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То:	Delegations
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Subject:	Proposal for a Directive of the European Parliament and of the Council concerning urban wastewater treatment (recast)
	- General approach

Delegations will find in the <u>Annex</u> the text of the general approach on the Urban Wastewater Treatment Directive, approved by the <u>Council</u> (Environment) at its 3973rd meeting held on 16 October 2023.

The changes compared to the Commission proposal, as resulting from the discussions at the Council, are indicated in **bold** and deletions in strikethrough.

Proposal for a

DIRECTIVE OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL

concerning urban wastewater treatment (recast)

(Text with EEA relevance)

THE EUROPEAN PARLIAMENT AND THE COUNCIL OF THE EUROPEAN UNION,

Having regard to the Treaty on the Functioning of the European Union, and in particular Article 192(1) thereof,

Having regard to the proposal from the European Commission,

After transmission of the draft legislative act to the national parliaments,

Having regard to the opinion of the European Economic and Social Committee¹,

Having regard to the opinion of the Committee of the Regions²,

Acting in accordance with the ordinary legislative procedure,

¹ OJ C [...], [...], p. [...]. ² OI C [...] [...] p. [...].

² OJ C [...], [...], p. [...].

Whereas:

- Council Directive 91/271/EEC³ has been substantially amended several times⁴. Since further amendments are to be made, that Directive should be recast in the interests of clarity.
- Directive 91/271/EEC sets the legal framework for the collection, treatment and discharge (2)of urban wastewater and the discharge of biodegradable wastewaters from certain industrial sectors. Urban wastewaters can be formed by different mixtures of domestic wastewaters, urban runoff and non-domestic wastewater from other origins. Wastewater from institutions such as offices, schools, kitchens with food preparation, etc. which are predominantly originated from the human metabolism, qualifies as domestic wastewaters as well. Its The objective of Directive 91/271/EEC is to protect the environment from being adversely affected by insufficiently treated urban wastewater discharges. This Directive should continue to pursue the same objective, whilst also contributing to the protection of public health, when for instance urban wastewater is discharged in bathing waters or in water bodies used for the abstraction of drinking water, or when urban wastewater is used as an indicator for parameters relevant for public health. It should also improve access to sanitation and to key information related to the governance of the urban wastewater collection and treatment activities. Finally, this Directive should contribute to the progressive elimination reduction of greenhouse gas (GHG) emissions from urban wastewater collection and treatment activities, notably by further reducing nitrogen emissions but also by promoting energy efficiency and production of renewable energies, and thus should contribute to the 2050 objective of Climate Neutrality established under Regulation (EU) 2021/1119 of the European Parliament and of the Council⁵.

³ Council Directive 91/271/EEC of 21 May 1991 concerning urban waste water treatment (OJ L 135, 30.5.1991, p. 40).

⁴ See Annex VII, Part A.

Regulation (EU) 2021/1119 of the European Parliament and of the Council of 30 June 2021 establishing the framework for achieving climate neutrality and amending Regulations (EC) No 401/2009 and (EU) 2018/1999 ('European Climate Law') (OJ L 243, 9.7.2021, p. 1).

- (3) In 2019, the Commission performed an evaluation of Council Directive 91/271/EEC under the Regulatory Fitness and Performance Programme⁶ (the 'evaluation'). It became apparent from that exercise that certain provisions of the Directive needed to be updated. Three important sources of remaining load of pollution from urban wastewater that could be avoided were identified, namely storm water sewer overflows and polluted discharges of urban runoff, potentially mal-functioning individual systems (i.e. systems treating domestic wastewater that is not entering collecting systems) and small agglomerations that are currently not completely covered by Directive 91/271/EEC. Those three sources of pollution constitute a significant pressure on surface water bodies in the Union. Moreover, the report of the evaluation also highlighted the need to improve the transparency and governance of the urban wastewater activities, to seize the opportunity offered by the urban wastewater treatment sector to use its potential for renewable energy development and make tangible steps towards energy neutrality as a contribution to climate neutrality and to harmonise urban wastewater surveillance of health parameters, such as the COVID-19 virus and its variants, as a support for public health action.
- (4) Small agglomerations constitute a significant pressure on 11 % of the surface water bodies in the Union⁷. To better tackle the pollution from such agglomerations, and to prevent discharges of untreated urban wastewater into the environment, the scope of this Directive should include all agglomerations of 1 000 1 250 population equivalent (p.e.) and above.

⁶ Commission Staff Working Document, Executive Summary of the Evaluation of the Council Directive 91/271/EEC of 21 May 1991, concerning urban wastewater treatment (SWD(2019) 701 final).

⁷ EEA report, European waters: Assessment of status and pressures 2018, No 7/2018.

- (5) In order to ensure effective treatment of urban wastewater before discharge into the environment, all urban wastewaters from agglomerations of 1-000 1 250 p.e. and above should be collected in centralised collecting systems, unless Member States justify a derogation for the use of individual systems under this Directive. When delineating their agglomerations, Member States should take into account the indicative reference threshold of 10 to 25 p.e. per hectare above which the population, possibly combined with economic activities, located in a specific area are considered sufficiently concentrated. Where collecting such systems are already in place, Member States should ensure that all sources of urban domestic wastewater are connected to them.
- (5a) Significant investments will be necessary to implement the new requirements introduced by this [recast of the Directive]. Furthermore, Member States who acceded to the Union in or after 2004, have already had to make more recent investments to implement the Directive. It is therefore necessary to take account of the specific situation of those Member States that have acceded to the Union in 2004 or more recently and which have a large number of small agglomerations concerned by the new requirements of the Directive in terms of collection and treatment of urban wastewater for agglomerations between 1 250 and 2 000 p.e., by allowing them to extend the deadlines for compliance with these new requirements in their national implementation plan. Agglomerations below 2 000 p.e. where collecting systems are already in place and discharging urban wastewater into treatment plants located in a different agglomeration should not be counted in the calculation of the percentage when applying the derogation referred to in point (a) of Article 23(5).

- (5b) Member States should benefit from more time for the construction of collecting and treatment infrastructures in those agglomerations from 1 250 p.e. to 2 000 p.e. when it can be demonstrated that the achievement of the required infrastructure is particularly difficult due to the necessity to preserve cultural heritage, in line with the objectives mentioned in Article 167 TFEU.
- (6) Exceptionally, where Where it can be demonstrated that the establishment of, or the connection to, a centralised urban wastewater collecting system would produce no environmental or health benefit, would not be technically feasible, or would involve excessive costs, Member States should be allowed to use individual systems to collect, store and, when applicable, treat urban wastewater, as long as they ensure the same level of protection of the environment, including groundwaters and their hydro-geological conditions. Individual systems can include different types of collection, storage and treatment systems such as nature-based solutions, small-sized treatment systems, temporary storage tanks combined with regular evacuation to treatment plants. treatment as secondary and tertiary treatment.
- (6a) For this purpose, Member States should establish national, regional or local registers to identify individual systems and temporary storages used on their territory and take all necessary measures to ensure that the design of such systems is adequate, that the systems are properly maintained and that they are subject to a regular compliance control on the basis of a risk-based approach. In particular, Member States should ensure that individual systems used for the collection and storage of urban wastewater are impervious and leakproof, and that monitoring and inspection of the systems are carried out at regular and fixed intervals. Where individual systems are used to collect and/or treat more than 2% of the urban wastewater load at national level from agglomerations of 2 000 p.e. and above, Member States should provide the Commission with justifications for the reasons for the use of individual systems instead of collecting systems, the level of compliance of those systems with established standards under this Directive and measures taken to reduce the use of such systems. The Commission should be empowered to adopt implementing acts to establish the format of the reporting and the level of details of the information to be provided by national authorities.

- (7) During rainfall, storm water sewer overflows and urban runoff represent a sizeable remaining source of pollution discharged into the environment. Those emissions are expected to increase due to the combined effects of urbanisation and progressive change of the rain regime linked with climate change. Solutions to reduce that source of pollution should be defined at local level taking into account the specific local conditions. They should be based on an integrated quantitative and qualitative water management in urban areas. Therefore, Member States should ensure that integrated urban wastewater management plans are established at local level for all agglomerations of 100 000 p.e. and above as those agglomerations are responsible for a significant share of the pollution emitted. Furthermore, integrated urban wastewater management plans should also be put in place for agglomeration of between 10 000 p.e. and 100 000 p.e. where storm water sewer overflows or urban runoff poses a risk for the environment or public health. These plans should include measures to address the potentially significant pollution coming from separately collected urban runoff, for instance the pollution coming from first rains after long dry periods in densely populated areas. These measures could include preventive temporary measures or temporary storage, and appropriate treatment of these heavy loaded first rains. In order to ensure an adequate coverage of the integrated management plans and a comprehensive solution to storm water problems, those plans should be established for drainage areas of the concerned agglomerations.
- (8) In order to ensure that the integrated urban wastewater management plans are cost-effective, it is important that they are based on best practices in advanced urban areas. Therefore, the measures to be considered should be based on a thorough analysis of the local conditions and should favour a preventive approach aiming at limiting the collection of unpolluted rain waters and optimising the use of existing infrastructures. With a preference for 'green' developments, new grey infrastructures should only be envisaged where absolutely necessary.

