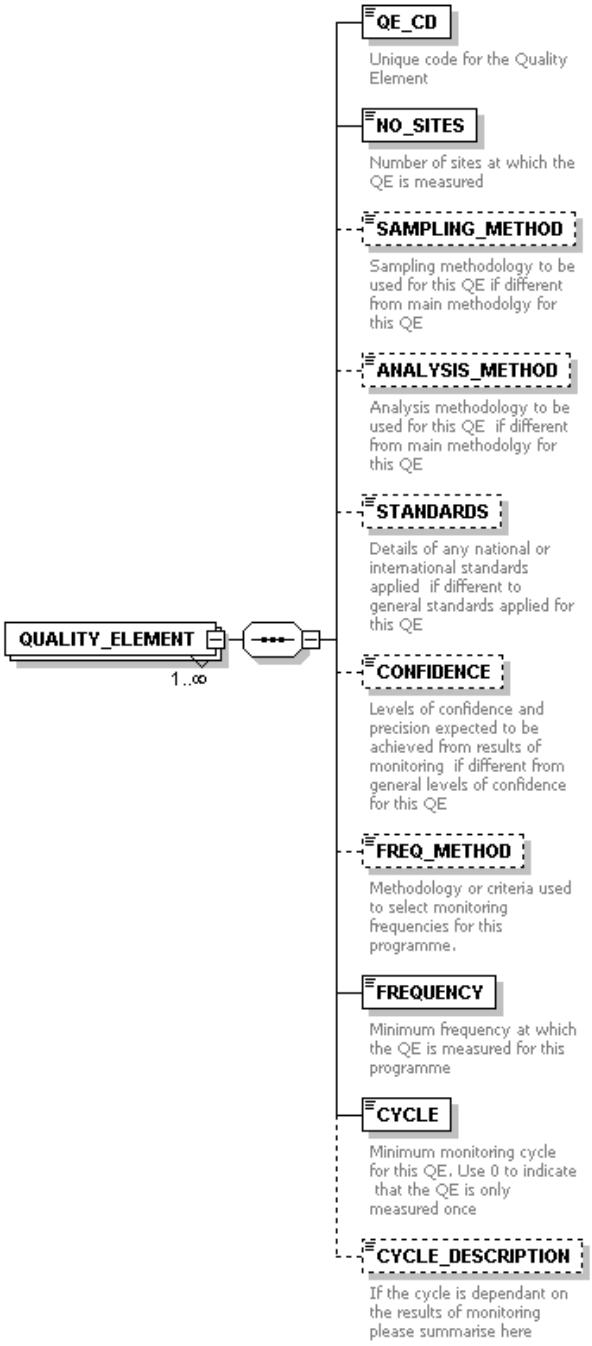
element
MONITORING/SWPROGRAMMES/SWPROGRAMME/SUB_PROGRAMMES/SUB_PROGRAMME/QUALITY_ELEMENTS

diagram



element
MONITORING/SWPROGRAMMES/SWPROGRAMME/SUB_PROGRAMMES/SUB_PROGRAMME/QUALITY_ELEMENTS/QUALITY_ELEMENT

diagram



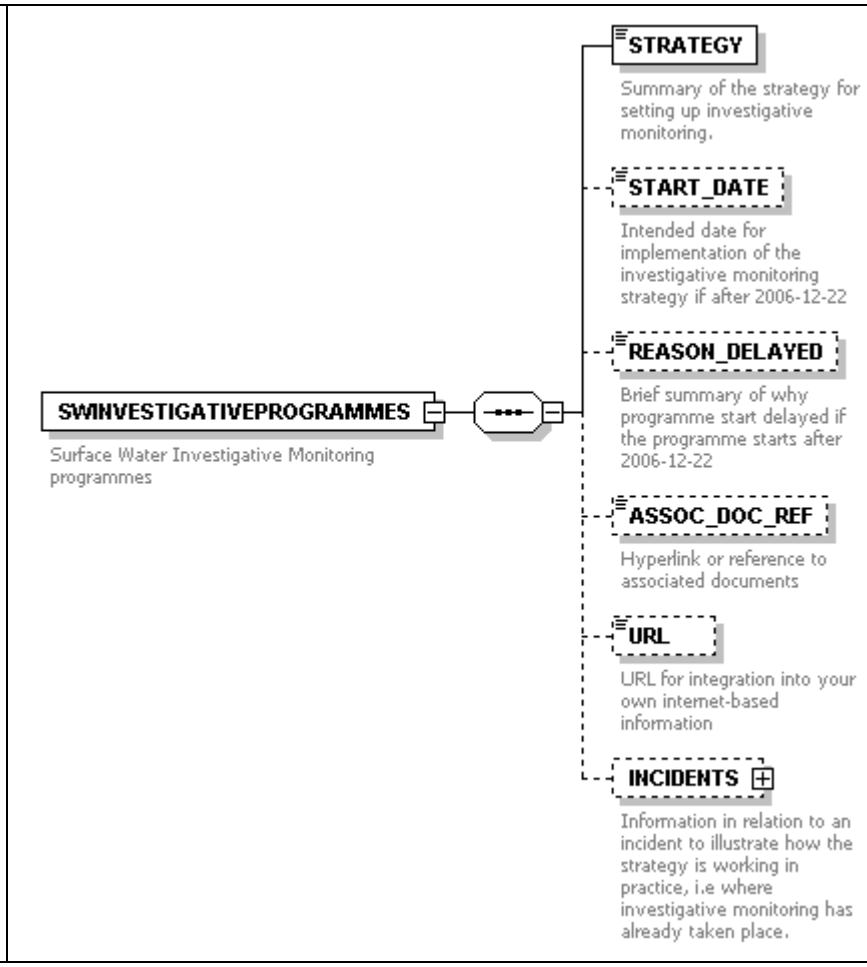
The FREQUENCY and CYCLE elements are used together to describe the frequency at which the elements are determined. Some examples are given below:

FREQUENCY	CYCLE	DESCRIPTION
12	1	The element is determined monthly every year
1	2	The element is determined once every two years
12	0	The element is determined monthly for one year only (i.e. the cycle is not repeated)

Note: For many programmes, an element will be monitored a number of times per year for the first year and future monitoring frequencies will depend on the results of this initial monitoring. If this is the case, then please indicate this using the CYCLE_DESCRIPTION element.

