

WISE BWD Guidance

Guidance on the reporting of Bathing Water data to WISE

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Introduction

1. The [Bathing Water Directive](#) reporting includes: the identification of the designated bathing waters and their location [Article 13(2) of the BWD]; and the monitoring results and the classification of the bathing waters [Article 13(1) of the BWD].
2. The reporting of the identification and location of a designated bathing water is done before the start of bathing season. If, compared to the previous season, no changes were introduced to the list in terms of identification, delisting, or attributes (name, coordinates, etc.), the submission of the list is not necessary.
3. For Data Providers reporting under the Bathing Water Directive, this document provides guidance in the preparation and reporting of spatial data. The GML schemas, shapefile templates and supporting documents are available in the [Bathing Water Directive - Identification of Bathing Waters – 2019 help page](#) and at the [BWD Help section](#).
4. Bathing waters are protected areas under the [Water Framework Directive](#) [Article 6 and Annex IV.1 (iii) of the WFD]. An online register of the bathing waters reported by EU Member States is kept in the WISE [WFDProtectedArea](#) vocabulary. For operational purposes, this register also includes bathing waters voluntarily reported by Albania and Switzerland. The register is also used to simplify the WFD reporting, avoiding the need to report the same information twice.
5. The reporting of the classification and quality status of each bathing water [Article 5 of the BWD] and of the monitoring calendar and results for each bathing season [Article 3 of the BWD] takes place annually, until the 31st of December. Information about the abnormal situations, short-term pollution events, etc., is provided in the same reporting.
6. Data reporting using the old data model (ROD 531) is not supported anymore. However, Reportnet has been prepared to support the reporting of bathing water data using the revised and simplified data model that is described in the present document.
7. From 2019 onwards, the bathing water data are delivered to the EIONET Central Data Repository ([CDR](#)) according to the revised data model for the following reporting obligations:
 - [Bathing Water Directive - Identification of Bathing Areas](#) [Article 13(2)]
 - [Bathing Water Directive - Monitoring and Classification of Bathing Waters](#) [Article 13(1)]
8. The revised data model has 4 data sets (Figure 1) that are described in the present document.

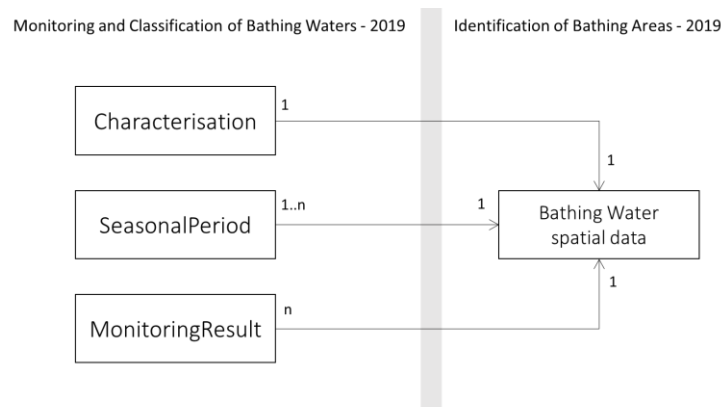


Figure 1. Revised BWD data model diagram

Monitoring and Classification of Bathing Waters

Characterisation table

The **Characterisation** table describes ([Data Dictionary page](#)): the quality status of each bathing water; the group that it belongs to, if applicable and any geographical constraints that may apply (see Table 1).

| Table 1. Bathing water classification table (Characterisation). | | | |
|---|---------------------------|-------------|---|
| Element | Datatype | Reporting | Description |
| season | Year(YYYY) | Mandatory | Year of the bathing season. The year of the bathing season will typically be the year of the reporting exercise. Contact bwd.helpdesk@eionet.europa.eu for assistance if you require the re-submission of data deliveries for previous bathing waters seasons. |
| bathingWaterIdentifier | String(42) | Mandatory | Unique identifier of the bathing water. Must be a valid bathing water identifier in the WFDProtectedArea registry. New bathing water identifiers must be reported under " Bathing Water Directive - Identification of Bathing Waters - 2019 ". Contact bwd.helpdesk@eionet.europa.eu for support if you need to report additional bathing water identifiers. |
| groupIdentifier | String(42) | Conditional | Unique identifier of the group of bathing waters. If the bathing water belongs to a group, the groupIdentifier must be reported. In accordance with Article 4.5 of the BWD, the group must have at least two bathing waters that are contiguous, received similar assessments and have profiles that identify common risk factors (or the absence thereof). Samples collected in the group of bathing waters will be used for the assessment of the bathing water quality in each of the bathing waters. The identifier must follow the syntax rules set for the WISE identifiers. |
| qualityClass | BWDStatus | Mandatory | National bathing water quality classification. According to Annex I and Annex II of the BWD, the quality status calculation is based on percentile evaluation. Standards are separate for inland waters and for coastal and transitional waters. See the description of the codes in Table 2. |
| geographicalConstraint | Boolean | Mandatory | Information on whether the bathing water is situated in a region subject to special geographical constraints in accordance with Annex IV of BWD. This may be for example applied to distant locations such as remote islands or separation created by a natural barrier such as a mountain range. If there are special geographical constraints, the remarks element must describe them. |
| link | link | Optional | Hyperlink to document or web pages with the bathing water profile established in accordance with Article 6 and Annex III of BWD. Only resolvable URLs are accepted (i.e. no "broken" links). Note that the link element also exists in the spatial data table. The link element in the Classification table allows Data Providers to update the URL without having to resubmit the spatial data. |
| remarks | String(max) | Conditional | Additional information on special geographical constraints, bathing water groups, assigned quality class, bathing water profiles, hyperlinks to regional/national bathing water portals etc. If there are special geographical constraints, the remarks element must describe them. |

