Publications

European Environment Agency

European bathing water quality in 2023

From the Atlantic to the Mediterranean, most of Europe's bathing waters are of excellent quality for swimming when assessed against the two specific health relevant parameters (Escherichia coli – or E. coli – and intestinal enterococci) as required under the Bathing Water Directive (EU, 2006). This briefing provides information on the quality of Europe's bathing waters, and is complemented by a map viewer to help citizens take informed decisions on where to bathe. The briefing is published in the context of the Zero pollution action plan and is based on analysis of data reported by EU Members States for the 2020-2023 bathing seasons.

Key messages

Bathing is safe in most of the EU's bathing waters. In 2023, at almost 22,000 locations, 85% of bathing waters were rated excellent, while 96% of waters met the minimum quality standards required for compliance with the Bathing Water Directive, a slight increase compared with the previous year. However, 1.5% of the EU's bathing waters are of poor quality, indicating that management measures are not always adequate or in place.

Although most of Europe's bathing waters are classified as being in excellent condition, pollution of surface and groundwater remains significant, and may be exacerbated by the changing climate. Improving water resilience for people and for the environment in coming years will be key.

The quality of coastal bathing waters is generally better than that of rivers and lakes. In

2023, around 89% of coastal bathing waters in the EU were classified as excellent, compared with just under 79% of inland bathing waters.

Increased heavy rainfall linked to climate change could impact bathing water quality negatively, potentially increasing health risks for bathers.

# Most of Europe's bathing waters are safe

Bathing water quality in Europe has improved markedly in recent decades, and has been consistently at least good in the recent past. The combined effect of systematic monitoring and management introduced under the Bathing Water Directive (BWD), large investments in urban wastewater treatment plants and improvements in wastewater networks have led to a drastic reduction in organic pollutants and pathogens previously released within untreated or partially treated urban wastewaters. Thanks to these continued efforts, bathing is now also possible in urban and once heavily polluted waters. This shows how solid and well-implemented policies can make a difference.

The BWD focuses on monitoring of E. coli and intestinal enterococci, bacteria which can cause serious illness in people. In addition, cyanobacterial blooms, although not subject to the quantitative monitoring prescribed by the BWD, frequently result in advice against bathing. Chemicals are also present in water. Chemical status, such as that monitored under the Water Framework Directive, covers a much broader spectrum of pollutants in surface and groundwater. When thresholds are exceeded, these chemicals seriously impact the environment and sometimes also human health, but they are not captured by the bathing water monitoring.

The EEA's European Topic Centre on Biodiversity and Ecosystems (ETC BE) provided support to the development of this briefing and its accompanying products including country fact sheets, data analysis, map viewer and the underlying database.

Figure 1. Proportion of bathing waters with excellent quality in European countries in 2023
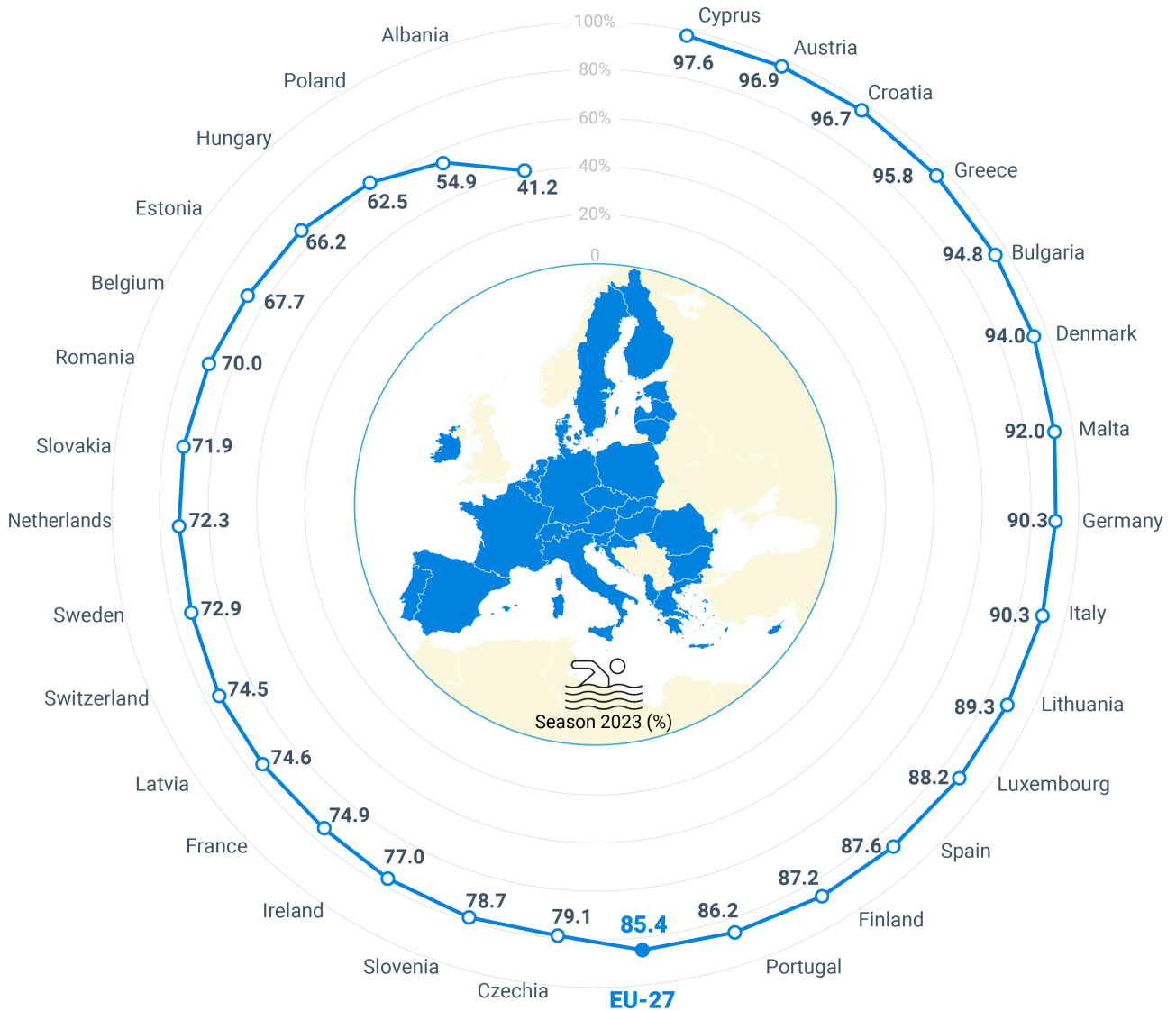
Notes: The assessment covers 22,081 bathing waters in Europe that were reported to the EEA for the 2023 season (Annex 1). In the EU, there were a total of 21,766 bathing waters. Only 77% of bathing waters in Poland were assessed for quality. A significant share of these waters were newly identified and complete sets of samples, which would allow an assessment compliant with BWD requirements, were not available for classification.