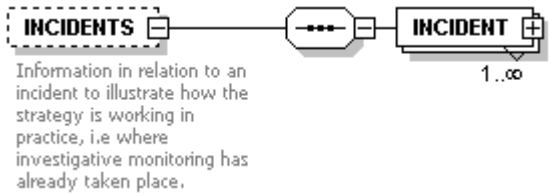
element **MONITORING/SWINVESTIGATIVEPROGRAMMES**

diagram



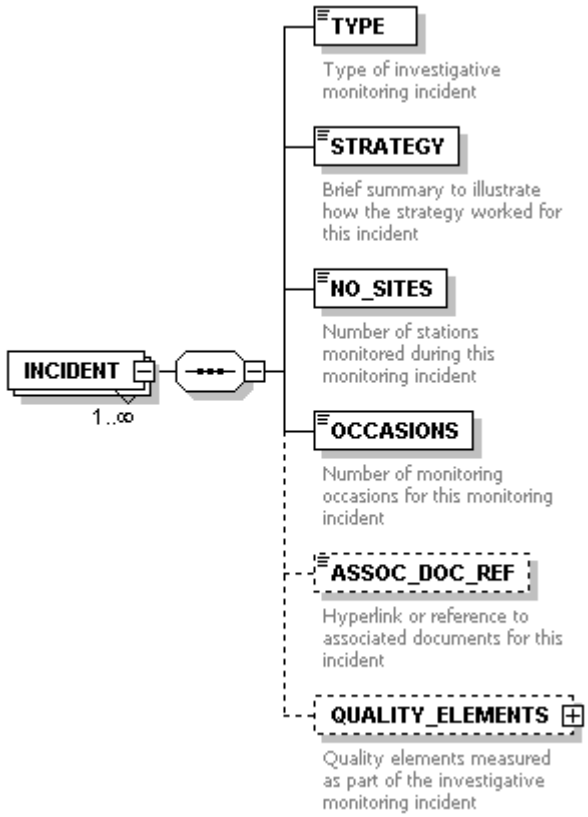
element **MONITORING/SWINVESTIGATIVEPROGRAMMES/INCIDENTS**

diagram



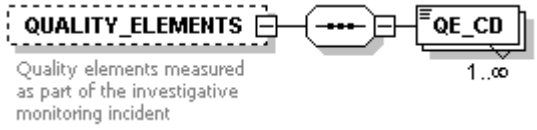
element **MONITORING/SWINVESTIGATIVEPROGRAMMES/INCIDENTS/INCIDENT**

diagram

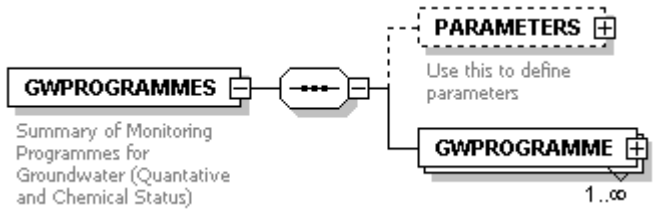


element **MONITORING/SWINVESTIGATIVEPROGRAMMES/INCIDENTS/INCIDENT/QUALITY_ELEMENTS**

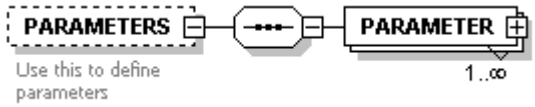
diagram



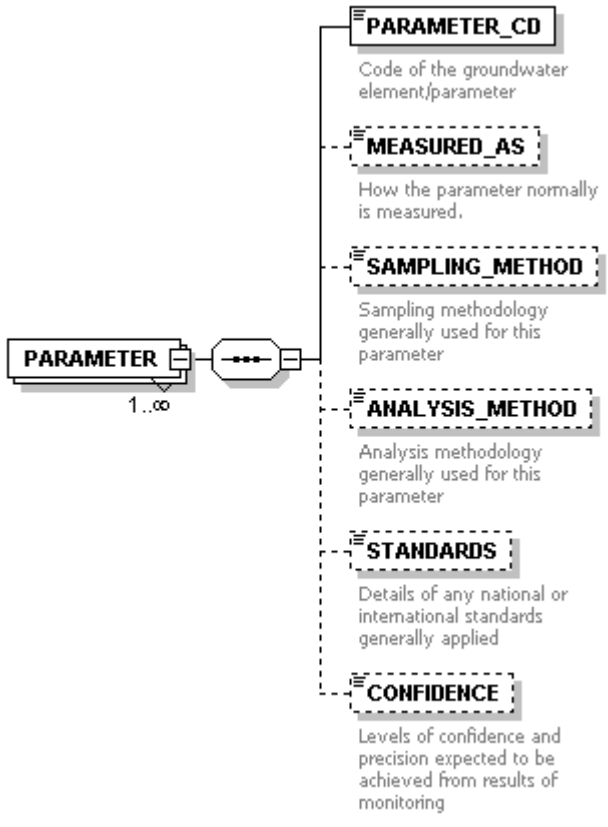
element **MONITORING/GWPROGRAMMES**

diagram	

element **MONITORING/GWPROGRAMMES/PARAMETERS**

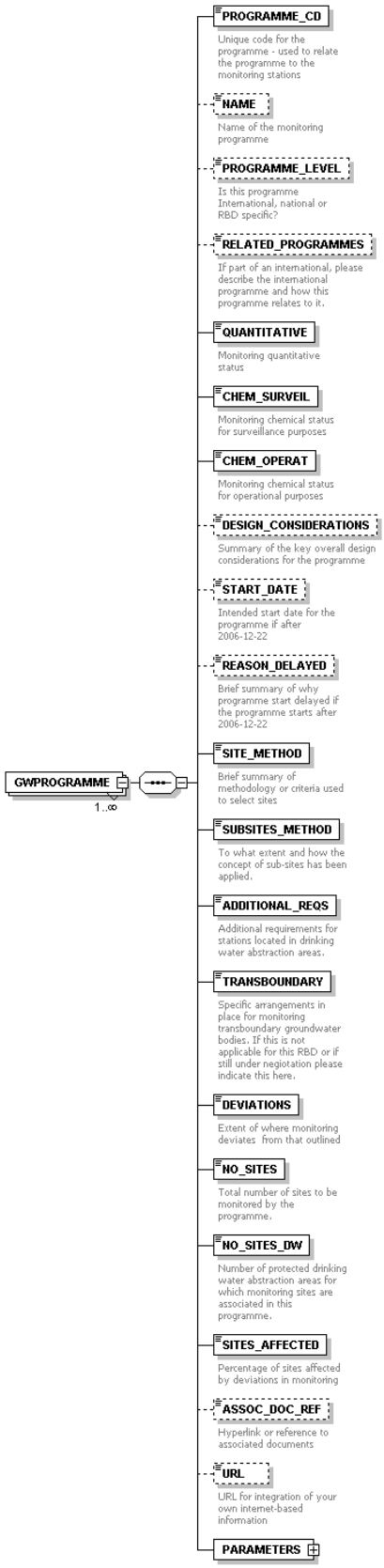
diagram	

element **MONITORING/GWPROGRAMMES/PARAMETERS/PARAMETER**

diagram	

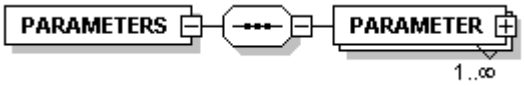
element **MONITORING/GWPROGRAMMES/GWPROGRAMME**

