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EXECUTIVE SUMMARY OF THE IMPACT ASSESSMENT REPORT

Accompanying the document

Proposal for a Directive of the European Parliament and of the Council

amending Directive 2000/60/EC establishing a framework for Community action in the field of water policy, Directive 2006/118/EC on the protection of groundwater against pollution and deterioration and Directive 2008/105/EC on environmental quality standards in the field of water policy

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EXECUTIVE SUMMARY

The Water Framework Directive (WFD), jointly with the Environmental Quality Standards (EQSD) and Groundwater (GWD) Directives, provides the framework for the sustainable management of Europe's surface water and groundwater bodies. Although they are still under pressure from pollution, Europe's almost 100 000 surface water bodies and close to 12 000 groundwater bodies are a vital source of drinking water, ensure biodiversity, are an essential resource to farmers and industry, a means of transportation and an indispensable ingredient of electricity and heat production.

The current legislation lists a number of polluting substances and groups of substances, as well as permitted concentrations for each, which Member States need to respect in their territory. The legislation also regulates monitoring (at almost 150 000 sites in the EU) and reporting of whether or not pollutants are found above the maximum concentration. They also report on the measures taken against this pollution. At present, EU legislation includes 53 substances for surface water; these are mainly pesticides, industrial chemicals and metals. For groundwater, the legislation lists nitrates and active substances in pesticides.

This initiative addresses two main problems:

1. Inadequate **protection of ecosystems and human health** from risks posed by ubiquitous and/or emerging pollutants and their mixtures. The present list of substances of EU concern is incomplete (not including substances that are having significant negative effects on the environment and human health) and out of date (including substances no longer present in significant quantities or with inadequate quality standards). Furthermore, the current focus on individual substances disregards cumulative or combined effects of mixtures, and the framework does not currently account for seasonal variations in pollutant loads, such as in the case of pesticides used by farmers or in private gardens.
2. **Implementation deficits**: there is too large a variation in pollutants and quality standards designated at Member State level, which results in incomparable data. Data management and reporting is burdensome and not adapted to the digital potential of today's technology; and updating the lists of pollutants affecting surface and groundwater through the ordinary legislative procedure is an excessively lengthy procedure.

The review of the EQSD, GWD and WFD aims to significantly modernise the rules on pollutants in water, and as such deliver on the zero pollution ambition in the overall context of the European Green Deal. The initiative builds on, and is linked to, a number of other European Green Deal initiatives, such as the reduction of pesticides and antimicrobial use in agriculture and aquaculture, the revision of the Urban Wastewater Treatment Directive to address micropollutants, etc., and the revision of the EU's chemicals policy through the Chemicals Strategy for Sustainability.

A package of preferred policy options and sub-options is presented, addressing the two main problems.

Lack of protection:

- As regards surface water:
    - Adding 24 individual substances to the list of priority substances: pesticides, pharmaceuticals and industrial chemicals as well as a group of 24 PFAS substances;
    - Changing the environmental quality standard (EQS) for 16 substances: more stringent in 14 cases and less stringent in two cases;
    - Developing a methodology for the measurement and monitoring of microplastics and antimicrobial resistance genes in surface water and groundwater, with a view to listing them as a pollutant in future;
    - Removing 4 substances from the list (3 pesticides and 1 industrial chemical) as they no longer pose an EU-wide threat.
- As regards groundwater:
    - Addition to Annex I (EU-level standards) of a group of 24 PFAS substances, two antibiotics and a range of pesticide breakdown products;
    - Addition of one substance, a pharmaceutical, to Annex II (where Member States need to consider setting a national standard).

Implementation deficits:

- Establish a mandatory 'watch list' for groundwater to gather more reliable data on potential groundwater pollutants;
- Adapt the surface water watch list to account for the seasonality of emissions;
- Facilitate future adaptations to the lists of pollutants through a simplified legislative process;
- Harmonise standards for pollutants that are relevant at the level of river basins;
- Introduce a mechanism for automated data reporting that will allow faster and more direct access to raw water quality data at Member State level.