Source: WISE bathing water quality database (data from 2023 annual reports by the EU-27, Albania and Switzerland).

Background

This briefing is published in the context of the Zero pollution action plan, and for the 2023 bathing season covers 21,766 officially designated bathing waters in the 27 EU Member States (EU-27), 119 in Albania and 196 in Switzerland. It is based on the analysis of the data reported by Members States for the 2020-2023 bathing seasons.

While the Bathing Water Directive specifically aims to protect bathers against a health risk that can occur while bathing, a much broader package of legislation protects the aquatic environment. It includes the Urban Waste Water Treatment (EU, 1991), Drinking Water (EU, 2020), Nitrates (EU, 1991), Floods (EU, 2007), Water Framework (EU, 2000), and Marine Strategy Framework (EU, 2008) Directives. In combination, this legislation aims to reduce point source and diffuse pollution, sets environmental standards for the quality of rivers, lakes, ground, transitional, coastal, and marine waters, and protects people against unsafe drinking water and floods.

To this end, the EEA is preparing its major State of water assessment for publication later in 2024, which will provide a more comprehensive picture of the status of surface and groundwaters. Their quality and quantity remain under significant pressures and their status is being made worse by the changing climate.

Moreover, the European Commission is finalising an evaluation of the Bathing Water Directive (EC, 2021), the Marine Strategy Framework Directive (EC, 2021) and the Nitrates Directive (EC, 2023), where the strengths and weaknesses of the Directives are analysed. Results are expected to be published during 2024.

Publications

Monitoring and assessment of bathing water quality in Europe

EU Member States manage their bathing waters in accordance with the Bathing Water Directive (BWD). Before each bathing season, states identify national bathing waters, define the length of the bathing season for each, and establish monitoring protocols for coastal and transitional waters, rivers and lakes. Swimming and spa pools are exempt from the BWD's requirements. Polluted water can, if swallowed, impact human health, causing stomach upsets and diarrhoea. Infections of the ears, eyes and upper respiratory tract are also possible and more serious infectious diseases can occasionally be contracted.

Before and during the bathing season, local and national authorities take samples from bathing waters and analyse them for the two types of bacteria (E. coli and intestinal enterococci) that are indicative of pollution from sewage and manure. Based on the levels of bacteria detected, bathing water quality is then classified as either 'excellent', 'good', 'sufficient' or 'poor'.

Bathing water quality

Poor	Sufficient	Good	Excellent
—	★	★★	★★★
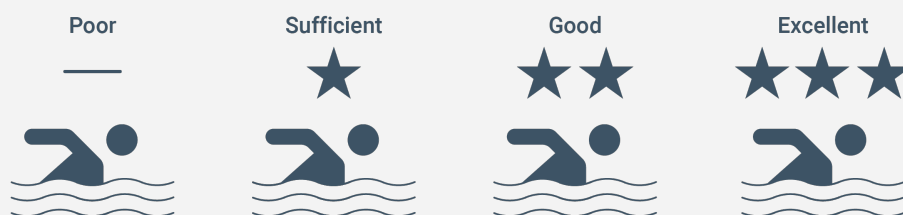
In accordance with the BWD, each Member State must collect and analyse at least four water samples per bathing water — one taken before the bathing season and the other (at least) three during it — with no more than one month passing between each sample collection.

The BWD classification scheme aims to provide a meaningful picture of

bathing water quality over the long term. Generally speaking, to define the status of a bathing water in a specific season, four samples from that season and four from each of the three preceding seasons are needed. The results presented in this briefing are based on the data reported by the countries for the bathing seasons from 2020 to 2023.

This long-term classification is important to properly assess the progress achieved through the implementation of certain management measures set out in the BWD and other relevant legislation, in particular, the Urban Waste Water Treatment Directive, the Water Framework Directive, and the Nitrates Directive.