diagram



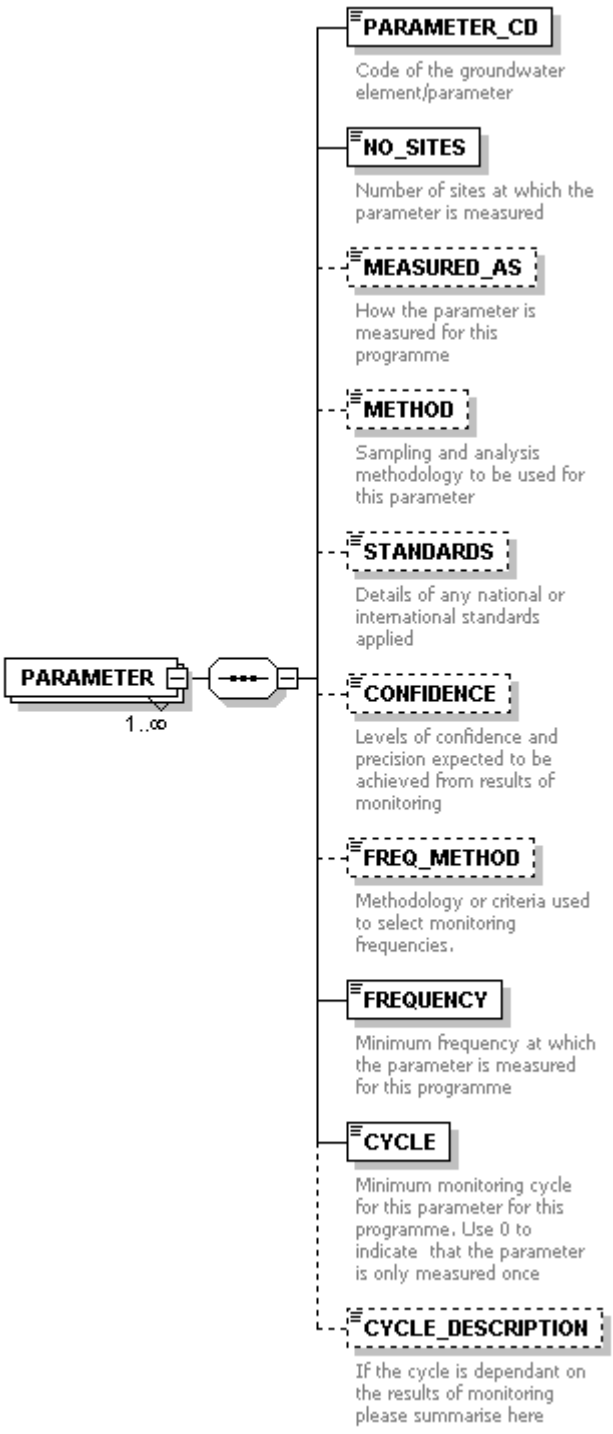
element **MONITORING/GWPROGRAMMES/GWPROGRAMME/PARAMETERS**

diagram



element **MONITORING/GWPROGRAMMES/GWPROGRAMME/PARAMETERS/PARAMETER**

diagram



The enumeration codes for reporting the parameters monitored in groundwater monitoring programmes are given below. They are at two levels of aggregation for chemical status monitoring. The parameters are taken from Annex V.2.4.2 of the WFD and are considered to be the core parameters for the surveillance monitoring of groundwater chemical status. It should be noted that Annex II, Part B of the Groundwater Directive (2006/118/EEC) contains a minimum list of pollutants for which MSs have to consider establishing threshold values in accordance with Article 3. The latter lists more pollutants than contained in the Table below. If these are included in monitoring programmes then they should be reported as GE3 with details of which parameter is being monitored being reported in element "MEASURED_AS" (maximum of 250 characters).

Parameters	**Enumeration Values**
Groundwater level	GE1
Groundwater level	GE1-1
Groundwater yield	GE1-2
General parameters – all sub-elements below are determined (as described by Annex V of the WFD.)	GE2
- Oxygen content	GE2-1
- pH Valuef	GE2-2
- Conductivity	GE2-3
- Nitrate	GE2-4
- Ammonium	GE2-5
Other pollutants (e.g. other pollutants not covered above) are determined	GE3

The FREQUENCY and CYCLE elements are used together to describe the frequency at which the elements are determined. Some examples are given below

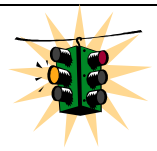
FREQUENCY	**CYCLE**	**DESCRIPTION**
12	1	The element is determined monthly every year
1	2	The element is determined once every two years
12	0	The element is determined monthly for one year only (i.e. the cycle is not repeated)

Note: For many programmes, an element will be monitored a number of times per year for the first year and future monitoring frequencies will depend on the results of this initial monitoring. If this is the case, then please indicate this using the CYCLE_DESCRIPTION element.

12. SCHEMA: SURFACE WATER MONITORING PROGRAMMES

Schema **SurfaceWaterMonitoringStations.xsd**

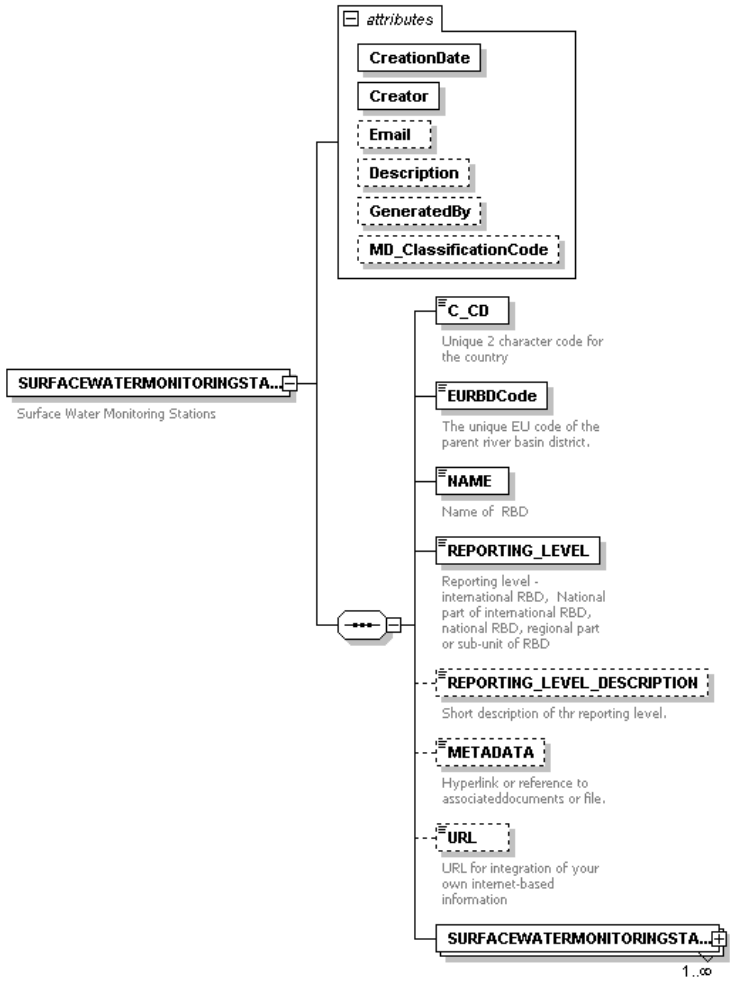
This schema deals with the reporting requirements for surface water monitoring programmes at the monitoring site level under Article 8.



