|  |  |
| --- | --- |
| Description: Description: SEA PROT final 2 | |
| **Marine Strategy Framework Directive (MSFD)**  ***Common Implementation Strategy*** | |
| **Prefilling of xml reports with available assessments (FINAL)** | |
| Prepared by: | European Environment Agency (EEA) |
| Date prepared: | 06/07/2018 |
| Background: | In regards to the 2018 reporting exercise for MSFD Articles 8, 9 and 10, prefilled XMLs have been prepared and made available to Member States with:   1. The information reported under the MSFD 2012 reporting on Articles 9 and 10. 2. Information from the Common Fisheries Policy (ICES advices). 3. Information used for the regional indicator assessments published by the Regional Sea Conventions (HELCOM and OSPAR). 4. Aggregated information calculated from what Member States have reported on coastal and territorial waters under the WFD 2016 reporting exercise.   The present document is the final version of previous documents presented and discussed in WG DIKE meetings (DIKE\_15-2017-06, DIKE\_16-2017-06, DIKE\_16-2017-07, DIKE\_17-2018-04). It describes the approach taken for the prefilling exercise, as well as the contents that have been prefilled, the methodology used and the use of the prefilled schemas. |

# Introduction

The MSFD 2018 reporting exercise concerns the updating of reporting for Articles 8, 9 and 10, as required under MSFD Article 17. The assessments to be provided under Article 8 have to be different (i.e. updated) assessments compared with the 2012 Initial Assessment, since they have to be based on the data resulting from the monitoring programmes and reflect the current status of marine waters. However, the GES determinations and the environmental targets could remain the same as reported in 2012 in certain cases (although many changes are expected, particularly due to the adoption of the new GES Decision (EU) 2017/848).

Therefore, the GES determinations reported under Article 9 and the Targets reported under Article 10 during the 2012 reporting exercise (or updated since then and reported to the Commission), have been filled in according to ‘ART9\_GES’ and ‘ART10\_Targets’ schemas respectively.

Similarly, as mentioned in section 5 of the MSFD Reporting Guidance for 2018, the information from the most recent WFD, CFP and RSC assessments has been prefilled according to the schemas and schema elements where it matches, mainly ‘ART8\_GES’ schema and the ‘Indicators’ schema.

All the prefilled XML files have been made available in CDR help MSFD page[[1]](#footnote-1), together with an Access database that Member States can use for content checking.

# Prefilling exercise

The prefilling has been addressed differently depending on the sources of information and the schemas.

## Information from the 2012 reporting exercise

As mentioned in the Introduction, the information submitted under Articles 9 and 10 within the 2012 reporting exercise or updated later has been prefilled for the schemas ‘ART9\_GES’ and ‘ART10\_Targets’.

Since the 2018 reporting schemas are different from those used in 2012, mapping tables were needed to transfer the information (see Table 1 and Table 2).

The term lists have also changed, being the Features and the Criteria codes the most relevant. The mapping of these terms is attached as an embedded spreadsheet in the [Annex](#_Annex:_features_and).

Table 1 shows how the data from the 2012 reporting exercise have been mapped to the schema fields of the 2018 ‘ART9\_GES’ schema.

Table 1 Mapping of 2012 and 2018 reporting elements for Article 9 prefilling

| **MSFD2018** | | **MSFD2012 (MarineBD)** | | **Obs.** |
| --- | --- | --- | --- | --- |
| **Schema class** | **Schema field** | **Table** | **Field** |  |
| MarineUnit | MarineReportingUnit | MSFD9\_Descriptors | MarineUnitID |  |
| GEScomponent | GEScomponent | MSFD9\_Descriptors | ReportingFeature | \* |
| GEScomponent | JustificationNonUse |  |  | \*\* |
| GEScomponent | JustificationDelay |  |  | \*\* |
| GESdetermination | Feature | MSFD9\_Features | FeaturesPressuresImpacts | \* |
| GESdetermination | Description | MSFD9\_Descriptors | DescriptionGES |  |
| GESdetermination | DeterminationDate | MSFD9\_ReportingInformation | ReportingDate | \*\*\* |
| GESdetermination | UpdateType |  |  | \*\*\*\* |

\*The enumeration of 2012 is different, so a mapping is needed

\*\* Not in 2012

\*\*\* The format in 2012 was DD-MM-YYYY. It has been transformed to YYYYMM

\*\*\*\* Filled in by default: “Same as 2012 determination”

Table 2 shows how the data from the 2012 reporting exercise have been mapped with the schema fields of the 2018 ‘ART10\_Targets’ schema.