However, the classification under BWD is only based on the concentration values of E. coli and intestinal enterococci, in line with the objective of protecting human health during bathing. The scope of this classification, therefore, is much narrower compared to the WFD classification, whose aim is to verify whether good chemical and ecological status are met in surface water bodies in the EU. In other words, an excellent classification under the BWD does not necessarily imply that the objectives of the WFD are met. Inversely, good or high status under the WFD does not necessarily imply sufficient or better bathing water quality.

Out of the reported 22,081 bathing waters in Europe in 2023, some 85% were of excellent quality (Figure 1). In four countries — Cyprus, Austria, Croatia and Greece — 95% or more of bathing waters were of excellent quality. In Austria, Belgium, Bulgaria, Malta, Luxembourg and Romania all bathing water waters met at least the minimum quality standard in 2023. However, in five countries — Albania, Belgium, Estonia, Hungary and Poland — less than 70% of bathing waters were of excellent quality (Figure 2). One of the main requirements of the BWD was to ensure that all bathing waters were of at least 'sufficient' quality by 2015. In the 2023 bathing season, this requirement was met by 96% of all EU bathing waters.

Publications

Figure 2. Bathing water quality in Europe (EU Member States, Albania and Switzerland) in 2023
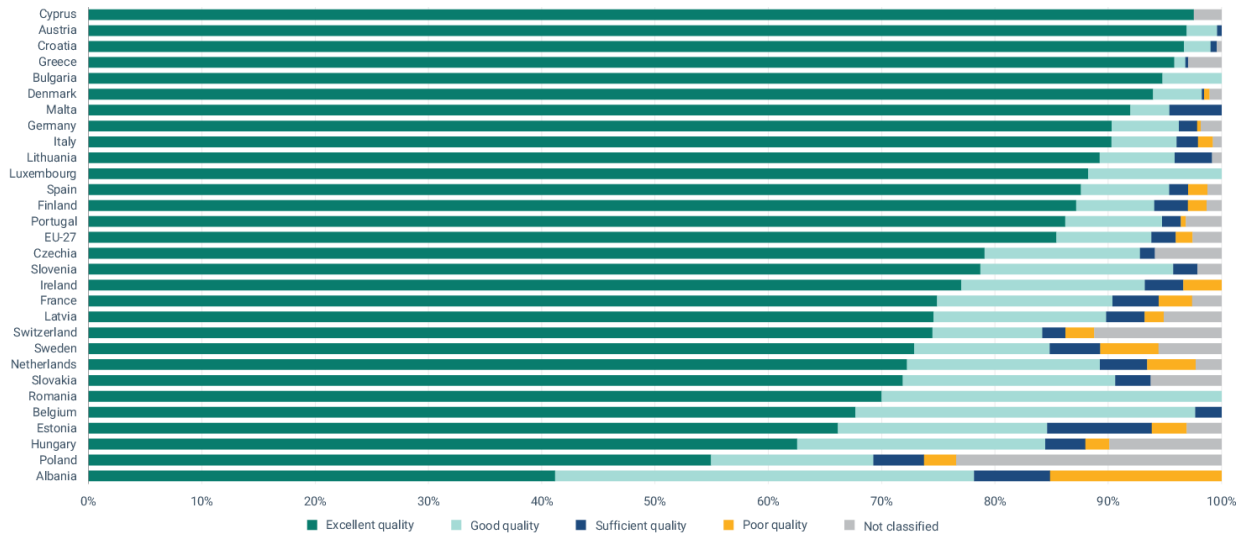
Note: Assessments are based on the two health parameters E. coli and intestinal enterococci, of the Bathing Water Directive.

Source: WISE bathing water quality database (data from 2023 annual reports by EU Member States, Albania and Switzerland).

Click here for different chart formats and data

Between 2009 and 2023, the share of EU bathing waters with excellent quality remained within a range of 81-89% for coastal bathing waters and 60-82% for inland bathing waters (Figure 3). The bathing water quality in coastal waters is generally better than in their inland counterparts. Many of central Europe's inland bathing waters are found in relatively small lakes, ponds and rivers with a low flow. These inland waters are more susceptible than coastal areas to short-term pollution caused by heavy rains or droughts, especially in the summer.

Publications

Figure 3. Coastal and inland bathing water quality in the EU-27 between 2009 and 2023