Look Out!
Experience with MSs' Article 8 reports delivered in March 2007 shows that it is very important that details of the monitoring undertaken is reported at the individual site level. If this is not the case it will not be possible for the Commission to obtain a quantitative and comparable assessment of aspects of the monitoring undertaken across the EU. MSs are therefore requested to report on all the elements in the "stations" schema for which there is available information.

element **SURFACEWATERMONITORINGSTATIONS**

diagram

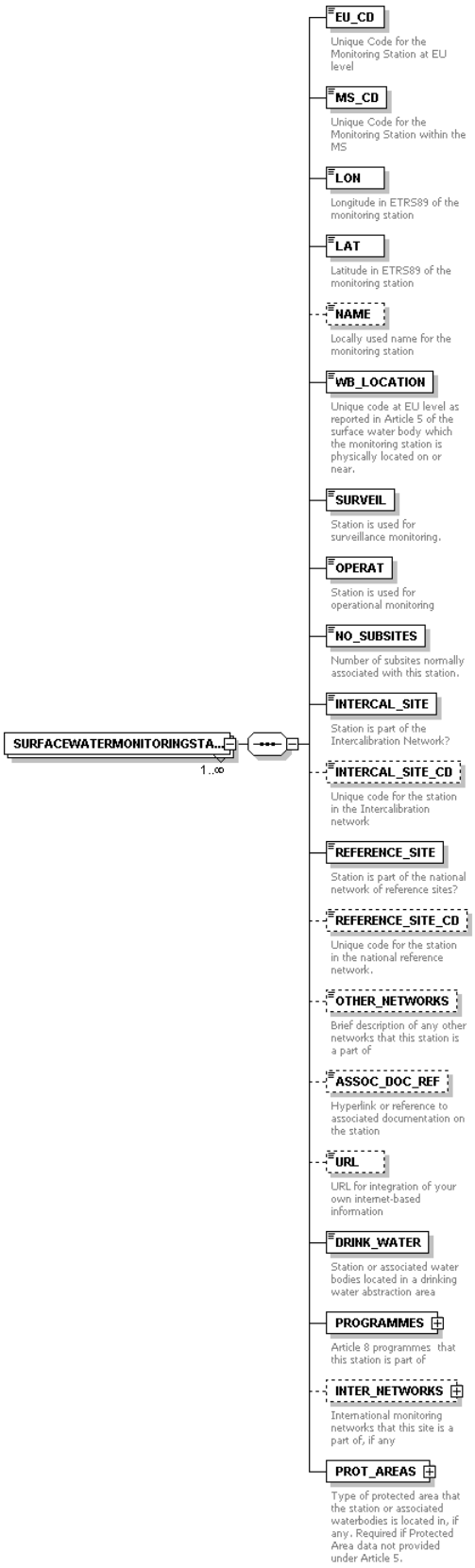


The following elements are **required** and these **must** be provided.

Element Name	Description	Status
C_CD	Member State	Required – not null
EURBDCode	River basin district code	Required – not null
EU_CD	Unique code for the monitoring station at EU level	Required – not null
MS_CD	Unique code for the monitoring station within the member state	Required – not null
LON	Longitude in ETRS89 of the monitoring station	Required – not null
LAT	Latitude in ETRS89 of the monitoring station	Required – not null
WB_LOCATION	Unique code at EU level of the surface water body which the monitoring station is physically located on or near. As previously reported for Article 5 or reported in the SWB.xsd schema (section 6 of this guide).	Required – not null. Should correspond to WB code provided by Article 5 reporting
SURVEIL	Is the station used for surveillance monitoring?	Required – Yes/No
OPERAT	Is the station used for operational monitoring	Required – Yes/No
NO_SUBSITES	Number of subsites normally associated with this station.	• Required non negative integer • -9999 unknown • -8888 yet to be measured • -7777 not applicable
INTERCAL_SITE	Is the site part of the intercalibration network	Required – Yes/No/Unknown
REFERENCE_SITE	Is the site part of a national network of reference sites	Required – Yes/No/Unknown
DRINK_WATER	Station or associated water bodies located in a drinking water abstraction area	Required – Yes/No/Unknown

element **SURFACEWATERMONITORINGSTATIONS/SURFACEWATERMONITORINGSTATION**

diagram

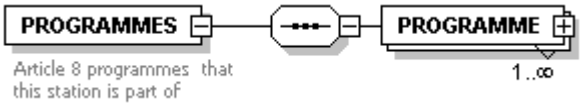


It is requested that stations are identified as being part of the intercalibration network or of the national reference network. Any other international networks that the station is part of (such as EIONET) should also be identified.

Monitoring network information is asked for at two levels. The schema specifically asks if the site is part of the intercalibration network and/or the national reference network. The code or name of the station in the network should also be provided if this is different from the EU_CD. This is included in the main part of the schema.

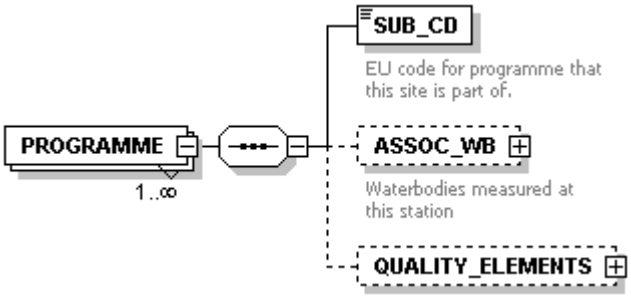
element
SURFACEWATERMONITORINGSTATIONS/SURFACEWATERMONITORINGSTATION/PROGRAMMES

diagram



element
SURFACEWATERMONITORINGSTATIONS/SURFACEWATERMONITORINGSTATION/PROGRAMMES/PROGRAMME

diagram



A monitoring station may partake in one or more programmes. The codes of the programmes should be given. These codes must correspond to the unique programme code provided in the general monitoring schema.

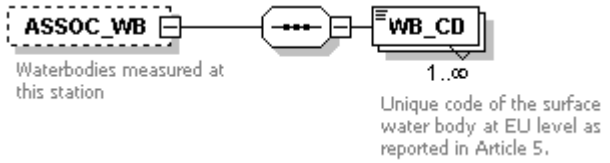
If all quality elements indicated by the sub-programme are measured at each water body associated with the monitoring station, the codes of the water bodies can be provided here. **Note:** because the sub-programme is linked to the surface water body category, the water bodies should be of the same category.

Any deviations in the quality elements from that described by the sub-programme should also be provided here using the <QUALITY_ELEMENTS> element. If some quality elements are only measured at specific water bodies, then these should be recorded here.

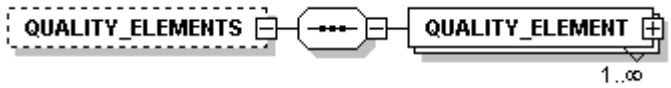
It is the Member State responsibility to ensure that the codes of the water bodies associated with the monitoring station are provided at **either** the programme or quality element level.

Further information may also be provided for each quality element including the type of subsites (transect, area, multipoint etc).

