

Swedish bathing water quality in 2018



Sweden 

June 2019

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Bathing Water Quality in the Season 2018

Sweden

Under the provisions of the [Bathing Water Directive](#), 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 reporting countries in Europe, to be assessed for the annual European report and more detailed national reports.

1. BWD reporting in the season 2018

In the season 2018, Sweden identified and reported **436 bathing waters**, which is 2% of all bathing waters in Europe. No bathing waters in Sweden have been newly identified for the season of 2018. Five bathing waters reported in the preceding seasons have not been reported any more in 2018.

Bathing waters of Sweden in the season 2018		Bathing water quality in the season 2018	
Total reported bathing waters	436	Excellent	317 (72.7%)
Coastal	244	Good	78 (17.9%)
Inland	192	Sufficient	13 (3%)
		Poor	2 (0.5%)
Total reported samples	1982	Not classified	26 (6%)

The bathing waters are quality classified according to the two microbiological parameters (Escherichia coli and Intestinal enterococci) defined in the Bathing Water Directive. 93.6% of reported bathing waters are in line with the minimum quality standards of the Directive, thus classified “sufficient” or better. Two bathing waters are of “poor” quality.

More detailed information on bathing waters of Sweden is available at the national bathing water portal <https://www.havochvatten.se/badplatsen/>.

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. In Sweden, monitoring calendar for 2018 was not implemented at 24 bathing waters (Table 1).

Table 1: Bathing waters in 2018 according to implementation of the monitoring calendar

	Count	Share of total [%]
Monitoring calendar implemented A bathing water satisfies monitoring calendar conditions listed above.	412	94.5%
Monitoring calendar not implemented A bathing water does not satisfy monitoring calendar conditions listed above. They may be quality-classified if enough samples are available in the last assessment period.	24	5.5%

In addition to the monitoring calendar, management specifics of the last assessment period of four years are also assessed (Table 2). 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 2015–2018

	Count	Share of total [%]
Continuously monitored A bathing water has been monitored in each bathing season in the last assessment period.	428	98.2%
Newly identified A bathing water was identified for the first time within the last assessment period. Such status is assigned until the complete four-year dataset is available, i.e. for three years after the first reporting.	6	1.4%
Quality changes A bathing water was subject to changes described in BWD Art. 4.4 within the last assessment period. Such status is assigned until the complete four-year dataset of samples taken after changes took effect is available.	1	0.2%
Monitoring gap A bathing water was not monitored for at least one season in the last assessment period. No quality	1	0.2%

classification is made if no samples are reported for the most recent season.

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 in Sweden for the period 1995–2018 for which historical data are available is shown in Figure 1. The number of bathing waters by quality class for the last assessment period 2015–2018 is given in Table 3 in Annex I.