- (8a) In order to protect the environment, in particular the coastal and marine environment, and public health from being adversely affected by the discharge of insufficiently treated urban wastewater, secondary treatment should be applied to all discharges of urban wastewater from agglomerations of 1 000 1 250 p.e. and above. Due to the expansion of the scope of the Directive including smaller agglomerations, Member States should be given sufficient time to establish the required infrastructures to meet these obligations. Similarly, enough time should be given to Member States to adapt their treatment infrastructures for agglomerations discharging their wastewaters into coastal waters, or 'less sensitive areas' where secondary treatment was not required under Council Directive 91/271/EEC.
- (8b) Discharges to high mountain areas (above 1 500 m altitude) where it is difficult to apply an effective biological treatment because of low temperatures should be allowed to use less stringent treatment than secondary treatment, provided that detailed studies demonstrate that such discharges do not have adverse effects on the environment and human health. Similarly, discharges into deep marine waters from smaller agglomerations of less than 150 000 p.e. located in less populated outermost regions, with less than 275 000 inhabitants characterised by difficult topography, such as steep slopes and discharging their urban wastewaters into deep marine waters in the open ocean, favouring a high level of dilution of these urban wastewater discharges into the receiving waters, should also benefit from this derogation. Nevertheless, in order to ensure an equal treatment of all Member States and in order to ensure a high level of protection of the environment and human health on the whole territory of the European Union, this derogation should be limited to 20 years – which is the time required to progressively upgrade the remaining facilities to secondary treatment in these areas where secondary treatment might be more difficult to apply. These derogations should be granted provided that detailed studies demonstrate that such discharges do not have adverse effects on the environment and human health and do not impact the compliance of the receiving waters with other relevant European legislation such as the Bathing Water Directive, the Water Framework Directive or the **Marine Strategy Framework Directive.**

- (9) The evaluation showed that significant reductions of nitrogen and phosphorus emissions were achieved through the implementation of Directive 91/271/EEC. Nevertheless, urban wastewater treatment plants remain, according to the evaluation, an important pathway of those pollutants into the environment, directly leading to eutrophication of water bodies and seas in the Union. Part of this pollution can be avoided as technological progress and best practices in place show that emission limit values established under Directive 91/271/EEC for nitrogen and phosphorus are outdated and should be strengthened, especially for larger treatment plants. Tertiary treatment should be systematically imposed to all urban wastewater treatment plants of 100 000 150 000 p.e. and above, as such plants represent an important remaining source of nitrogen and phosphorus discharge.
- (10) Tertiary treatment should also be mandatory in agglomerations of 10 000 p.e. and above that are discharging in areas subject to, or at risk of, eutrophication. In order to ensure that efforts to limit eutrophication are coordinated at the level of the relevant basins for the whole catchment zone, areas where eutrophication is considered an issue according to currently available data should be listed in this Directive. Additionally, to ensure coherence between relevant Union legislation, Member States should identify other areas subject to, or at risk of, eutrophication on their territory, notably on the basis of data collected under Directive 2000/60/EC of the European Parliament and of the Council⁸, Directive 2008/56/EC of the European Parliament and of the Council⁹ and Council Directive 91/676/EEC¹⁰. The reinforcement of the limit values, a more coherent and inclusive identification of the areas sensitive to eutrophication and the obligation to ensure tertiary treatment for all large facilities will, in combination, contribute to limit eutrophication. Since this will require additional investments on the national level, Member States should be given sufficient time to establish the required infrastructure.

⁸ Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy (OJ L 327, 22.12.2000, p. 1).

⁹ Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive) (OJ L 164, 25.6.2008, p. 19).

¹⁰ Council Directive 91/676/EEC of 12 December 1991 concerning the protection of waters against pollution caused by nitrates from agricultural sources (OJ L 375, 31.12.1991, p. 1).

Recent scientific knowledge underpinning several Commission strategies¹¹ highlight the (11)need to take action to address the issue of micropollutants, which are now detected usually in all waters in the Union. Some of those micropollutants are hazardous for public health and the environment even in small quantities low concentrations, of micrograms per litre or below. An additional treatment, i.e. quaternary treatment, should therefore be introduced in order to ensure that a large spectrum of micropollutants is removed from urban wastewater. Quaternary treatment should first focus on organic micropollutants, which represent a significant part of the pollution and for which removal technologies are already designed. The treatment should be imposed based on the precautionary approach combined with a risk-based approach. Therefore, all urban wastewater treatment plants of 100 000 200 **000** p.e. and above should provide quaternary treatment, as those facilities represent a significant share of micropollutant discharges in the environment and the removal of micropollutants by urban wastewater treatment plants at such scale is cost-effective. For these treatment plants of 200 000 p.e. and above, Member States should ensure a prioritisation of the required investments so that the facilities where the risks for human health and the environment are the highest are equipped without delays.

¹¹ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions: A European Strategy for Plastics in a Circular Economy (COM/2018/028 final); Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee, European Union Strategic Approach to Pharmaceuticals in the Environment (COM(2019) 128 final); Communication from the Commission to the European Economic and Social Committee and the Committee of the Regions, Chemicals Strategy for Sustainability Towards a Toxic-Free Environment (COM(2020) 667 final); Communication from the Commission to the European Parliament, the European Economic and Social Committee and the Committee of the Regions, Chemicals Strategy for Sustainability Towards a Toxic-Free Environment (COM(2020) 667 final); Planet for All EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil' (COM/2021/400 final).

For agglomerations of between 10 000 p.e. and above 100 000 p.e., Member States should be required to apply quaternary treatment to areas identified as sensitive to pollution with micropollutants based on clear criteria, which should be specified. Such areas should include locations where treated urban wastewater discharge to water bodies result in low dilution ratios, or where the receiving water bodies are used for the production of drinking water or as bathing waters. In order to avoid the requirement of quaternary treatment for agglomerations of between 10 000 p.e. and above 100 000 p.e., Member States should be required to demonstrate the absence of assess the risks that the discharge of micropollutants in urban wastewater poses on to the environment or to public health on the basis of a standardised risk assessment. Where there are several urban wastewater treatment plants in an agglomeration of above 10.000 p.e. identified as sensitive to pollution with micropollutants, only those discharging into the area at risk should be required to apply quaternary treatment. In order to give Member States enough time to plan and deliver the necessary infrastructures, the requirement of quaternary treatment should progressively apply until 2040 2045 with clear interim objectives.

(12) In order to ensure the continued compliance of discharges from wastewater treatment plants with the requirements for secondary, tertiary and quaternary treatment, samples should be taken in accordance with the requirements of this Directive and those samples should comply with the parametric values that it sets out. In order to take into account possible technical variations in the results from those samples, a maximum number of samples failing to conform to those parametric values should be laid down.

(13) The quaternary treatment necessary to remove micropollutants from urban wastewater will imply additional costs, such as costs related to monitoring and new advanced equipment to be installed in certain urban wastewater treatment plants. In order to cover these additional costs and in accordance with the polluter-pays principle expressed in Article 191(2) of the Treaty on the Functioning of the European Union (TFEU), it is essential that the producers placing on the Union market products containing substances which, at the end of their life, are found as micropollutants in urban wastewaters ('micropollutant substances') take responsibility for the additional treatment required to remove those substances, generated in the context of their professional activities. A system of extended producer responsibility is the most appropriate means to achieve this, as it would limit the financial impact on the taxpayer and water tariff, while providing an incentive to develop greener products. In this context, the extended producer responsibility should apply regardless of whether the products are placed on the market, or whether their individual components were manufactured in a Member State or third country, or whether the producers have a registered office in the European Union or the product is placed on the market via a digital platform. Pharmaceuticals and cosmetic residues currently represent the main sources of micropollutants found in urban wastewater requiring an additional treatment (quaternary treatment). Therefore, extended producer responsibility should apply to those two product groups. According to the available data, the potential increase of costs of the products due to the application of the extended producer responsibility, or the potential reduction of the profit margins of the industries placing the products subject to extended producer responsibility, would be marginal at EU level and would not endanger the affordability and accessibility to these products on the EU market. In order to take into account the national specific conditions while preserving the European internal market and where and if necessary, preserving the accessibility and affordability of pharmaceuticals, Member States should have the possibility to impose additional requirements to the Extended Producer Responsibility schemes. This should be done notably through national recognition procedures of the producer responsibility organisations prior to their effective establishment as referred to in Article 10 paragraph 1.

