



Position paper

The Weser Ruling: Consequences for urban waste water treatment – and a proposed solution

Summary

This paper explains the technical and practical implications for Urban Waste Water Treatment Plants (UWWTP) regarding the legal problems triggered by the Weser Ruling. It suggests possible solutions to look forwards.

1. Background

In the Weser Ruling (C-461/13), the European Court of Justice interpreted how the objectives, exceptions, and the non-deterioration requirements in Article 4 of the Water Framework Directive 2000/60/EC (WFD) should be applied. The Ruling concerned dredging in the German river Weser, but it has large implications on the admissibility of other activities and it impacts also the most efficient urban waste water treatment plants (UWWTP).

The European Commission decided in 2020 not to open up the WFD for revision. However, the European Parliament (EP) has paid attention to the fact that technical limitations of waste water treatment exist and that incoherence between the UWWTD and the WFD may arise. The EP adopted a resolution of 17 December 2020 on the implementation of the EU water legislation (2020/2613(RSP)¹). In point 27, the Parliament “calls on the Commission to carefully examine how the Urban Waste Water Treatment Directive (UWWTD) requirements on the design, construction and expansion of UWWTP at all stages of technical development interact with the WFD obligation of non-deterioration, in order to ensure coherence between the two pieces of legislation and the treatment of urban waste water, while preserving all incentives to take proper technical treatment measures; encourages the Commission to take legislative action, if necessary”.

At the recent meeting of the Strategic Coordination Group (within the EU Common Implementation Strategy of the WFD), the European Commission announced that they did not intend to produce a guidance on the interpretation of the Weser Ruling by Member States (awaiting the minutes of the 25 May 2021 meeting).

¹ P9_TA(2020)0377 Implementation of the EU water legislation European Parliament resolution of 17 December 2020 on the implementation of the EU water legislation (2020/2613(RSP)).



2. Technical limitations

It is not always possible or reasonable to treat all types of pollutants originating from agglomerations nor to reduce discharges of all treatable pollutants by 100%, not even when storm water flows are already separated from waste water flows and treated separately.

The amounts of phosphorus and biological oxygen demand in waste water can be reduced in UWWTPs by up to 98-99%, if the local prerequisites are optimal but then, smaller concentrations still remain. In addition, the waste water volumes may sometimes be reduced by active maintenance and, where it is possible, to manage storm water flows upstream e.g. by blue-green infrastructure schemes. When the treated waste water volume is maximally decreased and the pollutant content in the volume is brought down as much as possible, the amounts of pollutants such as phosphorus being released from the UWWTP cannot be further decreased.

Additionally, increased emissions are inevitable if the population in the agglomeration continues to increase.

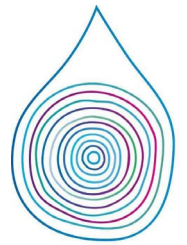
Merging sewage systems from two or more agglomerations by transferring the waste water to one larger and more efficient UWWTP instead of operating several minor and less efficient plants is an option for improved waste water management. This may also lead to less energy consumption and less CO₂ emissions per m³ waste water. It might provide other benefits, such as the aggregation of resources making the recovery of energy (from digestion) or nutrients etc. viable and hence contribute to the circular economy.

From a holistic perspective of providing waste water services to protect public health and the environment, along with maximising resource recovery and treatment efficiency, such solutions are often preferable even if it is not sufficient for the individual recipient waters. However, transfer of discharge from one recipient to another is not always possible since all recipient's ecological and chemical status must withstand the emissions without deteriorating the status or jeopardising improved status.

Additionally, in dry countries, flows returned to the rivers by urban WWTP may be significantly higher than natural flows (almost 100% of the flow in some local cases), thus being impossible to comply with some quality conditions, even with the most advanced treatment technologies.

3. Considering other discharges to the environment

In agricultural areas, substances responsible for eutrophication are also emitted from farmlands. Even though measures are taken by farmers, it will take years or decades for phosphorus to stop leaking, especially from clay soils. Due to this, improvement of surface water status will be difficult to achieve, leading to negative effects in the admissibility of the most efficient UWWTPs due to Article 4 in the WFD and the Weser Ruling. The exceptions in Article 4 and the condition for applying them are applicable on waterbodies and not on UWWTPs or any other single activity.



4. Legal requirements within the UWWTD and WFD

Article 10 in the UWWTD requires operators of an UWWTP to enlarge the plant and adapt to increased load from an agglomeration, to be able to meet the requirements in Article 4 - 7 in the same directive. Article 4 in turn refers to Annex 1 point B.4 when it comes to UWWTPs for at least 2,000 pe and Article 7 refers to Article 2.9 when it comes to smaller UWWTPs. These provisions require the same; that emissions from an UWWTP must adapt to the water quality objectives in other EU directives, such as the WFD objectives.

As stated in the Weser Ruling, a deterioration of the recipient's status for a single quality element or substance is not allowed and the WFD objectives must be applied on each single UWWTP to assess whether the plant is admissible or not. When possible, the exceptions in Article 4 should be applied.