| Table 2. Bathing water quality status vocabulary (BWDStatus). | | |
|---|----------------|--|
| Code | Label | Definition |
| 0 | Not classified | Bathing water quality cannot be assessed and classified. |
| 1 | Excellent | See Annex II (4) of BWD. Bathing water quality status is 'Excellent' if: for inland waters, ($p_{95}(IE) \leq 200$) AND ($p_{95}(EC) \leq 500$); for coastal and transitional waters, ($p_{95}(IE) \leq 100$) AND ($p_{95}(EC) \leq 250$) Where $p_{95}(EC)$ is the 95-percentile evaluation of the concentration of Escherichia coli in cfu/100ml, $p_{95}(IE)$ is the 95-percentile evaluation of the concentration of intestinal enterococci in cfu/100ml. |
| 2 | Good | See Annex II (3) of BWD. Bathing water quality status is 'Good' if: for inland waters ($p_{95}(IE) > 200$) AND ($p_{95}(IE) \leq 400$)) OR (($p_{95}(EC) > 500$) AND ($p_{95}(EC) \leq 1000$)); for coastal and transitional waters ($p_{95}(IE) > 100$) AND ($p_{95}(IE) \leq 200$)) OR (($p_{95}(EC) > 250$) AND ($p_{95}(EC) \leq 500$)) Where $p_{95}(EC)$ is the 95-percentile evaluation of the concentration of Escherichia coli in cfu/100ml, $p_{95}(IE)$ is the 95-percentile evaluation of the concentration of intestinal enterococci in cfu/100ml. |
| 3 | Sufficient | See Annex II (2) of BWD. Bathing water quality status is 'Sufficient' if: for inland waters ($p_{95}(IE) > 400$) AND ($p_{90}(IE) \leq 330$)) OR (($p_{95}(EC) > 1000$) AND ($p_{90}(EC) \leq 900$)) for coastal and transitional waters ($p_{95}(IE) > 200$) AND ($p_{90}(IE) \leq 185$)) OR (($p_{95}(EC) > 500$) AND ($p_{90}(EC) \leq 500$)) Where $p_{95}(EC)$ is the 95-percentile evaluation of the concentration of Escherichia coli in cfu/100ml, $p_{90}(EC)$ is the 90-percentile evaluation of the concentration of Escherichia coli in cfu/100ml, $p_{95}(IE)$ is the 95-percentile evaluation of the concentration of intestinal enterococci in cfu/100ml, $p_{90}(IE)$ is the 90-percentile evaluation of the concentration of intestinal enterococci in cfu/100ml. |
| 4 | Poor | See Annex II (1) of BWD. Bathing water quality status is 'Poor' if: for inland waters ($p_{90}(IE) > 330$) OR ($p_{90}(EC) > 900$) for coastal and transitional waters ($p_{90}(IE) > 185$) OR ($p_{90}(EC) > 500$)) Where $p_{90}(EC)$ is the 90-percentile evaluation of the concentration of Escherichia coli in cfu/100ml, $p_{90}(IE)$ is the 90-percentile evaluation of the concentration of intestinal enterococci in cfu/100ml. |

SeasonalPeriod table

For each bathing water, the duration of bathing season is reported in the **SeasonalPeriod** table (Table 3). Other events related to the bathing water quality or management, such as short-term pollution events, abnormal situations, bathing prohibition, or inaccessibility, are also reported using this table. Some of these periods could not be reported systematically in the old data model but are required for the clear assessment of quality status.

More than one period type can be reported for the same bathing water and period. For example, both shortTermPollution and bathingProhibition can be reported for the same dates, in two rows. The revised **SeasonalPeriod** table replaces the old “[Seasonal information on bathing waters](#)” table, as well as the old “[Abnormal situations](#)” and “[Short term pollution](#)” tables.

| Element | Datatype | Reporting | Description |
|------------------------|-------------------------------|-------------|--|
| season | Year(YYYY) | Mandatory | Year of the bathing season. The year of the bathing season will typically be the year of the reporting exercise. Contact bwd.helpdesk@eionet.europa.eu for assistance if you require the re-submission of data deliveries for previous bathing waters seasons. |
| bathingWaterIdentifier | String(42) | Mandatory | Unique identifier of the bathing water. Must be a valid bathing water identifier in the WFDProtectedArea registry. |
| periodType | BWDPeriodType | Mandatory | One or more seasonal period can be reported for each bathing water, using separate records. The 'bathingSeason' period must be reported for all active bathing waters. See Table 4 for further information. |
| startDate | Date(YYYY-MM-DD) | Mandatory | Start date (YYYY-MM-DD) of the seasonal period. For some period types if the startDate is unknown or is yet undetermined, the conventional value '9999-12-31' should be reported. Note that startDate and endDate cannot both be set to '9999-12-31'. |
| endDate | Date(YYYY-MM-DD) | Mandatory | End date (YYYY-MM-DD) of the seasonal period. For some period types if the endDate is unknown or is yet undetermined, the conventional value '9999-12-31' should be reported. Note that startDate and endDate cannot both be set to '9999-12-31'. |
| managementMeasures | String(max) | Conditional | Description of significant management measures taken in the scope of reported seasonal period (see Table 4). Additional information must be reported in the managementMeasures element for all period types except 'bathingPeriod'. |
| remarks | String(max) | Optional | Additional information applicable to the seasonal period. |

| Code | Label | Definition |
|---------------|-----------------------|---|
| bathingSeason | Bathing season period | <p>The bathing season period is necessary for the assessment and must be reported annually for each operating bathing water.</p> <p>For each bathing water, one and only one 'bathingSeason' period must be reported, except if the bathing water has been 'delisted' (see below).</p> <p>The beginning and the end of the bathing season must be reported in the startDate and endDate elements. The duration of the bathing season is determined with the start and end dates inclusive.</p> <p>Additional information about the bathing season and the bathing water management can be reported in the managementMeasures element. This includes the description of significant management measures (cleaning, observing and additional monitoring, preventing access, plans and programmes of measures to prevent bathers' exposure to pollution and reduce the risk of different types of pollution etc.); information to the public (media, newspapers, internet, television, press releases, easy accessible place in the vicinity of bathing water for actively and promptly disseminating the information to public such as information points, posters, panels, signs, boards, national reports and other publications etc.); risk assessment reports; and other information associated with overall bathing water management.</p> <p>(Note: In the previous data model, this information was reported in the Bathing season table.)</p> |