Note: Assessments are based on the two health parameters E. coli and intestinal enterococci, of the Bathing Water Directive. In 2023, 14,585 coastal waters and 7,181 inland waters were reported on by EU Member States. In previous years, the ratio of coastal to inland bathing waters was the same as in 2023: two thirds of bathing waters were coastal and one third were inland.
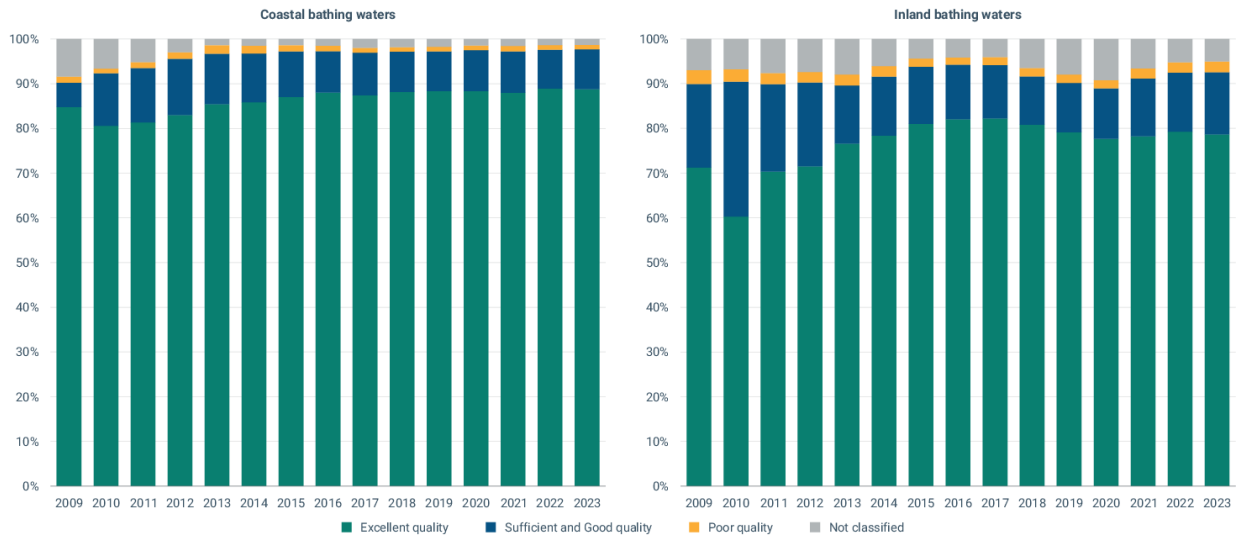
Source: WISE bathing water quality database (data from 2023 annual reports by EU Member States, Albania and Switzerland).

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Bathing waters designated in the EU-27

The number of reported EU bathing waters increased between 1990 and 2010. Six EU Member States reported 5,691 bathing waters in the summer of 1990 and 21,813 were reported by 27 EU Member States in 2009. In subsequent years, the number has stabilised at around 21,000 to 22,000 bathing waters.

In 2023, the most notable change from the previous year was that the total number of reported EU bathing waters increased by 0.5% (108 waters) to 21,766. Most of these additions were reported by Greece (+49 waters) and Poland (+31 waters). The remaining 38 sites were distributed across 11 other countries.

Bathing waters with no quality classification are a notable part of the overall bathing water inventory, arising when sample data sets are missing. Classification proved particularly difficult in 2020 because COVID-19 restrictions prohibited access for both bathing and sampling. Accordingly, 852 bathing waters were not classified that year, followed by 695 in 2021, 570 in 2022 and 555 in 2023.

Some bathing waters are still of poor quality

Swimming in bathing waters with poor quality can result in illness. In 2023, 321 (1.5%) of all bathing waters in the EU were of poor quality (Figure 3), compared with 1.9% in 2009. While the number of poor-quality waters has stabilised in recent years, problems persist at certain sites where the water is of poor quality or is often affected by short-term pollution. Short-term pollution may occur, for example, during heavy rainfall where the capacity of sewage treatment plants is exceeded and untreated sewage is released.

It is mandatory to assess the sources of pollution in the catchment areas of these waters and

implement integrated water management measures to restore water quality to at least the minimum required for bathing. This is part of wider efforts to achieve good status in all EU water bodies as required by the Water Framework Directive. However, progress towards achieving the objectives of the Water Framework Directive has been slow (EEA, forthcoming). In bathing waters where the origins or causes of pollution are difficult to identify, special studies of pollution sources are needed, and better information should be made available to bathers.

Quality was poor at 3% or more bathing sites in four EU countries: Sweden (with 24 bathing waters — 5.1% — being of poor quality), the Netherlands (32 — 4.3%), Ireland (five — 3.4%) and Estonia (two — 3.1%). Bathing waters classified as poor in a given year must be closed throughout the following bathing season, with measures put in place to reduce pollution and eliminate hazards to bathers' health.

In 2022, 315 bathing waters in the EU were of poor quality. Of these, 75 had improved to at least sufficient quality by 2023 while 214 remained of poor quality. The remaining 26 waters were either excluded from the monitoring programme or could not be assessed in 2023. The latter resulted either because of measures that affected the quality of bathing water or because the minimum number of required monitoring samples for assessment was not available.

Bathing waters that have been classified as poor for at least five consecutive years are required by the BWD to have either a permanent bathing prohibition or permanent advice against bathing. In the period from 2018 to 2022, 50 bathing waters were classified as poor in the EU: 29 in Italy, 13 in France, three in Spain, two in Denmark, and one each in Estonia, Finland and the Netherlands. Of these, only two managed to improve water quality to at least a sufficient level in 2023. Seven bathing waters were excluded from the monitoring programme while 41 were again classified as poor in 2023. It was reported that bathing prohibition or advice against bathing was in place at two thirds or more of these bathing waters.

How is my health protected?

Bathing water classification provides a meaningful, long-term picture of the bacteriological quality of bathing waters, which is not required under other legislation and also indicates how well certain pressures (mainly urban wastewater discharge and animal manure) are being dealt with. As such, it is a much more limited assessment than the assessment of good ecological and chemical status of surface waters required by the Water Framework Directive and good environmental status of the Marine Strategy Framework Directive. Water pollution is regulated under other EU legislation, in particular the Urban Waste Water Treatment, the Nitrates and the Water Framework Directives.

Measures established in the BWD are designed to protect bathers in general and during short-lived peaks in pollution which acutely affect bathers' health. The BWD also helps protect against other

Publications

threats, such as those that stem from harmful algal blooms, tarry residues, glass, plastic, rubber and other waste.