Table 2 Mapping of 2012 and 2018 reporting elements for Article 10 prefilling

| **MSFD2018** | | **MSFD2012 (MarineBD)** | | **Obs.** |
| --- | --- | --- | --- | --- |
| **Schema class** | **Schema field** | **Table** | **Field** |  |
| MarineUnit | MarineReportingUnit | MSFD10\_Targets | MarineUnitID |  |
| Target | Feature | MSFD10\_FeaturesPressures | PhysicalChemicalHabitatsFunctionalPressures | \*+ |
| Target | TargetCode | MSFD10\_Targets | ReportingFeature | + |
| Target | Description | MSFD10\_Targets | Description |  |
| Target | GEScomponent | MSFD10\_DESCrit | GESDescriptorsCriteriaIndicators | \*+ |
| Target | Timescale | MSFD10\_Targets | TimeScale | \*\*\* |
| Target | UpdateDate |  |  | \*\* |
| Target | UpdateType |  |  | \*\* |
| Target | RelatedMeasures |  |  | ^ |
| ProgressAssessment | Element |  |  | \*\* |
| ProgressAssessment | Element2 |  |  | \*\* |
| ProgressAssessment | Parameter |  |  | \*\* |
| ProgressAssessment | ParameterOther |  |  | \*\* |
| ProgressAssessment | TargetValue | MSFD10\_Targets | ThresholdValue |  |
| ProgressAssessment | ValueAchievedUpper |  |  | \*\* |
| ProgressAssessment | ValueAchievedLower |  |  | \*\* |
| ProgressAssessment | ValueUnit |  |  | \*\* |
| ProgressAssessment | ValueUnitOther |  |  | \*\* |
| ProgressAssessment | TargetStatus |  |  | \*\* |
| ProgressAssessment | AssessmentPeriod |  |  | \*\* |
| ProgressAssessment | Description |  |  | \*\* |
| ProgressAssessment | RelatedIndicator | MSFD10\_Targets | ReportingFeature | ¡ |

\*The enumeration of 2012 is different, so a mapping is needed

\*\* Not in 2012

\*\*\* The format in 2012 was DD-MM-YYYY. It has been transformed to YYYYMM

\*\*\*\* Filled in by default: “Same as 2012 determination”

+ Only applicable when Topic=EnvironmentalTarget

^ Extracted from MSFD13\_MeasuresInfo: the measure code is the field 'UniqueCode', extracted when 'InfoType'=RelevantEnvironmentalTargets and 'InfoText' is the same as 'ReportingFeature' in table MSFD10\_Targets

¡ When Topic=AssociatedIndicator, to be listed here those that are = than ReportingFeature (when Topic=EnvironmentalTarget) OR that are contained in ReportingFeature (when Topic=EnvironmentalTarget)

## Information from WFD 2016 reporting

In regards to the information coming from the WFD, Annex II of the present document describes the approach offered in regards of the prefilling of WFD assessments for “ART8\_GES” schema, for D5 and D8. It shows the calculations performed and how the prefilling has been done.

The prefilled information includes the extent to which GES has been achieved for D5 (% of area assessed) and D8 (% of contaminants assessed) for the whole coastal waters per River Basin District within each subregion, as well as the % area of MRU achieving the threshold value for the relevant Quality Elements (D5) and contaminants (D8).

## Information from the CFP

For the D3 criteria which are assessed under the Common Fisheries Policy (CFP), a prefilling exercise has been undertaken for the stocks related to the ICES area equating to MSFD regions and subregions of the North-east Atlantic Ocean and Baltic Sea. The information is based on the stock status tables produced on an annual or bi-annual basis as part of the advice requests on fishing opportunities from the EU and RFMO’s. The data and original advice sheets are available online in the stock assessment database[[2]](#footnote-2), and definitions of the stocks are hosted in the stock database[[3]](#footnote-3).

The mapping to the element status [ElementStatus] (“Good”, “NotGood”, “Unknown”) is based on the method of mapping provided in the Fisheries overviews[[4]](#footnote-4), see Figure 1.

