

Joint NGO Analysis of the European Commission's Proposal for a Revised UWWTD

On 26 October 2022, the European Commission presented its proposal for a recast Urban Waste Water Treatment Directive (UWWTD). The objective of the EU wastewater law has been widened to include, in addition to protection of the environment from the adverse effects related to discharges of untreated urban wastewater, also safety of human health, reduction of greenhouse gas emissions, access to sanitation, transparency and surveillance of public health parameters.

The legal proposal sets the deadline for achieving the objectives by 2040, with interim deadlines to ensure steady progress. The proposal is a welcome overhaul of the 30-year-old Directive and has potential to reduce remaining sources of untreated wastewater and prevent pollution of all water bodies from a wide range of pollutants, including biomedica, carried by wastewater, but also contains new provisions addressing energy use, circular economy aspects and governance, including improving access to sanitation, information to the public and implementation of the polluter pays principle.

Urban wastewater is a footprint of society and our consumption and production patterns. It contains a complex mix of domestic discharges, run-off from streets and buildings and industrial and other non-domestic effluents that needs proper treatment to not pose a threat to human health and the environment. While pollution control always should primarily be directed at source, urban wastewater treatment act as a last filter of protection before discharging into the receiving environment.

EEB, Surfrider Foundation Europe and HCWH Europe call on the European Parliament and the Council to adopt the proposed recast of the UWWTD and to strengthen it where needed in line with the main points in this assessment and the overall ambition of the EU's Zero Pollution Action Plan.

Note: 'large' wastewater treatment plants in the text refers to plants > 100 000 p.e., and 'medium-sized' plants refers to plants between 10 000 and 100 000 p.e..

Addressing remaining sources of untreated wastewater

Definitions – Article 2

Urban run-off and combined sewer overflows – Art. 5 and Annex V

Individual systems – Art. 4

Small agglomerations (Art 3 collecting systems, Art 6 secondary treatment)

Good elements of the proposal

Combined sewer overflows and urban run-off represent a significant load of microplastics, antimicrobial resistance genes and toxic substances to receiving waters. The clarifications on definitions of urban run-off, combined and separate sewers (Art. 2) and the proposal to require locally **established integrated urban wastewater management plans** (Art. 5) shows good intention towards reducing pollution from these sources (Annex V.2). Proper rainwater management also reduces risk of flooding during intense rains. It is welcome that the proposal distinguishes between unpolluted rainwater, that can be used in urban design or infiltrated to the ground and polluted urban runoff that needs to be collected and treated. Preventive action, such as **blue green-solutions** that increase green space and

reduce impermeable surface reduce the load to sewer systems have many co-benefits for the urban space and it's positive to see them emphasised among the measures that should be considered in these plans (Annex V).

It is welcome that competent authorities should monitor concentration and load of pollutants from sewer overflows and urban runoff from medium and large agglomerations as this is a first step in addressing the problem locally and to measure progress.

Small agglomerations represent more than a quarter of the remaining untreated load of wastewater to the environment. The Commission proposes to extend the scope of the Directive to require agglomerations from 1000 population equivalents (p.e.) to collect (Art. 3) and treat (Art 6) urban wastewater. A new **definition of agglomeration** is introduced as being an area with at least 10 p.e. per hectare. While it would be welcome that more wastewater is treated, it needs to be assured that there is room for **decentralised solutions** in this framework.

Elements to be improved

While the intention of the **integrated urban wastewater management plans** is good, they risk becoming empty shells as the content and objective (to reduce combined sewer overflows to 1% of dry weather flow) are only **indicative**. The occurrence of overflows entails a clear risk for the state of our waterways, all the way to the coastline and the Ocean. Such risks can also directly impact the status of bathing and recreational areas, exposing citizens to health hazards. Proper rainwater management is crucial not only to prevent pollution of receiving waters but to adapt cities to a changing climate where both intense rain event and prolonged heat waves will be part of the new normal. Therefore, the management plans should also be required in medium-sized agglomerations that discharges to waters that risk to negatively affect protected areas.