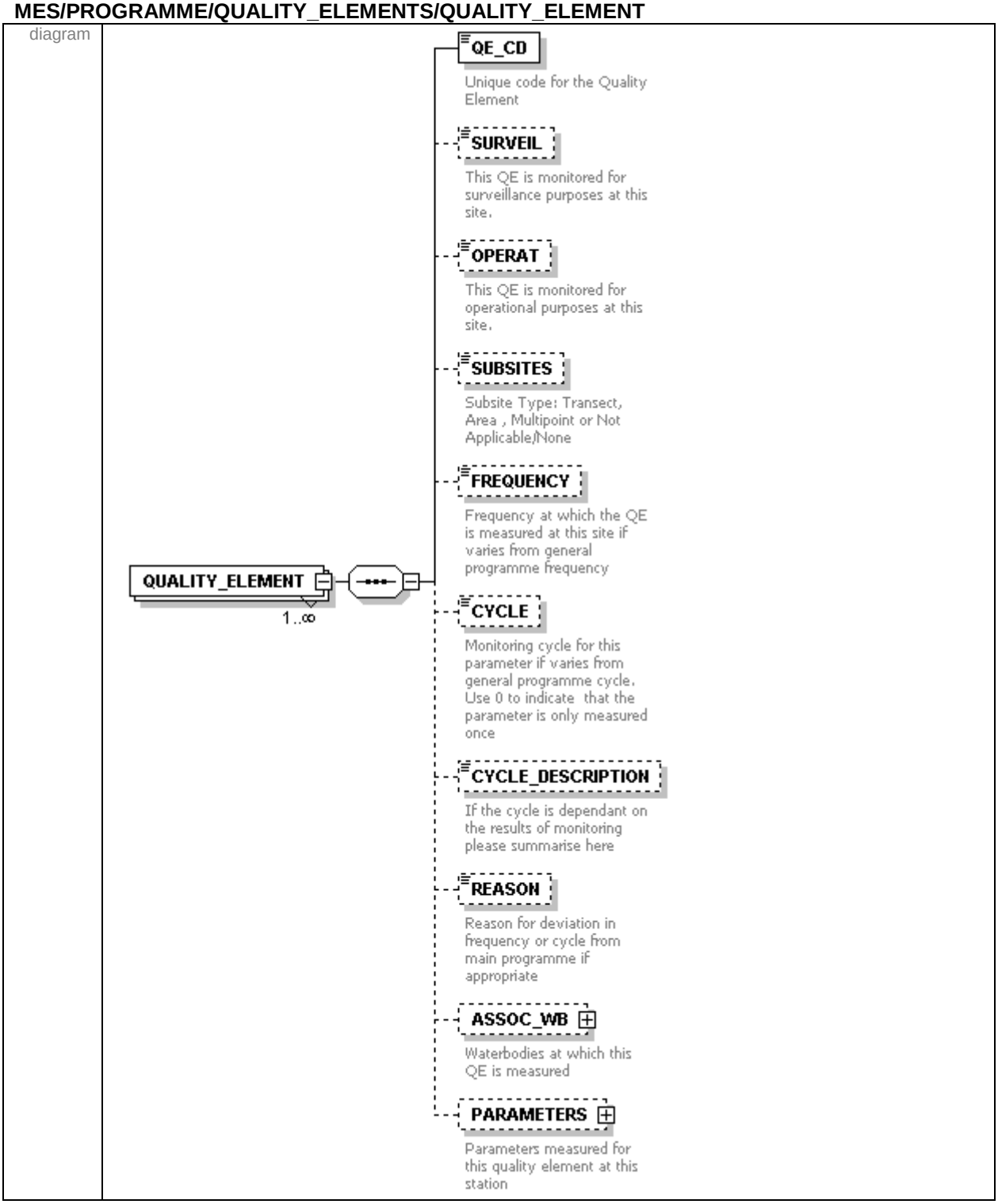
element
SURFACEWATERMONITORINGSTATIONS/SURFACEWATERMONITORINGSTATION/PROGRAMMES/PROGRAMME/ASSOC_WB

diagram	

element
SURFACEWATERMONITORINGSTATIONS/SURFACEWATERMONITORINGSTATION/PROGRAMMES/PROGRAMME/QUALITY_ELEMENTS

diagram	

element
SURFACEWATERMONITORINGSTATIONS/SURFACEWATERMONITORINGSTATION/PROGRAMMES/PROGRAMME/QUALITY_ELEMENTS/QUALITY_ELEMENT



The quality elements monitored at each station for operational and surveillance purposes should be reported. The codes for element "QE_CD" are given in section 11.2. For each quality element, the following data items are required:

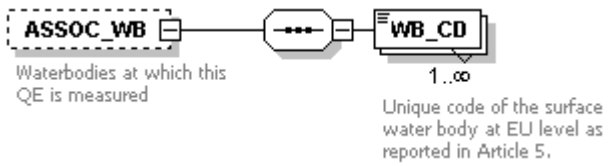
ELEMENT NAME	STATUS	DESCRIPTION	ISSUES
QE_CD	**Required**	The code for the quality element.	
SUBSITES	**Required**	Types of subsites.	
ASSOC_WB	**Required.** Must be at least one water body.	The EU codes for the water bodies for which the QE is measured.	The surface water monitoring station must be associated with at least one surface water body. Surface water body codes should be unique across all surface water categories and therefore, only the water body code is requested by the schema. The waterbody codes provided must be reported under Article 5.

The parameters measured for the QE may optionally be provided.

Note: The Frequency and cycle of monitoring need only be provided if this differs from the monitoring frequency and cycle outlined in the programme definition or at the RBD level

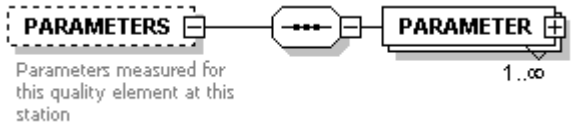
element
SURFACEWATERMONITORINGSTATIONS/SURFACEWATERMONITORINGSTATION/PROGRAMMES/PROGRAMME/QUALITY_ELEMENTS/QUALITY_ELEMENT/ASSOC_WB

diagram



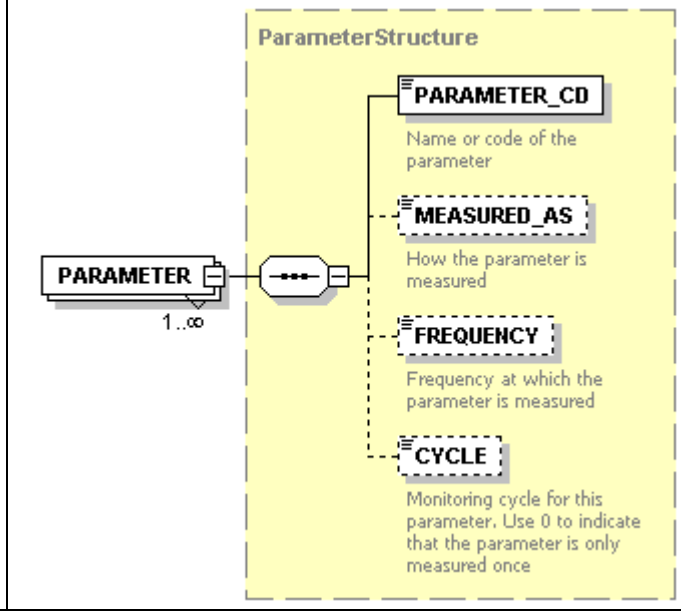
element
SURFACEWATERMONITORINGSTATIONS/SURFACEWATERMONITORINGSTATION/PROGRAMMES/PROGRAMME/QUALITY_ELEMENTS/QUALITY_ELEMENT/PARAMETERS