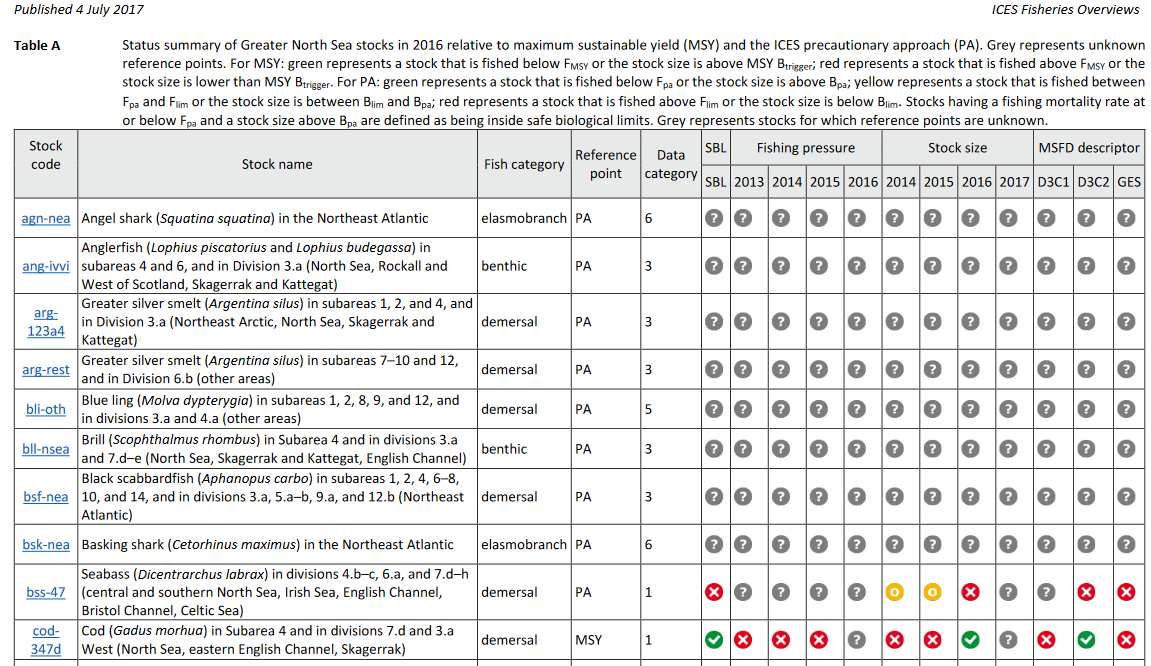


Figure 1 Stock status summary, Greater North Sea, ICES 2017

All prefilling has been done by using either the web services provided by the ICES stock and stockassessments databases. The status is based on the latest assessment year available for the named stock [CriteriaStatus] [TemporalCoverage]. This is a practical step, and does not prejudice the advice request from the EU to ICES (2018) that will further the development of methodological standards for D3, nor any decision that a Member State may take on whether to use this approach.

At the last step, the [OverallStatus] has been calculated for D3 by taking account of the stocks that, within each subregion, are in Good status. All the prefilling has been done using the following Marine Reporting Units: ABI, ACS, ANS and BAL.

Member States will be able to reuse these prefilled files as is. In cases where a Member State wants to add more stocks that they have been monitoring in their marine waters (e.g. nationally important stocks), they should report them using a national Marine Reporting Unit.

## Information from RSC assessments

As described in the MSFD 2018 Reporting Guidance, the regional indicators information has been prefilled when possible. In particular, the information used has been the latest published from OSPAR[[5]](#footnote-5) and HELCOM[[6]](#footnote-6) assessments.

In both cases the ‘Indicators’ schema has been prefilled. However, the prefilling of ‘ART8\_GES’ schema has been more challenging because of the difficulties of matching the information published, which is generally very aggregated and descriptive, to the schema. Therefore it has only been prefilled for the HELCOM indicators.

A quality check process by both HELCOM and OSPAR of the information has been done before generating the prefilled XMLs, to ensure that the prefilling information is correct.

# How to use the prefilled files

The XMLs generated through the prefilling exercise are offered as an option for Member States (MS) to use for reporting those aspects that they wish to reuse from these sources and submit as part of their 2018 MSFD report.

One XML per Member State per article has been produced for each source of information. MS can download the files from the CDR help page and edit the prefilled information (either directly or through the web-forms), if necessary, as well as add additional reporting information in order to complete the XML. The XMLs generated need, in most of the cases, editing in regards to mandatory fields that have not been prefilled (because the information is not available).

With the merge tool available in the CDR help page, MS will be able to merge the files corresponding to the same schema.