To prevent bathers from being exposed to pollution, it is necessary to issue adequate warnings during the bathing season. Member States are required to inform the public about:

- bathing prohibitions or advice against bathing;
- warnings concerning predictions or the actual presence of short-term pollution;
- the declassification of bathing waters;
- the nature and expected duration of exceptional circumstances.

Publications

What is a bathing water profile?

The knowledge framework informing the management of bathing waters builds on a combination of monitoring data and bathing water profiles. Member States are required to establish, review and periodically update bathing water profiles for one or more contiguous bathing waters.

A bathing water profile consists of the following:

- a description of the geographical, hydrological and physical characteristics of the bathing water and of other surface waters in the corresponding catchment area which could be a source of pollution.

- identification and assessment of causes of pollution potentially affecting bathing waters and harming bathers' health;

- an assessment of the potential for proliferation of cyanobacteria;

- an assessment of the potential for proliferation of macroalgae and/or phytoplankton;

- the location of the monitoring point representative of the bathing water.

To establish bathing water profiles, relevant data from monitoring and assessments under the Water Framework Directive are also used, thus widening the picture beyond a limited health-based assessment. If the assessment of causes of pollution shows that there is a risk of short-term pollution, the following information is also required:

- the foreseen nature, frequency and duration of expected short-term pollution;

- details of remaining causes of pollution, management measures taken and the time anticipated for their removal;

- management measures taken during short-term pollution and the identity and contact details of bodies responsible for such actions.

The bathing water profiles need to be reviewed and, where appropriate, updated based on the quality class and according to the following scheme.

	Classification			
	Excellent	Good	Sufficient	Poor
Minimum frequency	Only if the class worsens	4 years	3 years	2 years

Review of the Bathing Water Directive

The ongoing evaluation of the Bathing Water Directive (EC, 2021) is currently being finalised and its results, together with those of the Marine Strategy Framework Directive review (EC, 2021), are expected to be published during 2024. These evaluations had been announced in the Zero pollution action plan and take place in the context of a broader revision of a number of other relevant pieces of legislation, such as the Urban Waste Water Treatment Directive (UWWTD), the revision of pollutant lists under the Groundwater Directive (GWD) and the Environmental Quality Standards Directive (EQSD) (EC, 2022).

At the beginning of 2024, a revised UWWTD was agreed (Council of the EU, 2024), which will have a significant impact on the urban wastewater sector overall and, through its implementation, positive effects on bathing waters across the EU. Overall, the new directive requires stricter and more advanced treatment — including of micropollutants — moves the sector towards energy and climate neutrality, ensures better tracking of industrial pollution reaching urban wastewater systems and provides for access to sanitation. The new directive requires a better management of storm water overflows and urban run-off which is also expected to benefit future bathing water quality.

These policy initiatives will be complemented in 2024 by the EEA's forthcoming State of water assessment and the European Commission's assessment of Member States' reports on the Third river basin management plans under the Water Framework Directive and of the updated programmes of measures under the Marine Strategy Framework Directive.

How can climate change affect bathing waters and what can
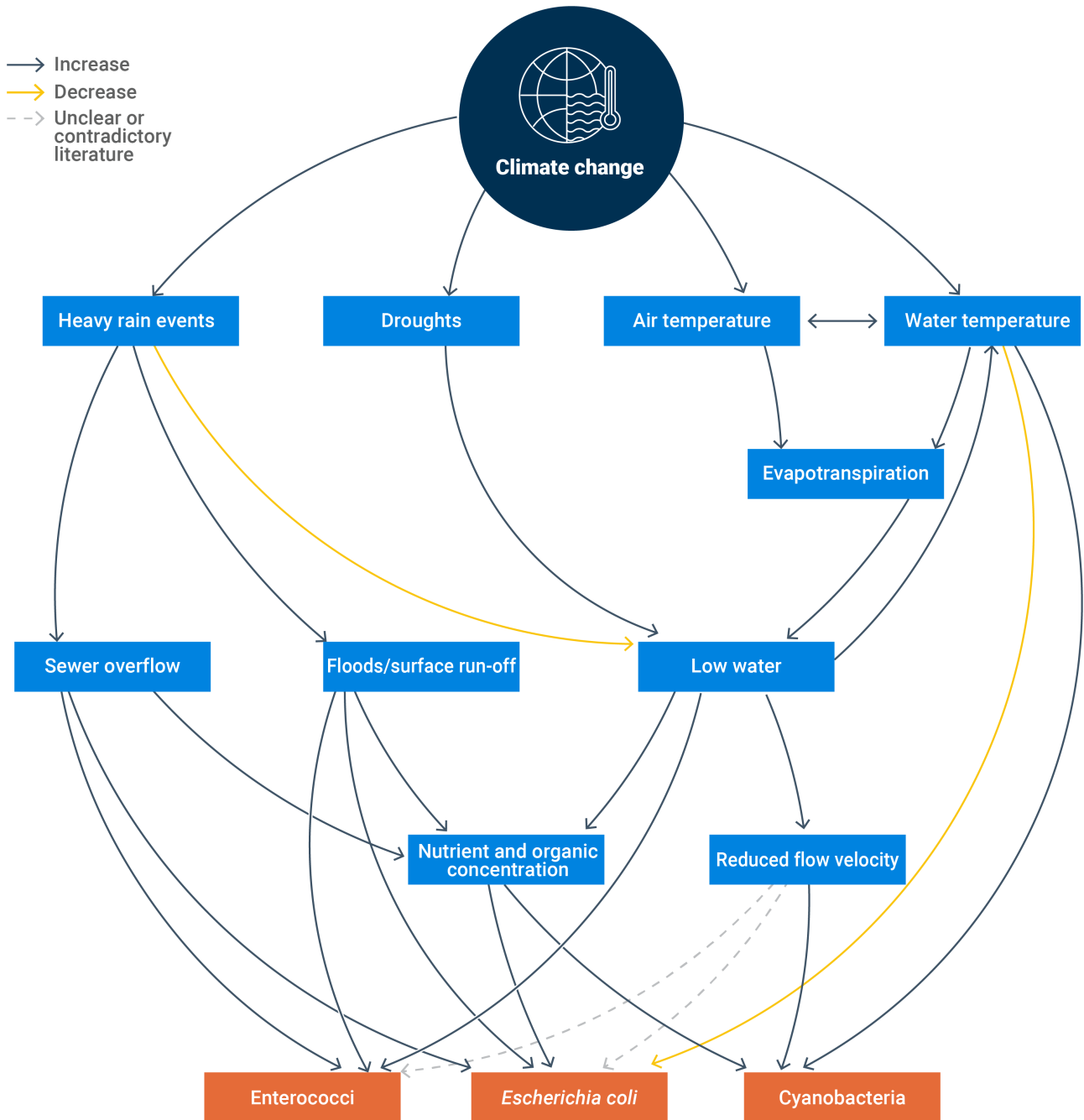
we do to reduce its impacts?