- (14) Exonerations from the extended producer responsibility obligations should nevertheless be possible where **substances contained in** products are placed on the market in small quantities, i.e. less than **2 1 tonne per year** of products, since the additional administrative burden for the producer would in such cases be disproportionate compared to the environmental benefits. Exonerations should also be possible when the producer can demonstrate that no micropollutants are generated at the end of life of a product. It might be the case for instance where it can be proven that the residues from a product are rapidly biodegradable in the wastewaters and the environment or not reaching the urban wastewater treatment plants. The Commission should be empowered to adopt implementing acts to establish detailed criteria to identify the products placed on the market that do not generate micropollutants in wastewaters at the end of their life, **and their hazardousness**. When developing these criteria, the Commission should take into account scientific or other available technical information, including relevant international standards.
- (15)In order to avoid possible internal market distortions, minimum requirements for the implementation of the extended producer responsibility should be established in this Directive, while the practical organisation of the system should be decided at national level. In order to favour the substitution of substances and products generating micropollutants residues in urban wastewater, the contributions of the producers should be proportionate to the quantities of the products they place on the market and the hazardousness of their residues. The contributions should cover, but not exceed, the investment and operational costs for the monitoring activities for micropollutants, the collection, reporting and impartial verification of statistics on the quantities and hazardouness of products placed on the Member States market, and the application of the quaternary treatment to urban wastewater in an efficient manner and in accordance with this Directive, including the pre-financing of installations already in place at the date of entry into force of this Directive. Since urban wastewater is treated collectively, it is appropriate to introduce a requirement for producers to join a centralised organisation which can implement their obligations under the extended producer responsibility on their behalf.

The evaluation has also shown that the wastewater treatment sector offers the opportunity to (16)significantly reduce its own energy consumption and to produce renewable energy, for example by better use of the available surfaces in urban wastewater treatment plants for solar energy production, or by producing biogas from sludge. The evaluation also illustrated that, without clear legal obligations, only partial progress can be expected in this sector. In this context, Member States should be required to ensure that the total annual energy used by all urban wastewater treatment plants on their national territory treating a load of 10 000 p.e. and above does not exceed the production of energy from renewable sources as defined in Article 2(1) of Directive (EU) 2018/2001 of the European Parliament and of the Council¹², by those urban wastewater treatment plants. In order to take into account the specificities of each urban wastewater treatment plant, optimise the investments needed and provide for the required flexibility to reach the energy neutrality objective, while ensuring that the potential for renewable energy production and for energy savings is fully seized, that objective should be met at national level and not for each treatment plant. All renewable energies produced by the urban wastewater treatment plants operators', whether on-site or off-site, such as hydraulic, solar, thermal, wind energy or biogas, should be taken into account. A maximum share of 30% of energy, not directly linked to urban wastewater treatment activities or operators' activities, may be purchased from external sources. That objective should be progressively met with interim targets by 31 December 2040 2045. Reaching this energy neutrality target will contribute to **notably** reduce the avoidable greenhouse gas (GHG) emissions from the sector by 46 %, while supporting the achievement of the 2050 climate neutrality objectives and related national and Union objectives, such as the objectives set out in Regulation (EU) 2018/842 of the European Parliament and of the Council¹³. However, initiatives to achieve energy neutrality should not lead to an increased emission of methane and nitrous oxide.

Directive (EU) 2018/2001 of the European Parliament and of the Council of 11 December 2018 on the promotion of the use of energy from renewable sources (OJ L 328, 21.12.2018, p. 82).

¹³ Regulation (EU) 2018/842 of the European Parliament and of the Council of 30 May 2018 on binding annual greenhouse gas emission reductions by Member States from 2021 to 2030 contributing to climate action to meet commitments under the Paris Agreement and amending Regulation (EU) No 525/2013 (OJ L 156, 19.6.2018, p. 26).

Encouraging EU-based biogas or solar energy production while enhancing energy efficiency measures in line with the Energy Efficiency First principle¹⁴, which means taking utmost account of cost-efficient energy efficiency measures in shaping energy policy and making relevant investment decisions, will also help reduce the Union energy dependence, one of the objectives expressed in the Commission "Repower EU" Plan¹⁵. It is also in line with Directive (EU) 2018/844 of the European Parliament and of the Council¹⁶ and with Directive (EU) 2018/2001 in which urban wastewater treatment sites are qualified as 'go-to' areas for renewables, meaning a location designated as particularly suitable for the installation of plants for the production of energy from renewable sources. In order to reach the objective of energy neutrality via optimal measures for each urban wastewater treatment plant and for the collection system, Member States should ensure that energy audits, as defined in Directive (EU) 2023/1791¹⁷, are carried out in accordance with Article 8 of Directive 2012/27/EU of the European Parliament and of the Council every four years. Those audits should include an identification of the potential for cost-effective use or production of renewable energy following the criteria set out in Annex VI to this Directive 2012/27/EU.

¹⁴ Commission Recommendation (EU) 2021/1749 of 28 September 2021 on Energy Efficiency First: from principles to practice — Guidelines and examples for its implementation in decision-making in the energy sector and beyond.

¹⁵ Communication from the Commission to the European Parliament, the European Council, the Council, the European Economic and Social Committee and the Committee of the Regions: REPowerEU Plan (COM/2022/230 final).

 ¹⁶ Directive (EU) 2018/844 of the European Parliament and of the Council of 30 May 2018 amending Directive 2010/31/EU on the energy performance of buildings and Directive 2012/27/EU on energy efficiency (OJ L 328, 21.12.2018, p. 210 OJ L 156, 19.6.2018, p. 75–91).

¹⁷ Directive (EU) 2023/1791 of the European Parliament and of the Council of 13 September 2023 on energy efficiency and amending Regulation (EU) 2023/955 (recast). Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC (OJ L 315, 14.11.2012, p. 1).

- Since the transboundary nature of water pollution requires cooperation between (17)neighbouring Member States or third countries in addressing such pollution and identifying measures to tackle its source, Member States should be required to inform each other or the third country if significant water pollution originating from urban wastewater discharges in one Member State or third country impacts or is likely to impact the water quality of another Member State or third country. Such information should be immediate in case of incidental pollution significantly affecting downstream water bodies. Where Member States have previous agreements between them or with third countries on environmental water issues, cooperation through these agreements may be taken into account. The Commission should be informed and, if necessary, participate in meetings at the request of Member States. It is also important to tackle the transboundary pollution from third countries sharing the same water bodies with some of the Member States. For the purpose of dealing pollution coming or arriving in third countries, the cooperation and coordination with third countries may be carried out in the framework of the United Nations Economic Commission for Europe (UNECE) Water Convention¹⁸ or other relevant regional Conventions such as the Regional Seas or Rivers Conventions.
- (18) In order to ensure the protection of the environment and human health, Member States should ensure that the urban wastewater treatment plants built to comply with the requirements of this Directive are designed, constructed, operated, and maintained to ensure sufficient performance under all normal local climatic conditions.

¹⁸ UNECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes as amended, along with decision VI/3 clarifying the accession procedure.

(19) Urban wastewater treatment plants also receive non-domestic wastewater, including industrial wastewater, which can contain a range of pollutants not explicitly covered by Directive 91/271/EEC, such as heavy metals, microplastics, micropollutants and other chemicals. This non-domestic wastewater may come from industries, or commercial establishments, or hospitals and other medical facilities, etc. In most instances, there is a poor understanding and knowledge of such pollution which could deteriorate the functioning of the treatment process and contribute to the pollution of the receiving waters, but also prevent the recovery of sludge and the reuse of treated wastewater. Member States should therefore regularly monitor and report on such non-domestic pollution that enters the urban wastewater treatment plants and is discharged into water bodies. To prevent pollution from non-domestic wastewater discharges at source, releases from industries or enterprises connected to collecting systems should be subject to prior regulations and/or specific authorisation by the competent authority or appropriate body. In order to ensure that collecting systems and urban wastewater treatment plants are technically capable of receiving and treating the incoming pollution, the operators who manage urban wastewater treatment plants receiving non-domestic wastewater should be consulted and informed before those permits are issued or the regulations are adopted, and should be able to consult, **on request**, the issued permits in order to be able to adapt their treatment processes. Where non-domestic pollution is identified in the incoming waters, Member States should take appropriate measures to reduce pollution at source, by enhancing the monitoring of pollutants in collecting systems so that the pollution sources can be identified and, where necessary, by reviewing the authorisations provided to relevant, connected urban wastewater treatment plants.

