

UNDER THE SURFACE

A DEEP DIVE INTO WATER POLLUTION MONITORING AND MANAGEMENT PRACTICES

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HOSTED BY:
MEP MILAN BRGLEZ
(S&D)



INTRODUCTION



Despite some improvements, water pollution remains a key environmental and sanitary challenge across the EU. More than twenty years after the adoption of the Water Framework Directive, less than 40% of Europe's rivers, lakes, and coastal and transitional waters and around 70% of groundwater bodies hold good chemical status. Yet, that does not give the full picture of the state of our waters as chemical status is only assessed against a small subset of substances and largely does not take into account the effects of chemical mixtures.

On 26 October 2022, the European Commission presented its proposal for a Directive amending the Water Framework Directive (WFD 2000/60/EC), the Groundwater Directive (GWD 2006/118/EC) and the Environmental Quality Standards Directive (EQSD 2008/105/EC). This proposal updates the lists of priority substances for surface and groundwater and their associated legal threshold values.

On 24 May, we gathered in the European Parliament to discuss solutions to one of the pressing issues of our time: water pollution. In the context of the European Commission's proposal, the messages from participating speakers were clear: we need action now. Below are outlined the key takeaways from each of the talks. This event was organized by PAN Europe, the EEB and Surfrider Foundation and was moderated by Sara Johansson from the EEB.



Opening statement

In order to make the EU Zero Pollution ambition a reality and respond promptly to rising environmental concerns with regard to water pollution, the regulatory response should be improved allowing for enough flexibility while enabling a sufficient level of scrutiny over decision-making, second, cooperation and operational support at EU level should be enhanced, and third, the polluters should contribute their fair share.

Water protection should be our common project standing high at the EU political agenda. Protecting water means protecting natural habitats, it means protecting human health, it is an indispensable means of ensuring food security, especially in mitigating climate change impacts on severe droughts that are evermore present in Europe. And, also very closely related to this later aspect, water protection is an indispensable means of conflict prevention.

Curbing water pollution is, therefore, a matter of urgency. While the Commission has done some significant work in this regard in the last 20 years, it is necessary to seize this momentum and boost the decision-making process. It is regrettable that the Council, under the current Presidency, has not given much attention to the issue concerned. In this regard, there's much expectation that the Spanish Presidency gives a concrete push to the adoption of the revision of the water Directives.

MEP Milan Brglez

Rapporteur and MEP for the Group of the Progressive Alliance of Socialists and Democrats (S&D)



THE STATE OF EUROPE'S WATERS: WHAT DO WE KNOW AND WHAT IS MISSING?

The WFD provides the essential tools (priority substances and EQS) to help assess the chemical status of water in the EU. It plays a key role in the EU policy landscape, laying at the crossroads between the legal framework covering the marine and aquatic environment and the legislation aiming to control pollution at source.

The expert went on providing an overview of the state of Europe's waters, highlighting the many unknowns affecting natural waters that we need to get a better understanding of. The current data collected through the WFD may not fully capture the concentrations of pollutants felt by aquatic life and their impact on the status of European water bodies.

New techniques that provide more integrated measures of toxicity or harm should be picked up by the legislation to better inform on water pollution.

Data from the 2nd River Basin Management Plans show that diffuse pollution remains a serious pressure on surface water bodies both from a chemical and ecological perspective and coordinated action is needed to address it.

The update of the list of Priority Substances is a much needed exercise to ensure it is an up-to-date, efficient tool helping to fill the information gaps we still face and reflecting the current state of Europe's waters.

« Monitoring of Europe's waters under the WFD is key to the protection of our European environment, as it provides evidence on the effectiveness of chemical source control. Significant effort is still required to reduce diffuse pollution »



Caroline Whalley
Water Industries
& Pollution Expert
European Environment Agency

[CAROLINE WHALLEY'S PRESENTATION HERE](#)

WATER QUALITY AND ECOLOGICAL RISKS OF WATER POLLUTION AND CHEMICAL MIXTURES

It is essential that the list of priority substances is adopted to meet the protection goals of the WFD, but chemical exposure risks are not adequately revealed by single-substance assessment and mixture risks need to be better implemented and the lists of pollutants need to be updated more regularly to take into account new scientific knowledge.

The Commission has proposed a group threshold for 24 PFAS based on the concept of concentration addition and relative potency (using PFOA as a reference substance), which will take account of the combined effects of PFAS.

It is essential that the list of new substances in the EQSD Annex is adopted to better meet the protection goals of the WFD. However, stringent consideration of mixture risks still needs to be implemented in the future.



Alexandra Kroll
Ecotoxicologist
Oekotoxzentrum Eawag

On the other hand, the EQS for other groups e.g. for estrogenic substances are based on single substances, which is insufficient to assess the overall risk of estrogenic endocrine disruption in water.