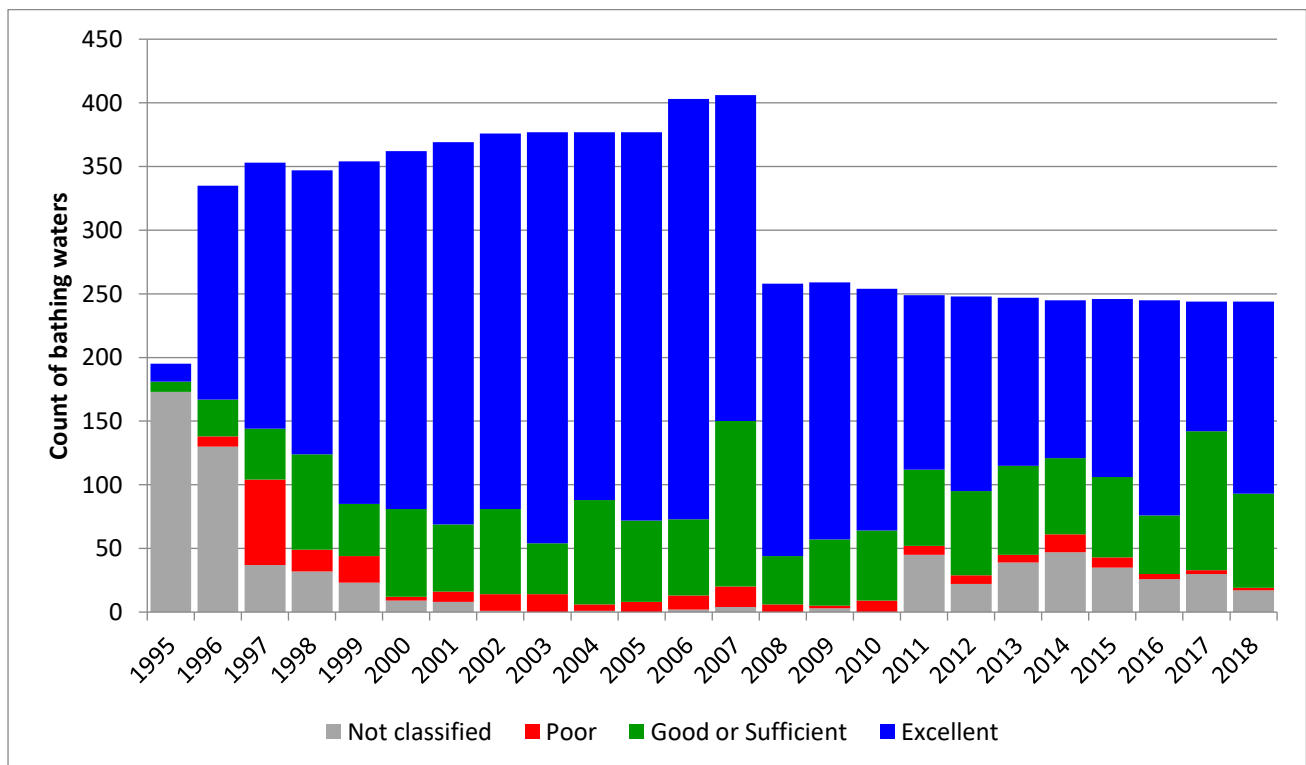


Figure 1: Trend of coastal bathing water quality in Sweden. Notes: Each bar represents the count of bathing waters in the season. Quality classes “good” and “sufficient” are merged for comparability with classification of the preceding Bathing Water Directive 76/160/EEC.

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. Quality trend in Sweden for the period 1995–2018 for which historical data are available is shown in Figure 2. The number of bathing waters by quality class for the last assessment period 2015–2018 is given in Table 3 in Annex I.