In light of this, Art. 13 that requires urban wastewater treatment plants (UWWTPs) to be designed to handle wastewater loads under normal local climatic conditions, should be amended to include **projections for climate change** (as is required in the drawing up of the urban wastewater management plans).

It is not coherent that **individual systems** should be required to ensure the same level as secondary and tertiary treatment, when only secondary treatment is required in agglomerations up to 10 000 p.e.. Individual systems should not have higher removal requirements than agglomerations. Additionally, it needs to be clarified that not only single-house individual systems, but also other decentralised solutions can be used within the framework of the Directive. This would need to include monitoring requirements adapted for decentralised systems that do not generate an effluents, e.g., wetlands or different kinds of infiltration techniques.

Pollutants in **snow** and melt water are in principle the same as those contained in urban run-off, with addition of salt used for road clearance during winter and affect receiving waters and/or groundwater. This is currently not acknowledged under Art. 2 nor in the rest of the Directive.

Addressing pollution at source and protect aquatic life

Nutrients (tertiary treatment) – Art. 7 and Annex II
Micropollutants (quaternary treatment) – Art. 8 + definition of micropollutants (Art 2.16)
Non-domestic emissions (Art 14) and Biodegradable non-domestic discharges (Art 16)
Monitoring (including biomedica) – Art. 21

Good elements of the proposal

Urban wastewater carries a wide range of pollutants from household, industry and the urban landscape and UWWTPs act as the last filter to protect receiving waters. The proposal to require large WWTPs (by 2035) and selected medium-sized plants (by 2040) remove **micropollutants** (Art. 8) is therefore welcome as advanced ('quaternary') treatment has been shown decrease the load of a wide range of harmful substances to receiving waters.

Eutrophication remains an EU-wide issue, affecting more than 30% of rivers, lakes and coastal waters and 80% of EU marine waters. It is positive that provisions have been made up to date and harmonised to ensure that all large plants will have to remove **nutrients** by 2035, and medium plants discharging into areas sensitive to eutrophication by 2040 (Art. 7). However, these deadlines could be set sooner. The **nutrient removal** criteria have also been made stricter reflecting technical development and already existing provisions in several Member States. In terms of the areas to be designated, it is welcome to witness a stronger emphasis has been put on dischargers in **regional Seas subject to eutrophication** while the notion of "less sensitive areas" has been removed. Though consistency with the MSFD and the WFD is underlined, it would be beneficial to see a stronger focus on **bathing and recreational areas** exposed to eutrophication risks.

Pollution should always be firstly addressed at source. The requirements for **non-domestic discharges** to sewers have been clarified (Art 14) and now requires Member States to take measures, including review of permits, to tackle pollution at source from non-domestic wastewater and to ensure that the pollutant load does not deteriorate the ecological and chemical status of the receiving water (Annex I Part C). It has also been clarified that the emission load to sewers from plants regulated under the Industrial Emissions Directive should not be larger than if the discharges were released directly to receiving waters and compliant with the emission limit values set under that Directive.

The **monitoring requirements** have been extended to include, at inlet and outlet of medium and large WWTPs priority substances for surface and groundwater, substances in Annex II of the PRTR, substances regulated under Sewage Sludge Directive and **microplastics** (including in sewage sludge) (Art 21.3). Additionally, it will be required to monitor **antimicrobial resistance** at larger WWTPs (Art. 17.4) and the Commission will adopt an implementing act on methodology.

It is positive to see **contaminants of emerging concern** recognised among the public-health parameters with new monitoring requirements for urban wastewater surveillance programs (Art. 17.1(e)).

Permits for UWWTPs that use **plastic biomedica** are to include an obligation to monitor and prevent their release (Annex 1 Part B.5). It is the first time the terminology and the impact of biomedica on aquatic and marine environment is used when discussing urban wastewater management, and we strongly welcome this major step forward.

Elements to be improved

While the **monitoring** requirements have been expanded, there is a continued reliance on monitoring of individual substances, which does not take account of mixture effects and also risk missing substances outside those lists, e.g., released by local industry. Such effects can only be detected by the use of **broad chemical screenings** that take account of the full effect of chemical cocktails experienced by aquatic life, e.g., bioassays. Additionally, it needs to be ensured that the monitoring results are used to trigger **abatement at source** in those cases where exceedances of environmental quality standards are detected.

