# French bathing water quality in 2016





Photo: © Peter Kristensen



Bathing waters of France in 2016

3359

2066

1293

**365 days** 

33139

91 %

2010

1 Oct to 30 Sep

**Total reported** 

Max season period

Share of bathing waters

with good or excellent

Directive 2006/7/EC since

Samples taken

water quality

Reporting under

Coastal

Inland

## **BWD Report For the Bathing Season 2016 France**

The report gives a general overview of information acquired from the reported data, based on provisions of the Bathing Water Directive<sup>1</sup>. The reporting process is described below, as well as state and trends of bathing water quality in France.

#### 1. BWD reporting in the season 2016

In 2016 bathing season, 3359 bathing waters have been reported in France. For each bathing water, five groups of parameters have been delivered<sup>2</sup>:

- identification data including name, location, geographic type of bathing water and availability to bathers:
- seasonal data including season start and end, national quality classification in present season, potential management measures and changes in quality;
- *monitoring results* disaggregated numerical values of two microbiological parameters - intestinal enterococci and Escherichia coli (also known as E. coli), recorded at each water sample taken;
- abnormal situation periods periods of unexpected situations that have, or could reasonably be expected to have, an adverse impact on bathing

	water quality and on bathers' health; reporting is optional;
•	short-term pollution periods – identifiable events that adversely affect water quality by faecal
	contamination; reporting is optional.

The authorities of France report data according to the new BWD (2006/7/EC) since the season 2010. The data for the season 2016 were delivered to the European Commission by 22 December 2016, with additional deliveries on 9 January 2017 and 24 February 2017.

Altogether, **3359 bathing waters** have been reported – 15.5% of all bathing waters in Europe. Out of all bathing waters in France, 1.28% have been newly identified in 2016 season. 62% of bathing waters in France are of coastal type; the other 38% are inland. 33139 samples were taken at bathing waters throughout the season – 10 per bathing water on average.

lex.europa.eu/LexUriServ/LexUriServ.do?uri=0J:L:2006:064:0037:0051:EN:PDF

<sup>&</sup>lt;sup>2</sup> See the BWD Data Dictionary for detailed explanations: <a href="http://dd.eionet.europa.eu/datasets/latest/BWO">http://dd.eionet.europa.eu/datasets/latest/BWO</a> 2006

The maximum bathing season period was from 1 October to 30 September, i.e. throughout the year accounting for overseas territories. Season duration varies depending on bathing water.

Detailed information on bathing waters is available from national portal at <a href="http://baignades.sante.gouv.fr/baignades/editorial/en/accueil.html">http://baignades.sante.gouv.fr/baignades/editorial/en/accueil.html</a>.

### 2. Assessment methodology<sup>3</sup>

During the bathing season, water samples are taken and analysed for two bacteria, *Escherichia coli* and intestinal enterococci which may indicate the presence of pollution, usually originating in sewage, livestock waste, bird faeces etc. The results of the analysis are used to assess the quality of the bathing waters concerned and to provide information to the public on the quality of water in the bathing sites concerned.

The monitoring requirements under the Directive are:

- taking a pre-season sample (taken shortly before the start of the bathing season) 4;
- a minimum of four samples per season<sup>5</sup>;
- a minimum of one sample per month<sup>6</sup>.

If these rules are satisfied, the bathing water is categorised as 'sampling frequency satisfied'. If not all monitoring requirements are fulfilled the bathing water is categorised as 'not enough samples'. 97.5% of bathing waters met the described monitoring requirements set by the Directive, while the rest did not satisfy monitoring requirements for different reasons: being new; having changed environmental conditions that might affect water quality classification; closed; not monitored due to legal issues, physical inaccessibility to the site etc.

<sup>&</sup>lt;sup>3</sup> The methodology used by the EC and the EEA is described here, while results of assessment by national authorities may differ in individual cases.

<sup>&</sup>lt;sup>4</sup> A pre-season sample is taken into account at total number of samples per season.

<sup>&</sup>lt;sup>5</sup> Three samples are sufficient if the season does not exceed eight weeks or the region is subject to special geographical constraints.

<sup>&</sup>lt;sup>6</sup> If, for any reason, it is not possible to take the sample at the scheduled date, a delay of four extra days is allowed. Thus, the interval between two samples should not exceed 31 + 4 days.

Table 1 shows the statistics of bathing waters according to monitoring requirements.