# Annex I: features and criteria mapping (2012-2018)



# Annex II: Use of WFD 2016 reporting

Considerations:

For the prefilling exercise carried out, an extraction of WFD information has been performed (date of extraction: 2018-04-06).

There may be a concern about the way the ecological status and quality element data have been used in relation to Descriptor 5, because there may be a few cases of getting two statuses based on the same dataset. However, Ecological status (WFD) and Environmental status (MSFD D5) are not the same, since the former includes hydromorphological elements and River Basin Specific Pollutants, which are not used for the D5 assessment. Therefore, it is not exactly the same dataset used for calculating Ecological status and Environmental status, since for the MSFD prefilling only the quality elements that are relevant to MSFD D5 are used. Also the methodology and results are different. In the present exercise, the Environmental Status is derived per water body, but afterwards aggregated per RBD within a marine (sub)region to calculate the % of the MRU in Good status. It is only the information at this level which is prefilled (not at the water body level). Here, it will be up to Member States to decide whether this is GES or not.

Regarding the contaminants, according to WFD the status is poor if one substance fails the EQS (or can be moderate at best if an RBSP fails). But the approach differs substantially under the MSFD, where according to the GES Decision (2017) results have to be presented as “x / y substances fail, therefore z% of GES is achieved”. The number of substances monitored, and thus possible to fail, is still a discussion under the WFD and still needs agreement on how to be covered. In any case, the prefilling results for the MSFD aren’t at the water body level, but again are at the coastal waters level per RBD within each marine (sub)region. Even more, not all contaminants monitored in the coastal (and territorial if reported) waters (PS and RBSP) are considered for the D8, but only the PBTs (ubiquitous and non-ubiquitous) included in the “Reference list of contaminants for D8”[[7]](#footnote-7) prepared by the European Commission for the MSFD 2018 reporting. Only those PS and RBSP in this list have been accounted, looking at how many are causing failure of water bodies.

## Introduction

Article 8 of the MSFD states that the assessments to be done should take into account the elements regarding coastal and territorial waters covered by the Water Framework Directive (WFD). This is further emphasized in the revised GES Decision, where assessments for Descriptors 5 and 8 must use the assessments undertaken in WFD. The reporting of the update of the River Basin District plans in 2016 has therefore been used as the basis for the MSFD reporting on D5 and D8 in 2018 in coastal waters (both D5 and D8) and in territorial waters (D8 only).

In this line, the reporting guidance prepared for the 2018 update of articles 8, 9 and 10 (MSFD Guidance Document 14), includes in Chapter 5 (Links to other policy processes) how the information of the WFD assessments would be prefilled according to the proposed schema, so that Member States (MS) can make use of it. The final version of the reporting guidance states the following:

*For WFD, the status classification of the coastal water bodies (and territorial waters in the case of the chemical status) reported at the Quality Element level has been used to populate relevant fields for some criteria/elements (D5 and D8), using the schema ‘ART8\_GES’.*

Based on this statement, a prefilling exercise of ART8\_GES schema for D5 and D8 has been carried out with the information reported under the WFD within the 2016 reporting exercise, based on the methodology explained in Section 3.

The Marine Reporting Units (MRUs) used for the prefilling are described in Section 2, and a list of the units to be used for the prefilling is attached as [Appendix I](#_Annex_I:_Marine_1).

## Marine reporting units used to link WFD assessments with MSFD reporting

As described in the Reporting guidance, all the schemas need to include information of the corresponding MRU to which the reported information applies.

The work of prefilling with the WFD 2016 reporting information has been done at the MRU level of “coastal waters per River Basin District within marine (sub)region”[[8]](#footnote-8). In regards to the territorial waters (also defined as Level 5 within the MRUs), when reported, were also incorporated, generally with the same code provided under the WFD reporting.

There are cases where water bodies overlap with 2 different (sub)regions. In those cases, in order to not split the water body into two parts, it has been assigned to only one (sub)region (see Table 3).

