



Summary Report EU Green Week Webinar

EU Policy and Urban Water Management – Challenges of Implementation

Wednesday 2 June 2021

In the following pages you will find a summary of the main points that were discussed during our webinar.

EU water policy – Shaping EU water services / Expectations from the EU Action Plan for Zero Pollution by Greet de Guedre, Chair of the Joint Working Group on Pollutants, EurEau
The European water sector is responsible for addressing the pollution of water resources in the water cycle. The sector is driven by criteria as laid out in ‘water industry’ legislation and the Water Framework Directive (WFD). The latter assesses the ecological, chemical and quantitative parameters of surface waters and groundwaters. While the water sector is delivering services in line with the Urban Wastewater Treatment Directive (UWWTD) and the Drinking Water Directive (DWD), chemicals pollution from nutrients and micropollutants continues to have harmful effects on both human health and ecosystems.

Further, while emerging pollutants pose new challenges and are not currently regulated, the water sector cannot tackle these alone. Our current water treatment infrastructure is not made for certain hazardous chemicals and there is no blanket solution for removing all potential pollutants. The best solution is to prevent these from entering the cycle in the first place. The EU should follow the strict application of key principles, as enshrined in the TFEU, such as the Precautionary Principle, the Control-at-Source Principle and the Polluter Pays Principle. This would see hazardous chemicals, such as PFAS prevented from entering the environment. Introducing a far reaching ban of all uses of PFAS at EU level could be a first step.

EurEau welcomes the EU Action Plan for Zero Pollution in air, water, soil and supports the Zero Pollution hierarchy as outlined in the Action Plan. The principles of the plan urge all stakeholders to take responsibility for: reducing microplastics by 30%, phasing out PFAS for non-essential uses, reviewing the Environmental Quality Standards Directive (EQSD) and reviewing the UWWTD. EurEau now expects associated ambitions and concrete actions from the EU.

Do the Water Framework Directive and the UWWTD clash? by Peter Sörngård, Senior Environmental Adviser, Svenskt Vatten

In his presentation, Peter Sörngård used two examples to illustrate situations where contradictions in the WFD and the UWWTD lead to difficulties for municipalities and operators of Urban Waste Water Treatment Plants (UWWTP). The Municipality of Åstorp is located in an area that has been intensively used for agriculture. Here, an application for a permit for an upgraded UWWTP was rejected, referencing the Weser-ruling, even though the authority considered the sewage solution to be the best possible for the environment since eutrophication of urban loads on two watercourses would cease and the load on the sea would decrease. The second example Peter Sörngård discussed is from the archipelago east of Stockholm. The local authorities had planned to close-down two less effective UWWTPs, that were serving two growing municipalities. The plan was to transfer the urban wastewater to the more efficient UWWTP Käpplavverket, that is located in the same region. However, these plans had to be cancelled due to the application of the Weser Ruling in the permission application process. Since all coast waterbodies are sensitive to an increased load of phosphorus this has resulted in a situation where it is unclear what is admissible under current

legislation. Further, since the population is increasing in these two municipalities, the current treatment technologies are insufficient for meeting the objectives under the UWWTD.

A possible legal solution could be to include a conditional right in the UWWTD for UWWTPs to deviate from the objectives set out in the WFD, similar to Article 4.7 in the WFD.

Challenges of reaching environmental quality standards (EQS) in Gothenburg by Josefine Evertsson, Environmental Analyst & Lena Blom, R&D Manager, City of Gothenburg

Due to climate change, the City of Gothenburg expects rising sea levels of +0,7 meters, rising groundwater levels by +0,7 meters, increase in rainfall by 20-40% and an increase in discharge in rivers and streams of +5 to 10% by 2100. Gothenburg shares these challenges with other European cities in the continental climatic zone. Further, Gothenburg is expecting a large increase in population (+115 000 citizens in the coming 15 years). Like most cities, Gothenburg does not have full ownership over GHG emissions. All of these pose real challenges for the urban water logistics in the city and today only a few of Gothenburg's many water bodies achieve good ecological status and none achieve good chemical status under the WFD. Like EurEau, Gothenburg advocates for using an upstream perspective and employing source control in EU water, sector and product legislation.

Stormwater management also pose a real challenge for meeting the EQS in Gothenburg. Here, the EU should better include stormwater in the revision of the UWWTD and ensure coherence with climate change adaptation measures – particularly for nature-based solutions. European cities also face an investment gap, where we have technical solutions but lack the financial means to implement them. In Gothenburg, the investment need for stormwater, including water overflows, is estimated to EUR 170 mn to meet half of what the city needs (1000kg P/year). Here, the EU can better align EU funds for meeting these challenges.

Moreover, the wastewater system in Gothenburg comprises both a combined and a separated system, where varying flow leads to congested sewer systems. This, in turn, leads to flooding, overflow, deteriorated wastewater treatment and an increased risk for spread of infection. The city's wastewater plant and sewer system lacks capacity for all flows, which leads to vulnerability. It is therefore crucial for the city to work on increasing its resilience and make use of new technology. The city has developed a number of tools for reaching the EQS, including a number of Local Action Plans and see that increased coherence between the timelines and objectives of the WFD, UWWTD and the Floods Directive would remove administrative hurdles and ease implementation locally.