| Table 4. Bathing water seasonal period type vocabulary (BWDPeriodType). | | |
|---|-----------------------------|--|
| Code | Label | Definition |
| shortTermPollution | Short term pollution period | <p>Period of short-term pollution during the bathing season.</p> <p>Short-term pollution means microbiological contamination that has clearly identifiable causes, is not normally expected to affect bathing water quality for more than approximately 72 hours after the bathing water quality is first affected and for which the competent authority has established procedures to predict and deal with.</p> <p>Applicable to bathing waters where one or more short-term pollution events have occurred.</p> <p>For each bathing water, zero or more non-overlapping 'shortTermPollution' periods can be reported (using separate records).</p> <p>The beginning and the end of the short-term pollution event must be reported in the startDate and endDate elements, so that the monitoring samples taken during short-term pollution events can be correctly disregarded during the quality assessment (Article 3.6 of the BWD).</p> <p>Additional information must be reported in the managementMeasures element. This includes: the causes of the specific short-term pollution event (e.g. conditions likely to lead to short-term pollution such as storms, sewage overflows etc.) and the management measures that were taken (e.g. surveillance, early warning systems, reducing pollution and corresponding impacts, prevent bathers' exposure to pollution, information to public on media and on site, preventing access, observing and additional monitoring).</p> <p>(Note: In the previous data model, this information was reported in the Short-term pollution table.)</p> |
| abnormalSituation | Abnormal situation period | <p>Event or combination of events affecting the bathing water quality at the location concerned and not expected to occur on average more than once every four years (Article 2.9 of the BWD).</p> <p>Applicable to bathing waters where one or more abnormal situations have occurred.</p> <p>For each bathing water, zero or more non-overlapping 'abnormalSituation' periods can be reported (using separate records).</p> <p>The beginning and the end of the abnormal situation event must be reported in the startDate and endDate elements, so that the suspension of the monitoring calendar can be taken into account. However, new samples must be taken as soon as possible after the end of the abnormal situation to replace samples that are missing due to abnormal situations (Article 3.7 of the BWD).</p> <p>Additional information must be reported in the managementMeasures element. This includes the causes of specific abnormal situation (e.g. flood, drought) and the management measures that were taken (e.g. reducing pollution and corresponding impacts, prevent bathers' exposure to pollution, information to public on media and on site, preventing access, observing and additional monitoring).</p> <p>(Note: In the previous data model, this information was reported in the Abnormal situations table.)</p> |
| qualityChanges | Quality changes period | <p>Period where such changes have occurred that are likely to affect the classification of the bathing water (Article 4.4 of the BWD). Applicable only to bathing waters where such changes have occurred.</p> <p>For each bathing water, zero or more 'qualityChanges' period can be reported.</p> <p>The beginning and the end of the period must be reported in the startDate and endDate elements, because the quality assessment will be based solely on the samples taken after the quality changes occurred (Article 4.4 of the BWD). If the changes likely to affect the classification of the bathing water do not have a known date, the conventional value of '9999-12-31' should be given as a startDate. If the changes have not finished by the time of the annual reporting, the endDate value should be set to the conventional value '9999-12-31'. In this case, the endDate value should be reported in the next annual data reporting or resubmitted to CDR as soon as the value is known.</p> <p>The description of changes that may affect bathing water quality must be reported in managementMeasures element. For example: implementing UWWTD with construction of new UWWT plants or upgrading of existing wastewater treatment, reducing sewer overflow, rainwater reservoirs and reservoir conduits that can store wastewater until there is space again in the sewerage system, measures to restrict the large number of resting dogs, birds and other animals on the beach, etc.</p> <p>(Note: In the previous data model, this information was reported in the Changes element of the Bathing season table.)</p> |

| Table 4. Bathing water seasonal period type vocabulary (BWDPeriodType). | | |
|---|----------------------------|---|
| Code | Label | Definition |
| bathingProhibition | Bathing prohibition period | <p>Temporary or permanent bathing prohibition period.</p> <p>Applicable to bathing waters where bathing was prohibited for part of the bathing season (temporary bathing prohibition), or for the entire season (permanent bathing prohibition), due to low water quality. When a bathing water is subject to prohibition or advice against bathing to prevent the bathers' exposure to pollution, it should be sampled and classified. The prohibition can be removed only when the bathing is again assessed as safe.</p> <p>For each bathing water, zero or more non-overlapping 'bathingProhibition' periods can be reported (using separate records).</p> <p>The beginning and the end of the period must be reported in the startDate and endDate elements. A permanent bathing prohibition lasts at least one entire bathing season (Article 2 of the BWD): the startDate should be equal to or earlier than the start date of the bathing season; and the endDate should be equal to or later than the end date of the bathing season.</p> <p>If a bathing water is classified as 'poor' for five consecutive years, a permanent bathing prohibition or permanent advice against bathing shall be introduced. However, a Member State may introduce a permanent bathing prohibition or permanent advice against bathing before the end of the five-year period if it considers that the achievement of 'sufficient' quality would be infeasible or disproportionately expensive. (Article 5 of BWD).</p> <p>Whenever a permanent bathing prohibition or permanent advice against bathing is introduced, the area concerned is no longer a bathing water. Member States shall ensure that such information is actively disseminated and promptly made available during the bathing season (Article 12 of BWD).</p> <p>The description of management measures must be reported in managementMeasures element, together with information on the prohibition/advice against bathing. This may include measures to prevent, reduce or eliminate the causes of pollution, identification of the causes and reasons for the failure to achieve 'sufficient' quality status, measures to prevent, reduce or eliminate the causes of pollution and information of alerting the public and informing them of the causes of the pollution (Article 5.4 of BWD).</p> |
| inaccessible | Inaccessibility period | <p>Period when the bathing water was inaccessible for bathers for part or an entire season due to reasons not associated to bathing water quality (for example: dangerous access to the bathing water because of erosion, damaged infrastructure surrounding the bathing water, engineering/construction works, reduction in water levels, administrative/legal issues).</p> <p>For each bathing water, zero or more non-overlapping 'inaccessible' periods can be reported (using separate records).</p> <p>The beginning and the end of the period must be reported in the startDate and endDate elements. The description of management measures must be reported in managementMeasures element, together with information on the inaccessibility reasons.</p> <p>(Note: In the previous data model, this information was reported in the Closed element of the Identified bathing waters table.)</p> |

| Table 4. Bathing water seasonal period type vocabulary (BWDPeriodType). | | |
|---|----------------------------|---|
| Code | Label | Definition |
| delisted | Delisted bathing water | <p>A former bathing water (i.e. a bathing water that has been reported in previous seasons) must be 'delisted' if it is no longer considered a bathing water due to a reduced number of bathers or to other factors <i>not related to the bathing water quality</i>. Does not include bathing prohibitions nor inaccessibility.</p> <p>The value 'delisted' must not be used for situations when there there was a permanent bathing prohibition or permanent advice against bathing: those cases must be reported using the 'bathingProhibition' code. The value 'delisted' must not be used for situations when a bathing water is inaccessible to bathers but is still part of the official bathing water list: those cases must be reported using the 'inaccessible' code.</p> <p>For each former bathing water, zero or one 'delisted' periods can be reported. Two cases are possible:</p> <ol style="list-style-type: none"> 1) If the bathing water was delisted at the end of the current season, then report the all the normal information (characterisation with the quality class, bathing season period, and monitoring results), and include a seasonal period with periodType = 'delisted' and a start date after the end of the bathing season. No additional reporting is be expected in future data calls. 2) If the bathing water was delisted before the current season, report only the characterisation with qualityClass = 0 and a seasonal period with periodType = 'delisted'. No additional reporting is expected. <p>The date when the former bathing water was delisted must be reported in the startDate. The date of delisting a bathing water has to take place at least one day after other reported periods (e.g. bathingPeriod) ended. The endDate element should have the conventional value '9999-12-31' that is used for indeterminate or unknown dates.</p> <p>The description of reasons for delisting the bathing water must be reported in managementMeasures element.</p> |
| cyanobacteriaBloom | Cyanobacteria bloom period | <p>Period when cyanobacteria proliferation occurred during the bathing season. According to Article 2 of the BWD, cyanobacterial proliferation means an accumulation of cyanobacteria in the form of a bloom, mat or scum. Appropriate monitoring should be carried and adequate management measures should be taken when potential for cyanobacterial proliferation has been indicated (Article 8 of the BWD).</p> <p>Applicable to bathing waters where cyanobacteria blooms have been noted. For each bathing water, zero or more non-overlapping 'cyanobacteriaBloom' periods can be reported (using separate records).</p> <p>The beginning and the end of the period must be reported in the startDate and endDate elements. The description of management measures must be reported in managementMeasures element, together with other relevant information (e.g. causes of cyanobacteria bloom).</p> <p>(Note: In the previous data model, this information was reported in the Closed element of the Identified bathing waters table.)</p> |
| other | Other period | <p>Other periods/events associated with overall bathing water management.</p> <p>For each bathing water, zero or more non-overlapping 'other' periods can be reported (using separate records).</p> <p>The beginning and the end of the period must be reported in the startDate and endDate elements. The description of the event must be reported in managementMeasures element.</p> |