diagram



element
SURFACEWATERMONITORINGSTATIONS/SURFACEWATERMONITORINGSTATION/PROGRAMMES/PROGRAMME/QUALITY_ELEMENTS/QUALITY_ELEMENT/PARAMETERS/PARAMETER

diagram

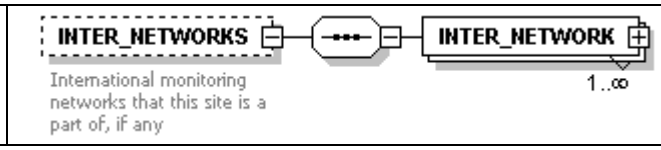


For surface water monitoring, parameters are an optional delivery at the station level. This is in response to the MS comments that the parameters measured for a QE may vary over time, making the compilation of the data difficult, and at risk of being quickly out-dated.

Note that no lists of parameters have been defined. Instead a free-text entry of the name of the parameter and how the parameter is measured is required, and as for QE, the minimum monitoring frequency and monitoring cycle.

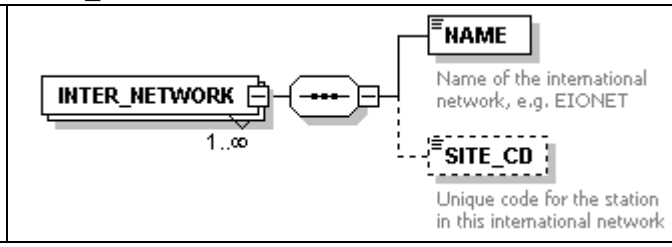
element
SURFACEWATERMONITORINGSTATIONS/SURFACEWATERMONITORINGSTATION/INTER_NETWORKS

diagram



element
SURFACEWATERMONITORINGSTATIONS/SURFACEWATERMONITORINGSTATION/INTER_NETWORKS/INTER_NETWORK

diagram

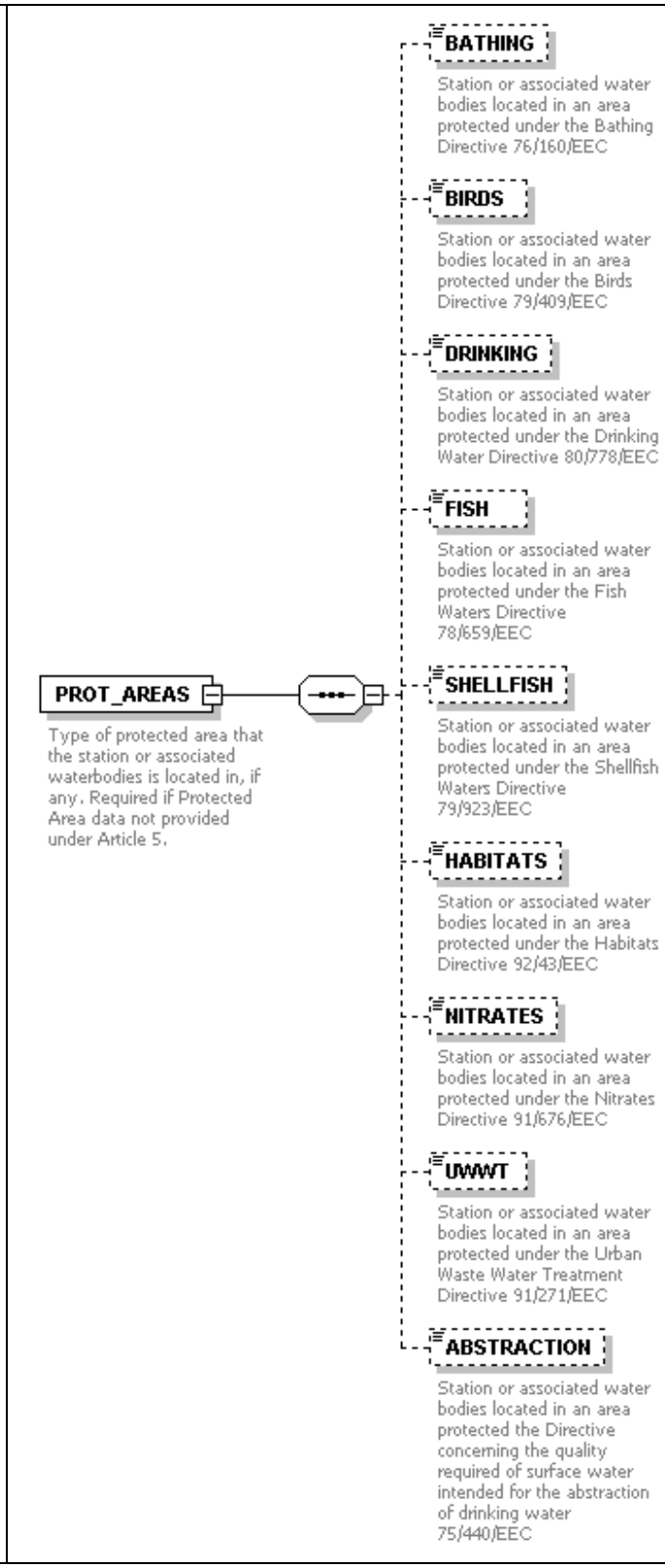


For international networks, the code of the international network should be provided, and the

code of the station in the network should be given if different from the EU_CD.