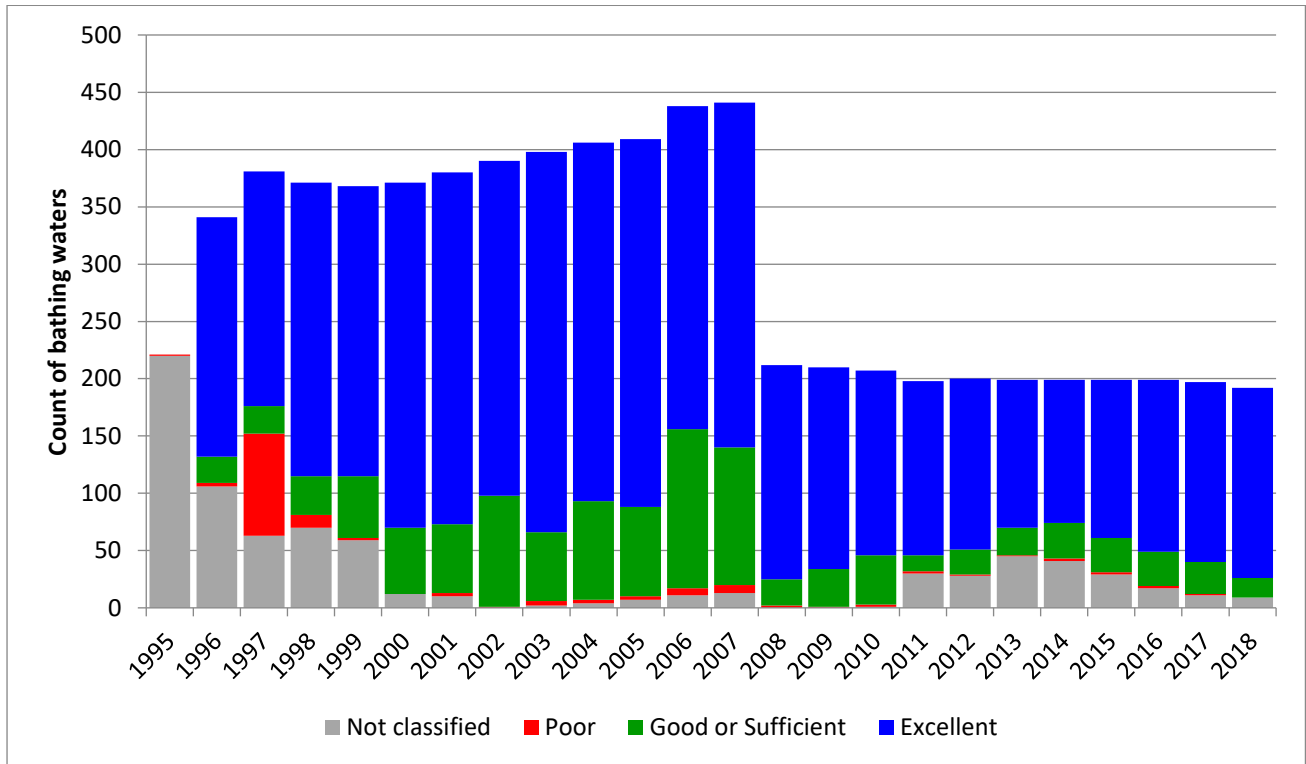


Figure 2: Trend of inland bathing water quality in Sweden. Notes: Each bar represents the count of bathing waters in the season. Quality classes “good” and “sufficient” are merged for comparability with classification of the preceding Bathing Water Directive 76/160/EEC.

4. Bathing water management in Sweden

In addition to monitoring data, reporting countries also provide information on bathing water management in the country. The information is used to exchange good practices, discuss issues on the European level, and understand the specifics of implementation of the Directive.

With a long coastline and many lakes, Sweden has many beaches and swimming areas. Swedish Agency for Marine and Water Management (<https://www.havochvatten.se/en/swam/facts--leisure/bathing-water-quality.html>) oversees the regulations and guidelines related to bathing water quality in Sweden.

The Agency, in accordance with the Bathing Water Directive, issues detailed instructions for collecting water samples. In Sweden, areas with more than 200 bathers per day on average are considered as EU bathing sites. Swimming areas with fewer than 200 bathers per day are encouraged to manage their sites in line with the EU bathing water regulations, and also to list them at www.havochvatten.se/badplatsen.

Interactive map (in Swedish) at the website shows the water quality for the swimming areas that are monitored in Sweden. Results of the most recent samplings are shown, and information is updated whenever new test results are received from municipalities. The map also contains data on for example algal blooms, contact information for the responsible municipality, measures undertaken in case of water quality issues, and if there is a current warning against bathing in that area.

Change in analytical method affects bathing water classification in Sweden

Bathing water classification for Sweden has been affected by the improved sensitivity of the analysis used for enumerating indicator bacteria. In 2017, some of the largest laboratories in Sweden changed methodology and levels of detection of faecal indicator organisms, from 50 colony forming units per 100 ml to 10 or 1 per 100 ml, which are also the most used limit of detection values through the EU Member States. In Sweden, the face value of samples below the limit of detection is used when calculating summary statistics for classification. Classification relies on an estimate of the upper 90th or 95th percentile, calculated using the standard deviation of the set of samples.

When the lower limit of the dataset changed from 50 to 10 or 1 respectively, this led to a larger spread in the data. The standard deviation is a measure of the variability of a set of samples: the greater the apparent variation, the larger the estimate of the standard deviation. Subsequently, the estimate of the 90th or 95th percentile is higher with greater variation. For approximately 14% of Swedish bathing waters this change in limit of detection led to class deterioration, although there is no indication of deterioration in water quality for these sites. Hence, in the national classifications, for the sites concerned, mean value and standard deviation were calculated so that this change in detection level would not influence the final classifications.