MonitoringResult table

The **MonitoringResult** table contains the results of the monitoring of intestinal enterococci and *Escherichia coli* and is very similar to the old "[Monitoring results](#)" table.

| Table 5. Bathing water monitoring results table (MonitoringResult). | | | |
|---|-------------------|-----------|---|
| Element | Datatype | Reporting | Description |
| season | Year(YYYY) | Mandatory | <p>Year of the bathing season.</p> <p>The year of the bathing season will typically be the year of the reporting exercise.</p> <p>Contact bwd.helpdesk@eionet.europa.eu for assistance if you require the re-submission of data deliveries for previous bathing waters seasons.</p> |
| bathingWaterIdentifier | String (42) | Mandatory | <p>Unique identifier of the bathing water.</p> <p>Must be a valid bathing water identifier in the WFDProtectedArea registry.</p> |
| sampleDate | Date (YYYY-MM-DD) | Mandatory | <p>Sampling date (YYYY-MM-DD).</p> <p>All samples have to be taken within the reported bathing season, except for pre-season samples (see Table 6) or samples taken to replace samples missing from the pre-defined monitoring calendar due to justified reasons (e.g. short-term pollution or abnormal situation at the end of the season). A monitoring calendar (i.e. a pre-fixed sampling plan) must be established for each bathing water before the start of the season.</p> <p>The monitoring calendar is implemented when the interval between samples does not exceed one month (Article 3.4 of the BWD), the pre-season sample is taken, and no fewer than four samples are analysed per bathing season.</p> <p>Since the sampling must take place no later than four days after the date specified in the monitoring calendar (Article 3.4), the interval between two samples must not exceed one month + four days and the interval between three consecutive samples should not exceed 66 days. Higher intervals are tolerated in case of abnormal situations (Article 4.7).</p> <p>Three samples are sufficient if the bathing season duration does not exceed eight weeks or if the bathing water is situated in a region subject to special geographical constraints (Annex IV, paragraph 2 of the Directive).</p> <p>Up to two samples per sampling date can be taken in different points of large bathing water with the aim of ensuring the representativeness of the samples. Samples for previous bathing seasons can be reported in order to assess bathing water according to Annex II of the Directive.</p> <p>(Note: In the previous data model, this information was reported in the SampleDate element of the Monitoring results table.)</p> |
| intestinalEnterococciValue | Integer | Mandatory | <p>Measured concentration of intestinal enterococci per sample in "colony forming unit" per 100 ml (CFU/100ml).</p> <p>If the observed value was zero or below the limit of detection, then set the reported value to the limit of detection, and set the flag to <code>intestinalEnterococciStatus = 'limitOfDetectionValue'</code></p> <p>If the observation is missing, then set the reported value to zero, and set the flag to <code>intestinalEnterococciStatus = 'missingValue'</code></p> <p>For observed values above 185 for coastal bathing waters, or above 330 for inland bathing waters, it is recommended to confirm that the reported value is correct by setting <code>intestinalEnterococciStatus = 'confirmedValue'</code></p> <p>(Note: In the previous data model, this information was reported in the ConcIE element of the Monitoring results table.)</p> |

| Table 5. Bathing water monitoring results table (MonitoringResult). | | | |
|---|--------------------------------------|-------------|--|
| Element | Datatype | Reporting | Description |
| escherichiaColiValue | Integer | Mandatory | <p>Measured concentration of <i>Escherichia coli</i> per sample in "colony forming unit" per 100 ml (CFU/100ml).</p> <p>If the observed value was zero or below the limit of detection, then set the reported value to the limit of detection, and set the flag to escherichiaColiStatus = 'limitOfDetectionValue' If the observation is missing, then set the reported value to zero, and set the flag to escherichiaColiStatus = 'missingValue'</p> <p>For observed values above 500 for coastal bathing waters, or above 900 for inland bathing waters, it is recommended to confirm that the reported value is correct by setting escherichiaColiStatus = 'confirmedValue'.</p> <p>(Note: In the previous data model, this information was reported in the ConcEC element of the Monitoring results table.)</p> |
| sampleStatus | BWDSampleStatus | Conditional | <p>Information regarding missing samples, samples collected outside the bathing season, samples collected during short-term pollution events, etc. This element is not required for "normal" samples - i.e. for samples collected during the bathing season, under normal bathing water quality conditions, and according to the predefined monitoring calendar. See Table 6 for a description of the cases where the reporting the sample status is mandatory.</p> <p>If more than one value is applicable, use the hierarchy below to select the value that should be reported: 1 - missingSample (highest importance) 2 - confirmationSample 3 - shortTermPollutionSample 4 - replacementSample 5 - preSeasonSample (lowest importance)</p> |
| intestinalEnterococciStatus | BWDObservationStatus | Conditional | <p>Information regarding missing values, values below the limit of detection, or exceptionally high values. See Table 6 for a description of the cases where it is mandatory to the report the observation status for intestinal enterococci observations.</p> |
| escherichiaColiStatus | BWDObservationStatus | Conditional | <p>Information regarding missing values, values below the limit of detection, or exceptionally high values. See Table 6 for a description of the cases where it is mandatory to the report the observation status for <i>Escherichia coli</i> observations.</p> |
| remarks | String(max) | Optional | <p>Additional information regarding preventing sampling, short-term pollution samples, replacement samples, pre-season samples, missing samples etc. should be provided within this element. Other information regarding specific bathing water sample can be also entered into this field when applicable.</p> |

| Table 6. Bathing water sample status (BWDSampleStatus). | | |
|---|---------------------|--|
| Code | Label | Definition |
| missingSample | Missing sample | Status flag to confirm that both of the required parameters have not been sampled/measured/reported. If only one of the two parameters is missing, report this under intestinalEnterococciStatus or escherichiaColiStatus, respectively. |
| confirmationSample | Confirmation Sample | Status flag to confirm that the sample is a confirmation sample (In the event of short-term pollution, one additional sample is to be taken to confirm that the incident has ended. This sample is not part of the set of bathing water quality data.) This sample must be reported on the last day of short-term pollution. Additional information regarding the sample can be reported in remarks element. |
| preSeasonSample | Pre-season sample | Status flag to confirm that corresponding sample is a pre-season sample (sample taken shortly before season start). The practice of using a 10-day interval before the start of the bathing season has been endorsed for a pre-season sample. The validity of samples taken before the 10-day period will be accepted if the general interval between samples is satisfied. If bathing water operates the whole year (e.g. in case of overseas territories), the pre-season sample concept is not applicable. |