The monitoring requirements need to cover **microplastics** in a comprehensive manner, i.e., with no lower size limits and including soluble, liquid and biodegradable polymers.

The definition of **biomedia** (Art. 2) should be extended to clarify that it includes all types of plastic carriers used for the development of bacteria in wastewater treatment processes as the term biomedia refers to only a specific type of plastic carrier. The approval of a discharge authorisation (Annex I Part B.5) should be made more stringent and conditioned to a number of mandatory obligations to allow national and centralised databases to provide this information to the European Commission. WWTPs operators should be required to report any biomedia leakage to the environment as well as to undergo frequent control by competent authorities.

The requirements for medium-sized UWWTPs to install advanced treatment should be extended to include those that discharge into, or where the discharges risk to negatively affect, protected areas.

Requiring polluters to secure financing and access to sanitation for all

Extended producer responsibility - Art. 9
Sanitation – Art. 19

Good elements of the proposal

The introduction of an **Extended Producer Responsibility** (EPR) scheme is an important step forward for the Polluter Pays Principle. It would require producers (including importers and distributors) of substances covered by EU rules on human pharmaceuticals and cosmetics to cover the costs related to the monitoring and removal of harmful substances that they place on the market (Art. 9). This has the potential to act as a financial incentive to develop more environmentally friendly alternatives and to cover the cost of treatment to protect the environment from substances that cannot be substituted.

Proper implementation of the **Polluter Pays Principle** is important not only as a driver of greener products but also to ensure affordability of water and sanitation services. Large investments are needed to comply with existing and new requirements of EU wastewater law and unless producers contribute, the cost will fall solely on the water bills and public funds.

10 million people still lack access to sanitation in the EU. It is therefore welcome that the proposal requires member States to improve **access to sanitation**, in particular for vulnerable and marginalised groups, including providing public toilets free of charge by 2027 (Art 19).

Elements to be improved

The **exemptions from the EPR** should be strictly limited. The exemption from the EPR for products placed on the market below 2 tonnes per year should preferably be deleted as products sold in smaller quantities can still have significant impacts on the environment and human health. As a minimum it must be clarified that the exemptions refer to 2 tonnes at EU-level (Art 9.2(a)). The exemption for substances that do not generate micropollutants should be amended from “at the end of their life” to “during their lifecycle” to take into account emissions during production, use as well as disposal. Further, it should be ensured that sales via online platforms are covered by the EPR.

The inclusion of the pharmaceutical and cosmetic industries is already a great step forward in terms of **producer responsibility** in the realm of urban wastewater treatment, there are many more sectors responsible for wastewater pollution. Further investigations should be considered to explore whether it would be opportune to integrate more sectors e.g., covering chemicals that are washed off from textiles, cleaning products and household products. To ensure the possibility of a future potential extension of the EPR scheme, the Commission must be empowered to issue a delegated act to expand Annex 3 that lists the sectors covered.

In line with the **polluter pays principle**, obligations regarding the establishment of remediation measures should be added to hold any actor of the plastic biocarriers value chain accountable if found responsible of a pollution.

The provisions for **access to sanitation** should be strengthened to require member states to ensure (not only improve) access to sanitation for all.

Improving the energy and circular economy of wastewater treatment

Water reuse and discharges of urban wastewater – Art. 15

Sludge – Art. 20

Good elements of the proposal

Wastewater treatment requires considerable amounts of energy and can make up a large part of municipal budgets. The objective for the wastewater treatment sector to be **energy-neutral by 2040** is a good driver to ramp up **renewable energy production** at UWWTPs, e.g., via biogas production, harvesting of heat and kinetic energy or installation of solar panels (Art 11). The required energy audits (Art. 11) will be helpful in achieving this and it is positive they should also cover the collecting systems as pumps are an important share of energy use. In this regard it is also positive that monitoring of **greenhouse gas emissions** will be required (Art 21.1(d)).

