Joint NGO analysis of the European Commission's proposal for revised list of priority substances for surface and groundwater

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). The initiative updates the lists of priority substances for surface and groundwater and their associated legal threshold values that are used to assess chemical status under the WFD. It also concerns monitoring and reporting of concentrations and measures taken to mitigate pollution.

The lists of priority substances need updating since they are **incomplete** and **out of date** and do not offer adequate protection of ecosystems and human health from risks posed by water pollution. Additionally, they are largely focused on individual substances that do not take into account the effect of **chemical cocktails**, while monitoring practices often miss **peak events** and the real loads of pollutants felt by aquatic life.

The Commission proposes to add a range of crucial water pollutants such as PFAS, pesticides (e.g. glyphosate) and pharmaceuticals to the lists of priority substances, which will require Member States to monitor their presence in water and make sure that quality standards are not surpassed. However, the proposal largely falls short on tackling chemical mixtures and also backtracks on existing requirements by abolishing the current 20-year deadline for the phase-out of priority hazardous substances.

EEB, Surfrider, PAN Europe, Health Care Without Harm Europe call on the European Parliament and the Council to adopt the proposed Directive and to strengthen it where needed in line with the main points in this assessment.

Surface water

Good elements of the proposal

24 critical pollutants for surface water, including pharmaceuticals, pesticides and industrial chemicals and a group of **24 PFAS** have been **added to the list of priority substances** meaning that Member States will have to monitor their presence in surface water and make sure their associated environmental quality standards (EQS) are not surpassed. A threshold value for pesticides has been introduced making provisions for surface and groundwater coherent.

EU-wide threshold values have been introduced for **River Basin Specific Pollutants** (RBSP) to counter the previously large variance of standards used in different countries (or even regions). The quality standards of RBSP will now also be taken into account when chemical status is determined meaning that regionally important pollutants will be accounted for.
The Commission will develop methodologies to monitor **micro-plastics** and **antimicrobial resistance genes** with the intention to add them to the surface and groundwater Watch Lists. These two pollutants (including **nanoplastics**) are also added to Annex VIII WFD which is an indicative list of pollutants that need to be considered at various implementation steps.

The definition of environmental quality standard in the WFD is amended to also include **effect-based trigger values**. This opens the possibility for the introduction of effect-based monitoring (EBM) of mixture effects in the future assessment of chemical status. However, this could not happen until the next revision round unless the Commission is given power to come forward with delegated acts to require further use of EBM.

Elements to be improved

The proposal **does not fully address the effects of chemical cocktails**, even if this was one of the key issues to be resolved by this initiative and despite the commitment of the Chemicals Strategy for Sustainability to "introduce or reinforce provisions to take account of the combination effects in other relevant legislation, such as legislation on water".

Pollutants have largely been added as **individual substances**, which risks the lists being outdated shortly, e.g., if listed substances are taken off the market and substituted with others with similar harmful properties. This concerns e.g., the group of bisphenols (only Bisphenol A was added), the pesticide groups of pyrethroids and neonicotinoids as well as macrolide antibiotics.

Many substances of concern for aquatic life are still not listed as priority substances but can still drive negative mixture effects. Mixture assessments, such as **broad chemical screenings** at water body level are needed to identify hotspots and direct measures to abate pollution at source. The EU project SOLUTIONS has recommended updating the WFD technical guidance with a "comprehensive mixture assessment framework".

The Commission has introduced a **threshold limit of 0.5 µg/L for the total of active substances in pesticides, including their relevant metabolites, degradation and reaction products the total of pesticide active substances**, but at the same time proposed quality standards for glyphosate that are much higher than this threshold. Additionally, the existing EQS for atrazine surpasses the total threshold. This inconsistency must be rectified. **No individual EQS for pesticide or their metabolites should exceed the total pesticides-and metabolites EQS**.

- The quality standard for **glyphosate** has been set before the final opinion of SCHEER has been issued without indication that the value will be revised following the final scientific opinion. The proposed EQS for glyphosate has several deficiencies that should be corrected:
  - The glyphosate EQS needs to be accompanied with a threshold value for AMPA, its main metabolite, which is of proven concern for aquatic life
  - The values for glyphosate in surface water must be reviewed and lower than 0.1 µg/L EQS should be considered, based on scientific findings for aquatic toxicity of glyphosate, AMPA, and glyphosate-based herbicides towards different aquatic species
  - The 0.1 µg/L (proposed for surface water intended for drinking water sources), or favourably stricter, EQS should apply to all surface water bodies and not only to drinking water sources. For this reason, the glyphosate EQS for non-drinking water sources must be drastically lowered. This would also be in line with the suggested target values for river and water courses suggested by water suppliers in catchment areas of major European rivers.

Apart from mentioning that substances that might be influenced by seasonal or climatic changes can be monitored more frequently (than 2 times per year) for the Watch List, nothing has been done to improve monitoring of listed priority substances to take into account **seasonal variations.**

The Commission proposes to delete Article 16 WFD that states that the review of priority substances should be done every four years, and instead inserts a 6-yearly **review cycle** into the EQSD. This will prolong the review cycle by 2 years, while the fitness check of the WFD concluded that the lengthy process to update the lists of priority substances is one of the reasons the current framework is sub-optimal.

While the proposal requires ECHA to take into account findings from other legislations, e.g., REACH, Biocidal Products Regulation and pesticides legislations when selecting substances for the Watch Lists, there is no clear and timely mechanism to list and address all pollutants which are recognised to have serious effects on the environment and human health, including substitutes and cut off substances under biocide and pesticide legislation and Substances of Very High Concern under REACH).

Groundwater

Good elements of the proposal

Two antibiotics, a wider range of pesticide breakdown products (non-relevant metabolites) and a group of 24 PFAS has been added to Annex I of the GWD with EU-wide threshold values and a threshold for pharmaceutical substances has been introduced.

