

## Ecological status and potential

Ecological status is an assessment of the quality of the structure and functioning of surface water ecosystems. It shows the influence of pressures (e.g. pollution and habitat degradation) on the identified quality elements. Ecological status is determined for each of the surface water bodies of rivers, lakes, transitional waters and coastal waters, based on biological quality elements and supported by physico-chemical and hydromorphological quality elements. The overall ecological status classification for a water body is determined, according to the 'one out, all out' principle, by the element with the worst status out of all the biological and supporting quality elements.

In addition, further information is provided in chapter 2 of the EEA report [European waters – assessment of status and pressures 2018](#), and section 2.4 Ecological status and exemptions of the [WFD 2016 reporting guidance](#).

*Caution is advised when comparing Member States and when comparing the first and second RBMPs, as the results are affected by the methods Member States have used to collect data and often cannot be compared directly.*

In the analyses in EEA 2018 report, no distinction has been made between ecological status (of natural water bodies) and ecological potential (of heavily modified and artificial water bodies (HMWBs and AWBs)). Specific results on the ecological potential of HMWBs and AWBs can be obtained from the WISE Freshwater visualisation tool. Good ecological potential is the environmental objective for HMWBs and AWBs. Its achievement requires improvements to be made to the physico-chemical, hydromorphological and biological conditions as far as possible without impairing the non-substitutable water uses that were the reason for the designation of HMWB or AWB.

The following dashboards are available (2018/07/17)

### Ecological status or potential

- Ecological status and potential - tables [overview table](#) ; [by category](#);
- Ecological status and potential - charts [by category](#) ; [country comparison](#) ; [by country and category](#)
- Ecological status and potential - maps [by country](#) ; [by RBD](#) ; [by country and RBD](#)
- Ecological status or potential in 2015 [overview table](#) , and expected achievement year of good status [overview table](#)
- Ecological status or potential in the 2nd and 1st RBMP -charts [by category](#) ; [country comparison](#) ; [by country and category](#)
- Ecological status assessment confidence [overview table](#) ; charts [by category](#) ; [country comparison](#) ; [by country and category](#)

### Ecological status by intercalibration and broad types

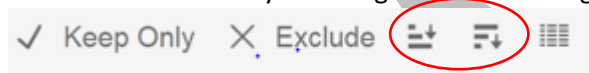
- Ecological status or potential, intercalibration types - charts [overview graph](#) ; [country comparison](#) ; [by country](#)
- Ecological status or potential, broad types - charts [overview](#) ; [country comparison](#) ; [by country](#)

## Ecological status

There are two tables presenting overview of surface water ecological status: [overview table](#) ; and [by category](#).

### Main features

- The [overview table](#) presents the results by number of water bodies and by size (length in km and area in km<sup>2</sup>). Ecological status high/good and moderate/poor/bad have been grouped. The table is by default without unknown but by selecting unknown in the filter 'ecological status' extra columns are added to the table.
- The table [by category](#) presents the results by category and number of water bodies (default), but by using the filters results can be changed to by percentage (pane) or by size (km/km<sup>2</sup>). The table start default by rivers and lakes but transitional and coastal waters can be selected in the filters.
- Moving the mouse to NUT0 (column with Member States) a [+] will appear and clicking on [+] will drill down to RBDs. On euRBDcode column a new [+] will appear, and by clicking on [+] it will drill down to sub-units. If a RBD has not identified sub-units RBDcode and SubunitCode are generally equal.
- By default, Member States are shown in alphabetical order by the two-letter country abbreviation. It is possible to rank Member States, for example, by % in "High or Good" status by selecting the column and sort descending.
- Columns are sorted by selecting a column and right click on ascending or descending sort.



If the sorting is by percentage the [overview table](#) should be used and filters may be used to select categories.

Ecological status is also presented in by three charts [by category](#); [country comparison](#); and [by country and category](#) and by three maps ecological status [by country](#); [by RBD](#); and [by country and RBD](#).

### Main features

- The chart dashboards consist of a top chart illustrating ecological or potential status and a lower chart surface water chemical status.
- Water bodies with unknown ecological status may be excluded by clicking on the grey unknown square in the legend.
- Ecological status for natural water bodies can be illustrated by selecting 'natural' in the type filter and similar ecological potential results are shown if 'heavily modified' and 'artificial' are selected<sup>1</sup>. To compare ecological status and potential images or the data can be downloaded (to download data it may be necessary to double click on the upper chart).
- The chart with [country comparison](#) illustrates the proportion of unknowns per country and the ecological status. Caution is advised when comparing Member States, as the results are affected by the methods Member States have used to collect data. Information on [quality elements](#) can help in understanding differences in country approaches.
- The maps illustrate proportion of water bodies failing to achieve good ecological status. The filters may be used to show percent failure with or without unknowns and ecological status or potential.

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<sup>1</sup> 2 % (348 water bodies) of heavily modified or artificial water bodies has been reported with high ecological status.

### Expected status in 2015 and achievement year of good status

Two table dashboards present ecological status or potential expected in 2015 [overview table](#), and expected achievement year of good status [overview table](#).

In the reporting Member States had the possibility to indicate whether it is expected that this surface water body will achieve good ecological status by the end of 2015. This may differ from the data reported under above ecological status, because the assessment of status included in the second RBMP will most likely be based on monitoring data from the period 2010-2014, given that the second RBMP will be prepared in 2014 for public consultation. Therefore, the status communicated in the second RBMP may not necessarily reflect the expected status in 2015.

If good ecological status or ecological potential will NOT be achieved by 2015 (i.e. the above-expected ecological status in 2015 is No), Member States have reported the date by which it is expected that it will be achieved in full.

