



**ROYAL NORWEGIAN MINISTRY OF
CLIMATE AND ENVIRONMENT**

State Secretary

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DG Environment
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Belgium

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Revision of The Urban Wastewater Treatment Directive - feedback from Norway

1. General remarks

We refer to the European Commission's invitation to offer feedback on the proposal for a revised Urban Wastewater Treatment Directive ("Directive"). We would like to submit Norway's views on this proposal, some of which have also been submitted earlier in the evaluation and revision process. We note that several of our comments are not reflected in the proposed revised Directive, and we wish to further elaborate our positions on these topics.

Norway supports the revision and modernisation of the current Directive in line with the ambitions of the European Green Deal, the Circular Economy Action Plan and Zero Pollution Strategy. We support the overall goals of the proposed revised Directive. The approach the Commission has taken is in line with Norway's high environmental ambitions. Our views on the proposal are clarified below.

2. Background

Norway is characterised by our long coastline and mountains which cover around half of our land area. After Iceland, Norway has the lowest population density in Europe. Furthermore, around 1/5 of the population live in rural and sparsely populated settlements. In such rural settlements, especially in the Northern part of Norway, the population growth is low, and some regions have a negative development. This contrasts with more urban areas such as the area around the Oslofjord, where more than half of the population lives.

The topography often makes it difficult to establish cost-effective collective wastewater systems with just one centralised treatment plant to serve the whole municipality or agglomeration. Furthermore, the topography is a barrier for municipalities to cooperate on the establishment of larger treatment plants. Even in a city as Bergen with more than 250 000 inhabitants, the topography made it necessary to establish four secondary treatment plants instead of one.

The cold climate in Norway, especially in the Northern part, can lead to higher costs in establishing and renewing the infrastructure since sewage systems must be placed deeper into the ground and in mountain halls. This is challenging for all biological treatment, both secondary treatment as well as nitrogen removal. We believe other Northern European countries, for example Sweden and Finland, face similar challenges.

Due to these challenges, about 88% of the population in Norway is connected to a public or private collection system for wastewater, while the remaining 12% of the population is connected to individual treatment facilities for less than 50 pe. Reviews conducted by the Norwegian Environment Agency shows that 2/3 of the Norwegian municipalities comply with the requirements in the current Directive. Consequently, a substantial part of Norway's wastewater systems must be renewed and upgraded.

Norwegian legislation regulates all treatment facilities and discharges of sanitary wastewater, including individual treatment facilities for less than 50 pe and small agglomerations that fall outside the scope of the current Directive. The national legislation also reflects the structure in the Directive and require more stringent treatment for discharges to sensitive water bodies compared to less sensitive water bodies. Norway has identified the coast from Lindesnes in the south of Norway to Grense Jakobselv in the north of Norway as less sensitive. According to the national legislation individual and appropriate wastewater systems used for collecting and treating wastewater within the scope of the Directive must fulfil the same requirements as the public wastewater systems.

3. Scope of the revised Directive

Norway supports the Commission's intention to widen the scope of the Directive to reduce discharges of untreated wastewater and ensure more ambitious treatment measures to protect the health and environment. However, we find the proposed scope of 1000 pe premature. The regulatory changes and simplification of the proposed revised Directive's structure, as well as widening the scope to include discharges from agglomerations between 2000 pe to 10 000 pe to coastal waters represent extensive and challenging expansions. As stated in the 2021 Member State Overview Norway has a high number of mechanical treatment units. Expanding the scope of the Directive to 1000 pe and even lower will mean that a high number of treatment plants must be upgraded to secondary treatment. This will require substantial administrative resources and we question whether such an expansion of

the scope of the proposed revised Directive will be cost effective. Further, we foresee that there will be a shortage of consultants, contractors and equipment suppliers to assist municipalities and private operators if all agglomerations larger than 1000 pe are required to fulfil the new requirements at the same time as treatment plants in the larger agglomerations. We believe other EU Member States and EEA EFTA States face similar challenges.

As described above and in earlier submissions there are several factors that make collecting and treating wastewater challenging. For example, topography and cold climate. As stated in the 2021 Member State Overview, we believe that national regulation is the most cost-effective way to regulate agglomerations below 2000 pe. These national regulations should reflect the intentions and the environmental ambitions of the directive, as well as the obligations in the Water Framework Directive.

Norway also suggests that an extension of the scope of the Directive should be postponed until the proposed revised Directive has been fully implemented in all EU Member States and EEA EFTA States for agglomerations larger than 2000 pe. We consider it to be appropriate to review the scope of the Directive when the effects of the commitments of the proposed Directive are to be assessed, for example in 2024.

4. Concerns related to the proposed deadlines

Norway approves the proposals for more stringent treatment of discharge of urban wastewater. However, we realise that the costs of implementing the proposals will be high and we find it essential that EU Member States and the EEA EFTA States are given sufficient time to comply with the new and comprehensive requirements and find the most cost-efficient implementation. Deadlines as early as 2025 and 2027 will not ensure uniform identification of all areas at risk or identification of sensitive water bodies to eutrophication or micropollutants as basis for requirements for treatment of wastewater according to Articles 7, 8 and 18. It is crucial that this information is available to the national authorities when issuing discharge permits. It is also necessary for municipalities and private operators to know what level of treatment is required before investment decisions are made.