- (19a) The water resources of the Union are increasingly under pressure, resulting in permanent or temporary water scarcity in some areas of the Union. The Union's ability to respond to the increasing pressures on water resources could be improved through a wider reuse of treated urban wastewater, limiting freshwater abstraction from surface and groundwater bodies. Therefore, the reuse of treated urban wastewater should be encouraged and applied whenever appropriate, whilst taking into account the need to ensure that the objectives of good ecological and chemical status of the receiving bodies, as defined in Directive 2000/60/EC, are met. The reinforcement of the requirements for the treatment of urban wastewater, and the actions to better monitor, track and reduce pollution at source, will have impacts on the quality of treated urban wastewater, and will therefore support water reuse. Where water reuse serves the purpose of agricultural irrigation, it should be carried out in accordance with Regulation (EU) 2020/741 of the European Parliament and of the Council¹⁹.
 - (20) In order to ensure a proper implementation of this Directive and notably the respect of the emission limit values, it is important to monitor discharges of treated urban wastewater into the environment. The monitoring should be done through the establishment at national level of a mandatory prior regulations and/or prior authorisation system in order to discharge the treated urban wastewater into the environment. In addition, in order to prevent unintentional discharges of plastic biomedia in the environment from urban wastewater treatment plants using this technique, it is essential to include in the discharge authorisations specific obligations to continuously monitor and prevent such discharges.
 - (20a) Where necessary, Member States should adapt their urban wastewater collection and treatment infrastructures to the evolution of their population and the associated load of domestic wastewater in order to remain compliant with the requirements of this Directive. The possible impact of discharges on water bodies resulting from the construction and adaptation of such infrastructures should not be considered as a breach of their obligations under Directive 2000/60/EC provided that all the conditions laid down under this Directive are fulfilled.

¹⁹ Regulation (EU) 2020/741 of the European Parliament and of the Council of 25 May 2020 on minimum requirements for water reuse (OJ L 177, 5.6.2020, p. 32).

- (21) In order to ensure the protection of the environment, direct discharges of biodegradable nondomestic wastewater into the environment from certain industrial sectors should be subject to prior authorisation on national level and appropriate requirements. Those requirements should ensure that direct discharges from certain industrial sectors are subject to secondary, tertiary and quaternary treatment as necessary for the protection of human health and the environment.
- (22)According to Article 168(1) TFEU, Union action complements national policies and is to be directed towards improving public health and preventing diseases. In order to ensure optimal use of relevant public health data from urban wastewaters, urban wastewater surveillance should be set up and used for preventive or early warning purposes, for instance in the detection of specific viruses in urban wastewater as a signal of the emergence of epidemics or pandemics. Member States should establish a permanent dialogue and coordination between competent authorities responsible for public health and competent authorities responsible for urban wastewater management with regard to identification of . In the context of that coordination, a list of parameters relevant for public health to be monitored in urban wastewaters should be established, as well as the frequency and location of the sampling. This approach will take advantage of and complement other Union initiatives in the field of public health protection, such as environmental monitoring that includes wastewater surveillance²⁰. Based on information gathered during the COVID-19 pandemic and experience gained from the implementation of the Commission Recommendation on a common approach to establish a systematic surveillance of SARS-CoV-2 and its variants in wastewaters in the EU^{21} (the 'recommendation'), in case of a health emergency, Member States should be required to monitor relevant health parameters. related to SARS-CoV-2 and its variants on a regular basis. In order to ensure that harmonised methods are used, Member States should, to the extent possible, use sampling and analysis methods set out in the recommendation for the monitoring of SARS-CoV-2 and its variants.

²⁰ Commission Communication on introducing the European Health Emergency Preparedness and Response Authority, the next step towards completing the European Health Union (COM(2021)576 final).

²¹ Commission Recommendation (EU) 2021/472 of 17 March 2021 on a common approach to establish a systematic surveillance of SARS-CoV-2 and its variants in wastewaters in the EU (OJ L 98, 19.3.2021, p. 3).

- (23) The Union recognises the importance of tackling the issue of antimicrobial resistance (AMR) and adopted in 2017 the European One Health Action Plan against AMR²². According to the World Health Organisation (WHO), wastewater is recognised and documented as major sources of antimicrobial agents and their metabolites, as well as antimicrobial-resistant bacteria and their genes. In order to increase the knowledge on the main sources of AMR, it is necessary to introduce a monitoring obligation for the presence of AMR in urban wastewaters to further develop our scientific knowledge and potentially take adequate action in the future.
- (24) In order to protect the environment and human health, Member States should identify the risks caused by urban wastewaters management. A broad chemical screening and/or biological effect-based methods can be part of the risk assessment. On the basis of that identification, and where necessary to comply with the requirements of the Union water legislation, Member States should take more stringent measures for the urban wastewater collection and treatment than the measures required to comply with the minimum requirements set out in this Directive. Depending on the situation, those more stringent measures can include, inter alia, the establishment of collecting systems, the development of integrated urban wastewater management plans or the application of secondary, tertiary or quaternary treatment to urban wastewater for agglomerations or urban wastewater treatment plants that do not reach the p.e. thresholds triggering the application of the standard requirements. They can also include more advanced treatment than the treatment necessary to respect the minimum requirements or disinfection of treated urban wastewaters necessary to comply with Directive 2006/7/EC of the European Parliament and of the Council²³.

²² Communication from the Commission to the Council and the European Parliament: A European One Health Action Plan against Antimicrobial Resistance (AMR) (COM/2017/0339 final).

²³ Directive 2006/7/EC of the European Parliament and of the Council of 15 February 2006 concerning the management of bathing water quality and repealing Directive 76/160/EEC (OJ L 64, 4.3.2006, p. 37).

Sustainable Development Goal 6 and the associated target requiring Member States to (25)'achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations' by 2030²⁴. Sanitation facilities should allow the safe management and disposal of human urine, faeces and menstrual blood. Furthermore, Principle 20 of the European Pillar of Social Rights²⁵ states that everyone has the right to access essential services of good quality, including water and sanitation. Against that background, and in accordance with the recommendations in the WHO Guidelines for Sanitation and Health²⁶ and the provisions of the Protocol on Water and Health²⁷ Member States should tackle the issue of access to sanitation at national level. That should be done through actions aimed at improving access to sanitation for all, for example by setting up sanitation facilities in public spaces, as well as by encouraging the availability of appropriate sanitation facilities in public administrations and public buildings free of charge and or making them affordable to all, including all kind of facilities and services, such as flush and dry toilets. Sanitation facilities should allow the safe management and disposal of human urine, faeces and menstrual blood. They should be safely managed, which implies that they should be accessible to all at all times, including for people with particular needs, such as children, older persons, persons with disabilities and homeless people, that they should be placed in a location that ensures minimal risk to the safety of users, and that they should be hygienically and technically safe to use. Such facilities should also be sufficient in number to ensure that the needs of people are met and waiting times are not unreasonably long. The sufficient number of sanitation facilities in public spaces should be decided at national level.

Resolution adopted by the United Nations General Assembly on 25 September 2015 (<u>A/70/L.1</u>)

²⁵ Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions Establishing a European Pillar of Social Rights (COM/2017/0250 final).

²⁶ WHO Guidelines on Sanitation and Health, 2018.

Protocol on Water and Health to the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, 17 June 1999.

- (26) The specific situation of minority cultures, such as Roma and Travellers, whether settled or not, and in particular their lack of access to sanitation, was acknowledged in the Communication from the Commission of 7 October 2020 'A Union of Equality: EU Roma strategic framework for equality, inclusion and participation', which calls for increasing effective equal access to essential services. Overall, it is appropriate that Member States pay particular attention to vulnerable and marginalised groups by taking the necessary measures to improve access to sanitation for those groups. It is important that the identification of those groups is coherent with Article 16(1) of Directive (EU) 2020/2184 of the European Parliament and of the Council²⁸. Measures to improve access to sanitation by vulnerable and marginalised groups might include providing sanitation facilities in public spaces for free or for a low service fee, improving or maintaining the connection to adequate systems to collect urban wastewater, and raising awareness of the nearest sanitation facilities.
- (27) According to the EU Human Rights Guidelines on Safe Drinking Water and Sanitation²⁹, particular attention should be given to the needs of women and girls, as they are particularly at risk and exposed to attacks, sexual and gender-based violence, harassment and other threats to their safety when accessing sanitation facilities outside their homes. This is in line with the Council Conclusions on Water Diplomacy³⁰, which reaffirm the importance of integrating a gender perspective into water diplomacy. Therefore, Member States should pay particular attention to women and girls as being a vulnerable group and should take the necessary measures to improve or maintain a safe access to sanitation for them.