Table 1: Bathing waters in 2016 according to compliance with BWD monitoring provisions

	Count	Share of total [%]
BWs with sampling frequency satisfied (and are not new, are not subject		
to changes or were not closed in 2016)	3275	97.5%
These bathing waters have been monitored according to provisions and		
have complete dataset from the last assessment period. They have been		
quality-classified (excellent, good, sufficient, poor).		
BWs with sampling frequency not satisfied (and are not new, are not		0.4%
subject to changes or were not closed in 2016)		
These bathing waters exist throughout the last assessment period but have	15	
not been monitored throughout the period according to provisions for	15	
various individual reasons. They may be quality-classified if there is an		
adequate volume of samples available for credible classification.		
BWs that are new, subject to changes or closed in 2016		2.1%
These bathing waters do not have complete dataset for the last assessment		
period because they are new, have been subject to changes (that are likely	69	
to affect the classification of the bathing water) or have been closed. They		
cannot be quality-classified.		
Total number of bathing waters in 2016	3359	100%

Bathing waters where sampling frequency was not satisfied can still be quality assessed if at least four samples per season (three samples if the season does not exceed eight weeks or the region is subject to special geographical constraints) are available and equally distributed throughout the season. Assessment of bathing water quality is possible when the bathing water sample dataset is available for four consecutive seasons. Bathing waters are accordingly classified to one of the bathing water quality classes (excellent, good, sufficient, or poor).

The classification is based on pre-defined percentile values for microbiological enumerations, limiting the classes given in Annex I of the Directive. The Directive defines different limit values for coastal and inland waters.

Quality assessment is not possible for all bathing waters. In these cases, they are instead classified as either:

- not enough samples<sup>7</sup>;
- new8:
- changes9;
- closed<sup>10</sup>.

<sup>&</sup>lt;sup>7</sup> Not enough samples have been provided throughout the last assessment period (the last four bathing seasons or, when applicable, the period specified in Article 4.2 or 4.4).

<sup>&</sup>lt;sup>8</sup> Classification not yet possible because bathing water is newly identified and a complete set of samples is not yet available.

<sup>&</sup>lt;sup>9</sup> Classification is not yet possible after changes that are likely to affect the classification of the bathing water.

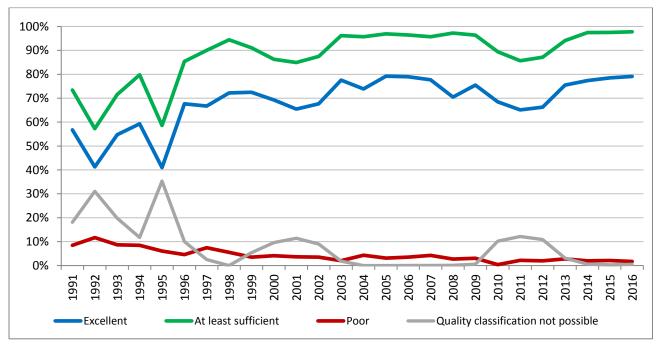
<sup>&</sup>lt;sup>10</sup> Bathing water is closed temporarily or throughout the bathing season.

#### 3. Bathing water quality

The results of the bathing water quality in France throughout the past period are presented in Figure 1 (for coastal bathing waters) and Figure 2 (for inland bathing waters). The previous reports are available on the European Commission's bathing water quality website<sup>11</sup> and the European Environment Agency's bathing water website<sup>12</sup>.

#### 3.1 Coastal bathing waters

In France, 97.8% of all existing coastal bathing waters met at least sufficient water quality standards in 2016. See Appendix 1 for numeric data.



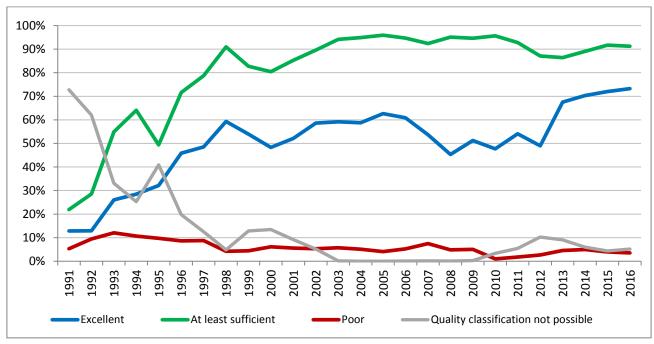
**Figure 1: Coastal bathing water quality trend in France.** Note: the "At least sufficient" class also includes bathing waters of "Excellent" quality class, the sum of shares is therefore not 100%.