Circularity and reuse of water –good examples from Spain by Gari Villa-Landa Sokolova, Head of International Affairs, Spanish Association of Water Supply and Sanitation (AEAS)

Spain was one of the first countries in Europe that created specific legislation for water reuse. The country has five categories of uses (urban, agricultural, industrial, environmental and recreational) of reclaimed water, across which 14 uses are allowed. Some examples include:

- *For agricultural use:* in the Region of Murcia, water reuse is seen as a strategic resource to combat water scarcity challenges. Here, almost 98% of the treated wastewater is reused (amounting to 105 hm³/year). Of this, 98% of water reuse is used for agricultural irrigation.
- *For industrial use:* Holmen Paper reached an agreement with Canal de Isabel II (Region of Madrid) in 2012 to use reclaimed water for producing recycled paper. Currently Holmen Paper use 100% of reclaimed water for their operation, which amounts to saving some 4 hm³ /year (the water used by 80.000 inhabitants).
- *For urban and recreational use:* In the Canal de Isabel II (Region of Madrid) there are 32 plants for reclaimed water production, with a capacity of producing 319,000 m³/day (2020). In 2020 13 hm³ were supplied to 25 municipalities. Mainly used for industrial uses, street cleaning, irrigation (2,857 ha) of public gardens and golf courses and sports facilities.

- *For environmental use:* In the Natural Park La Albufera (Valencia) reclaimed water is used for environmental restoration of a shallow coastal lagoon. The Pinedo wastewater treatment plant supplies the park with 200,000 m³/day. Another relevant use of reclaimed water is for aquifer recharge to stop saline intrusion.

The benefits of implementing water reuse are clear: it facilitates integrated water resources management, it reduces the pressure on natural water resources, it leads to increased availability of water resources of higher quality for more demanding uses – such as drinking water, it can guarantee supply for different uses since it's not affected by scarcity or droughts, it reduces pollution discharged to water bodies and it has a lower energy consumption compared to other alternative water resources, such as desalination. While it yields a lot of potential, it faces several challenges:

- The need of an enabling legal framework, which must be coherent
- The implementation of new governance models
- Investment needs
- The need of an appropriate tariff system to finance water reuse in the longer term.
- The involvement of public authorities and political will.
- Generating awareness & confidence by means of mainstreaming transparency and stakeholders' engagement.
- Promotion of capacitation of users and good practices of use

Discussion group 1: Water Quality Objectives (led by Peter Sörngård, Senior Environmental Adviser, Svenskt Vatten and Josefine Evertsson, Environmental Analyst, City of Gothenburg)

Are sufficient technical/practical solutions available for meeting the quality objectives or are there any technical/practical obstacles?

Certain “emerging pollutants” will always pose a challenge, since technical and practical solutions may not always be available. At local level, cities have to continuously monitor and screen for these “emerging pollutants”. Further, outlining how to deal with water at an early stage in the urban planning process is particularly important when it comes to stormwater solutions.

Current legislation has resulted in organisational silos. The environmental quality standards (EQS) are determined in the Water Framework Directive (WFD), the emission limit values in the Urban Wastewater Treatment Directive (UWWTD) and flooding is dictated in the Floods Directive. This means that the directives are often implemented by different actors or competent authorities. These organisational silos makes it difficult to establish a clear chain of responsibility for local/regional implementation, thus complicating the discussion of treatment methods. Further, handling phenomena such as cloudbursts require space for solutions but the division between publicly versus privately owned land complicates what solutions are available to cities. This, in turn, means that meeting the EQS for large quantities of water, following cloudbursts, pose real challenges in cities.

At the planning stage, a holistic approach has to be considered for urban runoff. This means that areas for urban run-off must include measures for both treatment of the water and for slowing it down. This will require better coherence between the WFD, the UWWTD and the Floods Directive. It will also require that further EU resources is directed towards investigating technical solutions for treating and dealing with stormwater.

Do you see or recognize any legal problem that needs to be addressed in either the Water Framework Directive or the Urban Waste Water Directive to ensure that stormwater and/or urban wastewater will always be sufficiently treated, and in such cases, which aspects?

The revision of the UWWTD should ensure that it cannot make it mandatory for local authorities and operators to introduce wastewater treatment plants that the WFD clearly opposes (Weser Ruling).

Stormwater is a tricky topic to legislate for since it is highly affected by urban planning and logistics, but there is always a risk that stormwater facilities face the same legal obstacle as UWWTPs. Further, there is some additional complexity associated with treating stormwater since treatment method depends on where the stormwater came from or was collected, thus increasing the importance of local guidelines. At the same time, organisational silos make discussing treatment methods difficult (see [above](#)). Since the WFD apply to all water and the present UWWTD apply to waste water, the revision of the UWWTD should consider whether a focus on stormwater is appropriate or not.

Discussion group 2: Rising Sea Levels and Cloudbursts (led by Lena Blom, R&D Manager, City of Gothenburg)

Have you identified any incoherences between the Floods directive and the Water Framework Directive in your work?