The WFD offers two types of exceptions and one right to deviate from the requirements:

Exceptions:

- ~ to postpone the year when the quality objective must be achieved until 2027 at the latest (Article 4.4), or
- ~ to decide on a less stringent quality objective (Article 4.5).

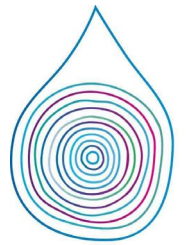
Right to deviate:

- ~ the conditional right to deviate from the Directive laid down in Art 4.7.

Both exceptions are conditional. Since the population in many urban areas will continue to increase for decades, even when all best technology solutions are implemented, it is not a solution to postpone the time for achieving good status. Then, only the exception in Article 4.5 remains. Unfortunately, the condition 'c' in Article 4.5 for applying it states that all possible measures must be taken, meaning in all activities affecting the recipient status, and further deterioration must be avoided (condition c). As described earlier, condition c cannot always be met.

The right to deviate from the WFD requirements in Article 4.7 in the WFD is a final lifeline for some activities but not for UWWTPs. To be applicable on discharges, the recipient's ecological status must be assessed as 'high', which very seldom or never is the case since waste water from agglomerations mostly or always have affected the recipient's status to be less than 'good' or 'good at the best'. Agglomerations are common in agricultural regions or where the economic activity is high and thus also the environmental load originating from them.

The conclusion is that some of the UWWTD requirements and the WFD objectives are not compatible. The most efficient UWWTPs cannot always be extended as required in the UWWTD since their permit admissibility depends on the measures taken by other operators on which UWWTPs have no influence. Nor can their UWWTPs be allowed even if they themselves put the most efficient technics and measures in place.



5. Examples

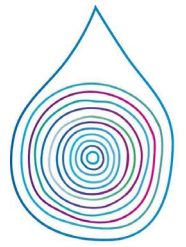
We are concerned to see the Weser Ruling influencing the permits to operate or extend UWWTPs in certain countries, where the pressures on the receiving waters (for example due to nutrients) are at certain thresholds defined according to the WFD. In the context of the revision of the UWWTD, upgrades of UWWTPs might be required to address the remaining pollution identified during the evaluation. It may be difficult to upgrade WWTPs if the Weser Ruling is interpreted as a control upon the issuing of UWWTP permits. In the annex, we present anonymised examples where the Weser Ruling had already influenced decisions on currently planned investments to enhance waste water management.

6. Possible solutions for the future

As the UWWTD is currently subject to an impact assessment and review, it is the right time to explore possible solutions that would enable the UWWTD and the WFD to operate successfully together. We urgently request that solutions are found to this problem as part of the UWWTD impact assessment, so the future UWWTD creates confidence that urban waste water will be managed sustainably.

The ideas EurEau shares on resolving misalignment between UWWTD and WFD, described above, include the following:

- ~ Include a separate Article in the UWWTD to make the UWWTD compatible to the WFD. Our proposed solution must of course be adapted to how a revised UWWTD will be designed. It might be necessary as well to mention the motives for the exemption in the Directive's recitals.
- ~ A supplementary paragraph in UWWTD Article 10, or as a new separate article could identify that there would be no breach of the EU Directive 2000/60/EC where the deterioration in status of a body of surface water is caused by discharging treated waste water from a urban waste water treatment plant, if certain conditions are met, for example:
 - o the deterioration is caused by an enlargement and improvement of an existing plant or by a new plant aimed at treating the increased loads of pollutants from the agglomeration
 - o the most sustainable techniques are being used
 - o technical measures to reduce the flow or improve the quality of waste water are not practically feasible to take
 - o no suitable alternative recipient is available to transfer the treated waste water to, without causing unreasonable costs, also taking into account carbon targets, or without disproportionately negative risks for private properties, drinking water sources, the environment or public health.



7. Conclusion

The interpretation of the Weser Ruling is already creating and could create issues regarding the sustainable management of waste water. The revision of the UWWTD provides the opportunity to improve coherence between the WFD and the UWWTD, so the future UWWTD creates confidence that urban waste water will be managed sustainably. This is necessary to address both the remaining pollution identified in the evaluation of the UWWTD and to accommodate population growth.

Some of the UWWTD requirements and the WFD objectives are not compatible. The alignment of UWWTD and WFD must be resolved in the context of “Fit for the Future” to ensure UWWTPs also contribute to other ambitions such as carbon targets, circular economy, biodiversity and the protection of water resources.

Note: Complementary to this paper, please refer to our Briefing note on IAS and our position paper on small agglomerations.

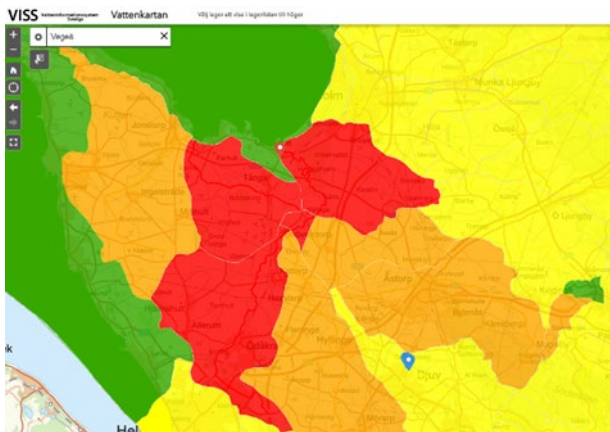


Annex

Examples for Weser Ruling influencing permits for WWTPs

Operator A

The decision was made in 2020.