#### Main features

- The results on expected ecological status in 2015 ([overview table](#)) differ from the 2<sup>nd</sup> RBMPs ecological status as the 2015 results has no unknowns, and there is an overall improvement in good status from 41 % to 43 %.
- The table dashboard on and expected achievement year of good status ([overview table](#)) present columns with water bodies already in good ecological status or potential (2015), water bodies with less stringent objectives, and the expected achievement date of good ecological status either by the end of the 2<sup>nd</sup> RBMPs (2021), by the end of the 3<sup>rd</sup> RBMPs (2027) or after 2027.
  - Relative few water bodies (1 %) have less stringent objectives.
  - Member States foresee a major improvement in ecological status in the 2<sup>nd</sup> RBMPs (21 %) and 3<sup>rd</sup> RBMPs (31 %), while only one percent of water bodies are not expected to achieve good ecological status or potential in 2027.

### Ecological status assessment confidence

Member States have in both RBMPs reported the ecological status assessment confidence as either no information, low, medium or high confidence. The criteria used by Member States to assess confidence vary considerably, but general guidance has been: Low = no monitoring data; Medium = supporting QE data and/or limited data on one BQE; High = good data for at least one BQE and the most relevant supporting QE. Results on ecological assessment confidence are available for both RBMPs, but may not be fully comparable.

One tabular and three chart dashboards present overview of ecological status assessment confidence [overview table](#) ; charts [by category](#); [country comparison](#); and [by country and category](#).

#### Main features

- The tabular dashboard ([overview table](#)) present overview of number percentage of high, medium, low or unknown ecological status assessment confidence. By using the filters 1<sup>st</sup> or 2<sup>nd</sup> RBMPs can be chosen, and number of water bodies can be changed to size.
- Moving the mouse to NUT0 (column with Member States) a [+] will appear and clicking on [+] will drill down to RBDs.
- The chart dashboards ([by category](#); [country comparison](#); and [by country and category](#)) present bar charts of ecological status assessment confidence (charts at the top). By using the filters, different aspects can be illustrated. The country comparison chart illustrates differences in confidence of ecological status by Member States.

## Comparison of ecological status in the 2nd and 1st RBMPs

Three chart dashboards present ecological status in the 2nd and 1st RBMPs - [by category](#) ; [country comparison](#); and [by country and category](#)

### Main features

- The filters (left panel) may be used to select the results presented. By default is presented the number of water bodies, but in the Measure filter results can be changed by size (length in km of rivers and area of other surface water body categories).
- The filter 'Water bodies' makes it possible to select only the water bodies that were unchanged from 1<sup>st</sup> to 2<sup>nd</sup> RBMPs; this filter will exclude countries with the majority of surface water bodies redelineated from 1<sup>st</sup> to 2<sup>nd</sup> RBMPs.
- Water bodies with unknown ecological status may be excluded by clicking on 'Unknown' in the legend.
- Clicking on for example 'bad' in 1<sup>st</sup> RBMPs in (\*) will illustrate the status of these water bodies in the 2<sup>nd</sup> RBMPs. 'Ctrl' clicking on 'high' and 'good' will illustrate how many water bodies are still in high/good in 2<sup>nd</sup> RBMPs and how many water bodies that have deteriorated.
- A special feature is 'Ctrl' clicking in 'high', 'good', 'moderate', 'poor' and 'bad' in 1<sup>st</sup> RBMPs and excluding unknowns in legend will illustrate the ecological status of water bodies with known status in 1<sup>st</sup> and 2<sup>nd</sup> RBMPs. Filter 'Water bodies' should also be set to 'unchanged'.

### Ecological status by intercalibration and broad types

Member States have reported the corresponding intercalibration type and if there is no corresponding intercalibration type is 'Not applicable'. The following dashboards are presenting ecological status or potential by intercalibration types: [overview graph](#); [country comparison](#); and [by country](#).

A set of broad river types and broad lakes types have been developed in dialogue with the countries through the WFD-CIS ECOSTAT working group (ETC-ICM 2015<sup>2</sup>). These have been further aggregated from 20 to 12 aggregated broad river types and from 15 to 8 aggregated broad lake types by merging related types based on similarities in typology factors, e.g. altitude, geology, size or region. See also the dashboards on [delineation of water bodies](#).

The following dashboards are presenting ecological status or potential by broad and aggregated broad types: [overview](#) ; [country comparison](#); and [by country](#).

### Selected features

- The [overview graph](#) (intercalibration) and [overview](#) (broad types) present by category the EU overview of ecological status by the intercalibration types or the broad types. The status for not assigned intercalibration and broad types are also shown.
- In the intercalibration types, some water bodies have been assigned to intercalibration of a different intercalibration category. For example, some river water bodies have been assigned to lake or transitional intercalibration types.
- In the broad type dashboards the dimensions can be changed between 'broad types' or 'aggregated broad types'.
- Only the codes of intercalibration types, broad types and aggregated types are shown on the chart axis, but the full names can be found in the filters or by moving the mouse over a specific bar.

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<sup>2</sup> EEA ETC-ICM 2015, European Freshwater Ecosystem Assessment: Cross-walk between the Water Framework Directive and Habitats Directive types, status and pressures.  
[http://icm.eionet.europa.eu/ETC\\_Reports/FreshwaterEcosystemAssessmentReport\\_201509](http://icm.eionet.europa.eu/ETC_Reports/FreshwaterEcosystemAssessmentReport_201509)

- The intercalibration (**country comparison**) and broad types (**country comparison**) present by category and a specific type the ecological status or potential status by Member States. Bars are only shown for the Member States that have identified the specific type. It is possible to have multiple selection of types such all lowland types. The (\*) bar present the aggregated status.
- The intercalibration (**by country**) and broad types (**by country**) present for a specific Member State the ecological status by the identified types.

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