<sup>11</sup> http://ec.europa.eu/environment/water/water-bathing/index\_en.html

<sup>12</sup> http://www.eea.europa.eu/themes/water/status-and-monitoring/state-of-bathing-water

#### 3.2 Inland bathing waters

91.3% of all existing inland bathing waters were of at least sufficient water quality in 2016. See Appendix 1 for numeric data.



**Figure 2: Inland bathing water quality trend in France.** Note: the "At least sufficient" class also includes bathing waters of "Excellent" quality class, the sum of shares is therefore not 100%.

#### 4. Information regarding management and other issues

Each year municipalities identify bathing waters in their territory. These bathing waters can be managed by private owners or public institutions. Besides measurement of bacteria indicating faecal contamination, bathing waters are also inspected for litter (glass, plastic and other waste). Moreover, the person responsible for the bathing water is required to implement a daily visual surveillance during the bathing season and inspect bathing water for other abnormalities, such as cyanobacteria, macroalgae or marine phytoplankton etc.

Since 2011, the head of bathing water is also required to prepare vulnerability assessment of bathing sites with potential pollution risks. This so-called "profiles" must precisely identify the factors which could deteriorate bathing water quality. If these conditions are met, bathing is temporarily prohibited. In sensitive areas, or on the basis of the conclusions of the "profile", managers can also use preventive bans without preliminary assessment/analyses. Such actions are usually following particular events such as storms, malfunction of wastewater treatment plans etc. Along with monitoring data, content analysis is delivered to the European Commission including sources causes of pollution as well as action taken for problematic bathing waters.

For the 2016 bathing season, 107 short-term pollutions (on 83 distinct bathing waters) have been reported in France, as well as 64 abnormal situations.

#### 5. Bathing water quality assessment presentation in online viewers

The European bathing water legislation focuses on sound management of bathing waters, greater public participation and improved information dissemination. More on the bathing and other water legislation can be found on the European Commission's website: <a href="http://ec.europa.eu/environment/water/index en.htm">http://ec.europa.eu/environment/water/index en.htm</a>.

The bathing water section of the Water Information System for Europe (WISE) which is accessible at the EEA bathing water website (<a href="http://www.eea.europa.eu/themes/water/interactive/bathing/state-of-bathing-waters">http://www.eea.europa.eu/themes/water/interactive/bathing/state-of-bathing-waters</a>) allows users to view the bathing water quality at more than 21 000 coastal and inland sites across Europe. The WISE bathing water quality data viewer combines text and graphical visualisation, providing a quick overview of the bathing water's locations and achieved quality. Having access to bathing water information, citizens are encouraged to make full use of it and participate with their comments.

## Appendix 1: Results of bathing water quality in France from 2013 to 2016

Table 2: Bathing waters in the season 2016 according to quality

		Total number of bathing waters	Excellent quality		At least sufficient quality		Poor quality		Quality classification not possible: not enough samples /new bathing waters/bathing waters subject to changes/closed	
			No	%	No	%	No	%	No	%
	2013	2034	1535	75.5	1914	94.1	57	2.8	63	3.1
Coastal	2014	2038	1576	77.3	1986	97.4	40	2.0	12	0.6
Coa	2015	2063	1619	78.5	2012	97.5	44	2.1	7	0.3
	2016	2066	1634	79.1	2020	97.8	36	1.7	10	0.5
	2013	1297	876	67.5	1121	86.4	59	4.5	117	9.0
Inland	2014	1307	919	70.3	1164	89.1	65	5.0	78	6.0
Inla	2015	1292	930	72.0	1185	91.7	51	3.9	56	4.3
	2016	1293	947	73.2	1180	91.3	46	3.6	67	5.2
	2013	3331	2411	72.4	3035	91.1	116	3.5	180	5.4
Total	2014	3345	2495	74.6	3150	94.2	105	3.1	90	2.7
Tot	2015	3355	2549	76.0	3197	95.3	95	2.8	63	1.9
	2016	3359	2581	76.8	3200	95.3	82	2.4	77	2.3

Note: the class "At least sufficient" also includes bathing waters which are of excellent quality, the sum of shares is therefore not 100%.

### Appendix 2: Bathing water quality map

Map 1: Bathing waters reported during the 2016 bathing season in France



Source: National boundaries: EEA; Large rivers and lakes: EEA, WFD Article 3; Bathing waters data and coordinates: French authorities; Digital Elevation Model over Europe (EU-DEM): EEA.