The WFD focus on the use of water whereas the Floods Directive focus on flooding – stormwater ends up falling between these two directives. How to combat pollution of the stormwater is not really considered in practice. Instead, stormwater management focus creating space for the water without creating risk for infrastructure or people. Moreover, the WFD and Floods Directive barely mention cloudbursts, that is considered a relatively new phenomenon. However, with climate change cloudbursts will become a more frequent occurrence, thus increasing the necessity of including it in EU legislation. The problems associated with cloudbursts can be seen in the City of Gothenburg, who has trouble meeting the EQS and freeing up space for the water, when there is flooding as a result of cloudbursts. While stormwater management can include cloudbursts management, this is not always the case and since the volume is so much greater than current capacity, it is not enough. Further, the WFD and Floods Directive have differing objectives to be met within differing time frames. Increased coherence between these two directives would ease the administrative burden on cities and increase rate of implementation locally.

What challenges do you see with increased risk of flooding? Rising sea-levels? Cloudbursts? Rivers?

Rising sea-levels, cloudbursts and rivers give rise to different challenges. Whereas cloudbursts can occur anywhere, flooding and rising sea-levels occur at specific locations. While cloudbursts are present today, and are visibly getting more severe, rising sea-levels will become a major issue in the future. At the same time, when they co-occur they reinforce each other and give rise to new sets of challenges that are often hard to predict. This means that different solutions are needed to tackle them. Common challenges for these are governance, management and finance and how to create agreement among stakeholders and landowners regarding best course of action.

Financing for handling cloudbursts and rising sea-levels – what do cities need?

While lack of financial resources do pose real challenges for cities, lack of coherence between the directives reinforce these challenges. This is particularly true when it comes to the directives having different objectives. For instance, according to the Floods Directive, the cities are obliged to come up with Risk Management Plans. While according to the WFD, the cities are obliged to work to achieve the EQS by 2027. These could be better integrated to create synergies, also at national level¹.

Discussion Group 3: Circularity and Reuse of Water (led by Gari Villa-Landa Sokolova, Head of International Affairs, Spanish Association of Water Supply and Sanitation (AEAS))

In your experience or understanding, what would you identify as the main challenges in your own countries/regions to promote and implement water reuse?

Water reuse is a way of fighting water scarcity and droughts . As such, it is a more important practice in some member states than in others. The current EU legislation only regulates water reuse for agricultural irrigation. Current EU legislation makes it difficult to scale up water reuse practices. This

¹ Interpretation from the Swedish implementation of the directives.

means that water reuse continues to be an underutilised resource. One of the biggest challenges is to establish a clear chain of responsibility according to the different roles actors involved may have: competent authorities, water operators and end users.

Mainstreaming water reuse requires thinking about it not only for droughts or water scarcity scenarios, but rather as an alternative and additional resource in integrated water resources management, and as contribution to long-term sustainability. But of course producing reclaimed water has a cost. Not only investments are needed to start water reuse, but also financing to allow it to become a long-term and sustainable practice. What type of economic and financing models can you think of to finance water reuse and at the same time comply with the cost recovery principle?

It is clear that if we can increase water reuse, we would get more clean water in our European rivers. From what has already been tried and implemented, we see that:

- Subsidies can work for a while, but not forever
- Water stewardship has yielded limited results
- We need more efficient use of funds, included EU ones, and cooperations between farmers to make it easier to upscale water reuse.

This means that government intervention is a driving force for water reuse.

Reflection on key findings by Nele Rosenstock, Policy Officer, DG ENVI, European Commission

The **Zero Pollution Action Plan** was recently adopted on 12 May. It is a key deliverable of the European Green Deal, since it sets the bar for the revision of the directives relating to pollution. It includes, for instance, the revision of the UWWTD, that tackles urban waste water pollution and the evaluation of the Sewage Sludge Directive as well as upstream measures such as the chemicals strategy for sustainability and the pharmaceuticals strategy. From our point-of-view, we can clearly see that micropollutions, including pharmaceuticals, will continue to pose a challenge and they will be consumed in higher amounts with an ageing population. Thus it is good to find upstream and downstream solutions. With regards to the **Weser Ruling**, I will not open up this discussion. However, what can be said is that the European Commission is aware that in some countries there are potential problems and is interested in further dialogues on this with affected stakeholders.

It is nice to see some real examples mentioned here today. From the example of Gothenburg, it is very clear how complex it is to develop a consistent approach to water management that addresses all challenges at **city level**. One thing that we will be looking at in the revision of the UWWTD, and that we expect to see more of in the future, is the **Integrated Management Plans – like in Gothenburg**. Like in this discussion, we see a need for considering **the interplay between the Floods Directive and the UWWTD**. We will also look to the issue of combined and separate sewage systems. For **water reuse**, it is clear that **different member states have different needs** and we are happy to now have the EU Water Reuse Regulation. From the discussion today, it is nice to see the Spanish examples of creating incentives for cooperation between the urban authorities and other actors, like farmers. Especially when that leads to increased cooperation between the farmers themselves.

For further information

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