Table 3. Border water bodies MRUs codes

| **RBDcode** | **EuSurfaceWaterBodyCode** | **MRUcode** |
| --- | --- | --- |
| DK2 | DKCOAST9 | ANS-DK2-CW |
| DKCOAST6 | ANS-DK2-CW |
| DKCOAST28 | BAL-DK2-CW |
| DK1 | DKCOAST219 | BAL-DK1-CW |
| SE4 | SE554500-125001 | ANS-SE4-CW |
| UK01 | UKSC200219 | ANS-UK01SU09-CW |
| UKSC200225 | ACS- UK01SU09-CW |
| FRH | FRHC02 | ANS-FRH-CW |
| FRG | FRGC01 | ACS-FRG-CW |
| FRGC24 | ABI-FRG-CW |
| FRGC26 | ABI-FRG-CW |
| ES063 | ES063MSPF005200050 | MWE-ES063-CW |
| ITH | IT19CW0526 | MWE-ITH-CW |
| IT19CW0521 | MIC-ITH-CW |
| IT19CM10220 | MIC-ITH-CW |
| ITF | IT18RC26 | MWE-ITF-CW |
| ITR16-201ACA3S3\_2 | MAD-ITF-CW |

In [Appendix I](#_Annex_I:_Marine), a list of the coastal water bodies and the MRU codes assigned to them is presented.

Despite the MRU level used for the prefilling, Member States may prefer other levels of aggregation (e.g. coastal waters types or coastal waters split differently than per RBD). These should in any case allow the aggregation of the information reported under the WFD. Otherwise, Member States would need to provide a justification for the use of other sources of information.

In the cases where Member States use other MRUs, they need to report them to CDR through an update of the 4geo.xml and GIS files.

## Methodology used for the prefilling

Under the WFD, surface water bodies are classified in 5 classes according to their Ecological Status (High/Good/Moderate/Poor/Bad), and in 2 classes (Good/Poor) according to their Chemical Status.

The classification of the Ecological Status is based on 1) Biological elements (QE1), 2) Hydromorphological elements (QE2) and 3) Physico-chemical elements (QE3). The quality elements relevant for the MSFD are listed in Table 2.

The classification of the status of the water bodies according to the different quality elements is differently addressed across them: 5 classes for the Biological elements (High/Good/Moderate/Poor/Bad), 3 classes for the Physico-chemical elements (High/Good/Less than good) and 2 classes for the Hydromorphological elements (High/Good).

It is to be noted that the WFD assessments on Phytoplankton may cover 2 MSFD criteria (D5C2 and D5C3), while the data coming from WFD reporting only refers to Phytoplankton. Similarly, the assessments of Macroalgae may cover as well 2 MSFD criteria (D5C6 and D5C7). The information on whether the MS are using one or the two criteria (or other) may only be accessible through the Intercalibration (IC) Decision[[9]](#footnote-9) or the River Basin Management Plans.

On the other hand, Nitrogen conditions (QE3-1-6-1) cover Nitrates, Nitrites, Ammonia, Ammonium and Total Nitrogen (TN), while Phosphorus Conditions (QE3-1-6-2) cover Orthophosphates and Total Phosphorous (TP). The result, again, cannot be disaggregated into the different determinands, so in any case it wouldn’t be equivalent to D5 results beyond coastal waters, where the elements to be assessed are DIN, TN, DIP and TP.

For the prefilling, an assumption has been made, where the achievement of the Good Status for any quality element at the water body level under the WFD is comparable to achieving threshold values for the corresponding criterion within the assessment of the Good Environmental Status (e.g. if QE1-3 achieves high or good status under WFD, it is equivalent to achieving the threshold value for D5C8 at water body level).

## Prefilling for D5

The results prefilled provide information on the extent to which GES has been achieved for D5 (measured as a % of the extent of the area), taking into account the criteria that have a correspondence with WFD quality elements (see Table 4).

Table 4 Mapping of WFD status quality elements and MSFD criteria

| WFD Status Quality Element  (StatusQE\_Enum) | MSFD Criteria for D5 (2017 Decision) |
| --- | --- |
| QE1-1 – Phytoplankton | D5C2 – Chlorophyll a concentration (P) |
| D5C3 – Harmful algal blooms (S) |
| QE1-2-1 – Macroalgae | D5C6 – Opportunistic macroalgae of benthic habitats (S) |
| D5C7 – Macrophyte communities of benthic habitats (S) |
| QE1-2-2 – Angiosperms | D5C7 – Macrophyte communities of benthic habitats (S) |
| QE1-3 – Benthic invertebrates | D5C8 – Macrofaunal communities of benthic habitats (S) |
| QE3-1-1 – Transparency conditions | D5C4 – Photic limit (S) |
| QE3-1-3 – Oxygenation conditions | D5C5 – Dissolved oxygen concentration (P) |
| QE3-1-6-1 – Nitrogen conditions | D5C1 – Nutrient concentrations (P) |
| QE3-1-6-2 – Phosphorus Conditions | D5C1 – Nutrient concentrations (P) |
| (P) Primary criteria; (S) Secondary criteria | |

