

## Bathing water quality in the season of 2023

# Croatia

Under the provisions of the [Bathing Water Directive](#), 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 2023

| Bathing waters in the season 2023 |      | Bathing water quality in the season of 2023 |             |
|-----------------------------------|------|---|-------------|
| <b>Total reported</b>             | 936  | <b>Excellent</b>                            | 905 (96.7%) |
| Coastal                           | 894  | <b>Good</b>                                 | 22 (2.4%)   |
| Inland                            | 42   | <b>Sufficient</b>                           | 5 (0.5%)    |
| <b>First identified in 2023</b>   | 0    | <b>Poor</b>                                 | 0 (0%)      |
| <b>Delisted in 2023</b>           | 0    | <b>Not classified</b>                       | 4 (0.4%)    |
| <b>Total reported samples</b>     | 9258 |   |             |

The bathing waters are quality classified according to the two microbiological parameters (*Escherichia coli* and intestinal enterococci) defined in the Bathing Water Directive. 99.6% 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 portal**:

<https://vrtlac.izor.hr/bwd>

## 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 pre-season 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 2023 according to implementation of the monitoring calendar**

|   | Count | Share of total [%] |
|---|-------|--------------------|
| <b>Monitoring calendar implemented</b><br>All monitoring calendar conditions listed above are implemented at the bathing water.   | 929   | 99.3%              |
| <b>Monitoring calendar not implemented</b><br>Not all monitoring calendar conditions listed above are implemented at the bathing water. It may be quality-classified if enough samples are available in the last assessment period. | 7     | 0.7%               |

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.

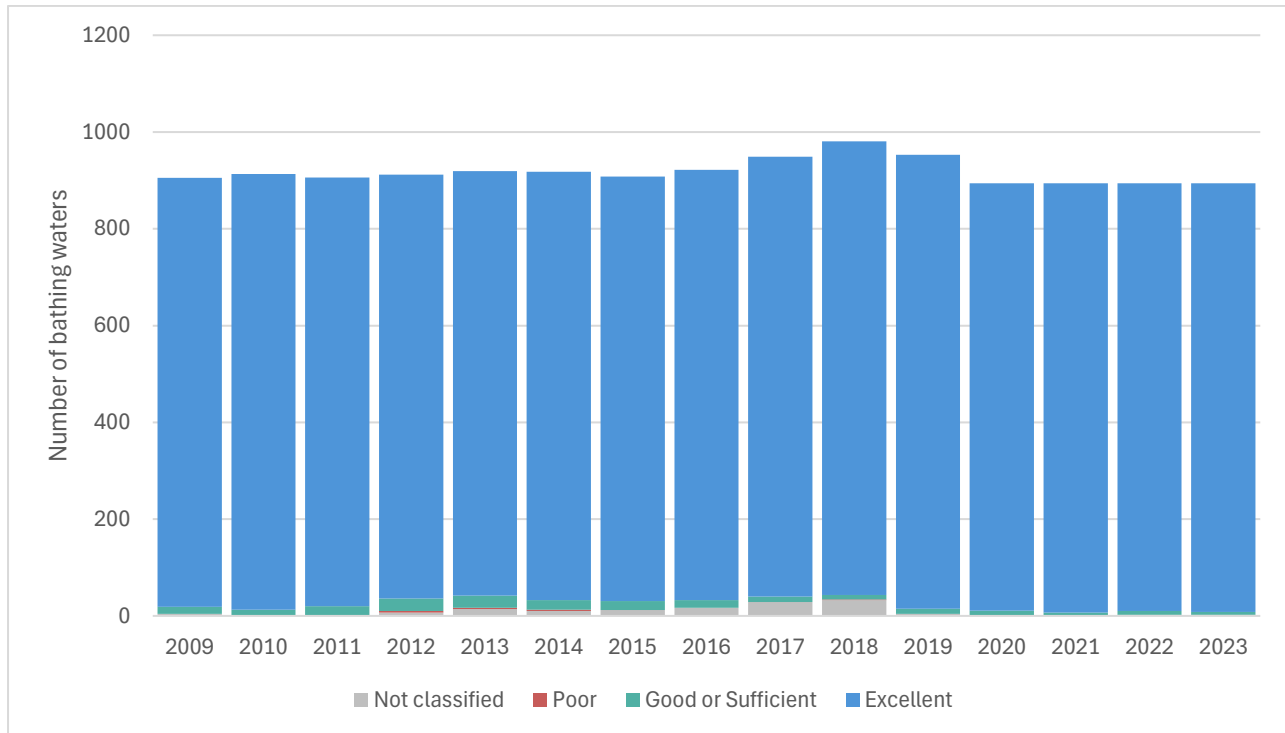
**Table 2: Management specifics in the last assessment period of 2020–2023**

|  | Count | Share of total [%] |
|--|-------|--------------------|
| <b>Continuously monitored</b><br>A bathing water has been monitored in each bathing season of the last assessment period.  | 923   | 98.6%              |
| <b>Newly identified</b><br>A bathing water was identified for the first time within the last assessment period. Such status is assigned for full four years after reported.  | 1     | 0.1%               |
| <b>Quality changes</b><br>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%               |
| <b>Monitoring gap</b><br>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. | 12    | 1.3%               |