To understand the potential effects of climate change on bathing waters and the health of those using them, the EEA has analysed the impact of hydrological and meteorological factors on both inland and coastal bathing water quality.

The analysis is based on historical data collected for the bathing seasons between 2008 and 2022 under the Bathing Water Directive — specifically, the WISE bathing water quality database 2023 — and Copernicus ERA5-Land hourly precipitation reanalysis data. In total, it covers almost 25,680 bathing waters across Europe. Alongside collecting and preprocessing climate data, the EEA also conducted descriptive statistical analyses and reviewed existing literature on how extreme weather conditions can influence public health.

Specifically, the analysis notes that heavy rain events (more than 20mm in 1 day) increase the risk of poor bathing water quality via the mobilisation of pollution from sewer overflows, floods or surface run-off — with corresponding potential health impacts for bathers. Climate change is expected to increase the intensity and frequency of various extreme weather events, including heavy rains. The conceptual relationship between climate warming, associated hydro-meteorological events and the occurrence of E. coli, intestinal enterococci and cyanobacteria is shown in Figure 4.

Figure 4. Conceptual model of the relationship between climate warming and the occurrence of E. coli, intestinal enterococci and cyanobacteria

The analysis revealed a positive correlation between heavy rain events that occurred within 3 days of the sampling and the abundance of both E. coli and intestinal enterococci. Furthermore, the likelihood that a bathing site would have a high enough concentration of either E. coli or intestinal enterococci to potentially merit a 'poor' quality classification was around twice as high if the location had experienced heavy rainfall within 3 days of samples being collected. These correlations were observed consistently across Europe and were found to be more marked in rivers than in other types of bathing water.

European waters polluted as a result of heavy rain, present a hazard to bathers' health — one which can be expected to become more prevalent as climate change increases the frequency of such extreme weather events.

To reduce this risk, the proposed revision of the Urban Waste Water Treatment Directive identifies, among other sources, stormwater overflows and polluted urban run-off as important avoidable sources of water pollution. It also highlights that such emissions are expected to increase because of climate change and growing urbanisation, thereby making wastewater management infrastructures vulnerable to climate change. These sources of pollution should be tackled at the local level on a case-by-case basis with integrated urban wastewater management plans.

Each integrated urban wastewater management plan needs to include objectives for reducing pollution from stormwater overflows as well as the measures to achieve these aims.

The main measures to consider are:

- preventive measures — natural water retention, rainwater harvesting and increasing vegetated (green) and surface water (blue) spaces in urban areas;

- measures to improve the management of existing infrastructures (e.g. collecting systems, storage facilities and treatment plants);

- If needed, additional measures — including the adjustment of infrastructure for collection, storage and treatment of urban wastewater, such as by connecting newly built urban areas to separate sewers and creating new infrastructures, preferably green and blue, like vegetated ditches, treatment wetlands and storage ponds.

Publications

It is also worth noting that measures aimed at providing storage capacity for overly wet periods and nature-based solutions to help reduce surface run-off and favour water infiltration into the soil — e.g. replacing paved soil with vegetated areas — are also important to enhance adaptation and resilience to climate change in our cities and are in line with the proposed revision of the Urban Waste Water Treatment Directive.

The Paris Olympics 2024 and bathing in the Seine

In 2015, the city of Paris initiated a plan — supported by a EUR 1.4 billion investment — to make the Seine swimmable in time for the 2024 Olympics and Paralympics, with the intention that it be used for the swimming leg of the triathlon competition. After the event, in 2025, Parisians will have access to swimming areas along the Seine at the Bras Marie, Bras de Grenelle (Figure 5) and Bercy.

Figure 5. Envisaged bathing area Grenelle (computer-generated image)

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Three quarters of the corresponding structural works planned in Paris and the metropolitan area were completed in the summer of 2023. This included equipping the wastewater treatment plants of the SIAAP (Public

Sanitation Service Ile-de-France) with two disinfection units.

On 2 May 2024, another key piece of infrastructure was inaugurated: the Austerlitz rainwater storage basin (Figure 6), which has a capacity of approximately 50,000 mł — the equivalent of 20 Olympic swimming pools.

