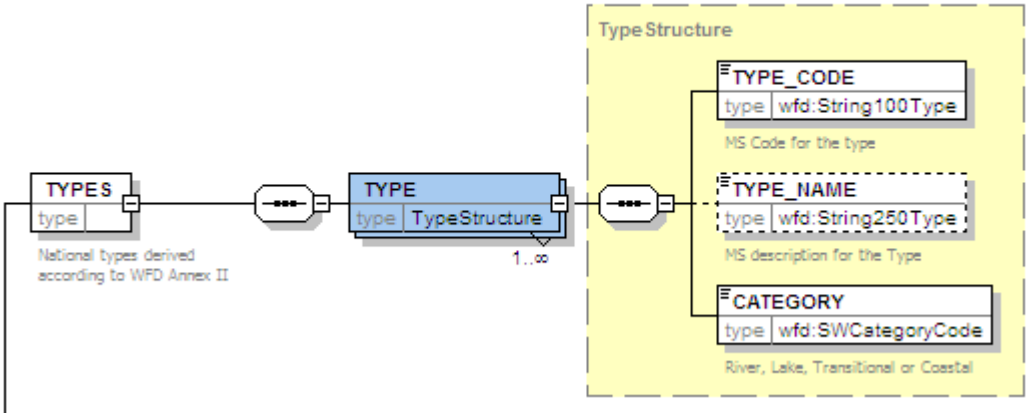
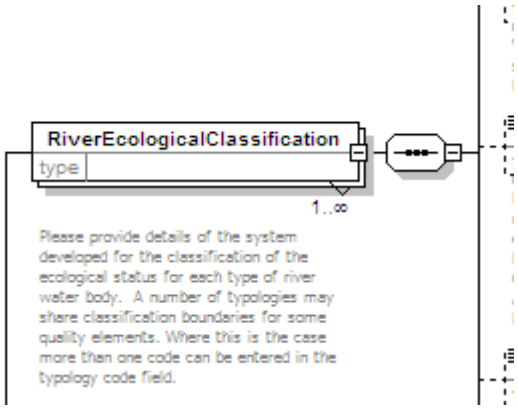
Scenario: Input of ‘level 4’ information (v2010-02-10)

Example: Establishment of Typologies and association of TypologyCodes with Ecological Classification (rivers)

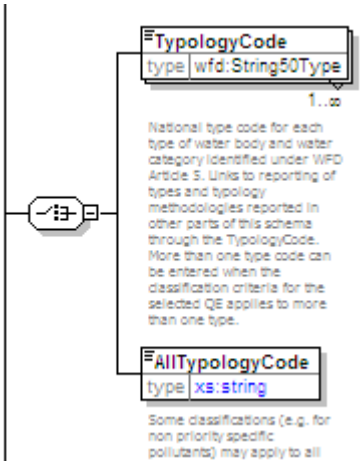
Schema items:
RiverBasinDistrictSWMethodologies/TypologyOfSurfaceWaterBodies/TYPES/TYPE



RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification/SurfaceWaterEcologicalClassification/EcologicalClassifications/ RiverEcologicalClassification



RiverBasinDistrictSWMethodologies/MethodologySurfaceWaterClassification/SurfaceWaterClassification/SurfaceWaterEcologicalClassification/EcologicalClassifications/ RiverEcologicalClassification /TypologyCode



Corresponding database tables:
SWMET_Typology*
SWMET_EcologicalClassification*
SWMET_EcoClassificationTypology

Go to http://water.eionet.europa.eu/schemas/dir200060ec/resources/ to view a pdf showing the database model diagram.

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1. Establish the typologies

In the table SWMET_Typology* the Typologies are reported

SWMET_Typology*

EURBDCode*	TYPE_CODE*	TYPE_NAME	CATEGORY*
DKRBD111	bbb	aaa	LW
DKRBD111	bbb	bbb	RW
DKRBD111	ccc	ccc	RW
DKRBD111	ddd	ddd	TW
DKRBD111	aaa	aaa	CW
DKRBD111	aaa	aaa	RW

2. Input Quality Element rows to the SWMET_EcologicalClassification* table

SWMET_EcologicalClassification*

EURBDCode	Category	QEParameterTypes*	QEOtherPar	UniqueID_C	AllTypologyCod
DKRBD111	Lakes	QE1-1 Phytoplankton		1	
DKRBD111	Lakes	QE1-1 Phytoplankton		2	
DKRBD111	Lakes	QE1-1 Phytoplankton		3	
DKRBD111	Lakes	QE1-1 Phytoplankton		4	
DKRBD111	Lakes	QE1-3 Benthic invertebrates		5	
DKRBD111	Lakes	QE1-3 Benthic invertebrates		6	
DKRBD111	Lakes	QE1-2-3 Macrophytes		7	
DKRBD111	Rivers	QE1-3 Benthic invertebrates		8	
DKRBD111	Rivers	QE1-4 Fish		9	
DKRBD111	Rivers	QE1-3 Benthic invertebrates		10	
DKRBD111	Rivers	QE1-3 Benthic invertebrates		11	
DKRBD111	Transitional	QE1-3 Benthic invertebrates		12	
DKRBD111	Coastal	QE1-1 Phytoplankton		13	
				(New)	

The field UniqueID_QE is an AutoNumber field. Access automatically fills this field as rows are entered.