While it is appreciated that the Commission intends to account for the mixture toxicity of pesticides with a general sum parameter of 0.5 ug/L, one size does not fit all, and this threshold would render the mixture risk of the very potent neonicotinoid pesticides negligible.

Instead, group thresholds need to account for the toxicity of substances in the group, such as has been done for PFAS. This should be applied for example for the groups of pyrethroid insecticides, the neonicotinoid insecticides, estrogens (and BPA).

Existing decision trees (SCHER, SCENIR SCCS 2012) can be used as a basis.

[ALEXANDRA KROLL'S PRESENTATION HERE](#)

THE NECESSITY OF COHERENCE IN MONITORING PRACTICES

In Spain, the analytical efforts vary greatly between river basins. There's a lack of uniformity both regarding the number of analyses performed and which pesticides are assessed. Generally, groundwater is less monitored than surface water despite the fact that it's an important drinking water source. For example, only one pesticide was assessed in groundwater, in the Guadalete-Barbate demarcation, while almost 100 were analysed in the Ebro basin.

Furthermore, monitoring efforts are focussed on already banned substances, while authorised pesticides are under-monitored: a third of the 105 pesticides placed on the market in Spain in 2021 (for which we have information), were not monitored in water.

The lack of monitoring leave drinking water sources exposed to contamination. In 44% of water supply areas, no pesticides were analysed.

"Official data shows inconsistency of controls carried out by administrations and a lack of environmental quality standards for agricultural pollutants and a lack of coherence between different European legal standards"



Koldo Hernandez Lozano
Coordinator of Toxics Area
Ecologistas en Accion

This insufficient and incoherent monitoring showcases the need for updated EU water pollution monitoring obligations that guide national efforts, including rules that oblige river basin organisations to monitor pollutants in use and take mitigation measures, as well as to base pesticides environmental quality standards on their toxicity class.

[KOLDO HERNANDEZ LOZANO'S PRESENTATION HERE](#)

THE EUROPEAN RIVER AND GROUNDWATER MEMORANDUMS (ERM, EGM), HOW IS IMPORTANT THE POLLUTER PAYS PRINCIPLE?

« Future clean-up costs in waterworks are beyond the scope if we don't implement effective protection of water resources through strict quality standards for surface and groundwater »

Wolfgang Deinlein

Managing Director of the International Association of Waterworks in the Rhine Basin



The WFD (Art 7.3) states that water protection must be precaution-driven to reduce the need for drinking water treatment. Today, this is not the case. Non-target screening has detected an estimated 6000 unidentified substances in the Rhine, the majority of them is expected to be anthropogenic.

The European River Memorandum Coalition advocates for strict surface and groundwater quality standards that are set lower than drinking water standards. (See the ERM, EGM target values [here](#)).

The Drinking Water Directive sets 0.1 ug/L as threshold value for individual 'relevant' pesticide metabolites. The Commission suggests an up

to fifty times higher threshold for 'non-relevant' metabolites (nrM) in groundwater for 'data-rich' substances. This goes against scientific advice from the SCHEER committee and is also higher than what is already applied in Switzerland (in drinking water catchments). There are already six cases documented where substances originally classified as non-relevant have been re-classified as relevant.

The Commission has suggested reducing the number of substances on the surface water Watch List from 14 to 10, and to restrict the number of substances on the groundwater Watch List to 5. Cost must not limit the monitoring of substances of emerging concern! Instead, the polluter pays principle should be implemented via an Extended Producer Responsibility scheme, as suggested by the Rapporteur in his draft report. This would shift the burden of monitoring from the public budget back to the producers and de-incentivise pollution.

[WOLFGANG DEINLEIN'S PRESENTATION HERE](#)

VIEWS OF THE CIVIL SOCIETY, THE RIGHT TO A HEALTHY ENVIRONMENT

Of the 19 pesticides added by the proposal, 11 of them are already banned from the European market and only 8 of them are still approved under Regulation 1107/2009. While it is essential to have EQS for substances that are banned because of the long-term impacts of pesticides and possible emergency uses. It is crucial that currently authorised active substances are monitored under the WFD. In theory, all authorised substances should be monitored.

placing such substances in the market should be triggered. Additionally, substances should only be authorised for use when standard methods for their analysis are in place.

The generic EQS of 0.1 µg/L for individual pesticides in groundwater was established in the 1980's. More than 40 years later, this value should be reconsidered through modern analytical methods and, against the toxicological knowledge at hand.