Elements to be improved

The **individual threshold value for pesticides** has not been revised (despite being based on what analytical techniques could achieve in the 1990s and not reflecting technical advances). This also means that several pesticides will have a higher threshold value in groundwater than in surface water, in conflict with the SCHEER opinion that no groundwater values should surpass threshold values set for surface water

There is a serious lack of **indicators to monitor health of groundwater systems**, such as **temperature**, although science has already provided robust findings for establishing relevant criteria. Such criteria should be added in the Annex I GWD in coherence with recital 20 and Art. 4(5) GWD and comply with the groundwater-related requests in the resolution of the European Parliament concerning the implementation of the water legislation (17/12/2020).

Annex I GWD is proposed to be deleted and substituted with the text in Annex III of the proposed Directive. This is a roll back as the new Annex III only lists the groundwater quality standards and omits the text of current Annex 1.3 GWD that requires **more stringent threshold values** to be established where groundwater quality standards could result in failure to achieve the environmental objectives of the WFD for associated surface water bodies. This requirement should be maintained and expanded to also include requirements to better protect **vulnerable sites** (e.g. groundwater-dependent Natura 2000 sites) from pollution.

The distinction established between **'data poor', 'data-fair' and 'data-rich' nrMs** is unclear on the procedure that would apply in the situation where available scientific data strongly establish risks for aquatic species and biodiversity. Especially in absence of a clear definition at the EU level of non-relevant metabolites[6], the proposed directive should make clear that in case data establishes a risk for aquatic species and biodiversity the ESQ should be modified accordingly. In line with the **precautionary principle** a metabolite should be considered relevant until proven otherwise. We

suggest drawing inspiration from the European Groundwater Memorandum[7], that demands an 'intervention value' of 0.05 µg/L for non-evaluated or partially evaluated substances and degradation products in groundwater. Finally, non-relevant metabolites quality standards should be generalised and applied also to surface water.

Monitoring

Good elements of the proposal

The **groundwater Watch List** has been made mandatory for all Member States, this will allow for more coherent collection of data to determine if pollutants are of EU-wide concern

Member States will be required to **monitor estrogenic substances using Effect-Based Methods** during a period of two years (in parallel to chemical monitoring of three estrogenic hormones). This will capture the effect of all estrogenic substances with similar effects and not only from the three estrogenic substances monitored using conventional chemical techniques

Elements to be improved

The **surface water Watch List** has been reduced to maximum 10 substances (down from 14).

The **groundwater Watch List** is limited to five substances only and it takes another 2 years before the first GWWL will be established, although a voluntary approach is already in place.

There is no transparent mechanism for selecting relevant groundwater monitoring sites and there is no provision to establish an inventory for point/ diffuse sources which helps clarifying relevant measurement point results.

Member States may **monitor ubiquitous PBTs less intensively** than is required for priority substances, this concerns e.g., Brominated diphenylethers, Chlorpyrifos, Mercury and its compounds, Fluoranthene, PAHs, Tributyltin compounds, Dioxins and PFAS.

While the proposal requires Member States to monitor substances that are sensitive to climatic or seasonal variabilities more often than the required minimum two times per year for the surface water watch list**, the proposal largely lacks provisions that improves monitoring that captures the effects of peak events** (e.g., event-based monitoring, passive sampling etc.).

To ensure efficient implementation and comparability of data, the new pesticides-total EQS for surface water, the new pharmaceutical threshold value in groundwater and the existing threshold value for pesticides in groundwater, should be accompanied with a **common minimum reference framework for monitoring**, including a minimum number of sampling points per unit area, sampling frequency and duration as well as coherence in terms of which substances to be monitored and how.

Governance

Good elements of the proposal

A regular screening of relevant findings, including those generated from other water-relevant legislation and in the framework of citizen science projects, is introduced for the surface and groundwater Watch List selection process.

Monitoring data and the resulting status should be made available to the public and to the EEA at least once a year (instead of every six years previously). This will give a more up-to date picture of the state of Europe's waters.

The requirements for **transboundary cooperation** (Art 12 WFD) have been strengthened (following the Oder disaster). Member states are now required to notify concerned Member States and the Commission about issues that affect their waters but cannot be resolved by that Member State. However, this should be extended to also require Member States to notify any other Member State that could be adversely affected by pollution occurring in the Member State concerned.

Elements to be improved

It is proposed to delete Art. 16 WFD with the argument that it has become obsolete. This, however, is only partly correct because the deletion would result in an elimination of the 20-year deadline for the phasing out of priority hazardous substances. The phasing out obligation - one of the main objectives of the WFD - is only enforceable if it is linked to a clear deadline. Already under the existing WFD the phasing out obligation has widely been disregarded; the less concrete it becomes the more authorities will try to ignore it. The proposal therefore risks weakening the existing **phase-out mechanism for priority hazardous substances**.

The move of competency from the Joint Research Centre and DG ENV to **ECHA** is questionable as ECHA primarily deals with chemicals legislation (REACH) and might not have sufficient competence on pesticides and pharmaceuticals and needs to develop that competence as matter of urgency.

While the EQS for the priority substances for surface water and groundwater come into force 18 months after the adoption of the Directive, member states have until 2033 to comply with the new Environmental Quality Standards. This means aquatic life risk being exposed to the effects of toxic substances of EU-wide concern for another 10 years. Member States should put in place monitoring of newly added priority substances and develop an additional Programme of Measures in a timely manner.

Monitoring costs still fall solely as a responsibility of the public budget. In line with the Polluter Pays principle, producers and importers of substances of concern for aquatic life should contribute to the monitoring costs, e.g., via Extended Producer Responsibility based on toxicity of the substance and volume basis

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