Figure 6. Austerlitz rainwater storage basin — intercepting tunnel

© Guillaume Bontemps / Ville de Paris

During heavy rain events, the Austerlitz basin will store excess rainwater and untreated wastewater that would otherwise be discharged into the Seine. After the rain has stopped, wastewater will be treated before being released.

Other measures to make parts of the Seine swimmable include:

- the removal of poor household connections to sewers;

  a ban on sewage discharge from boats into the river;

Publications

- the equipment of ports with connection facilities to collect sewage from boats;
- the promotion of vegetation to intercept and favour filtration of rainwater through the soil.

Source: Ville de Paris, 2024.

How do I find my local beach?

Countries maintain national or regional websites with detailed information on bathing water locations. These websites generally include a map-search function and allow users to see monitoring results in real time and for previous seasons.

At the European level, bathing water information is available to the public through the EEA's bathing water web pages. Users can check bathing water quality on an interactive map, make comparisons with previous years and explore more details via links to the corresponding national online bathing water profile.

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Identifiers

Publications

Publications

Annex 1 Bathing water quality in 2023

Country	Total number of bathing waters	Quality									
		Excellent		Good		Sufficient		Poor		Not classified	
		Number	%	Number	%	Number	%	Number	%	Number	%
AT (Austria)	260	252	96.9	7	2.7	1	0.4	0	0.0	0	0.0
BE (Belgium)	130	88	67.7	39	30.0	3	2.3	0	0.0	0	0.0
BG (Bulgaria)	96	91	94.8	5	5.2	0	0.0	0	0.0	0	0.0
CY (Cyprus)	123	120	97.6	0	0.0	0	0.0	0	0.0	3	2.4
CZ (Czechia)	153	121	79.1	21	13.7	2	1.3	0	0.0	9	5.9
DE (Germany)	2,291	2,069	90.3	136	5.9	37	1.6	7	0.3	42	1.8
DK (Denmark)	1,044	981	94.0	45	4.3	2	0.2	5	0.5	11	1.1
EE (Estonia)	65	43	66.2	12	18.5	6	9.2	2	3.1	2	3.1
EL (Greece)	1,731	1,659	95.8	17	1.0	4	0.2	0	0.0	51	2.9
ES (Spain)	2,275	1,993	87.6	177	7.8	38	1.7	39	1.7	28	1.2
FI (Finland)	304	265	87.2	21	6.9	9	3.0	5	1.6	4	1.3
FR (France)	3,361	2,517	74.9	521	15.5	137	4.1	99	2.9	87	2.6
HR (Croatia)	936	905	96.7	22	2.4	5	0.5	0	0.0	4	0.4
HU (Hungary)	283	177	62.5	62	21.9	10	3.5	6	2.1	28	9.9
IE (Ireland)	148	114	77.0	24	16.2	5	3.4	5	3.4	0	0.0
IT (Italy)	5,533	4,996	90.3	318	5.7	105	1.9	72	1.3	42	0.8
LT (Lithuania)	121	108	89.3	8	6.6	4	3.3	0	0.0	1	0.8
LU (Luxembourg)	17	15	88.2	2	11.8	0	0.0	0	0.0	0	0.0
LV (Latvia)	59	44	74.6	9	15.3	2	3.4	1	1.7	3	5.1
MT (Malta)	87	80	92.0	3	3.4	4	4.6	0	0.0	0	0.0
NL (the Netherlands)	746	539	72.3	127	17.0	31	4.2	32	4.3	17	2.3
PL (Poland)	739	406	54.9	106	14.3	33	4.5	21	2.8	173	23.4
PT (Portugal)	667	575	86.2	57	8.5	11	1.6	3	0.4	21	3.1
RO (Romania)	50	35	70.0	15	30.0	0	0.0	0	0.0	0	0.0
SE (Sweden)	468	341	72.9	56	12.0	21	4.5	24	5.1	26	5.6
SI (Slovenia)	47	37	78.7	8	17.0	1	2.1	0	0.0	1	2.1
SK (Slovakia)	32	23	71.9	6	18.8	1	3.1	0	0.0	2	6.3
EU	**21,766**	**18,594**	**85.4**	**1,824**	**8.4**	**472**	**2.2**	**321**	**1.5**	**555**	**2.5**
AL (Albania)	119	49	41.2	44	37.0	8	6.7	18	15.1	0	0.0
CH (Switzerland)	196	146	74.5	19	9.7	4	2.0	5	2.6	22	11.2
Europe	**22,081**	**18,789**	**85.1**	**1,887**	**8.5**	**484**	**2.2**	**344**	**1.6**	**577**	**2.6**