²⁸ Directive (EU) 2020/2184 of the European Parliament and of the Council of 16 December 2020 on the quality of water intended for human consumption (*OJ L 435, 23.12.2020, p. 1*).

²⁹ EU Human Rights Guidelines on Safe Drinking Water and Sanitation (10145/19).

³⁰ Council Conclusions on Water Diplomacy (13991/18).

- (28) The evaluation concluded that sludge management could be improved to better align it with the principles of the circular economy and of the waste hierarchy as defined in Article 4 of Directive 2008/98/EC. The actions to better monitor and reduce pollution at source from non-domestic discharges will help improving the quality of the sludge produced and ensure its safe use in agriculture. In order to ensure a proper and safe recovery of nutrients, including the critical substance phosphorus, from the sludge, minimum recovery rates should be defined at Union level. The recovered nutrients should be used as substitutes for primary nutrients, for example, in the production of fertilizers.
- (28a) The nutrients contained in urban wastewaters may be useful in cases where treated urban wastewaters is reused in agriculture in accordance with Regulation (EU) 2020/741. In those cases, Member States may benefit, under specific conditions to ensure the highest level of protection of the environment and human health, from a derogation to the obligation to apply tertiary treatment in accordance with Article 7 of this Directive only for the part of the treated urban wastewater that is reused in agriculture.
- (29) Additional Adequate monitoring is necessary to verify compliance with the new requirements concerning micropollutants, non-domestic pollution, energy neutrality, GHG emissions, storm water sewer overflows and urban runoff discharges. To verify the performance compliance of the quaternary treatment concerning the reduction of micropollutants in urban wastewater discharges, it is sufficient to monitor a limited set of representative micropollutants. The monitoring frequencies should be aligned to the current best practices, as currently practiced in Switzerland. To remain cost-effective, those obligations should be adapted to the size of the urban wastewater treatment plants and of the agglomerations.

(29a) Microplastics and relevant micropollutants should be monitored, where relevant, in sewer overflow discharges and in discharges of urban runoff from separate systems with a representative sampling programme allowing for concentration estimation in view of water quality modelling. GHG emissions should be monitored, where relevant, supported by calculations and modelling. The monitoring will also contribute to provide data for the overall Environmental Monitoring Framework as set up under the 8th Environmental Action Programme³¹, and more specifically feed the Zero Pollution Monitoring Framework underpinning it³².

³¹ Decision (EU) 2022/591 of the European Parliament and of the Council of 6 April 2022 on a General Union Environment Action Programme to 2030 (OJ L 114, 12.4.2022, p. 22).

³² Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions, Pathway to a Healthy Planet for All EU Action Plan: 'Towards Zero Pollution for Air, Water and Soil' (COM/2021/400 final).

In order to reduce administrative burden and better use the possibilities offered by (30)digitalisation, the reporting on the implementation of the Directive should be improved and simplified by removing the obligation for Member States to report every two years to the Commission and for the Commission to publish bi-yearly reports. It should be replaced by a requirement for Member States to improve, with the support of the European Environment Agency (EEA), the existing national standardised data sets established under Directive 91/271/EEC, and to regularly update them. These data sets will be used by the Commission to verify compliance with this Directive. The reporting model would be developed by the EEA in collaboration with Member States. Permanent access Access to the national databases should be provided to the Commission and the EEA. In order to ensure complete information on the application of this Directive, the data sets should include information on compliance of urban wastewater treatment plants with the treatment requirements (pass/fail, loads and concentration of pollutants discharged), on the level of achievement of the objectives of energy neutrality, on GHG emissions of the treatment plants above 10 000 p.e. and on measures taken by the Member States in the context of storm water sewer overflows/ urban runoff, access to sanitation and treatment by individual systems. Moreover, full coherence with Regulation (EC) 166/2006 of the European Parliament and of the Council³³ should be ensured to optimise the use of the data, as well as to support full transparency.

³³ Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC (Text with EEA relevance) OJ L 33, 4.2.2006, p. 1–17.

- (31) In order to ensure a timely and proper implementation of this Directive, it is essential that Member States establish a national implementation programme including long-term programming of the required investments accompanied with a financing strategy. Those national programmes should be reported to the Commission. To limit administrative burden, that requirement should not apply to Member States showing a level of compliance of in which more than 95 % of the agglomerations are compliant with Articles 3 to 8. with regard to the main obligations to collect and treat wastewater. To ensure the implementation of this Directive, adequate private and public investments are essential. Therefore, the Commission should consider the national implementation programmes reported by Member States for the preparation of the next multiannual financial framework post 2027 and those following thereafter and the Member States should put in place the required system of producer responsibility without delay.
- (32) The urban wastewater collection and treatment sector is specific, operating as a captive market, with public and small enterprises being connected to the collecting system without having the possibility to choose their operators. It is therefore important to ensure public access to operators' key performance indicators, such as the level of treatment achieved, the costs of treatment, the energy used and produced, and the related GHG emissions and carbon footprint. In order to make the public more aware of the implications of urban wastewater treatment, key information on the annual wastewater collection and treatment costs for each household should be provided, **at least in agglomerations above 10 000 p.e.,** in an easily accessible manner, for instance on the invoices, while other detailed information should be accessible online, on a website of the operator or the competent authority.

- (33) Directive 2003/4/EC of the European Parliament and of the Council³⁴ guarantees the right of access to environmental information in the Member States in line with the 1998 Aarhus Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters (the 'Aarhus Convention'). The Aarhus Convention encompasses broad obligations related both to making environmental information available upon request and actively disseminating such information. It is important that the provisions of this Directive related to access to information and data-sharing arrangements complement that Directive, by establishing the obligation to make available to the public online information on the collection and treatment of urban wastewater in a user-friendly manner, without creating a separate legal regime.
- (34) The effectiveness of this Directive and its aim of protecting public health in the context of the Union's environment policy require that natural or legal persons, or where appropriate their duly constituted organisations, be able to rely on it in legal proceedings and that the national courts be able to take this Directive into consideration as an element of Union law in order, inter alia, to review decisions of a national authority where appropriate. In addition, according to settled case law of the Court of Justice, under the principle of sincere cooperation laid down in Article 4(3) of the Treaty on European Union (TEU), it is for the courts of the Member States to ensure judicial protection of a person's rights under Union law. Furthermore, Article 19(1) TEU requires Member States to provide remedies sufficient to ensure effective judicial protection in the fields covered by Union law. In addition, in accordance with the Aarhus Convention, members of the public concerned should have access to justice in order to contribute to the protection of the right to live in an environment which is adequate for personal health and well-being.

³⁴ Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC (OJ L 41, 14.2.2003, p. 26–32).

(35) To adapt this Directive to scientific and technical progress, the power to adopt acts in accordance with Article 290 TFEU should be delegated to the Commission in respect of amending certain parts of the Annexes with regard to the requirements methods for monitoring and evaluation of results for the secondary, tertiary and quaternary treatment, and to the requirements for specific authorisations for discharges of non-domestic wastewater into collecting systems and urban wastewater treatment plants. and in respect of supplementing this Directive by establishing minimum reuse and recycling rates for phosphorus and nitrogen from sludge. It is of particular importance that the Commission carries out appropriate consultations during its preparatory work, including at expert level, and that those consultations be conducted in accordance with the principles laid down in the Interinstitutional Agreement on Better Law-Making. In particular, to ensure equal participation in the preparation of delegated acts, the European Parliament and the Council receive all documents at the same time as Member States' experts, and their experts systematically have access to meetings of Commission expert groups dealing with the preparation of delegated acts.

- In order to ensure uniform conditions for the implementation of this Directive, (36) implementing powers should be conferred on the Commission for the adoption of standards for the design of individual systems, for the adoption of monitoring and assessment methods for the indicators of the quaternary treatment and the objectives regarding energy **neutrality**, for the establishment of common conditions and criteria for the application of the exoneration for certain products from extended producer responsibility, for establishing methodologies to support the development of integrated urban wastewater management plans, for the development of alternative indicators to load-based indicative objective of pollution reduction based for instance on volume, frequency of sewer overflows, or other relevant alternative indicators, for specifying minimum reuse and recycling rates for phosphorus, and for establishing methodologies and to measure antimicrobial resistance, greenhouse gas emissions and microplastics in urban wastewater and sludge, and for the adoption of the format of, and modalities for, presenting the information to be provided by Member States and compiled by the EEA on the implementation of this Directive. Those powers should be exercised in accordance with Regulation (EU) No 182/2011 of the European Parliament and of the Council³⁵.
- (37) Member States should lay down rules on penalties applicable to infringements of national provisions adopted pursuant to this Directive and should take all measures necessary to ensure that they are implemented. The penalties should be effective, proportionate and dissuasive., taking into account specificities of Small and Medium Enterprises.