In order to prefill the results for D5, the following steps have been followed:

* Firstly, extraction of the information from WFD 2016 reporting of whether the coastal water bodies are in Good status for the criteria listed in Table 2.
* Then, an integration rule has been applied, where the result for D5 by water body has been calculated.
* Lastly, taking into account the surface area of water bodies, the total surface area of coastal waters per RBD within marine (sub)region that are in Good status for D5 has been calculated.

Table 5 describes the specific instructions followed for these calculations, using the names of the schemas, classes and fields of the WFD 2016 reporting.

Table 5 Steps followed for the prefilling of D5

|  |
| --- |
| 1. From the schema **SWB**, a file has been prepared with *countryCode,* *euRBDCode,* *euSurfaceWaterBodyCode* (where *surfaceWaterBodyCategory='CW'),* and *qeStatusOrPotentialValue* for the following *qeCode:* QE1-1, QE1-2-1, QE1-2-2, QE1-3, QE3-1-1, QE3-1-3, QE3-1-6-1 and QE3-1-6-2 |
| 2. A field 'D5pwb' has been created and filled in per water body with the following calculation:  • If swEcologicalStatusOrPotentialValue = 1 or 2 -> Good  • If all QEs of Table 2 are 1, 2 or NULL -> Good  • If all QEs of Table 2 are NULL and swEcologicalStatusOrPotentialValue ≠ 1 or 2 -> NotGood  • If any QE of Table 2 is > 2 AND swEcologicalStatusOrPotentialValue ≠ 1 or 2 -> NotGood |
| 3. Using the Area of the coastal water bodies, a sum per *MRU* of the % of coastal waters total area where D5pwb='Good' has been performed. This is **GESextentAchieved** |
| 4. With these values, ART8\_GES schema has been prefilled according to Table 6 |

The prefilling has been done as shown in Table 6. There are fields such as ElementStatus or CriteriaStatus that have been prefilled as ‘Unknown’, since the conclusion on whether the corresponding Element or Criteria is ‘Good’ or ‘Not good’ needs to be reported by the Member States.

Table 6 Prefilling mapping for D5

| **MSFD2018** | | **WFD2016-D5** | |
| --- | --- | --- | --- |
| **Schema class** | **Schema field** | **Field** | **Comments** |
| MarineUnit | MarineReportingUnit | (sub)regionCode-euRBDCode-CW | from WFD |
| OverallStatus | GEScomponent | D5 | by default |
| OverallStatus | Feature | PresEnvEutrophi | by default |
| OverallStatus | GESextentThreshold |  | MS to specify what proportion of MRU needs to not be subject to eutrophication for GES to be achieved for D5 |
| OverallStatus | GESextentAchieved | Percentage value achieved | Calculated as explained in Table 3 |
| OverallStatus | GESextentUnit | Extent of area | by default |
| OverallStatus | GESachieved |  | MS to specify whether GES has been achieved or not, based on GESextentAchieved versus GESextentThreshold |
| OverallStatus | AssessmentPeriod | 2010-2016 | by default |
| ElementStatus | Element | As in Table 7 |  |
| ElementStatus | ElementCode | As in Table 7 |  |
| ElementStatus | ElementCodeSource | WISE-B | by default |
| ElementStatus | ElementSource | EU | by default |
| ElementStatus | ElementStatus | Unknown | by default |
| CriteriaStatus | Criteria | As in Table 7 |  |
| CriteriaStatus | CriteriaStatus | Unknown | by default |
| CriteriaValues | Parameter | OTH | by default |
| CriteriaValues | ParameterOther | As used in WFD | by default |
| CriteriaValues | ProportionValueAchieved | Sum per MRU of the % of coastal waters total area WHERE qeStatusOrPotentialValue<=2 FOR the Element |  |
| CriteriaValues | ProportionThresholdValueUnit | % area of MRU achieving threshold value | by default |
| CriteriaValues | Trend | Unknown | by default |

A mapping of the Element, ElementCode and Criteria is shown in Table 7.

