**Country report** 

Croatian bathing water quality in 2019





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European Environment Agency



# Bathing water quality in the 2019 season **Croatia**

Under the provisions of the <u>Bathing Water Directive</u>, more than 21 000 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 30 European countries. These are then assessed for the annual European Bathing water report (European Bathing Water Briefing by 2020), published by the EEA, and more detailed national reports.

## 1. Bathing Water Directive reporting in the 2019 season

Bathing waters in the 2019 season	
Total reported	988
Coastal	953
Inland	35
First identified in 2019	8
Delisted in 2019	28
Total reported samples	9844

#### Bathing water quality in the 2019 season

Excellent	945 (95.6%)
Good	26 (2.6%)
Sufficient	5 (0.5%)
Poor	0 (0%)
Not classified	12 (1.2%)

Bathing waters are quality classified according to two microbiological parameters (Escherichia coli and Intestinal enterococci) defined in the Bathing Water Directive. A total of 98.8% of reported bathing waters are in line with the minimum quality standards of the Directive and are thus classified as 'sufficient' or better. No bathing water is classified 'poor'.

More information is available at the **national bathing water portal:** 

http://www.haop.hr/

# 2. Bathing Water Directive monitoring

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

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

#### Table 1: Bathing waters in 2019 according to implementation of the monitoring calendar

	Count	Share of total (%)
Monitoring calendar implemented A bathing water satisfies the monitoring calendar conditions listed above.	987	100
Monitoring calendar not implemented A bathing water does not satisfy the monitoring calendar conditions listed above. It may be quality-classified if enough samples are available in the last assessment period.	1	0

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

#### Table 2: Management specifics in the last assessment period, 2016-2019

	Count	Share of total (%)
<b>Continuously monitored</b> A bathing water has been monitored in each bathing season in the last assessment period.	951	96.30
<b>Newly identified</b> A bathing water was identified for the first time within the last assessment period. Such status is assigned for the full four years after being reported.	36	3.60
Quality changes A bathing water was subject to changes described in Bathing Water Directive Article 4.4 within the last assessment period. Such status is assigned for the full four years after being reported.	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.	1	0.10



### 3. Bathing water quality

#### **3.1** Coastal bathing waters

Coastal bathing waters are situated on the sea or transitional water coastline, with the respective parameter thresholds defined in Annex I of the Directive. They are subject to more strict thresholds than inland bathing waters. The quality trend for the period 1990–2019 (if historical data are available) is shown in Figure 1. The number of bathing waters by quality class for the last assessment period, 2016–2019, is given in Annex I Bathing water quality, 2016-2019.

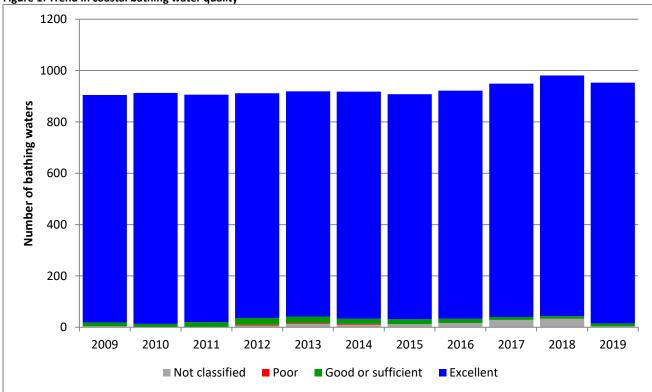


Figure 1: Trend in coastal bathing water quality

**Notes:** Each column represents an absolute number of bathing waters in the season. The 'good' and 'sufficient' quality classes are merged for comparability with the classifications under the preceding Bathing Water Directive 76/160/EEC.

#### 3.2 Inland bathing waters

Inland bathing waters are situated at fresh water rivers and lakes that have the respective parameter thresholds as defined in Annex I of the Directive. The quality trend for the period 1990–2019 (if historical data are available) is shown in Figure 2. The number of bathing waters by quality class for the last assessment period, 2016–2019, is given in Annex I Bathing water quality, 2016-2019.

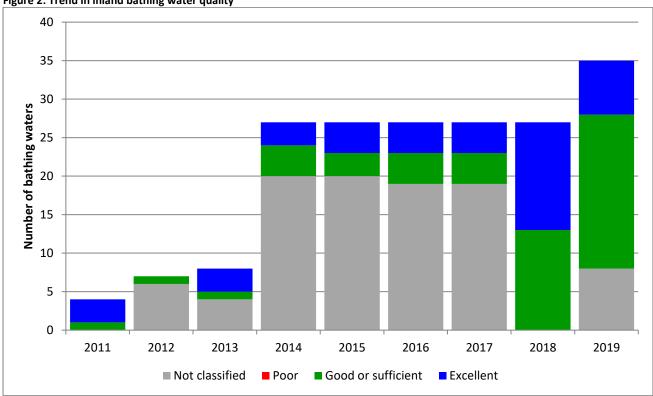


Figure 2: Trend in inland bathing water quality

**Notes:** Each column represents an absolute number of bathing waters in the season. The 'good' and 'sufficient' quality classes are merged for comparability with the classifications under the preceding Bathing Water Directive 76/160/EEC.



# Annex I Bathing water quality, 2016–2019

		Total	Exce	llent	Go	od	Suffi	cient	Ро	or	Not cla	ssified
		count of bathing waters	Count	%	Count	%	Count	%	Count	%	Count	%
Coastal	2016	922	889	96.4	13	1.4	3	0.3	0	0.0	17	1.8
	2017	949	909	95.8	10	1.1	1	0.1	0	0.0	29	3.1
	2018	981	938	95.6	8	0.8	1	0.1	1	0.1	33	3.4
	2019	953	938	98.4	9	0.9	2	0.2	0	0.0	4	0.4
Inland	2016	27	4	14.8	3	11.1	1	3.7	0	0.0	19	70.4
	2017	27	4	14.8	3	11.1	1	3.7	0	0.0	19	70.4
	2018	27	14	51.9	12	44.4	1	3.7	0	0.0	0	0.0
	2019	35	7	20.0	17	48.6	3	8.6	0	0.0	8	22.9
	2016	949	893	94.1	16	1.7	4	0.4	0	0.0	36	3.8
Total	2017	976	913	93.5	13	1.3	2	0.2	0	0.0	48	4.9
	2018	1008	952	94.4	20	2.0	2	0.2	1	0.1	33	3.3
	2019	988	945	95.6	26	2.6	5	0.5	0	0.0	12	1.2

#### Table 3: Bathing water quality by water category and season



# Annex II Bathing water quality map



#### Map 1: Bathing waters reported during the 2019 bathing season in Croatia

Source: National boundaries: EEA; Large rivers and lakes: EEA, WFD Article 3; Rivers in Western Balkan: TC Vode; Bathing waters data and coordinates: Croatian authorities; Digital Elevation Model over Europe (EU-DEM): EEA.