Regulation (EU) No 182/2011 of the European Parliament and of the Council of 16 February 2011 laying down the rules and general principles concerning mechanisms for control by Member States of the Commission's exercise of implementing powers (OJ L 55, 28.2.2011, p. 13).

- Pursuant to the Interinstitutional Agreement on Better Law-Making³⁶, the Commission (38)should carry out an evaluation of this Directive within a certain period of time from the date set for its transposition. That evaluation should be based on experience gained and data collected during the implementation of this Directive, on any available WHO recommendations, and on relevant scientific, analytical, and epidemiological data. In the evaluation, particular attention should be given to the possible necessity to adapt of the list of products to be covered by extended producer responsibility according to the evolution of the range of products placed on the market and the conditions for exoneration from the extended producer responsibility, the improvement of knowledge on the presence of micropollutants in the wastewaters and their impacts on public health and the environment, and data from the new monitoring obligations on micropollutants in the inlets and outlets of the urban wastewater treatment plants. On the basis of the results of this evaluation, and/or on the basis of new scientific evidence on the presence of micropollutants in the wastewaters, the list of products in Annex III should be regularly amended to include new sectors in the scope of the extended producer responsibility referred to in Article 9.
- (39) Directive 91/271/EEC provides for specific deadlines for Mayotte due to its inclusion in 2014 as an outermost region within the meaning of Article 349 of the Treaty on the Functioning of the European Union. Therefore, the application of the obligations to establish collecting systems and apply secondary treatment to urban wastewater from agglomeration of 2 000 **1 250** p.e. and above should be deferred with respect to Mayotte.
- (39a) It is appropriate to consider the specific situation of Mayotte and the other Union's outermost regions, as listed in Article 349 of the TFEU, which provides for specific measures to support those regions. In terms of urban wastewater treatment of these territories, special attention should be given to the difficult topography and insularity.

³⁶ Interinstitutional Agreement between the European Parliament, the Council of the European Union and the European Commission on Better Law-Making (OJ L 123, 12.5.2016, p. 1–14).

- (40) In order to ensure the continuity of the protection of the environment, it is important that Member States maintain at least the current level of tertiary treatment until the new requirements for the reduction of phosphorus and nitrogen become applicable. Therefore, Article 5 of Council Directive 91/271/EC should continue to apply until those new requirements become applicable.
- (41) Since the objectives of this Directive, namely to protect the environment and public health, to progress towards climate neutrality of urban wastewater collection and treatment activities, to improve access to sanitation and to ensure a regular surveillance of parameters relevant to public health, cannot be sufficiently achieved by the Member States but can rather, by reason of the scale and effects of the action, be better achieved at Union level, the Union may adopt measures, in accordance with the principle of subsidiarity as set out in Article 5 TEU. In accordance with the principle of proportionality as set out in that Article, this Directive does not go beyond what is necessary in order to achieve those objectives.
- (42) The obligation to transpose this Directive into national law should be confined to those provisions which represent a substantive amendment as compared to the earlier Directive. The obligation to transpose the provisions which are unchanged arises under the earlier Directive.
- (43) This Directive should be without prejudice to the obligations of the Member States relating to the time-limits for the transposition into national law of the Directives set out in Annex [VII], Part B.

HAVE ADOPTED THIS DIRECTIVE:

Article 1

Subject matter

This Directive lays down rules on the collection, treatment, and discharge of urban wastewater to protect the environment and human health while progressively eliminating reducing greenhouse gas emissions to sustainable levels and improving the energy balance of urban wastewater collection and treatment activities. It also lays down rules on access to sanitation, on transparency of the urban wastewater sector and on the regular surveillance of public health relevant parameters in urban wastewaters.

Article 2

Definitions

For the purpose of this Directive, the following definitions apply:

- (1) 'urban wastewater' means domestic wastewater or, the mixture of domestic wastewater
 mixed with and either non-domestic wastewater or the mixture of domestic wastewater and
 or urban runoff, or both of them;
- (2) 'domestic wastewater' means wastewater from residential settlements, and services and institutions which originates predominantly from the human metabolism and/or from household activities;

- (3) 'non-domestic wastewater' means any wastewater, other than domestic wastewater and urban runoff, which is discharged into collecting systems from premises used for either of the following:
 - (a)—the exercise of a trade
 - (b) activities carried out by an institution;
 - (c) or industrial or economical activities;
- (4) 'agglomeration' means an area where the population (expressed in population equivalent), combined or not with economic activities pollution load of urban wastewater is sufficiently concentrated (10 p.e. per hectare or above) for urban wastewater to be collected and conducted to one or more an urban wastewater treatment plants and/or to a one or more final discharge points;
- (5) 'urban runoff' means precipitation rainwater from agglomerations collected by combined or separate sewers;
- (6) 'sewer storm water overflow' means discharge of untreated urban wastewater into receiving waters from combined sewers caused by rainfall;
- (7) 'collecting system' means a system of conduits which collects and conducts urban wastewater;
- (8) 'combined sewer' means a single conduit that collects and conducts urban wastewater including urban runoff;

- (9) 'separate sewer' means a system of conduits that separately collects and conducts either urban runoff or of the following:
 - (a) domestic urban wastewater not including urban runoff;
 - (b) non-domestic wastewater;
 - (c) a mixture of domestic and non-domestic wastewater;
 - (d) rainwater from agglomerations;
- (10) '1 population equivalent' or '(1 p.e.)' means the unit expressing the average potential water pollution load caused by one person per day, where 1 p.e. is the organic biodegradable load per day having a five-day biochemical oxygen demand (BOD5) of 60 g of oxygen per day;
- (10a) 'primary treatment' means treatment of urban wastewater by a physical and/or chemical process involving settlement of suspended solids, or other processes in which the BOD5 of the incoming wastewater is reduced by at least 20% before discharge and the total suspended solids of the incoming wastewater are reduced by at least 50%.
- (11) 'secondary treatment' means treatment of urban wastewater by a process generally involving biological treatment with a secondary settlement or another process which reduces biodegradable organic matter from urban wastewater;
- (12) 'tertiary treatment' means treatment of urban wastewater by a process which reduces removes nitrogen and/or phosphorus from the urban wastewaters;
- (13) 'quaternary treatment' means treatment of urban wastewater by a process which removes reduces a broad spectrum of micropollutants from the urban wastewaters;

- (14) 'sludge' means any solid, semisolid, or liquid waste organic and inorganic residue resulting from the treatment of urban wastewater in an urban wastewater treatment plant (excluding grit, grease, other debris and any other screenings and residues from the pre-treatment step);
- (15) 'eutrophication' means the enrichment of water by nutrients, especially compounds of nitrogen and/or phosphorus, causing an accelerated growth of algae and higher forms of plant life to produce an undesirable disturbance to the balance of organisms present in the water and to the quality of the water concerned;
- (16) 'micropollutant' means a substance, including its breakdown products, that is usually present in the environment and urban wastewaters present in the aquatic environment, urban wastewater and/or sludge in concentrations below milligrams per litre and which can be considered hazardous to human health or the environment based on any of the relevant criteria set out in Part 3 and Part 4 of Annex I to Regulation EC 1272/2008³⁷ even in low concentrations;
- (17) 'dilution ratio' means the ratio of between the last five years average volume of annual flow of the receiving waters at the point of discharge and to the last five years average of the annual discharge volume of urban wastewater into surface waters; discharged from a treatment plant;
- (18) 'producer' means any manufacturer, importer or distributor that on a professional basis places products on the market of a Member State, including by means of distance contracts as defined in Article 2(7) of Directive 2011/83/EU means;
- (19) 'Producer Responsibility Organisation' means an nationally recognised organisation established collectively by producers for the purpose of fulfilling to enable producers to fulfil their obligations under Articles 9 and 10;

³⁷ Regulation EC 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures (OJ L 353 31.12.2008, p 1).