Table 7 Element, ElementCode and Criteria used

| **Element** | **ElementCode** | **Criteria** |
| --- | --- | --- |
| Phytoplankton | QE1-1 | D5C2 |
| Macroalgae | QE1-2-1 | D5C6 |
| Angiosperms | QE1-2-2 | D5C7 |
| Benthic invertebrates | QE1-3 | D5C8 |
| Transparency conditions | QE3-1-1 | D5C4 |
| Oxygenation conditions | QE3-1-3-2 | D5C5 |
| Nitrogen conditions | QE3-1-6-1 | D5C1 |
| Phosphorus conditions | QE3-1-6-2 | D5C1 |

Whenever the assessment of the status of a water body related to any quality element has been reported as ‘Unknown’, ‘Unpopulated’ or ‘None’ under the WFD, it hasn’t been accounted.

There are cases where the Ecological Status of water bodies has been reported, but not the assessments of the different Quality Elements. In those cases, the OverallStatus sums the % of area of those water bodies that are in Good status (=<2), but the ProportionValueAchieved of the different Elements only sums the area of the water bodies when the assessment of the corresponding quality element has been reported as Good (=<2). This fact sometimes result in percentages of area in GES bigger under the OverallStatus than at the level of the Quality Elements.

Member States using the prefilled XMLs will still need to edit them and provide further information for some of the fields, the most important one being **GESachived**.

## Prefilling for D8

The results prefilled provide information on the extent to which GES has been achieved for D8 (measured as a % of the Number of contaminants assessed), taking into account the number of contaminants relevant for the MSFD (PBTs) monitored in coastal and territorial waters within each RBD, and how many of them are causing failure of the Chemical status (when they are priority substances) or the Ecological status (when they are River Basin Specific Pollutants (RBSP)) of any of the coastal water bodies.

In order to prefill the results for D8, the following steps have been followed:

* Firstly, extraction of the number of priority substances and RBSP assessed in the coastal and territorial waters of each RBD, as well as the number of those causing failure of the Chemical status of any coastal water body or territorial waters (the former) or the Ecological status of any coastal water body (the latter)
* Only those contaminants that are in the “MSFD Reference list for D8 reporting” have been taken into account, and they have been classified into uPBTs and non-uPBTs.
* Then, both have been summed grouped by uPBTs and non-uPBTs and the % of contaminants achieving GES has been calculated for each group

Table 8 describes the specific instructions followed for these calculations, using the names of the schemas, classes and fields of the WFD 2016 reporting.

Table 8 Steps followed for the prefilling of D8

|  |
| --- |
| 1. A file has been prepared with countryCode, euRBDCode, euSurfaceWaterBodyCode (where surfaceWaterBodyCategory='CW'), swPrioritySubstanceCode, swPrioritySubstanceCausingFailure (where ='Yes') and *MRU* |
| 2. From the schema **SWB**, per *MRU,* where in class **SurfaceWaterBody** *swChemicalStatusValue*=3, the codes of Priority Substances (*swPrioritySubstanceCode*) where *swPrioritySubstanceCausingFailure='Yes'* have beenextracted from class **SWPrioritySubstance**and counted |
| 3. From the schema **SWMET**, per *euRBDCode,* all the *psCode* where *psStatusAssessment='Yes' and psCategoryCW=*'Yes' have been extracted from class **SWPrioritySubstance** and counted |
| 4. From the schema **SWB**, per *MRU,* water bodies where in class **SurfaceWaterBody** s*wEcologicalStatusOrPotentialValue>2* and in class **QualityElement** *qeStatusOrPotentialValue>2* for *qeCode*=QE3-3 have been selected |
| 5. From water bodies selected under point 4, the RBSP that have produced failure of the Ecological status (swFailingRBSP & swFailingRBSPOther) have been extracted and counted |
| 6. From the schema **SWMET**, per *euRBDCode,* all the *rbspCode* and *rbspOther* where *rbspCategoryCW*='Yes' have been extracted from class **SWRBSP** and counted |
| 7. Count of *psCode* under Point 3 and *rbspCode* and *rbspOther* under Point 6 have been summed and named 'TotalContaminants' |
| 8. Count of *swPrioritySubstanceCode* under Point 2 and *swFailingRBSP* and *swFailingRBSPOther* under Point 5 have been summed and named 'ContaminantsFailing' |
| 9. 'TotalContaminants'-'ContaminantsFailing'='N\_contaminants\_achievingGES' |
| 10. **GESextentAchived** is 'N\_contaminants\_achievingGES'/'TotalContaminants' |
| 11. With these values, ART8\_GES schema has been prefilled according to Table 7 |

The prefilling has been done as shown in Table 9. There are fields such as ElementStatus or CriteriaStatus that have been prefilled as ‘Unknown’, since the conclusion on whether the corresponding Element or Criteria is ‘Good’ or ‘Not good’ needs to be reported by the Member States.

