

# BATHING WATER DIRECTIVE

## Public health starts with a water-smart management of bathing waters

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Water Europe (WE) is the voice and promoter of water-related innovation and RTD in Europe. WE is a multi-stakeholder association representing over 250 members from academia, industry, technology providers, water users, water service providers, civil society, and public authorities. WE activities and positions are guided by its Water Vision "The Value of Water: Towards a Future-Proof European Water-Smart Society".



# BATHING WATER DIRECTIVE

## Water Europe Vision

Water Europe has set out a blueprint for a society in which the true value of water is recognised and realised, and all available water sources are managed in such a way that water scarcity and pollution of water are avoided, water and resource loops are largely closed to foster a circular economy and optimal resource efficiency, while the water system is resilient against the impact of climate change events ; and all relevant stakeholders are involved in the governance of our water system.



Multiple Waters



Digital Water



Value in Water



Hybrid Grey-Green Infrastructure

## Public Health Starts with a Water-Smart Management of Bathing Waters

The Bathing Water Directive (BWD) has led to year-on-year improvements in the general condition of bathing waters in the EU<sup>1</sup>. In the past decade, more than 95 % of European bathing waters have been of at least sufficient quality, with most of them being classified as excellent, contributing to touristic activities, healthy environment, reinforcing our public health, and quality of life.

It's time to open a new chapter for more benefits! Water Europe welcomes the revision of this legislation which brings several benefits to our society. Further efforts are needed to improve existing management methods, be more in line with the innovative solutions, tackle the emerging problems and ensure synergies with other legislation.

### 1 REINFORCE PUBLIC HEALTH THROUGH ROBUST AND FREQUENT MONITORING AND CLARIFICATION

Europe is the first global touristic destination. Classification, monitoring, definition of the bathing water season and bathing sites will contribute to a better risk management for health-related challenges.

**The classification system should be harmonized to avoid confusion and improve the consistency of monitoring requirement.** As recommended by the WHO<sup>2</sup>, the classification system for each category should be based on a 95-percentile value instead of a mixture of 95- and 90-percentile water quality standards

**Ensure the representativeness of data measurements** in monitoring and assessing bathing water quality. Temporal and spatial variability should thus be considered over a bathing area.



In terms of spatial variability across the designated protected bathing area, it is suggested that the water quality should be representative of the whole bathing area.

(WHO)



1. <https://www.eea.europa.eu/publications/bathing-water-quality-2020>

2. WHO recommendations on scientific, analytical and epidemiological developments relevant to the parameters for bathing water quality in the Bathing Water Directive (2006/7/EC), [https://www.who.int/water\\_sanitation\\_health/publications/who-recommendations-to-european-water-directive/en/](https://www.who.int/water_sanitation_health/publications/who-recommendations-to-european-water-directive/en/)



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Temporal variability in water quality should be addressed by sampling at different times to characterise the bathing day in the overall compliance data set or taking a precautionary approach and sampling when water quality is generally poorest.

(WHO) ”

The annual minimum number of samples for an EU bathing water site should be increased to 20 per season. A higher sampling frequency or addition of continuous monitoring could provide extra protection at sites at risk. In addition, the monitoring data can feed in state-of-the-art modelling tools to predict potential risk in time.

**Extend the bathing water season.** Temperatures are increasing in many areas, with heatwaves becoming more frequent and severe<sup>3</sup>. As a result, the population will increasingly look for places to cool down, including in urban areas.

**Improve bathing sites identification and holistic management.** It is critical to ensure that all possible bathing sites are identified, monitored and maintained in the right standard, particularly for non-official locations. Moreover, authorities must consider upstream pressures and downstream impacts on the bathing sites they manage.

## 2 BE ALIGNED WITH THE LATEST STATE OF RESEARCH, TECHNOLOGY & INNOVATION

More collaboration with scientific institutions is needed particularly to align monitoring methods. They can support the extension of parameters but also update some methods for faecal bacteria bacteroides, for instance, supporting also a higher sampling frequency.