- (20) 'sanitation' means facilities and services for the safe **management and** disposal of human urine, faeces, and menstrual blood, **among others**;
- (21) 'antimicrobial resistance' means the ability of micro-organisms to survive or to grow in the presence of a concentration of an antimicrobial agent which is usually sufficient to inhibit or kill micro-organisms of the same species;
- (22) 'public concerned' means the public affected or likely to be affected by, or having an interest in, the decision-making procedures taking of a decision for the implementation of the obligations laid down in Articles 6, 7 or 8 of this Directive; for the purposes of this definition, including non-governmental organisations promoting the protection of human health or the environment and meeting any requirements under national law shall be deemed to have an interest;
- (23) 'plastic 'biomedia' means a plastic support, usually made of plastic, used for the development of the bacteria needed for the treatment of urban wastewaters;
- (24) 'placing on the market' means the first making available of a product on the market of a Member State;
- (25) 'load' means the amount of organic biodegradable matter measured as BOD5 in urban wastewater, expressed in p.e., or any pollutant or nutrient, expressed in mass unit per time.
- (26) 'Individual system' means a sanitation facility that collects, stores, treats and/or disposes of domestic wastewater, from buildings or parts of buildings not connected to a urban wastewater collecting system.
Collecting systems and calculation of the load expressed in p.e.

- 1. Member States shall ensure that all agglomerations with a p.e. of 2 000 p.e. and above comply with the following requirements:
 - (a) they are provided with collecting systems;
 - (b) all their sources of domestic wastewater are connected to the collecting system.
- By 31 December 2030, Member States shall ensure that all agglomerations with a p.e. of between 1 000 1 250 and 2 000 p.e. comply with the following requirements of paragraph 1 by 31 December 2035.÷
 - (a) they are provided with collecting systems;
 - (b) all their sources of domestic wastewater are connected to the collecting system.

Member states may derogate from this deadline if the conditions in Article 23(5) are met.

- 3. The load of an agglomeration expressed in p.e. shall be calculated on the basis of the maximum average weekly load generated in that agglomeration during the year, excluding unusual situations such as those due to heavy rain. The calculation of the load expressed in p.e. subject to treatment in an urban wastewater treatment plant, shall also be based on the maximum average weekly load;
- **4 3**. Collecting systems shall fulfil the requirements of Part A of Annex I.

Individual systems

 By way of derogation Member States may derogate from Article 3, where exceptionally if the establishment of or the connection to a collecting system is not justified either because it would produce no environmental or health benefit, it is not technically feasible or because it would involve excessive cost.

If derogating from Article 3, Member States shall ensure that individual systems for the collection, storage and, when applicable, treatment of urban wastewaters ('individual systems') are used in agglomerations of 1 250 p.e. and above, or parts of these agglomerations.

- 2. Member States shall ensure that individual systems are designed, operated and maintained in a manner that ensures at least achieves the same level of environmental protection treatment as the secondary and tertiary treatments referred to in Articles 6 and 7.
- 3. Member States shall ensure that individual systems that are used in agglomerations of 1 250 p.e. and above where individual systems are used are registered in a public national, regional or local registry and that regular inspections or other means of regular checks or control of those systems, on the basis of a risk-based approach, are carried out by the appropriate authority or other body authorised at national, regional or local level.
- 3 4. The Commission is empowered to adopt delegated implementing acts in accordance with the procedure referred to in Article 27 to supplement this Directive by establishing to ensure uniform application of this Directive by specifying minimum requirements on for:
 - (a) the design, operation, and maintenance of individual systems referred to in paragraphs 1 and 2 and;
 - (b) by specifying the requirements for the regular inspections referred to in paragraph 2 3, on the basis of a risk-based approach second subparagraph.

Those implementing acts shall be adopted by [OP please insert the date = 24 months from the entry into force of this Directive] in accordance with the examination procedure referred to in Article 28(2).

- **4 5**. Member States that use individual systems to **collect and/or** treat more than 2 % of the urban wastewater load **at national level** from agglomerations of 2 000 p.e. and above shall provide the Commission with a detailed justification for the use of individual systems in each of the agglomerations. That justification shall:
 - (a) demonstrate that the conditions for using individual systems set out in paragraph 1 are fulfilled;
 - (b) describe the measures taken in accordance with paragraph 2 and 3;
 - (c) demonstrate compliance with the minimum requirements referred to in paragraph 3 4 where the Commission has exercised its delegated implementing power under that paragraph.
- 56. The Commission is empowered to adopt implementing acts establishing the format for submitting the information referred to in paragraph 45. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 28(2). The Commission shall provide the format by [OP please insert the date = 24 months from the entry into force of this Directive].

Integrated urban wastewater management plans

- By 31 December 2030 2035, Member States shall ensure that an integrated urban wastewater management plan is established for drainage areas of agglomerations of 100 000 p.e. and above.
- By 31 December 2025 2030, Member States shall establish a list of agglomerations of between 10 000 p.e. and 100 000 p.e. where, considering historic data, modelling and stateof-the-art climate projections, as well as the pressures and the assessment of impacts undertaken under the River Basin Management Plan, one or more of the following conditions apply:
 - (a) storm water sewer overflow or urban runoff poses a risk to the environment or human health;
 - (b) storm water sewer overflow represents more than 1 % 3% of the annual collected urban wastewater load of the parameters referred to in Tables 1 and, where relevant, Table 2 of Annex I, calculated in dry weather flow conditions;
 - (c) storm water sewer overflow or urban runoff prevents the fulfilment of any of the following:
 - (i) the requirements established under Article 5 of Directive (EU) 2020/2184;
 - (ii) the requirements set out in Article 5(3) of Directive 2006/7/EC of the European Parliament and of the Council³⁸;

³⁸ Directive 2006/7/EC of the European Parliament and of the Council of 15 February 2006 concerning the management of bathing water quality and repealing Directive 76/160/EEC (OJ L 64, 4.3.2006, p. 37).

- (iii) the requirements set out in Article 3 of Directive 2008/105/EC of the European Parliament and of the Council³⁹;
- (iv) the environmental objectives set out in Article 4 of Directive 2000/60/EC;
- (v) the requirements established under Article 3 of Directive 2006/118/EC⁴⁰.
- (d) relevant points in separate sewers have been identified where urban runoff is expected to be polluted in such a way that its discharge into receiving waters can be considered as a risk to the environment or human health or prevents the fulfilment of any of the Directives mentioned in paragraph (c).

Member States shall review the list referred to in the first subparagraph every five six years after its establishment and update it where necessary.

- By 31 December 2035 2040, Member States shall ensure that an integrated urban wastewater management plan is established for drainage areas of agglomerations referred to in paragraph 2.
- 4. Integrated urban wastewater management plans shall be made available to the Commission on request.
- Integrated urban wastewater management plans shall include at least the elements set out in Annex V.

³⁹ Directive 2008/105/EC of the European Parliament and of the Council of 16 December 2008 on environmental quality standards in the field of water policy, amending and subsequently repealing Council Directives 82/176/EEC, 83/513/EEC, 84/156/EEC, 84/491/EEC, 86/280/EEC and amending Directive 2000/60/EC of the European Parliament and of the Council (OJ L 348, 24.12.2008, p. 84).

⁴⁰ Directive 2006/118/EC of the European Parliament and of the Council of 12 December 2006 on the protection of groundwater against pollution and deterioration.

- 6. The Commission is empowered to adopt implementing acts to ensure uniform application of this Article by specifying:
 - (a) provide methodologies for the identification of the measures referred to in point 3 of Annex V;
 - (b) provide methodologies for the determination of alternative indicators to verify whether the indicative objective of pollution reduction referred to in point 2 (a) of Annex V is achieved;
 - (c) determine the format by which integrated urban wastewater management plans are to be made available to the Commission where requested in accordance with paragraph 4.

Those implementing acts shall be adopted **[by OP please insert the date = 24 months from the entry into force of this Directive]** in accordance with the examination procedure referred to in Article 28(2).

7. Member States shall ensure that integrated urban wastewater management plans are reviewed at least every 5 six years after their establishment and updated where necessary. Following an update of the list referred to in paragraph 2, Member States shall ensure that integrated management plans are established for agglomerations within six years of their inclusion in that list.

Secondary treatment

 For agglomerations of 2 000 p.e. and above, Member States shall ensure that discharges from urban wastewater treatment plants serving agglomerations of 2 000 p.e. and above urban wastewater entering collecting systems is subject to meet the relevant requirements for secondary treatment or an equivalent treatment set out in Part B and Table 1 of Annex I in accordance with the methods for monitoring and evaluation of results laid down in Part D of Annex I before discharge into receiving waters.

For agglomerations of between 2 000 p.e. and 10 000 p.e. which are discharging into coastal areas waters as defined under Directive 2000/60/EC and which apply appropriate treatment in accordance with Article 7 of Council Directive 91/271/EEC on [OP please insert the date = the date of entry into force of this Directive], the obligation set out in the first paragraph shall not apply until 31 December 2027 2035.

For agglomerations discharging into less sensitive areas as referred to in Article 6(1) of Council Directive 91/271/EEC on [OP please insert the date = date if entry into force of this Directive], the obligations set out in the first paragraph shall apply on [OP please insert the date = last day of the twelfth year after the entry into force of this Directive].