element
SURFACEWATERMONITORINGSTATIONS/SURFACEWATERMONITORINGSTATION/PROT_AREAS

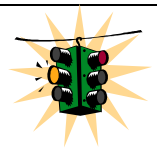
diagram



13. SCHEMA: GROUNDWATER MONITORING PROGRAMMES

GroundWaterMonitoringStations.xsd

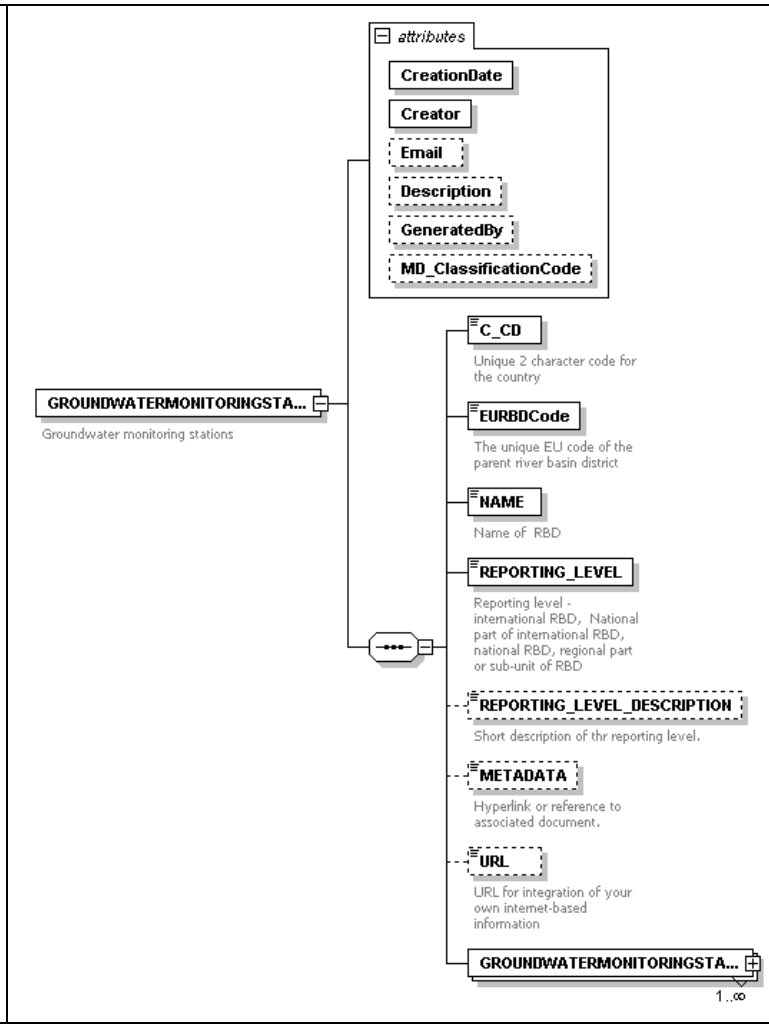
This schema deals with the reporting requirements for groundwater monitoring programmes at site level under Article 8.



Look Out!
Experience with MSs' Article 8 reports delivered in March 2007 shows that it is very important that details of the monitoring undertaken is reported at the individual site level. If this is not the case it will not be possible for the Commission to obtain a quantitative and comparable assessment of aspects of the monitoring undertaken across the EU. MSs are therefore requested to report on all the elements in the "stations" schema for which there is available information.

element **GROUNDWATERMONITORINGSTATIONS**

diagram

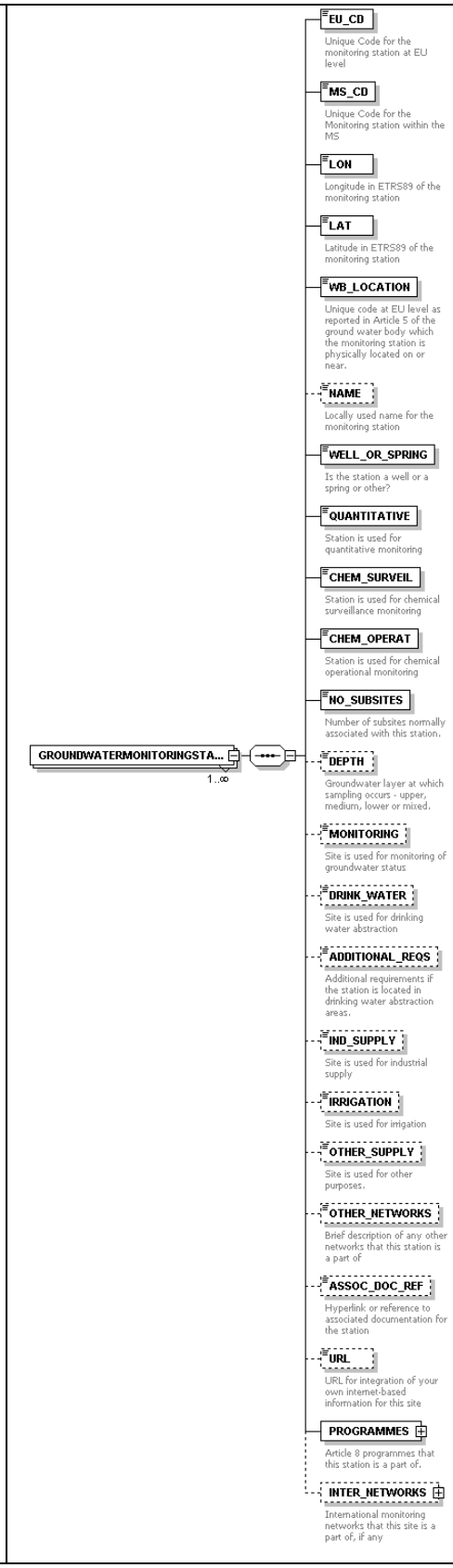


The following elements are **required** and **must** be provided.

Element Name	**Description**	**Status**
C_CD	Member State	Required – not null
EURBDCode	River basin district code	Required – not null
EU_CD	Unique code for the monitoring station at EU level	Required – not null
MS_CD	Unique code for the monitoring station within the member state	Required – not null
LON	Longitude in ETRS89 of the monitoring station	Required – not null
LAT	Latitude in ETRS89 of the monitoring station	Required – not null
WB_LOCATION	Unique code at EU level of the ground water body which the monitoring station is physically located on or near. As previously reported for Article 5 or reported in the GWB.xsd schema (section 7 of this guide).	Required – not null.
WELLORSPRING	Is the station a well or a spring?	Required – Yes/No
QUANTITATIVE	Is the station used for quantitative monitoring?	Required – Yes/No
CHEM_SURVEIL	Is the station used for chemical surveilance monitoring	Required – Yes/No
CHEM_OPERAT	Is the station used for chemical operational monitoring	Required – Yes/No
NO_SUBSITES	Number of subsites normally associated with this station.	• Required non negative integer • -9999 unknown • -8888 yet to be measured • -7777 not applicable

element **GROUNDWATERMONITORINGSTATIONS/GROUNDWATERMONITORINGSTATION**

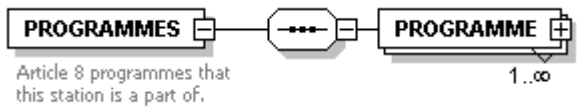
diagram



element

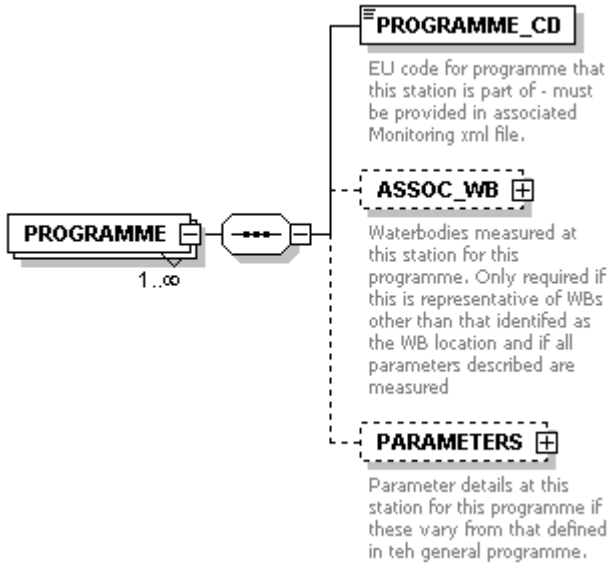
GROUNDWATERMONITORINGSTATIONS/GROUNDWATERMONITORINGSTATION/PROGRAMMES

diagram



element
GROUNDWATERMONITORINGSTATIONS/GROUNDWATERMONITORINGSTATION/PROGRAMMES/PROGRAMME

diagram



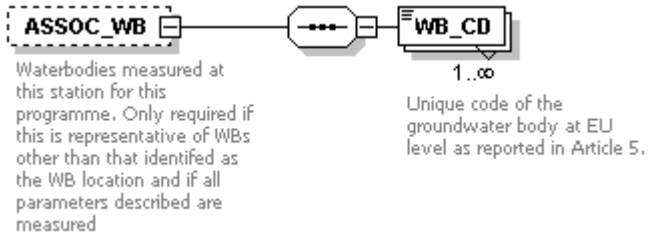
A groundwater monitoring station may partake in one or more programme. The codes of the programmes should be given. These codes should correspond to the unique programme code provided in the general Monitoring schema.