Agglomerations between 2000 and 10 000 pe with discharges to sea are not included in the scope of the existing Directive but is proposed included in the proposed revised Directive. For Norway it will not be technically possible to establish secondary treatment for these agglomerations by 2027. Today, the discharges from these agglomerations are regulated by permits from the municipalities according to national legislation, with less demanding requirements for discharges into less sensitive marine areas following the structure of the existing Directive. New treatment plants must be built to fulfil the new requirement of secondary treatment. National authorities will need more time to develop regulations and issue permits. In addition, the municipalities and private operators will need more time to plan and rebuild the

wastewater plants. This will not be possible to achieve within 2027 and instead we believe that 2035 is a more realistic target.

5. Facilities with less stringent treatment requirements in accordance with Article 6

Norway has applied the exception in Article 6 of the Directive regarding less stringent treatment as primary treatment for discharges into less sensitive areas for agglomerations along the Coast from Lindesnes in the south of Norway to Grense Jakobselv in the north of Norway.

The exception in Article 6 is not included in the proposed revised Directive. As pointed out in our response to the 2021 Member State Overview, EU Member States and EEA EFTA States which have applied this exception will need an extended deadline to implement the requirements in full. The proposed revised Directive does not offer a deadline for agglomerations over 10 000 pe which are currently regulated in accordance with the exception in Article 6 meaning that these treatment plants must meet the new requirements as soon as the revised Directive is adopted and implemented in the EEA Agreement. This will not be possible to achieve.

Additionally, time is required to assess if discharges from these agglomerations need to apply tertiary treatment according to the proposed revised Directive. It will not be cost-effective for agglomerations to first build new treatment plants based on secondary treatment if assessments according to the proposed revised Directive later reveal that these plants must also implement tertiary treatment before 2035. Therefore, we find that these agglomerations over 10 000 pe should be given a realistic deadline for the full implementation of the requirements. The deadline should include sufficient time to make the necessary assessments, planning and construction of the treatment plants, regardless of whether they must meet requirements for secondary or tertiary treatment. We propose the same deadline for these treatment plants as for the general deadline for implementation of a tertiary treatment in 2035.

6. Quaternary treatment

Norway approves of stricter requirements in the proposed Directive for treatment plants of a certain size to minimise the spread of pharmaceutical residues and other persistent chemicals in the aquatic environment, including microplastics. We also endorse that producers should be involved in bearing the costs.

However, we consider diluted wastewater to be an obstacle for the success of quaternary treatment, due to the concentrations of pharmaceutical residues and chemicals being too low for these substances to be detected in the wastewater load by the treatment plant. This may occur when treatment plants are influenced by storm water and urban runoff. We believe that the proposed revised Directive lacks solutions on how this challenge can be solved in a temporary phase until 2040 for

treatment plants over 100 000 pe. One option is to consider more treatment of wastewater upstream from larger sources such as hospitals before the wastewater is collected and transported to the centralised treatment plant.

Another challenge is the introduction of an extended producer responsibility system. This will require resources to design, implement and operate, which all in turn need to be in place before required investments can be made. Norway is concerned that it will not be possible to reach this treatment level by 2030.

We also believe it will be challenging to define financial responsibility of the quaternary treatment for the producers. We assume that many wastewater plants will find it feasible to cover several treatment steps in one operation, and it may be difficult to isolate the costs of the quaternary treatment from the costs of secondary and tertiary treatment.

7. Individual and other appropriate systems (IAS)

As mentioned above and in previous submissions Norway has a high number of rural settlements. The national legislation defines IAS as individual wastewater system for collecting and treating discharges of less than 50 pe. The proposed revised Directive states that individual systems shall be designed, operated, and maintained in a manner that ensures secondary and tertiary treatment, while agglomerations with more than 1000 pe must be provided with collecting systems.

We find that the proposed revised Directive lacks a clear definition of IAS. It should be clarified if IAS is to be understood as sewage solutions for individual houses or if private sewage systems of varying collected loads are included. If IAS includes every private collecting and treatment system for a wastewater load, we believe that the size of the collected load should determine if it is included in the scope of the Directive. We propose that only IAS with a collected load of more than 2000 pe should be regulated by the Directive. We consider that smaller sewage systems should be regulated by national legislation which must reflect the intention of the Directive.

8. Energy efficiency and biogas

Norway supports the focus on energy efficiency in the proposal for a revised Directive. However, we believe that it will be difficult to combine increased requirements for nitrogen removal and more advanced treatment methods with higher requirements for energy efficiency. This is especially challenging in a cold Nordic climate.

Many treatment plants in Norway are situated in mountain halls. This means that the nitrogen gas formed by nitrogen removal must be pumped out, which will increase the energy consumption. This can be solved by customizing the energy efficiency requirements for treatment plants situated in mountain halls.

Energy production in the wastewater sector in Norway is connected to the treatment of sewage sludge. Almost half of the sewage sludge generated in Norway today is used to produce biogas. About 20-25% of the biogas generated is flared. Gas grids are not common in Norway, which complicates the market development for biogas. District heating is also not widespread. These factors make it harder to find economically viable ways to utilise the biogas produced from sewage sludge treatment plants in Norway compared to other parts of Europe. For a relatively small amount of sewage sludge generated in regions without infrastructure for utilisation of the produced heat, treatment facilities based on composting may represent the best treatment.

We suggest an amendment to the proposed revised Directive which opens for the use of sewage sludge to composting instead of production of biogas under certain criteria, for example in cases where the production and utilisation of biogas is not technically or economically viable.

Yours sincerely



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