| | | |
|--------------------------|-----------------------------|--|
| | | Additional information regarding the sample can be reported in remarks element. |
| shortTermPollutionSample | Short-term pollution sample | Status flag to confirm that the sample is affected by a short-term pollution and to be disregarded from the assessment dataset. Samples taken during short-term pollution may be disregarded from quality assessment dataset in accordance with Article 3.6 of BWD. Additional information regarding the sample can be reported in remarks element. |
| replacementSample | Replacement sample | Status flag to confirm that corresponding sample is an additional sample taken no later than seven days after the end of the short-term pollution in order to substitute a disregarded sample taken within short-term pollution event (Annex IV of BWD). Additional information regarding the sample can be reported in remarks element. |

| Table 7. Bathing water observation status vocabulary (BWDObservationStatus). | | |
|--|--------------------------|---|
| Code | Label | Definition |
| missingValue | Missing value | Status flag to confirm that a specific observation value is missing. The flag can be used in the intestinalEnterococciValue element and/or in the escherichiaColiValue element. Additional explanations regarding the value can be provided in the remarks element. |
| confirmedValue | Confirmed value | Status flag to confirm that the reported observation value is correct. It is not necessary to apply this flag to all valid records: it is intended for extreme values or for other special cases where confirmation is needed or relevant. The flag can be used in the intestinalEnterococciValue element and/or in the escherichiaColiValue element. Additional explanations regarding the value can be provided in the remarks element. |
| limitOfDetectionValue | Limit of detection value | Status flag to inform that a specific observed value was below the limit of detection, and therefore the value reported is the limit of detection. The flag can be used in the intestinalEnterococciValue element and/or in the escherichiaColiValue element. Additional explanations regarding the value can be provided in the remarks element. |

Identification of Bathing Waters

According to the Article 13(1) of the BWD, Member States report "annually before the start of the bathing season of all waters identified as bathing waters, including the reason for any change compared to the preceding year".

To simplify the reporting, the spatial data set needs to be reported only once. If there are no changes to the bathing waters, it is not necessary to report it in subsequent years. If there are changes, the full data set should be resubmitted, with the appropriate updates to the modified bathing waters and/or the new bathing waters.

The Guidance on the reporting of spatial data to the Water Information System for Europe are available on the following [link](#).

Protected Areas under the Water Framework Directive

Bathing waters are protected areas under the Water Framework Directive (Article 6 and Annex IV of the [WFD](#)). The register of WFD protected areas identifiers is kept in the WISE [WFDProtectedArea](#) vocabulary.

In accordance with the principle "report once, use many times", the bathing waters reported under the BWD annual reporting do not need to be reported under WFD (ENV 2016, pg.4).

The annual reporting under Bathing Water Directive 2006/7/EC (...) requires the identification of bathing waters by providing a point (longitude and latitude). As optional element, the WFD code and name of the surface water body and the River Basin District information are provided for each bathing water site (...). If Member States have delineated bathing water areas and these are spatially different from WFD water bodies (or are even delineated outside WFD water bodies), they can report this information using the GML ProtectedArea schema under the WFD. As described in the GIS guidance and quoted above, the attribute 'zoneType' should be 'bathingWaters'. The reporting of this spatial information is optional.

In practice, the bathing waters reported under BWD will be integrated into the WFD reference spatial datasets (together with information reported under other reporting flows, such as UWWTD or WFD). The identifiers of the bathing waters will be integrated into the WISE [WFDProtectedArea](#) register, and can be referenced and reused both in BWD and in other data flows.

To facilitate the reuse of the information in WISE, the reporting of the bathing waters is aligned with the WFD Protected Areas reporting and uses the same data model.

This also facilitates the reuse of the data in the scope of the INSPIRE [priority data sets](#), since the WFD spatial data model follows the requirements of the INSPIRE [Area Management/Restriction/Regulation Zones and Reporting Units](#) theme.

Coordinate reference systems

The spatial data sets must be provided in one of the following coordinate reference systems (CRS):

- ETRS89-GRS80 (urn:ogc:def:crs:EPSG::4258)
- ETRS89-LAEA (urn:ogc:def:crs:EPSG::3035)
- WGS 84 (urn:ogc:def:crs:EPSG::4326)

The geometry of spatial objects should be reported in the ETRS89-GRS80 geodetic coordinate system (urn:ogc:def:crs:EPSG::4258). For areas outside the scope of ETRS89, such as overseas territories, WGS 84 (urn:ogc:def:crs:EPSG::4326) must be used.

The geometry of spatial objects may also be reported in the ETRS89-LAEA projected coordinate system (urn:ogc:def:crs:EPSG::3035). Again, an exception applies for areas outside the scope of ETRS89, where the geodetic coordinate system WGS 84 (urn:ogc:def:crs:EPSG::4326) must be used.

Projection metadata files (.prj)

- **Valid projection metadata files (.prj) for the *shapefile* format are provided below:**For ETRS89-GRS80 (urn:ogc:def:crs:EPSG::4258)
GEOGCS["ETRS89",DATUM["D_ETRS_1989",SPHEROID["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]]
- For ETRS89-LAEA (urn:ogc:def:crs:EPSG::3035)
PROJCS["ETRS_1989_LAEA",GEOGCS["GCS_ETRS_1989",DATUM["D_ETRS_1989",SPHEROID["GRS_1980",6378137.0,298.257222101]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]],PROJECTION["Lambert_Azimuthal_Equal_Area"],PARAMETER["False_Easting",4321000.0],PARAMETER["False_Northing",3210000.0],PARAMETER["Central_Meridian",10.0],PARAMETER["Latitude_Of_Origin",52.0],UNIT["Meter",1.0]]
- For WGS 84 (urn:ogc:def:crs:EPSG::4326)
GEOGCS["GCS_WGS_1984",DATUM["D_WGS_1984",SPHEROID["WGS_1984",6378137.0,298.257223563]],PRIMEM["Greenwich",0.0],UNIT["Degree",0.0174532925199433]]

Data exchange

Character encoding

The character encoding for all data must be UTF-8.

File formats

The spatial data sets must be reported using GML files. Data Providers may prepare the data using the *shapefile* format. *Shapefile* templates are available, and a *shapefile* to GML conversion tool is also available in the envelope itself. Users can either upload the GML file directly to the envelope or use the SHP to GML converter tool available in the envelope itself (see “Upload and convert file” tool).

Some restrictions were adopted in the schemas to allow a similar description of the data sets regardless of the file format (GML or *shapefile*). For example, each type of geometry is reported in a separate data file (due to the limitations of the *shapefile* format).

See the [CDR help page](#) and [BWD help website](#) or further information.

