

The Baltic Sea Centre's comments on the European Commission's inception impact assessment of the Urban Waste Water Treatment Directive

We welcome the Commission's analysis that the current directive is not sufficiently considering risks of modern society's use of thousands of chemicals, and its ambition to address this weakness.

We further agree with the Commission that the UWWTD needs to be part of the solution to fulfil and reach the targets under both the WFD and the MSFD. UWWTPs can be important entry routes for some priority substances and river basin specific pollutants. These links need to be better addressed in a revised UWWTD by introducing requirements on wastewater quality with respect to micropollutants in addition to nutrients and organic matter.

The Commission acknowledges that monitoring and reporting requirements of the UWWTD are out-of-date. A revised directive should therefore allow for legislation covering micropollutants in receiving water bodies to feed back to the monitoring, screening and technology requirements of UWWTPs. In addition, the UWWTD does not entail any mechanism for early warning, i.e. using chemical or biological analysis of wastewater and sludge to discover unknown pollutants or effects. A quality assessment with a broader scope than specific chemicals, as currently sometimes specified in permits of industrial WWTPs, could indicate needs for upstream measures or better treatment of wastewater also in UWWTPs. In a more general perspective, assessments of wastewater and sludge that go beyond the single chemical approach can be used to identify substances of emerging concern, as currently discussed under the WFD and MSFD. Such assessments performed under the UWWTD should feed into other policy areas and lead to further management of these substances.

Upstream measures to reduce the chemical load must remain key overall, which the coming Chemical Strategy will hopefully stringently address. However, UWWTPs are one of few collection points for chemical flows in our society, which provides an opportunity to remove a broad range of chemicals emitted from human activities from the water cycle by employing more advanced treatment techniques targeting micropollutants. By imposing chemical quality limit values on outgoing water from UWWTPs in the larger agglomerations, total emissions of known and unknown substances and associated risks to the aquatic system could be significantly decreased.

Stockholm University Baltic Sea Centre

To give an example, out of the ca 615 UWWTPs closest to the Baltic Sea coast, about 45 plants receive wastewater from more than 100 000 p.e. and together treat almost 70% of the wastewater from the coastal population. Currently employed advanced treatment technologies have, with reasonable operating conditions, an average micropollutant removal efficiency of ca 70-80%. Upgrading the largest UWWTPs would hence reduce the total load from all coastal UWWTPs by approximately 50%. Introducing requirements on micropollutant treatment for at least the larger UWWTPs in the UWWTD therefore has the potential to significantly lower concentrations of a wide range of micropollutants in seawater. This is particularly important for persistent and water soluble chemicals since they easily escape conventional UWWTPs, spread in waterways and accumulate in aquatic “end-stations” such as the Baltic Sea. For inland surface waters and coastal zones, other criteria for evaluating the need for more advanced treatment are relevant, e.g. dilution, risk of contaminating drinking water reservoirs and ecological factors.

When revising the directive, the definition of “sensitive area” under Art. 5 should be expanded by going beyond eutrophication and include micropollutants, for instance in relation to limit values for priority substances. Expanding the scope of the meaning of sensitive areas and conditions for emitting wastewater in these areas under the UWWTD would enable that “receiving waters satisfy other relevant Directives”. As earlier stated, the UWWTD needs to be part of the solution to fulfil and reach targets set under both the WFD and MSFD now and in the future.