Portuguese bathing water quality in 2021





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Bathing water quality in the season of 2021 Portugal

Under the provisions of the <u>Bathing Water Directive</u>, about 22 thousand bathing waters are monitored in Europe each season. The monitoring data and other information regarding bathing water management are reported to the European Environment Agency by 29 reporting countries in Europe, to be assessed for the annual European report and more detailed national reports.

1. BWD reporting in the season of 2021

Bathing waters in the season 20)21	E
Total reported	652	
Coastal	502	
Inland	150	
First identified in 2021	21	
Delisted in 2021	0	
Total reported samples	4372	

Bathing water quality in the season of 2021

Excellent	577 (88.5%)
Good	40 (6.1%)
Sufficient	3 (0.5%)
Poor	2 (0.3%)
Not classified	30 (4.6%)

The bathing waters are quality classified according to the two microbiological parameters (*Escherichia coli* and intestinal enterococci) defined in the Bathing Water Directive. 95.1% of all reported bathing waters (includes those that could not be quality classified due to lack of samples) are in line with the minimum quality standards of the Directive, thus classified "sufficient" or better.

More information at the national bathing water portals:

https://www.apambiente.pt/apa/epoca-balnear-2022 (mainland Portugal)

https://portal.azores.gov.pt/web/drpm/-/perfis-das-%C3%81guas-balneares-costeiras-dos-a%C3%A7ores (Azores)

https://www.madeira.gov.pt/pesquisar/ctl/ReadInformcao/mid/446/InformacaoId/101529/UnidadeOrga nicaId/14/LiveSearch/%c3%a1guas%20balneares (Madeira)

2. BWD monitoring

Each bathing water that is identified by the reporting country needs to have a monitoring calendar established before the bathing season. The monitoring calendar requirements can be summarised as follows: (1) a preseason sample is to be taken shortly before the start of each bathing season; (2) no fewer than four (alternatively, three for specific cases) samples are to be taken and analysed per bathing season; and (3) an interval between sampling dates never exceeds one month.

From the reported data, the assessment also designates effective implementation of the monitoring calendar (Table 1).

Table 1: Bathing waters in 2021 according to implementation of the monitoring calenda

	Count	Share of total [%]
Monitoring calendar implemented A bathing water satisfies monitoring calendar conditions listed above.	643	98.6%
Monitoring calendar not implemented A bathing water does not satisfy monitoring calendar conditions listed above. It may be quality-classified if enough samples are available in the last assessment period.	9	1.4%

In addition to the monitoring calendar, management specifics of the last assessment period of four years are also assessed. The status primarily indicates whether the complete dataset of four seasons is available, but also points out the reasons as to why the bathing waters do not have the complete last assessment period dataset. The latter may indicate developing conditions at the site – most importantly, whether the bathing water has been newly identified within the period, or any changes have occurred that are likely to affect the classification of the bathing water.

Table 2: Management specifics in the last assessment period of 2018–2021

	Count	Share of total [%]
Continuously monitored A bathing water has been monitored in each bathing season of the last assessment period.	589	90.3%
Newly identified A bathing water was identified for the first time within the last assessment period. Such status is assigned for full four years after reported.	44	6.7%
Quality changes A bathing water was subject to changes described in BWD Art. 4.4 within the last assessment period. Such status is assigned for full four years after reported.	0	0.0%
Monitoring gap A bathing water was not monitored for at least one season in the last assessment period. No quality classification is made if not enough samples are reported for the most recent season.	19	2.9%



3. Bathing water quality

3.1 Coastal bathing waters

Coastal bathing waters are situated on the sea or transitional water coastline, with respective parameter thresholds defined in Annex I of the Directive. They are subject to more strict thresholds than the inland bathing waters. The quality trend is shown in Figure 1. Number of bathing waters by quality class for the last assessment period 2018–2021 is given in Annex I.



Figure 1: Trend of coastal bathing water quality. Notes: Each column represents an absolute number of bathing waters in the season. Quality classes "good" and "sufficient" are merged for comparability with the classification of the preceding Bathing Water Directive 76/160/EEC.

3.2 Inland bathing waters

Inland bathing waters are situated at rivers, lakes, and reservoirs, featuring fresh water and with respective parameter thresholds defined in Annex I of the Directive. The quality trend is shown in Figure 2. Number of bathing waters by quality class for the last assessment period 2018–2021 is given in Annex I.



Figure 2: Trend of inland bathing water quality. Notes: Each column represents an absolute number of bathing waters in the season. Quality classes "good" and "sufficient" are merged for comparability with the classification of the preceding Bathing Water Directive 76/160/EEC.

Annex I Bathing water quality in 2018–2021

		Total	Excellent		Good		Sufficient		Poor		Not classified	
		number of bathing waters	Count	%	Count	%	Count	%	Count	%	Count	%
	2018	480	453	94.4%	16	3.3%	5	1.0%	0	0.0%	6	1.3%
stal	2019	481	460	95.6%	16	3.3%	2	0.4%	0	0.0%	3	0.6%
Coastal	2020	493	460	93.3%	15	3.0%	1	0.2%	2	0.4%	15	3.0%
	2021	502	464	92.4%	19	3.8%	0	0.0%	2	0.4%	17	3.4%
	2018	128	101	78.9%	13	10.2%	4	3.1%	2	1.6%	8	6.3%
pu	2019	133	102	76.7%	15	11.3%	4	3.0%	1	0.8%	11	8.3%
Inland	2020	137	102	74.5%	20	14.6%	1	0.7%	1	0.7%	13	9.5%
	2021	150	113	75.3%	21	14.0%	3	2.0%	0	0.0%	13	8.7%
	2018	608	554	91.1%	29	4.8%	9	1.5%	2	0.3%	14	2.3%
tal	2019	614	562	91.5%	31	5.0%	6	1.0%	1	0.2%	14	2.3%
Total	2020	630	562	89.2%	35	5.6%	2	0.3%	3	0.5%	28	4.4%
	2021	652	577	88.5%	40	6.1%	3	0.5%	2	0.3%	30	4.6%

Table 3: Bathing water quality by water category and season

Note: Percentages may not total to 100 due to rounding.



Annex II Bathing water quality map



Map 1: Bathing waters reported during the 2021 bathing season in Portugal

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