Shapefile format

Shapefile templates are provided in the [BWD help page](#). The templates must be used when preparing the data and using the conversion tools from *shapefile* to GML. The pre-filled shapefiles, are for all reporting countries, for the last reported season also available to national reporters at respective [WISE restricted access area](#).

Shapefiles must have the three structural files (*.shp, *.shx and *.dbf) and the *.prj and *.cpg files. *Shapefiles* without the *.prj projection file (or with an incorrect definition of the coordinate system) will not be processed by the conversion tools. The *.cpg file is also mandatory as it explicitly identifies the character encoding used in the *.dbf file. Remember that the mandatory encoding is UTF-8.

Shapefiles with different fields in the attribute table will not be processed. This includes: additional fields, different field names or different field types. Note that the field names in a *shapefile* must have a maximum of 10 characters, so a "short" version of the GML names was defined for the *shapefile* templates (see the "Quick Reference Card" in page 2).

The DBF format used in the *shapefile* attribute table does not support NULL values (i.e. there is no difference between a NULL string and an empty string, or between a NULL value and a zero value). Also, the structure of the table is fixed for all records (i.e. even if an optional attribute is not provided or is not applicable to a given record). To circumvent these limitations, Data Providers are requested to explicitly provide the conventional null values depending on the field type:

- Use 'NotApplicable' for string fields;
- Use -9999 for numeric fields;
- Use 9999-12-31 for date fields.

The DBF format has a maximum length of 254 characters for string fields. Be aware of this limitation.

Data submission and resubmission

Data must be uploaded in the Reportnet Central Data Repository (CDR).

For Data Providers reporting under BWD, collections have already been created in CDR for the reporting of spatial data:

- https://cdr.eionet.europa.eu/{country_code}/eu/bwd/bwd_788/

If data is resubmitted or updated, then **complete data sets** have to be uploaded. Incomplete spatial data sets will not pass the referential integrity quality control and thus cannot be further processed.

Contact bwd.helpdesk@eionet.europa.eu if you require assistance with an update or resubmission.

BWD spatial data set

Reporting predecessors and successors

Predecessors are identified through their thematic identifiers, using two elements:

- **predecessorsIdentifier** which must contain a comma-separated list of the identifiers (thematicIdIdentifier) of the object(s) that have been deactivated/replaced by the presently reported object;
- **predecessorsIdentifierScheme** which must contain the identifiers' scheme.

These elements are conditional: predecessors must be reported if the current object is replacing something. For example, if bathing water 'ZZ123' is replacing previously reported bathing water 'ZZ12', then 'ZZ12' must be reported as predecessor of 'ZZ123'.

The **wiseEvolutionType** element explicitly states what type of event generated the object. This element is mandatory (even if there are no predecessors or successors to be reported).

For BWD, the value of the wiseEvolutionType element is one of the following: 'creation', 'deletion', 'aggregation', 'splitting', 'change', 'changeCode', 'changeBothAggregationAndSplitting' and 'noChange'.

For more information see Table 9. WISE evolution type vocabulary Table 9.

Reporting re-opened bathing waters

In the WFD data flows, it is not possible to manually bring back European identifiers that were deprecated in the past. The appropriate reporting mechanism in order to re-establish continuity in the time series - is to create a new European thematic identifier (thematicIdIdentifier) and report the deprecated identifier as a predecessor (to be noted that this only affects the European identifiers - all national INSPIRE IDs can remain unchanged). The value of wiseEvolutionType element should be 'changeCode'.

Bathing water spatial data

| Table 8. Bathing water spatial data | | | |
|-------------------------------------|--|-------------|--|
| Element | Datatype | Reporting | Description |
| geometry | GM_MultiPoint | Mandatory | Use the location of the monitoring point (see BWD, Annex III, §1(f)) as the representative point for the bathing water. The geometry of spatial objects should be reported in the ETRS89-GRS80 geodetic coordinate system (urn:ogc:def:crs:EPSG::4258). For areas outside the scope of ETRS89, such as overseas territories, WGS 84 (urn:ogc:def:crs:EPSG::4326) must be used. |
| inspireIdLocalId | String(254) | Mandatory | A local identifier, assigned by the data provider. The local identifier is unique within the namespace. It is recommended to use the same value used in the thematicIdIdentifier. |
| inspireIdNamespace | String(254) | Mandatory | Namespace, assigned by the data provider, uniquely identifying the data source of the spatial object. |
| inspireIdVersionId | String(25) | Conditional | This element is reported when changes to the object are applied (e.g. minor changes in the geometry, or corrections/updates to other information that does not change the identity of the object itself). |
| thematicIdIdentifier | String(42) | Mandatory | Unique identifier of the bathing water. The identifier must follow the syntax rules set for the WISE identifiers ¹⁾ . The identifier must be equal to bathingWaterIdentifier as reported under ROD 788. |
| thematicIdIdentifierScheme | IdentifierScheme | Mandatory | For BWD, the value of the thematicIdIdentifierScheme element is always 'euProtectedAreaCode'. |
| beginLifespanVersion | Date(YYYY-MM-DD) | Conditional | Must be filled with a valid date when wiseEvolutionType is one of the following: 'creation', 'aggregation', 'change', 'changeCode', 'splitting', 'changeBothAggregationAndSplitting'. |
| endLifespanVersion | Date(YYYY-MM-DD) | Conditional | Must be filled with a valid date when wiseEvolutionType is 'deletion'. |
| predecessorsIdentifier | String(42) | Conditional | This value is only reported when the bathing water is replacing other(s) that were previously reported. The predecessor(s) identifier must exist in the WFDProtectedArea vocabulary. |
| predecessorsIdentifierScheme | IdentifierScheme | Conditional | This value is only reported when the predecessorsIdentifier is reported. For BWD, the value of the thematicIdIdentifierScheme element is always 'euProtectedAreaCode'. |
| successorsIdentifier | String(42) | Conditional | This value is only reported when the wiseEvolutionType value is 'deletion' and the bathing water has been replaced by other(s). |
| successorsIdentifierScheme | IdentifierScheme | Conditional | This value is only reported when the successorsIdentifier is reported. For BWD, the value of the thematicIdIdentifierScheme element is always 'euProtectedAreaCode'. |
| wiseEvolutionType | WiseEvolutionTypeValue | Mandatory | For BWD, the value of the wiseEvolutionType element is one of the following: 'creation', 'deletion', 'aggregation', 'splitting', 'change', 'changeCode', 'changeBothAggregationAndSplitting' and 'noChange'. |
| nameTextInternational | String(254) | Mandatory | English exonym or an understandable English version of the bathing water name. The nameTextInternationalvalue can only contain letters of the basic Latin character set (A-Z), digits (0-9) spaces or hyfens.Diacritics, special characters, accents, etc., are not allowed. |
| nameText | String(254) | Mandatory | Name of the bathing water in a national language. |
| nameLanguage | ISO 639-2 language codes | Mandatory | ISO 639-2/B code of the national language |
| designationPeriodBegin | Date(YYYY-MM-DD) | Mandatory | Use the start of the bathing season of the first year that the bathing water was designated as such. |
| designationPeriodEnd | Date(YYYY-MM-DD) | Conditional | This value must be reported when the wiseEvolutionType value is 'deletion'. |

¹ The WISE identifiers must:

- Start with the ISO 3166-1 alpha-2 country code, except for Greece ('EL');
- Be followed by the national code, with a maximum of 40 characters;
- Use only uppercase letters [A to Z] and digits [0 to 9].
- The underscore character ('_') or the hyphen character ('-') may be used as separators within the code (but not to separate the country code from the national code, and not in the end of the code).