### 3. Bathing water quality

#### 3.1 Coastal bathing waters

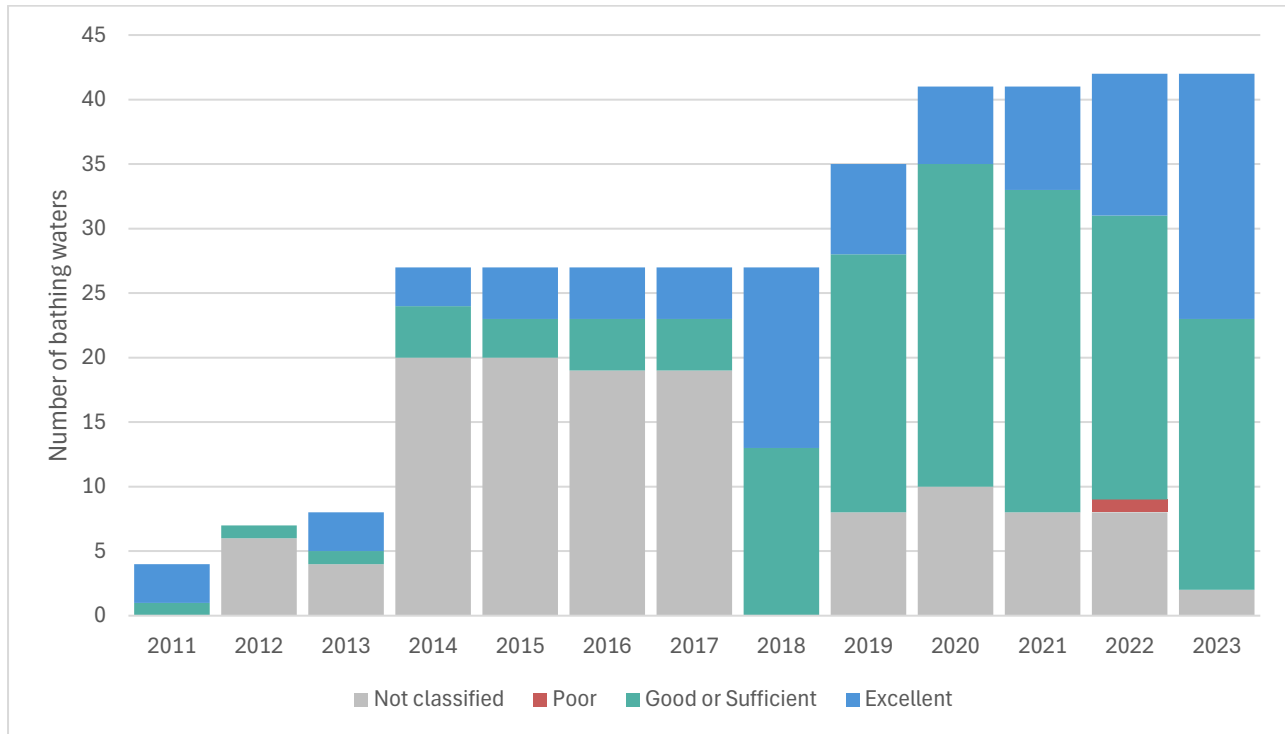
Coastal bathing waters are situated on the sea or transitional water coastline, with respective parameter thresholds defined in Annex I of the Directive. They are subject to more strict thresholds than the inland bathing waters. The quality trend is shown in Figure 1. Number of bathing waters by quality class for the last assessment period 2020–2023 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 and lakes, 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 2020–2023 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 2020–2023

Table 3: Bathing water quality by water category and season

|         |      | Total number of bathing waters | Excellent |       | Good  |       | Sufficient |       | Poor  |      | Not classified |       |
|---------|------|--------------------------------|-----------|-------|-------|-------|------------|-------|-------|------|----------------|-------|
|         |      |                                | Count     | %     | Count | %     | Count      | %     | Count | %    | Count          | %     |
| Coastal | 2020 | 894                            | 883       | 98.8% | 9     | 1.0%  | 1          | 0.1%  | 0     | 0.0% | 1              | 0.1%  |
|         | 2021 | 894                            | 887       | 99.2% | 6     | 0.7%  | 0          | 0.0%  | 0     | 0.0% | 1              | 0.1%  |
|         | 2022 | 894                            | 884       | 98.9% | 7     | 0.8%  | 1          | 0.1%  | 0     | 0.0% | 2              | 0.2%  |
|         | 2023 | 894                            | 886       | 99.1% | 4     | 0.4%  | 2          | 0.2%  | 0     | 0.0% | 2              | 0.2%  |
| Inland  | 2020 | 41                             | 6         | 14.6% | 20    | 48.8% | 5          | 12.2% | 0     | 0.0% | 10             | 24.4% |
|         | 2021 | 41                             | 8         | 19.5% | 19    | 46.3% | 6          | 14.6% | 0     | 0.0% | 8              | 19.5% |
|         | 2022 | 42                             | 11        | 26.2% | 17    | 40.5% | 5          | 11.9% | 1     | 2.4% | 8              | 19.0% |
|         | 2023 | 42                             | 19        | 45.2% | 18    | 42.9% | 3          | 7.1%  | 0     | 0.0% | 2              | 4.8%  |
| Total   | 2020 | 935                            | 889       | 95.1% | 29    | 3.1%  | 6          | 0.6%  | 0     | 0.0% | 11             | 1.2%  |
|         | 2021 | 935                            | 895       | 95.7% | 25    | 2.7%  | 6          | 0.6%  | 0     | 0.0% | 9              | 1.0%  |
|         | 2022 | 936                            | 895       | 95.6% | 24    | 2.6%  | 6          | 0.6%  | 1     | 0.1% | 10             | 1.1%  |
|         | 2023 | 936                            | 905       | 96.7% | 22    | 2.4%  | 5          | 0.5%  | 0     | 0.0% | 4              | 0.4%  |

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

# Annex II Bathing water quality map

**Map 1: Bathing waters reported during the 2023 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.