The scientific basis for the initiative was developed in a transparent and inclusive process, led by the Commission's Joint Research Centre and the Directorate-General for Environment and involving Member States, stakeholders, industry and academia. The Scientific Committee on Health and Emerging Environmental Risks ensured an independent scientific vetting of the substances concerned. The impact assessment incorporates the preliminary or final opinions on each of the substances / groups of substances, available at this point in time (October 2022). Limit values for substances for which no preliminary or final opinions are available are based on the dossier which the Commission prepared for the Scientific Committee for Health, Environmental and Emerging Risks. The limit values for these substances are denoted by square brackets throughout the impact assessment and the proposal. As opinions arrive, square brackets will be removed.

This initiative is projected to have a positive influence on the water quality of Europe's surface and groundwater bodies, as well as environmental, social and economic benefits. It is therefore expected to directly impact on industry, agriculture, distributors, wastewater companies, Member State authorities and citizens.

It has not been possible to quantify all impacts at EU level. Moreover, as each Member State can choose which measures to implement to comply with the preferred policy package, the costs and benefits cannot be comprehensively quantified and will vary significantly from substance to substance and from water body to water body.

It is, however, evident that listing a number of substances in surface and groundwater or (in the case of surface water) changing their environmental quality standard, will have cost implications, sometimes significant ones. For surface water, significant direct adjustment costs are expected, for instance by adding to the list ibuprofen (a painkiller and anti-inflammatory), glyphosate (a herbicide used in agriculture and horticulture), PFAS (a large group of chemicals used for example in cooking utensils, clothing and furniture, fire-fighting foam and personal care products) and Bisphenol A (a component of plastic packaging). The same applies to amending the environmental quality standard for PAHs (chemicals resulting from burning coal, gas, oil, food), mercury (a metal emitted mainly from coal combustion and gold mining) and nickel (a metal emitted from coal and heavy oil combustion). In relation to groundwater, the most significant costs are expected for PFAS, associated with the restriction of use (e.g. in fire-fighting foams - up to EUR 390 million/year per substitute use) and the management of contaminated bio-solids (up to EUR 755 million/year for incineration and EUR 201 million/year for landfilling). However, drinking water companies and ultimately the taxpayer will benefit, with lower costs for water treatment.

It should be noted that costs and benefits cannot be linked only to this initiative, as there are several others that concern some of the same pollutants, for example the Urban Waste Water Treatment Directive, the Drinking Water Directive, the Industrial Emissions Directive, the Sustainable Use of Pesticides Directive, and the announced ban on all but the essential uses of PFAS.

The digitalisation, administrative streamlining and better risk management options that aim to make monitoring and reporting more accurate and timely, come at a limited, one-off administrative cost for the European Commission (tasked with drafting guidance documents, methodologies, etc.), the European Environment Agency (tasked to enhance access to water quality data) and the European Chemicals Agency (tasked to scientifically assess the risk of relevant pollutants). For most of the assessed tasks, the costs are well below EUR 1 million. Member States' costs associated with monitoring pollution are expected to increase overall due to the increased number and different nature (like microplastics) of substances covered by the legislation. However, this is not expected to exceed EUR 15 million annually across the EU-27 (thus estimated at around EUR 0.33 million to EUR 0.55 million per year per Member State). These expenses will, however, allow the Commission and Member States to take more targeted measures against pollution in the future.

This impact assessment concludes that, overall, the benefits for society considerably outweigh the costs. Benefits include savings in the cost of water and sludge treatment, a healthier ecosystem and savings in healthcare costs. As with pollution in the air and soil, exposure to endocrine disrupting substances and PFAS, for example, can also have a major impact. Taking the example of PFAS, savings from not having to apply reverse osmosis in water treatment amount to some EUR 9 billion annually, and savings in healthcare costs are estimated to be at least EUR 52-84 billion annually. Working in complementarity with other EU legislation already in place or planned under the European Green Deal, this initiative is therefore expected to generate significant benefits for society and the environment.

In sum, the initiative revises the EU's legislation on water pollutants to align it with the contaminants that are relevant today and in the years to come, but also makes the legislation more relevant, transparent and adaptable. It thereby contributes to the overall efforts to

reduce pollution to levels that are no longer harmful to human health and the environment, in line with the EU's Zero Pollution Action Plan.