The ecological status in the area in which the operator conducts its UWWTPs is shown from the extract from the water authorities' data server VISS. The municipality is in the red area and in the orange area south of the red (bad or poor ecological status).

First example

Several UWWTPs are located in an intense agricultural area in the southern parts of Sweden. The ecological status in all current water bodies is assessed to be moderate, poor or bad due to eutrophication by phosphorus (P).

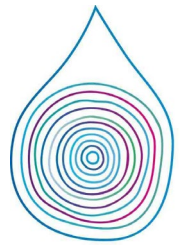
The operator's application for a permit for improved waste water management was rejected. Two small UWWTPs were planned to be shut down and waste water to be transferred to an upgraded and improved third UWWTP (approximately 0,1 mg P/l emitted). The load from waste water to the sea would decrease and cease on two water courses having bad ecological status.

The non-deterioration requirement as interpreted in the Weser Ruling would not be fulfilled when applied on the remaining third recipient and the exceptions were not applicable.

Second example

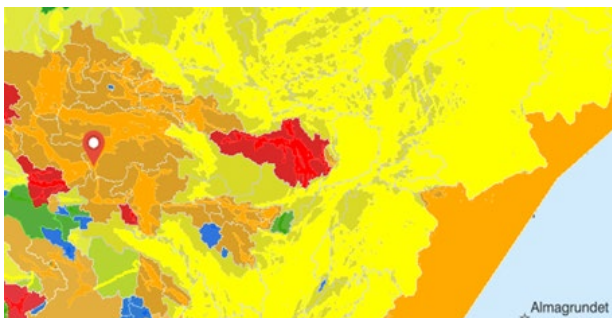
Requirements in the permit conditions must be so strict so as to avoid the deterioration in status that would lead to it being very difficult and expensive or impossible to meet technically. Since it is not yet acute to refurbish and expand the UWWTP, the operator waits for the legal situation to be clearer.

Improvements of all other remaining UWWTPs are also postponed by the operator as long it is legally possible to do so since the operator finds it useless to try obtain permits in the current legal framework.



Operator B

This example is from a big UWWTP in the archipelago east of Stockholm serving 11 municipalities' waste water treatment. The permit for an improved UWWTP for 900,000 pe was granted in 2016 but a condition in the permit has consequences for the Stockholm region and the possibilities to meet increased loads from the ongoing increase of population. The condition is necessary to make the plant compliant with the non-deterioration requirement and the Weser-Ruling.



The large UWWTP in the orange area (poor ecological status) is marked out and the two municipalities that were planned to connect to it are located north of it in the yellow area (moderate ecological status)

The archipelago in the Baltic Sea and the sea basins are heavily eutrophicated. It will take at least 50 to 100 years to achieve a recovery of the Baltic basin. Earlier environmental states will not return. Thus, coastal water bodies in the archipelago are affected by nutrient-rich inflowing water from the Baltic Sea basins in addition to the load from land. Under such circumstances the coast water bodies are off course sensitive to increased nutrient loads.

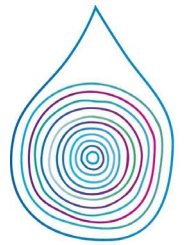
Two less efficient UWWTPs serving two growing municipalities discharging their waste water to a coastal water recipient in the archipelago were planned to be shut down and the waste water was planned to be transferred to the large, upgraded and improved UWWTP.

Unfortunately, the plans had to be cancelled since the permit conditions limited the maximum amount of P emitted from the plant. The remaining capacity of the treatment plant had to be saved for treatment of increased waste water volumes due to the ongoing population increase in the already connected municipalities.

It is unclear how waste water from an increased population will be treated in just over ten years as the technical limit for treatment in the large UWWTP has been reached. Nor is it yet solved how waste water from the two minor but still growing municipalities shall be treated in a manner consistent with the Weser-Ruling and the WFD.

Operator C

The permit for a new UWWTP was granted in 2017. Too many inefficient waste water facilities serving single houses and buildings in the ski resort should be connected to a common UWWTP and the planned enlargement of the ski resort from today's 2,600 beds



(pe) to 6,000 pe in the future should be met.

By reference to the non-deterioration requirement in the WFD and the Weser-Ruling, the permit was limited to 3,000 pe instead of 6,000 pe as applied for. Plans for developing the ski resort had to be cancelled.

This example maybe is not as serious as from the two previous operators serving agglomerations with permanent residents, but it shows how even small agglomerations in sparsely populated areas in need of being able to take advantage of all opportunities for development may be socially and economically affected. Undoubtedly, the application of the same rules in similar situations has significantly more serious consequences for UWWTPs and the water environment in growing agglomerations.