Member States are required to promote the **reuse of treated wastewater** and to conform to the waste hierarchy from the Waste Framework Directive when dealing with **sludge** and the Commission is empowered to adopt delegated acts to set minimum recycling rates for nitrogen and phosphorus (Art. 20). This has (some) potential to steer sludge management away from landfill and incineration.

Elements to be improved

The **energy audits** should be conducted yearly (instead of every four years as proposed) to ensure progress.

While it is essential to favour recovery of resources from wastewater and sludge, the **risk of contamination** and the associated limits for direct reuse needs to be acknowledged. The proposal should underline the need to consider the treatment of sludge not only based on the waste hierarchy, but also on the 'zero-pollution hierarchy' as defined in the Zero Pollution Action Plan.

For **microplastics** specifically, the monitoring requirements on their presence in sewage sludge should be accompanied by specific measures regarding highly contaminated sludges. Indeed, current studies estimate that 63 000 to 430 000 tons of microplastics are added to European farmlands each year through sludge application to agricultural lands with direct implications to the food grown and sold for human consumption. Furthermore, such contamination impact soils, as well as biodiversity and habitats if spread further into the environment.

Governance

Art 12 – Transboundary cooperation

Art 18 Risk assessment

Public information – Article 24, Annex VI, Access to justice Art 25, Compensation Art 26

Good elements of the proposal

The proposal sets out a clear **deadline for compliance and interim targets** to ensure that Member States are on track to comply with their obligations.

It is welcome that **the public should be provided with up-to-date information** about the percentage of the wastewater in their area that is treated (and how much is not treated), including the load of pollutants discharged by WWTPs, individual systems and by sewer overflows and urban run-off (Art 24).

The provisions on **transboundary cooperation** have been strengthened requiring Member States to notify other Member States and the Commission when there is risk of cross-border impacts (Art. 12). This could prevent incidents such as the Oder River disaster this summer where Polish authorities failed to notify their colleagues in Germany which delayed crisis response by several weeks.

A **risk assessment and management procedure** has been introduced (Art. 18) to determine if measures further than those required by the provisions of the Directive are needed to protect environmental and human health (drinking water, bathing water, good ecological status and aquaculture) and outlines such further measures. The risk assessment should be extended to also include protected areas.

The new articles on **access to justice** (Art. 25) and **compensation** (Art. 26) are welcome. They allow the public and NGOs to legally review decisions taken by governments under this Directive. It is particularly welcome that in cases where there is claim for compensation, the burden of proof lies on the person responsible for the violation.

Elements to be improved

While it is positive that the load of pollutants discharged via **sewer overflows** and **urban run-off** will be reported to the public, the requirements only cover organic matter, suspended solids and nutrients. This must be extended to reflect the true scope of pollution from these sources, including as a minimum: faecal bacteria, microplastics, antimicrobial resistance genes and 6PPD-quinone (a chemical added to tyres with known toxic effect for salmon).

Information to the public should not only provide a general picture of the functioning of the sewage network and the annual wastewater loads collected and treated (or not). Proper communication to the population should be established in the case of an UWWTP incident or overflow, so that individuals are notified of such events and aware of the potential risks for water quality in the area. This data should be properly communicated to the relevant authorities in areas where these incidents present a risk for the environment and human health.

More efforts should be invested to favour **citizen empowerment** on issues related to the collection, treatment and management of urban wastewater. The general public should not only be involved in the implementation of the treatment of wastewater in terms of information but also participation: mechanisms should be in place in all Member States for citizens to report back observed failures in the collection and/or treatment of urban wastewater with specific attention paid on illegal industrial discharges as well.

The **access to justice** article (Art. 25) only related to Art 6, 7 and 8 and should be broadened, ideally to cover the full scope of the Directive, but a minimum Article 5, Article 19 and Article 21. While it is positive that the review procedure should be timely and not prohibitively expensive, it is a large drawback that it is left to Member States to determine at what stage (drafting, implementation...) that challenges can be brought forward. This risks to make the public have to wait before they are allowed to challenge.

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