If all parameters indicated by the programme are measured at each groundwater body associated with the monitoring station, the codes of the water bodies can be provided here.

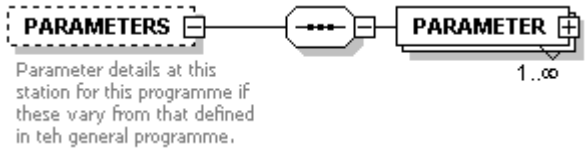
Any deviations in the parameters from that described by the programme should also be provided here using the <PARAMETERS> element. If some parameters are only measured at specific groundwater bodies, then these should be recorded here.

It is the Member State responsibility to ensure that the codes of the water bodies associated with the monitoring station are provided at **either** the programme or the parameter level.

element
GROUNDWATERMONITORINGSTATIONS/GROUNDWATERMONITORINGSTATION/PROGRAMMES/PROGRAMME/ASSOC_WB

diagram	

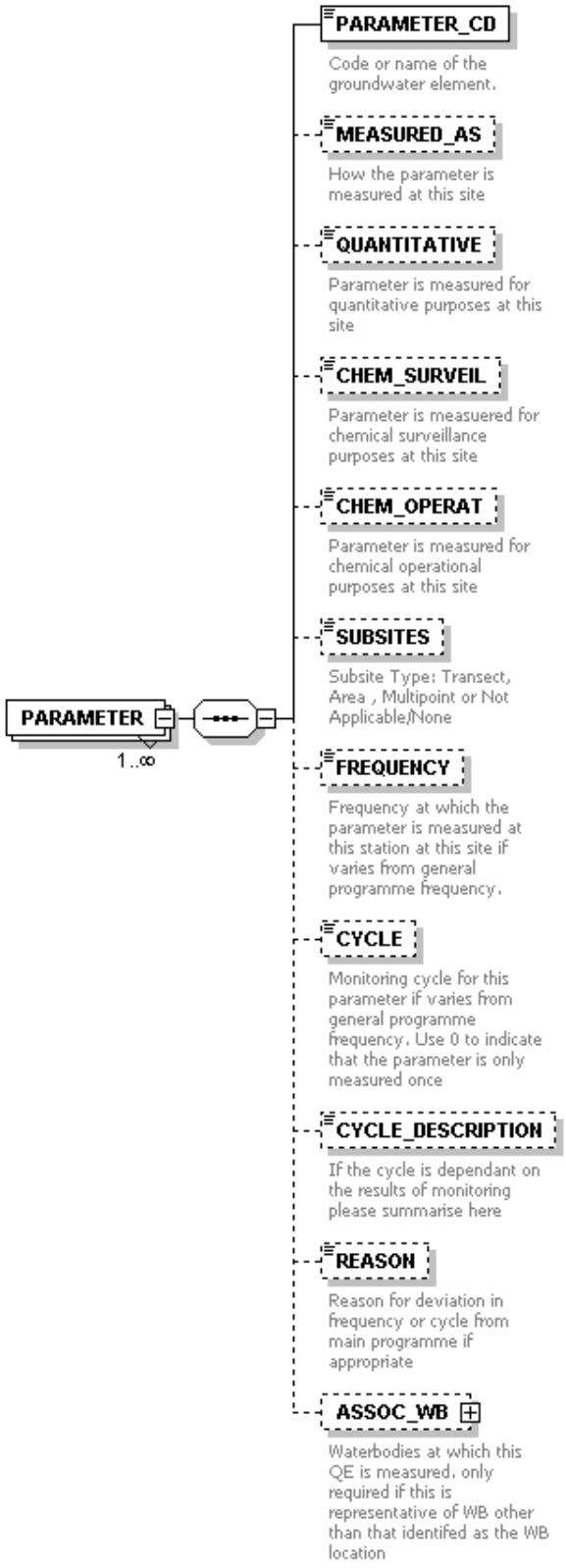
element
GROUNDWATERMONITORINGSTATIONS/GROUNDWATERMONITORINGSTATION/PROGRAMMES/PROGRAMME/PARAMETERS

diagram	

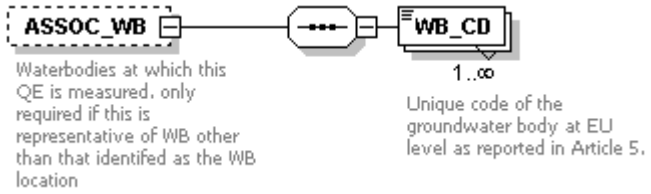
The codes for reporting groundwater monitoring parameters and on how to report on monitoring frequency and cycle are given in section 11.2 of this guide.

element
GROUNDWATERMONITORINGSTATIONS/GROUNDWATERMONITORINGSTATION/PROGRAMMES/PROGRAMME/PARAMETERS/PARAMETER

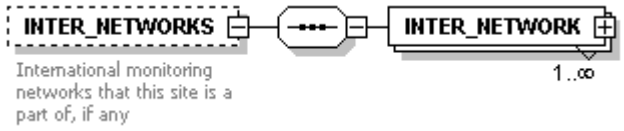
diagram



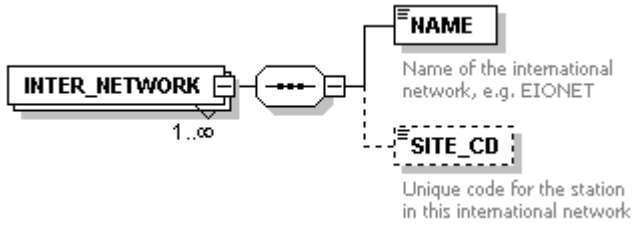
element
GROUNDWATERMONITORINGSTATIONS/GROUNDWATERMONITORINGSTATION/PROGRAMMES/PROGRAMME/PARAMETERS/PARAMETER/ASSOC_WB

diagram	

element
GROUNDWATERMONITORINGSTATIONS/GROUNDWATERMONITORINGSTATION/INTER_NETWORKS

diagram	

element
GROUNDWATERMONITORINGSTATIONS/GROUNDWATERMONITORINGSTATION/INTER_NETWORKS/INTER_NETWORK

diagram	

For international networks, the codes of the international network should be provided from the enumeration list, and the code of the station in the network should be given if different from EU_CD.