3. Link the Typology codes to the Quality Element.

From the schema we know that multiple TypologyCodes can be associated with a single QE which is why we need a separate table linked by an identifier.

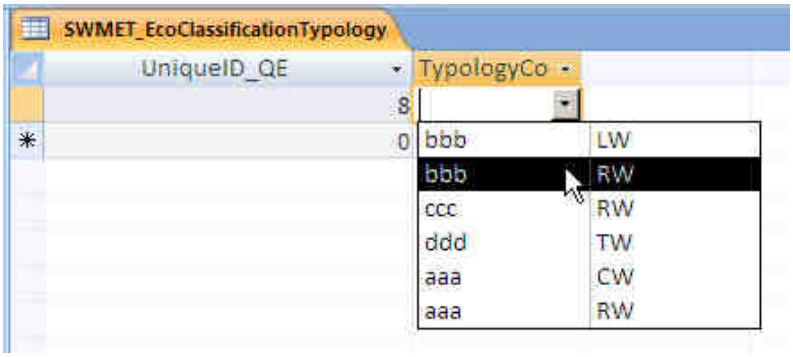
SWMET_EcologicalClassification* | SWMET_EcoClassificationTypology

UniqueID_QE	TypologyCo
2	ccc

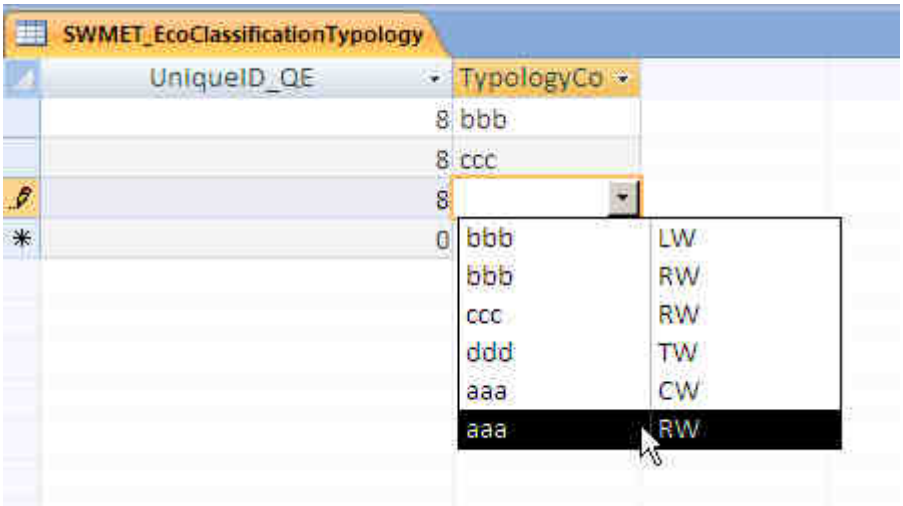
6	QE1-3 Benthic invertebrate	Lakes	DKRBD111
7	QE1-2-3 Macrophytes	Lakes	DKRBD111
8	QE1-3 Benthic invertebrate	Rivers	DKRBD111
9	QE1-4 Fish	Rivers	DKRBD111
10	QE1-3 Benthic invertebrate	Rivers	DKRBD111
11	QE1-3 Benthic invertebrate	Rivers	DKRBD111
12	QE1-3 Benthic invertebrate	Transitional	DKRBD111
13	QE1-1 Phytoplankton	Coastal	DKRBD111

When the SWMET_EcoClassificationTypology is opened and we click on the UniqueID_QE filed, the database looks up the rows in the first table and provides some information based on the unique ID so that we select the correct Quality Element.

4. Now we can link the TypologyCode we established before with this Quality Element



5. The process can be repeated to link multiple typologies with a single Quality Element depending on the needs.



6. Finally, when the conversion tool is used to generate the schema, we have the following output for the above example:

```
<QEParameterTypes>
  <BiologicalQEParameter>QE1-3 Benthic invertebrates</BiologicalQEParameter>
</QEParameterTypes>
<TypologyCode>aaa</TypologyCode>
<TypologyCode>bbb</TypologyCode>
<TypologyCode>ccc</TypologyCode>
```