Publications

Publications

Annex 2 Coastal bathing water quality in 2023

Country	Number of coastal bathing waters	Quality									
		Excellent		Good		Sufficient		Poor		Not classified	
		Number	%	Number	%	Number	%	Number	%	Number	%
BE (Belgium)	41	27	65.9	14	34.1	0	0.0	0	0.0	0	0.0
BG (Bulgaria)	92	87	94.6	5	5.4	0	0.0	0	0.0	0	0.0
CY (Cyprus)	123	120	97.6	0	0.0	0	0.0	0	0.0	3	2.4
DE (Germany)	362	317	87.6	27	7.5	13	3.6	1	0.3	4	1.1
DK (Denmark)	920	864	93.9	42	4.6	2	0.2	4	0.4	8	0.9
EE (Estonia)	30	14	46.7	9	30.0	6	20.0	1	3.3	0	0.0
EL (Greece)	1,728	1,656	95.8	17	1.0	4	0.2	0	0.0	51	3.0
ES (Spain)	1,994	1,839	92.2	117	5.9	21	1.1	7	0.4	10	0.5
FI (Finland)	78	51	65.4	16	20.5	8	10.3	3	3.8	0	0.0
FR (France)	2,075	1,584	76.3	341	16.4	93	4.5	38	1.8	19	0.9
HR (Croatia)	894	886	99.1	4	0.4	2	0.2	0	0.0	2	0.2
IE (Ireland)	139	106	76.3	23	16.5	5	3.6	5	3.6	0	0.0
IT (Italy)	4,853	4,399	90.6	270	5.6	85	1.8	65	1.3	34	0.7
LT (Lithuania)	16	14	87.5	1	6.3	1	6.3	0	0.0	0	0.0
LV (Latvia)	33	26	78.8	5	15.2	1	3.0	0	0.0	1	3.0
MT (Malta)	87	80	92.0	3	3.4	4	4.6	0	0.0	0	0.0
NL (the Netherlands)	91	73	80.2	14	15.4	2	2.2	0	0.0	2	2.2
PL (Poland)	187	103	55.1	37	19.8	9	4.8	6	3.2	32	17.1
PT (Portugal)	509	468	91.9	22	4.3	6	1.2	3	0.6	10	2.0
RO (Romania)	49	34	69.4	15	30.6	0	0.0	0	0.0	0	0.0
SE (Sweden)	263	180	68.4	37	14.1	14	5.3	17	6.5	15	5.7
SI (Slovenia)	21	20	95.2	1	4.8	0	0.0	0	0.0	0	0.0
EU	**14,585**	**12,948**	**88.8**	**1,020**	**7.0**	**276**	**1.9**	**150**	**1.0**	**191**	**1.3**
AL (Albania)	113	47	41.6	44	38.9	6	5.3	16	14.2	0	0.0
Europe	**14,698**	**12,995**	**88.4**	**1,064**	**7.2**	**282**	**1.9**	**166**	**1.1**	**191**	**1.3**

Annex 3 Inland bathing water quality in 2023

Country	Number of inland bathing waters	Quality									
		Excellent		Good		Sufficient		Poor		Not classified	
		Number	%	Number	%	Number	%	Number	%	Number	%
AT (Austria)	260	252	96.9	7	2.7	1	0.4	0	0.0	0	0.0
BE (Belgium)	89	61	68.5	25	28.1	3	3.4	0	0.0	0	0.0
BG (Bulgaria)	4	4	100.0	0	0.0	0	0.0	0	0.0	0	0.0
CZ (Czechia)	153	121	79.1	21	13.7	2	1.3	0	0.0	9	5.9
DE (Germany)	1,929	1,752	90.8	109	5.7	24	1.2	6	0.3	38	2.0
DK (Denmark)	124	117	94.4	3	2.4	0	0.0	1	0.8	3	2.4
EE (Estonia)	35	29	82.9	3	8.6	0	0.0	1	2.9	2	5.7
EL (Greece)	3	3	100.0	0	0.0	0	0.0	0	0.0	0	0.0
ES (Spain)	281	154	54.8	60	21.4	17	6.0	32	11.4	18	6.4
FI (Finland)	226	214	94.7	5	2.2	1	0.4	2	0.9	4	1.8
FR (France)	1,286	933	72.6	180	14.0	44	3.4	61	4.7	68	5.3
HR (Croatia)	42	19	45.2	18	42.9	3	7.1	0	0.0	2	4.8
HU (Hungary)	283	177	62.5	62	21.9	10	3.5	6	2.1	28	9.9
IE (Ireland)	9	8	88.9	1	11.1	0	0.0	0	0.0	0	0.0
IT (Italy)	680	597	87.8	48	7.1	20	2.9	7	1.0	8	1.2
LT (Lithuania)	105	94	89.5	7	6.7	3	2.9	0	0.0	1	1.0
LU (Luxembourg)	17	15	88.2	2	11.8	0	0.0	0	0.0	0	0.0
LV (Latvia)	26	18	69.2	4	15.4	1	3.8	1	3.8	2	7.7
NL (the Netherlands)	655	466	71.1	113	17.3	29	4.4	32	4.9	15	2.3
PL (Poland)	552	303	54.9	69	12.5	24	4.3	15	2.7	141	25.5
PT (Portugal)	158	107	67.7	35	22.2	5	3.2	0	0.0	11	7.0
RO (Romania)	1	1	100.0	0	0.0	0	0.0	0	0.0	0	0.0
SE (Sweden)	205	161	78.5	19	9.3	7	3.4	7	3.4	11	5.4
SI (Slovenia)	26	17	65.4	7	26.9	1	3.8	0	0.0	1	3.8
SK (Slovakia)	32	23	71.9	6	18.8	1	3.1	0	0.0	2	6.3
EU	**7,181**	**5,646**	**78.6**	**804**	**11.2**	**196**	**2.7**	**171**	**2.4**	**364**	**5.1**
AL (Albania)	6	2	33.3	0	0.0	2	33.3	2	33.3	0	0.0
CH (Switzerland)	196	146	74.5	19	9.7	4	2.0	5	2.6	22	11.2
Europe	**7,383**	**5,794**	**78.5**	**823**	**11.1**	**202**	**2.7**	**178**	**2.4**	**386**	**5.2**

Publications