

Cheat Sheet – Drinking Water Directive (EU)

Statutory requirements & risk management in drinking water supply

1. Legal Framework (is mandatory and deadline-driven)



Situation

EU adopted the recast DWD in December 2020 and DWD entered into force in January 2021, six legal acts published in 2024.

31.12.2026 Provisions of first European positive lists start to apply.
31.12.2032 End of transitional provisions for substances which have been approved by Member States in the period 13.07.2021-31.12.2026.

Power Words

DWD: Drinking Water Directive, **ECHA:** European Chemicals Agency, **Positive List:** European positive lists of starting substances, compositions and constituents that are authorised for use in the manufacturing materials in contact with drinking water

3. Things to ASK yourself (utilities, planners)

Mandatory Risk Management

- What could go wrong in the water supply?
- What risks are involved (critical infrastructure)?
- How do we manage these risks?
- How do we know we have it under control?

→ Resulting research questions

- What added value do investments in modern pipe systems bring?
- How can these pipe systems help meet legal requirements for risk management?
- Does the required risk management lead to increased staff needs and high investments in technical innovations to ensure water quality?
- Is it possible to predict where contamination could occur and at what point in the network?

Transpose to national law in progress



2. Management Challenges (Utilities and planners must)

Key Updates and challenges:

- Conduct risk management for drinking water catchment areas and water supply systems
- Fulfill extended information obligations towards authorities and the public
- Present an investigation plan for drinking water monitoring
- Implement technical measures to ensure quality
- New parameters and limit values (e.g., PFAS, chlorite, bisphenol A)

Power Words

Permeation-resistant **barrier pipes**, **Leakage monitoring** of pipes, Digitalization of infrastructure, **Online monitoring** of water quality **in real time**, water 4.0, **Climate Change**, monitoring of **drinking water temperatures**

4. Things to CARE of (Threats)

Drinking water is often consumed before test results are available

- Between sample collection and analysis Contaminations are not detected in time (snapshot sampling)
- Gradual entry of contaminants into soil and drinking water via permeation
- Third-party damage during excavation (loss of valuable drinking water and entry of contaminants)
- Politically motivated attacks on water infrastructure
- Rising drinking water temperatures due to climate change

→ Resulting research questions

- Future-proof pipe systems with leakage monitoring reduce risks and avoid consequential costs
- In contaminated soils, drinking water can be protected by pipes with permeation barrier layers – both directly and proactively in areas with increased risk potential (e.g., expanding industrial zones, flood-prone areas, etc.)
- Smart measuring technology in pipe systems allows real-time monitoring and supports asset management during operation (early warning systems, development of flushing strategies, hazard prevention, faster response times)