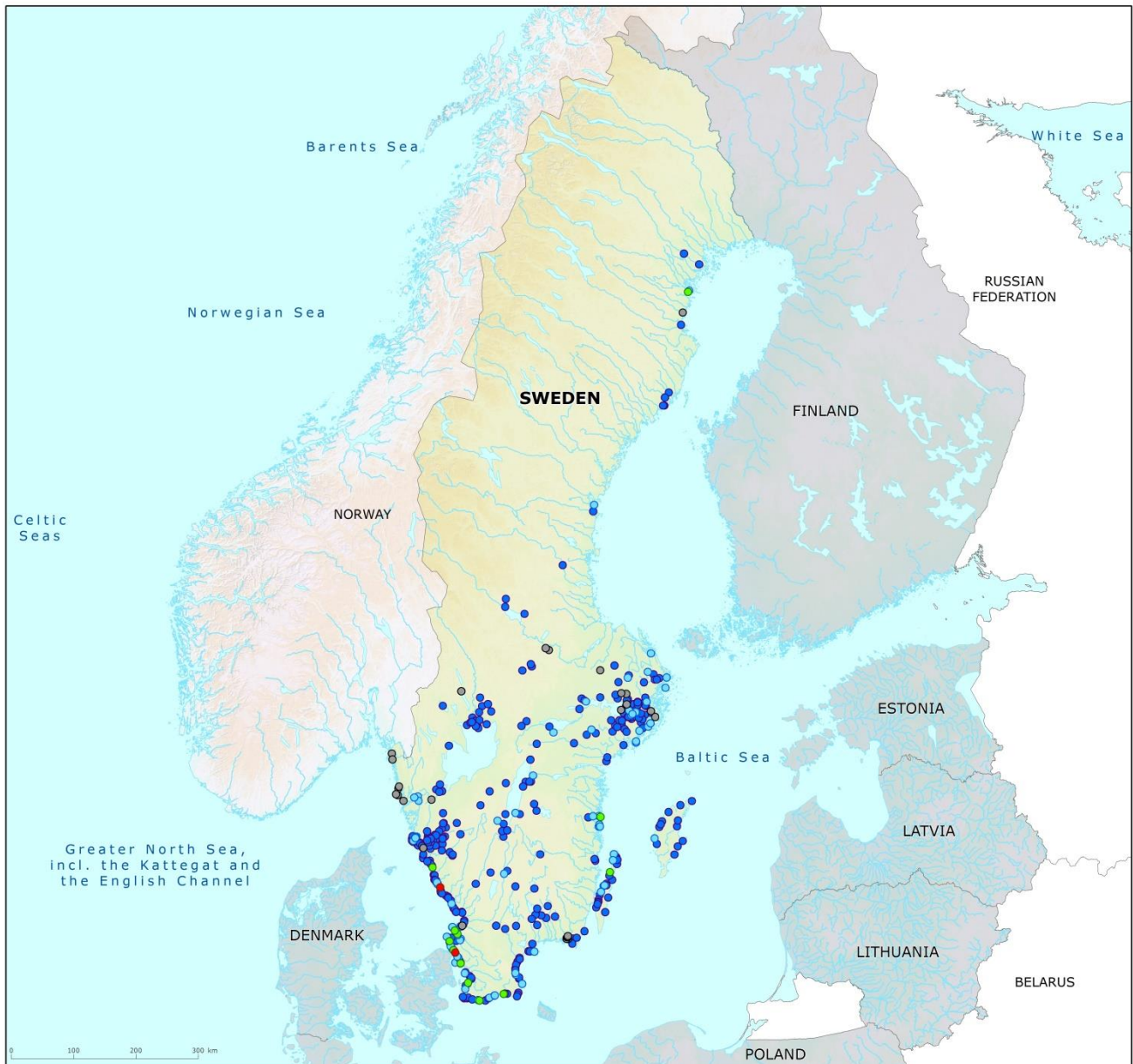
Annex I Bathing water quality in Sweden in 2015–2018

Table 3: Bathing water quality by water category and season

		Total count of bathing waters	Excellent		Good		Sufficient		Poor		Not classified	
			Count	%	Count	%	Count	%	Count	%	Count	%
Coastal	2015	246	140	56.9	49	19.9	14	5.7	8	3.3	35	14.2
	2016	245	169	69.0	32	13.1	14	5.7	4	1.6	26	10.6
	2017	244	102	41.8	96	39.3	13	5.3	3	1.2	30	12.3
	2018	244	151	61.9	61	25.0	13	5.3	2	0.8	17	7.0
Inland	2015	199	138	69.3	28	14.1	2	1.0	2	1.0	29	14.6
	2016	199	150	75.4	27	13.6	3	1.5	2	1.0	17	8.5
	2017	197	157	79.7	27	13.7	1	0.5	1	0.5	11	5.6
	2018	192	166	86.5	17	8.9	0	0.0	0	0.0	9	4.7
Total	2015	445	278	62.5	77	17.3	16	3.6	10	2.2	64	14.4
	2016	444	319	71.8	59	13.3	17	3.8	6	1.4	43	9.7
	2017	441	259	58.7	123	27.9	14	3.2	4	0.9	41	9.3
	2018	436	317	72.7	78	17.9	13	3.0	2	0.5	26	6.0

Annex II Bathing water quality map

Map 1: Bathing waters reported during the 2018 bathing season in Sweden



Bathing water

- Excellent water quality
- Good water quality
- Sufficient water quality
- Poor water quality
- Quality classification not possible
- No data
- Outside data coverage (data available, not presented on the map)

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