Table 9 Prefilling mapping for D8

| **MSFD2018** | | **WFD2016-D5** | |
| --- | --- | --- | --- |
| **Schema class** | **Schema field** | **Field** | **Comments** |
| MarineUnit | MarineReportingUnit | (sub)regionCode-euRBDCode-CW | from WFD |
| OverallStatus | GEScomponent | D8 | by default |
| OverallStatus | Feature | "PresEnvContUPBTs" OR "PresEnvContNonUPBTs" | As in “MSFD Reference list for D8 reporting” |
| OverallStatus | GESextentThreshold |  | MS to specify what proportion of contaminants in MRU need to achieve the threshold values for GES to be achieved for D8 |
| OverallStatus | GESextentAchieved | Percentage of contaminants achieving threshold values | Calculated as explained in Table 8 |
| OverallStatus | GESextentUnit | Proportion of substances in good status | by default |
| OverallStatus | GESachieved |  | MS to specify whether GES has been achieved or not, based on GESextentAchieved versus GESextentThreshold |
| OverallStatus | AssessmentPeriod | 2010-2016 | by default |
| ElementStatus | Element | As in “MSFD Reference list for D8 reporting” |  |
| ElementStatus | ElementCode | As in “MSFD Reference list for D8 reporting” |  |
| ElementStatus | ElementCodeSource | WISE | by default |
| ElementStatus | ElementSource | ‘EU’ OR ‘National’ | For the PS it has been defined as ‘EU’, while for the RBSP it has been set as ‘National’ |
| ElementStatus | ElementStatus | Unknown | by default |
| CriteriaStatus | Criteria | D8C1 |  |
| CriteriaStatus | CriteriaStatus | Unknown | by default |
| CriteriaValues | Parameter | OTH | by default |
| CriteriaValues | ParameterOther | As used in WFD | by default |
| CriteriaValues | ProportionValueAchieved | Sum per MRU of the % of coastal/territorial waters total area WHERE swChemicalStatusValue=2 OR qeStatusOrPotentialValue<3 for qeCode=QE3-3 for the Element |  |
| CriteriaValues | ProportionThresholdValueUnit | % area of MRU achieving threshold value | by default |
| CriteriaValues | Trend | Unknown | by default |

There are cases where the substances monitored within the coastal or territorial waters of a RBD haven´t been reported under the schema SWMET in WFD, but only the chemical status of the water bodies, as well as the substances causing failure. In those cases, the prefilling has not been possible, since the GES conclusion under the MSFD needs to account the total number of substances assessed. This is the case of the RBDs of Belgium, Bulgaria, Cyprus, Finland, France, Latvia, Lithuania, Malta, Slovenia, and some RBD in other Member States.

Member States using the prefilled XMLs will still need to edit them and provide further information for some of the fields, the most important one being **GESachived**.

## Appendix I: Marine Reporting Units used for D5 and D8 in coastal and territorial waters



MRUs highlighted in green are those that have been included in the prefilling. In red, those that have been excluded because of lack of data from the WFD reporting.

1. <http://cdr.eionet.europa.eu/help/msfd> [↑](#footnote-ref-1)
2. [http://standardgraphs.ices.dk](http://standardgraphs.ices.dk/) [↑](#footnote-ref-2)
3. <http://sd.ices.dk/stockList.aspx> [↑](#footnote-ref-3)
4. <http://www.ices.dk/community/advisory-process/Pages/fisheries-overviews.aspx> [↑](#footnote-ref-4)
5. <https://oap.ospar.org/en/ospar-assessments/intermediate-assessment-2017/> [↑](#footnote-ref-5)
6. <http://stateofthebalticsea.helcom.fi/> [↑](#footnote-ref-6)
7. Available in <http://cdr.eionet.europa.eu/help/msfd/Guidance/MSFD2018reporting_ReferenceLists_v2.xlsx> [↑](#footnote-ref-7)
8. Except for Germany, where another level of aggregation has been used for D5, following a specific request [↑](#footnote-ref-8)
9. <http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32013D0480&from=SK> [↑](#footnote-ref-9)