[Source: [WISE GIS Guidance](#) page 52]

| Element | Datatype | Reporting | Description |
|----------------------------|---|-------------|---|
| zoneType | ZoneTypeCode | Mandatory | For BWD, the value of the zoneType element is always 'bathingWaters' |
| specialisedZoneType | SpecialisedZoneTypeCode | Mandatory | For BWD, the value of the specialisedZoneType element is one of the following: 'coastalBathingWater', 'transitionalBathingWater', 'lakeBathingWater' or 'riverBathingWater'. |
| legalBasisName | String(254) | Mandatory | For BWD, the default value of the legalBasisName element is 'Directive 2006/7/EC of the European Parliament and of the Council of 15 February 2006 concerning the management of bathing water quality and repealing Directive 76/160/EEC.' |
| legalBasisLink | URLType | Mandatory | For BWD, the default value of the legalBasisLink element is 'http://data.europa.eu/eli/dir/2006/7/0j'. |
| legalBasisLevel | LegislationLevelValue | Mandatory | For BWD, the default value of the legalBasisLevel element is 'european'. |
| relatedZonIdentifier | String(254) | Conditional | For BWD, the relatedZonIdentifier should contain the identifier of the SurfaceWaterBody where the bathing water is located. |
| relatedZonIdentifierScheme | IdentifierScheme | Conditional | The relatedZonIdentifierScheme value is defined by the related zone chosen above. |
| sizeValue | PositiveDecimalType | Optional | For BWD, this element is not required (but can be provided). |
| sizeUom | UomSize | Optional | For BWD, this element is not required (but can be provided). |
| link | URLType | Optional | For BWD, the link element should contain a resolvable URL to the bathing water profile. This information can also be provided in the link element of the Characterisation table, if it is not known when the spatial data is reported or if it changed after the spatial data was first reported. |

| Code | Label | Definition |
|-----------------------------------|--|--|
| creation | Creation | The spatial object being reported is new and does not replace any previously reported objects. The designationPeriodBegin element must be filled with a valid date. |
| changeCode | Change in the identifier | The spatial object being reported replaces a previously reported object, simply due to a change in the thematiCdIdentifier . Minor changes to the geometry can be reported (e.g. minor adjustments to the delineation or locations, improved geometry resulting from a new spatial data source, etc.). Updates to other attributes can also be reported. Note that the previously reported object will be flagged for 'deletion' and is replaced by the newly report object. One predecessor must be identified: the object bearing the thematiCdIdentifier . |
| change | Change | The spatial object identifier has not changed since the object was last reported. This code is used if minor changes to the geometry are reported (e.g. minor adjustments to the bathing water location, improved geometry resulting from a new spatial data source, etc.), or updates to other attributes. |
| aggregation | Aggregation | The spatial object being reported is the result of the spatial aggregation of two or more existing spatial objects, and replaces the previously reported objects (i.e. two or more bathing waters are replaced by only one). Two (or more) comma-separated predecessors must be reported. |
| splitting | Splitting | The spatial object being reported is the result of the spatial splitting of one existing spatial object, and replaces the previously reported object (i.e. one bathing water is split to two or more bathing waters). One predecessor must be reported. |
| changeBothAggregationAndSplitting | Change due to both aggregation and splitting | The spatial object being reported is the result of the combined spatial aggregation and splitting of two or more existing spatial objects, and replaces the previously existing objects (i.e. the objects being aggregated and/or split). Two or more predecessors must be reported. |
| deletion | | The spatial object being reported is no longer in use. Depending of the specific case, the object may be replaced by other objects (e.g. if it was split), or it may simply be retired (in which case it will have no successors). If a bathing water site will no longer be reported because it is 'delisted' and is no longer considered a bathing water, the designationPeriodEnd element must be provided, with a valid date value. A typical example for the use of the 'deletion' option is the reporting of a bathing water that was operating in previous season but it is no longer considered a bathing water due to a reduced number of bathers or other reasons. |
| noChange | Change in the identifier | The spatial object identifier and geometry have not changed since the object was last reported. Updates to other attributes can be reported (e.g. missing information may be available that was not previously reported). |

References

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EEA, 2016, WISE GIS Guidance, Guidance on the reporting of spatial data to WISE. Version 6.0.6. 2016-04-29. URL: http://cdr.eionet.europa.eu/help/WFD/WFD_521_2016/GISGuidance/WISE_GISGuidance.pdf

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WHO, 2003, *Guidelines for safe recreational water environments*, World Health Organization, Geneva (http://www.who.int/water_sanitation_health/bathing/srwe1/en/), accessed 19 October 2015.

WRc, 2014, *Reference Document for the monitoring and assessment requirements of the revised Bathing Water Directive*, Water Research Centre.

Annex I – Mapping between the 2019 model and the 2008 model

Table 10 contains the mapping between the data elements in the old 2008 data model and the data elements in the 2019 revised data model.

| Table 10. Mapping between the the new 2019 BWD data model and the old 2008 BWD data model. | | | | | |
|--|------------------|-----------------------------|-----------------------------|-------------|---------|
| # | new dataset | new element | old dataset | old element | remarks |
| 1 | Characterisation | season | BWQD_2006_IdentifiedBW | Year_BW | |
| 2 | Characterisation | bathingWaterIdentifier | BWQD_2006_SeasonalInfo | BWID | |
| 3 | Characterisation | groupIdentifier | BWQD_2006_SeasonalInfo | GroupID | |
| 4 | Characterisation | qualityClass | BWQD_2006_SeasonalInfo | Class | |
| 5 | Characterisation | geographicalConstraint | BWQD_2006_IdentifiedBW | SpecGeoCon | |
| 6 | Characterisation | link | | | |
| 7 | Characterisation | remarks | | | |
| 1 | SeasonalPeriod | season | | | |
| 2 | SeasonalPeriod | bathingWaterIdentifier | BWQD_2006_SeasonalInfo | BWID | Note 1 |
| 13 | SeasonalPeriod | periodType | | | |
| 14 | SeasonalPeriod | startDate | BWQD_2006_SeasonalInfo | StartDate | Note 1 |
| 15 | SeasonalPeriod | endDate | BWQD_2006_SeasonalInfo | EndDate | Note 1 |
| 16 | SeasonalPeriod | managementMeasures | BWQD_2006_SeasonalInfo | ManMeas | |
| 7 | SeasonalPeriod | remarks | | | |
| 1 | MonitoringResult | season | | | |
| 2 | MonitoringResult | bathingWaterIdentifier | BWQD_2006_MonitoringResults | BWID | |
| 23 | MonitoringResult | sampleDate | BWQD_2006_MonitoringResults | SampleDate | |
| 24 | MonitoringResult | intestinalEnterococciValue | BWQD_2006_MonitoringResults | ConcIE | |
| 25 | MonitoringResult | escherichiaColiValue | BWQD_2006_MonitoringResults | ConcEC | |
| 26 | MonitoringResult | sampleStatus | | | |
| 27 | MonitoringResult | intestinalEnterococciStatus | | | |
| 28 | MonitoringResult | escherichiaColiStatus | | | |
| 7 | MonitoringResult | remarks | BWQD_2006_MonitoringResults | Remarks | |