« With the impact of climate change growing more intense, pressure on European waters is increasing drastically. The updating of the list of priority substances must be done faster and reflect the reality of active substances in the European market. »



Manon Rouby
Policy Officer/Legal Adviser
PAN Europe

Mechanism between the two regulations have to be enhanced. For instance, if exceedances are monitored in the water restrictions for

With the pressure on European waters growing more intense each summer, the updating of the list of priority substances has to be done faster and reflect the reality of the active substances authorised in the European Market. Special attention should be given to the metabolites of pesticide substances and to more hazardous pesticides (known as candidates for substitution), still missing for the most part in the WFD.

[MANON ROUBY AND LUCILLE LABAYLE'S PRESENTATIONS HERE](#)

Our aquatic and marine ecosystems are facing serious threats - Water pollution itself is a diverse and far-reaching pressure. On chemical pollution specifically, only 38% of surface waters are classified as having a healthy chemical status in Europe. At the same time, clean water is a necessity for the health of citizens and is a basis for the functioning of our society.

We witness clear signs of growing concern stemming from civil society. The users and visitors of blue spaces are especially exposed to various types of pollution including bacteriological, chemical and biological pollution. In a 2019 survey conducted by Surfrider Foundation within its community, nutrient and chemical pollution was identified as one of the major bathing water management challenges to tackle in Europe. This data targets bathing water quality specifically but the concern regarding chemical pollution is widespread among EU citizens as regularly reported by news media and urgent action is necessary.

As of now the full picture of chemical pollution in aquatic environments is underestimated and underreported. The legislation is not equipped to offer adequate protection of ecosystems and our own health from risks posed by water pollution.

« The Commission's proposal is a step in the right direction, but more must be done to secure a toxic-free future. We call on the Parliament and the Council to act fast to ensure that our rivers, coasts and lakes are clear and safe for everyone.»



Lucille Labayle
Water Quality
& Health Policy Officer
Surfrider Foundation Europe

The update of the lists of priority substances for surface and groundwater is thus of the utmost importance and long overdue. The Commission's proposal is a welcome opportunity to better tackle water pollution but more needs to be done to not only monitor and assess water quality, but to protect our waterways and prevent the pollution affecting them.



CONCLUDING REMARKS



Rolf-Jan Hove from the European Commission reflected on the interventions of the speakers, highlighting necessary improvements, from the Commission's point of view. He also pointed out that the Commission, with its proposal that data on chemical and ecological status should be delivered on a yearly basis, hopes to increase access to up-to-date water quality data that reflects the current state of Europe's water bodies.

He informed that the Commission considers a harmonisation of the surface and groundwater watch list procedures useful e.g. in view of improving data collection and better monitoring seasonal variations of pesticide emissions. Together with the ongoing work on the revision of the Sustainable Use of Pesticides Regulation, in which the Commission proposed that professional users of pesticides should register data on the use of agro-chemicals as part of the Integrated Pest Management (IPM) Principles, this will hopefully result in more detailed emission data being made accessible to water authorities (currently they mainly have Eurostat data on annual pesticide sales).

Regarding concerns about the proposed EQS for glyphosate (that is higher than the proposed total threshold for pesticides in surface water) raised by one of the attendees, the Commission informed the participants it has taken note of this in light of the ongoing discussion in the draft amendments in the European Parliament.

The Commission informed the participants that especially in Council no noteworthy progress has been made since the Commission presented its proposal on 11 November 2022. Therefore, the Council is encouraged to start discussions as soon as possible in order to progress the decision-making process on the proposal.

MEP Milan Brglez concluded highlighting time is of the essence. Now we must realise the change needed to return our water to a state of health, for people and nature: "The WFD has been an elementary policy tool for protection of EU waters. The current revision is an opportunity to strengthen this legislative framework adapting it to challenges posed by pollution and climate change".



Policy recommendations & key messages

1. The full picture of chemical pollution in aquatic environments is **underestimated and underreported** as the current lists of EU surface water priority substances and groundwater pollutants are out of date and incomplete. Swift and timely updates are needed to reflect the real state of water pollution, including the effects of chemical mixtures, based on the latest scientific findings.
2. **Chemical exposure risks are not adequately revealed by a single-substance approach and substances should be regulated as groups**, but one size does not fit all, and group thresholds need to be based on **toxicity and potency**.
3. Monitoring efforts vary greatly between, or even within countries, and covers only a fraction of substances in use. **Better coherence is needed, and monitoring should reflect the substances used in the river basin**, for this, **more transparency on substance use is needed**.
4. The precautionary and polluter pays principles are enshrined in the EU treaties and should be reflected in EU law. **Concerns about costs should not limit monitoring efforts, but rather trigger efforts to collect the needed financial contributions from producers and importers**.
5. Curbing water pollution is urgent to ensure protection of environmental and human health. **Climate change** is making action to achieve the **EU zero-pollution ambition a reality even more pressing as pressures on freshwater sources increase**.

[LINK TO THE RECORDING OF THE WORKSHOP HERE](#)

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