- **Testing methods for *Escherichia coli* and intestinal enterococci should be up to date and appropriate for bathing water use** in line with the WHO recommendations. The revision of the Directive should encourage the use of alternative methods which can generate results in 24 hours or less, thus providing increased protection of population health. Several barriers to the use of alternative methods exist and should be addressed in the revision:
  - **The CFU per volume should be replaced by the number per volume** to unlock research and innovation, including the choice of the most appropriate testing method.
  - **The alternative method procedure should be clarified**, and a mechanism should be created to update the reference standard ISO 17994. A clear and transparent procedure would ensure adequate evaluating method options and encourage the implementation of the best methods for the situation.
  - **A system of mutual recognition of alternative methods within all the Member States** should be put in place to foster innovation and reduce the administrative burden and costs whilst maintaining high level standards. Assessment and the use of alternative methods should be limited to only methods equivalent to reference methods in force.
- **The legislation should be updated to meet new challenges particularly for pharmaceuticals and micro-plastics.** As stressed in the EEA report<sup>4</sup>, new concerns need to be considered in the revision of the legislation. There are also unknown risks related to yet undetectable and upcoming (possible potential toxic) substances that may require specific management.

3. <https://www.eea.europa.eu/publications/bathing-water-quality-2020>

4. <https://www.eea.europa.eu/publications/bathing-water-quality-2020>



# 3

## ENCOURAGE THE DEVELOPMENT OF AN INCLUSIVE MANAGEMENT OF BATHING WATER

Inclusive governance should be considered to support the implementation of the Directive and a better communication with citizens.

**The revision should indeed reinforce public information** by providing more pedagogical tools to help municipalities better explain water quality evolution, supporting behavioural change and awareness raising.

**The revision should also encourage citizen science** as a means of gathering additional data and information from the relevant stakeholders. This can be coupled with improving water quality literacy and awareness. In this context, Water-Oriented Living Labs (WoLLs) are key tools that need to be developed.

Water-Oriented Living Labs (WoLLs) are cross-sectoral ecosystems that provide a “field lab” to develop, test, and validate a combination of new technologies, business models and policies based on the value of water, all while allowing citizen participation.



The project LIFE iBATHWATER is a real-scale demonstration project for improving the integrated management of urban drainage and reducing the impact of untreated rainwater on natural aquatic systems. It aims to communicate the effort and commitment of local authorities to improve the public’s knowledge of and respect for the natural environment.

# 4

## ENCOURAGE THE USE OF DIGITAL TOOLS FOR BATHING WATER SMART MANAGEMENT

### Digital water

Important concept, based on the predicted development of a world where all people, “things” and processes are connected through the “Internet of Everything”, leading to capillary networks and sensors, meters and monitoring of the water system all the way along to the individual user, as such generating large amounts of valuable data (big data) for innovative Decision Support and Governance systems.

Digitalisation can offer several benefits in term of monitoring the quantity and quality of bathing waters, including monitoring of substances of concern, virus, and pollution related to emerging challenges while reducing the costs.

It can also facilitate the establishment of early warning systems, improve the skills of the bathing sites managers, the communication of monitoring information and awareness of the public.

# 5

## PROMOTE THE USE OF HYBRID GREY AND GREEN INFRASTRUCTURE

Paired with the objectives of the Biodiversity Strategy and the EU strategy on adaptation to climate change, the use of Hybrid Grey and Green Infrastructure can help address storm water overflows, reduce the risk of flooding, sustainably manage and restore ecosystems and minimize negative impacts on bathing water quality and the health of bathers.

### Hybrid Grey and Green Infrastructure

A combination of grey engineered infrastructure, green engineered infrastructure and natural systems, part of the water system that will be used for water extraction, treatment, distribution, reuse and resilience.



# 6

## DRAW ON SYNERGIES WITH OTHER WATER-RELATED LEGISLATION

**The evaluation of the BWD must ensure its coherence with the current legislation and strategies.** The target of restoring at least 25,000 km of rivers into free-flowing rivers by 2030 would have beneficial effects on biodiversity and river quality.

**Tackle gaps and inconsistencies with EU legislation.** It should also take into account ongoing revisions, such as the Industrial Emission Directive. Aligning the BWD with these objectives requires to take into consideration the origins of pollution in bathing water, namely up-stream municipal and industrial pollution sources, especially during rainwater events. Some synergies can also be supported by the directive for monitoring parameters.

**The directive must be carried out in coordination with the Urban Wastewater Treatment Directive.** Bathing waters are sensitive areas and must be better protected with a holistic approach particularly for public health.





Technology & Innovation