Note 1: Also in the data set BWQD_2006_AbnormalSituations and in the data set BWQD_2006_ShortTermPolut

Annex II – Mapping between the 2008 model and the 2019 model

Table 8 contains the mapping between the data elements in the old 2008 data model and the data elements in the 2019 revised data model.

| Table 11. Mapping between the old 2008 BWD data model and the new 2019 BWD data model | | | | | |
|---|--------------|------|------------------|----------------------------|---|
| old data set | old element | kept | new data set | new element | remarks |
| BWQD_2006_IdentifiedBW | BWID | YES | Spatial data | thematicIdIdentifier | |
| BWQD_2006_IdentifiedBW | BWName | YES | Spatial data | nameText | |
| BWQD_2006_IdentifiedBW | ShortName | NO | | | Not necessary. |
| BWQD_2006_IdentifiedBW | Longitude_BW | YES | Spatial data | geometry | Included in the geometry. |
| BWQD_2006_IdentifiedBW | Latitude_BW | YES | Spatial data | geometry | Included in the geometry. |
| BWQD_2006_IdentifiedBW | Coordsys_BW | YES | Spatial data | geometry | Included in the geometry. |
| BWQD_2006_IdentifiedBW | GroupID | NO | | | Kept only in the Characterisation table. |
| BWQD_2006_IdentifiedBW | RBDID | NO | | | Can be derived. |
| BWQD_2006_IdentifiedBW | RBDName | NO | | | Can be derived. |
| BWQD_2006_IdentifiedBW | RBDSUID | NO | | | Can be derived. |
| BWQD_2006_IdentifiedBW | RBDSUName | NO | | | Can be derived. |
| BWQD_2006_IdentifiedBW | WBID | YES | Spatial data | relatedZone | relatedZoneIdentifier,relatedZoneIdentifierScheme |
| BWQD_2006_IdentifiedBW | WBName | NO | | | Can be derived. |
| BWQD_2006_IdentifiedBW | NWUnitID | NO | | | Not necessary. |
| BWQD_2006_IdentifiedBW | NWUnitName | NO | | | Not necessary. |
| BWQD_2006_IdentifiedBW | BWKey | NO | | | Not necessary. |
| BWQD_2006_IdentifiedBW | Year_BW | NO | Characterisation | season | |
| BWQD_2006_IdentifiedBW | AccessKey | NO | | | Not necessary. |
| BWQD_2006_IdentifiedBW | BWType | NO | | | Can be derived. |
| BWQD_2006_IdentifiedBW | Change | NO | | | Not necessary. |
| BWQD_2006_IdentifiedBW | Closed | NO | SeasonalPeriod | periodType | Moved to the SeasonalPeriod data set. |
| BWQD_2006_IdentifiedBW | BWaterCat | YES | Spatial data | specialisedZoneType | |
| BWQD_2006_IdentifiedBW | SpecGeoCon | YES | Classification | geographicalConstraint | Moved to the Characterisation data set. |
| BWQD_2006_SeasonalInfo | BWID | YES | SeasonalPeriod | bathingWaterIdentifier | |
| BWQD_2006_SeasonalInfo | GroupID | YES | Characterisation | groupIdentifier | |
| BWQD_2006_SeasonalInfo | StartDate | YES | SeasonalPeriod | startDate | |
| BWQD_2006_SeasonalInfo | EndDate | YES | SeasonalPeriod | endDate | |
| BWQD_2006_SeasonalInfo | Class | YES | Characterisation | qualityClass | |
| BWQD_2006_SeasonalInfo | ManMeas | YES | SeasonalPeriod | managementMeasures | |
| BWQD_2006_SeasonalInfo | Changes | YES | SeasonalPeriod | periodType | Moved to the SeasonalPeriod data set. |
| BWQD_2006_SeasonalInfo | NuSeasons | NO | | | Can be derived. |
| BWQD_2006_MonitoringResults | BWID | YES | MonitoringResult | bathingWaterIdentifier | |
| BWQD_2006_MonitoringResults | GroupID | NO | | | Kept only in the Characterisation table. |
| BWQD_2006_MonitoringResults | SampleDate | YES | MonitoringResult | sampleDate | |
| BWQD_2006_MonitoringResults | ConclE | YES | MonitoringResult | intestinalEnterococciValue | |
| BWQD_2006_MonitoringResults | ConcEC | YES | MonitoringResult | escherichiaColiValue | |
| BWQD_2006_MonitoringResults | Remarks | YES | MonitoringResult | remarks | |
| BWQD_2006_ShortTermPolut | BWID | YES | SeasonalPeriod | bathingWaterIdentifier | |
| BWQD_2006_ShortTermPolut | GroupID | NO | | | Kept only in the Characterisation table. |
| BWQD_2006_ShortTermPolut | StartDateS | YES | SeasonalPeriod | startDate | |
| BWQD_2006_ShortTermPolut | EndDateS | YES | SeasonalPeriod | endDate | |
| BWQD_2006_AbnormalSituations | BWID | YES | SeasonalPeriod | bathingWaterIdentifier | |
| BWQD_2006_AbnormalSituations | GroupID | NO | | | Kept only in the Characterisation table. |
| BWQD_2006_AbnormalSituations | StartDateA | YES | SeasonalPeriod | startDate | |
| BWQD_2006_AbnormalSituations | EndDateA | YES | SeasonalPeriod | endDate | |

Data delivery in the Central Data Repository

Data submission

Data must be uploaded in the Reportnet Central Data Repository (CDR). For detailed guidance, see the document “How to use Reportnet for BWD reporting” at the [BWD Help](#) section.

Collections have already been created in CDR for the reporting of spatial data:

- http://cdr.eionet.europa.eu/{country_code}/eu/bwd/bwd_788/

Collections have also been created in CDR for the reporting of monitoring and classification data:

- http://cdr.eionet.europa.eu/{country_code}/eu/bwd/bwd_787/

Resubmissions and updates

If data is resubmitted or updated, then complete data sets have to be uploaded.

Incomplete data sets will not pass the referential integrity quality control and thus cannot be further processed.