2. For agglomerations of between 1 000 p.e. and 2 000 p.e., Member States shall ensure that discharges from urban wastewater treatment plants serving agglomerations of between 1 250 p.e. and 2 000 p.e., by 31 December 2035 entering collecting systems is subject to meet the relevant requirements for secondary treatment set out in Part B and Table 1 of Annex I in accordance with the methods for monitoring and evaluation of results laid down in Part D of Annex I paragraph 3 or an equivalent treatment before discharge into receiving waters by 31 December 2030.

Member states may derogate from this deadline if the conditions in Article 23(5) are met.

- 3. Samples taken in accordance with Article 21 and Part D of Annex I of this Directive shall comply with the parametric values set out in table 1 of Part B of Annex I. The maximum permitted number of samples which fail to conform to the parametric values of table 1 of Part B of Annex I is set out in table 4 of Part D of Annex I. Urban wastewater discharges to waters situated in high mountain regions (over 1500 m above sea level) where it is difficult to apply an effective biological treatment due to low temperatures, or discharges to deep marine waters from agglomerations of less than 150 000 p.e. in less populated outermost regions where the topography and geography of the territory makes it difficult to apply an effective biological treatment, may be subjected to treatment less stringent than that prescribed in paragraph 1, until [OP please insert the date = last day of the twentieth year after the entry into force of the Directive], provided that detailed studies demonstrate that such discharges do not adversely affect the environment and human health and do not prevent the receiving waters to meet the relevant quality objectives and the relevant provisions of other relevant Union legislation.
- 4. The load expressed in p.e. shall be calculated on the basis of the maximum average weekly load entering the urban wastewater treatment plant during the year, excluding unusual situations due to heavy rain.

Tertiary treatment

 By 31 December 2030 2035, Member States shall ensure that discharges from 50 % of urban wastewater treatment plants treating a load of 100 000 150 000 p.e. and above and not applying tertiary treatment on [OP please insert the date = the date of entry into force of this Directive] meet the relevant requirements for are subject to tertiary treatment in accordance with Part B and Table 2 of Annex I before discharge into receiving waters. paragraph 4. By 31 December 2035 2040, Member States shall ensure that all urban wastewater treatment plants treating a load of 100 000 150 000 p.e. and above are subject to meet the relevant requirements for tertiary treatment in Part B and Table 2 of Annex I before discharge into receiving waters. accordance with paragraph 4.

By 31 December 2025 2027, Member States shall establish a list of areas on their territory that are sensitive to eutrophication and update that list every five six years starting on 31 December 2030 2033.

The list referred to in the first subparagraph shall include the areas identified in Annex II.

The requirement set out in the first subparagraph shall not apply where a Member State implements tertiary treatment in accordance with paragraph 4 Part B and Table 2 of Annex I in its entire territory.

3. By 31 December 2035, Member States shall ensure that for 50 % of the agglomerations of between 10 000 p.e. and 100 000 p.e. that are discharging into areas included in the list referred to in paragraph 2 and not applying tertiary treatment on [OP please insert the date = the date of entry into force of this Directive] urban wastewater entering collecting systems is subject to tertiary treatment in accordance with paragraph 4 before discharge into those areas.

By 31 December 2040, Member States shall ensure that urban wastewater entering collecting systems is subject to tertiary treatment in accordance with paragraph 4 before discharge into areas included in a list referred to in paragraph 2 with regard to all agglomerations of between 10 000 p.e. and 100 000 p.e. Member States shall ensure that discharges from agglomerations of 10 000 p.e. and above meet the relevant requirements for tertiary treatment set out in Part B and Table 2 of Annex I before discharge into areas included in a list referred to in paragraph 2 by:

- (a) 31 December 2033 for 20% of these agglomerations;
- (b) 31 December 2039 for 60% of these agglomerations;
- (c) 31 December 2045 for all agglomerations.

Member states may derogate from the deadlines in Article 7(3) if the conditions in Article 23(5) are met. However, urban wastewater treatment plants treating a load of 150 000 p.e. and above shall still meet the deadlines set in Article 7(1).

- 3a. Discharges of urban wastewater referred to in paragraphs 1 and 3 shall meet the relevant requirements in Part B and Table 2 of Annex I in accordance with the methods for monitoring and evaluation of results laid down in Part D of Annex I.
- 3b. For urban wastewater treatment plants that are in construction, under major refurbishment of their tertiary treatment or were commissioned after 31 December 2020 and before the date of entry into force of this Directive, the requirements set out in Article 7 of this Directive shall apply at the latest five years later from the deadlines established in paragraphs 1 and 3.
- 4. Samples taken in accordance with Article 21 and Part D of Annex I of this Directive shall comply with the parametric values set out in table 2 of Part B of Annex I. The maximum permitted number of samples which fail to conform to the parametric values of table 2 of Part B of Annex I is set out in table 4 of Part D of Annex I.

The Commission is empowered to adopt delegated acts in accordance with the procedure referred to in Article 27 to amend **the methods for monitoring and evaluation of results in** Parts B and D of Annex I in order to adapt the requirements and methods referred to in the second subparagraph to technological and scientific progress.

- 5. By way of derogation from paragraphs 3 and 4, Member States may decide that an individual urban wastewater treatment plant situated in an area included in a list referred to in paragraph 2 shall not be subject to the requirements set out in paragraphs-3 and 4 where it can be shown that the minimum percentage of reduction of the overall load entering all urban wastewater treatment plants in that area is:
 - (a) At least 75 % for total phosphorus and at least 75 % for total nitrogen from the date of entry into force of this Directive.
 - (a b) 82,5 % for total phosphorus and 80 % for total nitrogen by 31 December 2035 2039;
 - (b c) 90 87,5 % for total phosphorus and 85 82,5% for total nitrogen by 31 December 2040 2045.
- 6. Discharges from urban wastewater treatment plants of 10 000 p.e. and above into a catchment area of an area sensitive to eutrophication included in a list referred to in paragraph 2 shall also be subject to paragraphs 3, 4 and 5.
- 7. Member States shall ensure that discharges from urban wastewater treatment plants which are situated in an area included in a list referred to in paragraph 2 following one of the regular updates of the list required by that paragraph fulfil the requirements laid down in paragraphs 3 and 4 within seven years of the inclusion in that list.

Quaternary treatment

- By 31 December 2030, Member States shall ensure that 50 % of discharges from urban wastewater treatment plants treating a load of 100 000 200 000 p.e. and above meet the relevant requirements for quaternary treatment of urban wastewater are subject quaternary treatment in accordance with paragraph 5. set out in Part B and Table 3 of Annex I in accordance with the methods of monitoring and evaluation of result laid down in Part D of Annex I before discharge into receiving waters by:
 - (a) 31 December 2035 for discharges from 20% of these urban wastewater treatment plants;
 - (b) By-31 December 2035 2040, Member States shall ensure that all urban wastewater treatment plants treating a load of 100 000 p.e. and above are subject to quaternary treatment in accordance with paragraph 5. for discharges from 60% of these urban wastewater treatment plants
 - (c) 31 December 2045 for all discharges from these urban wastewater treatment plants.
- On 31 December 2030, Member States shall have established a list of areas on their national territory where the concentration or the accumulation of micropollutants from urban wastewater treatment plants represents a risk for human health or the environment. Member States shall review that list in 2033, and thereafter every five six years thereafter and update it if necessary.

The list referred to in the first subparagraph shall **be based on an assessment of the risks for human health or the environment that the discharge of micropollutants in urban wastewater poses on** include the following areas, unless the absence of risk for human health or the environment in those areas can be demonstrated based on a risk assessment:

- (a) water bodies used for abstraction of water intended for human consumption as defined in Article 2, point (1), of Directive (EU) 2020/2184;
- (b) bathing water falling within the scope of Directive 2006/7/EC;
- (c) lakes as defined in Article 2, point (5), of Directive 2000/60/EC;
- (d) rivers as defined in Article 2, point (4), of Directive 2000/60/EC or other water streams where the dilution ratio is below 10;
- (e) areas where aquaculture activities, as defined in Article 4, point (25), of Regulation
 (EU) No 1380/2013 of the European Parliament and of the Council⁴¹, take place;
- (f) areas where additional treatment is necessary to meet the requirements set out in Directives 2000/60/EC, 2006/118/EC and 2008/105/EC.
- (g) coastal waters as defined in Article 2, point (7), of Directive 2000/60/EC.
- (h) transitional waters as defined in Article 2, point (6), of Directive 2000/60/EC.
- (i) marine waters as defined in Article 3, point (1), of Directive 2008/56/EC.

The risk assessment referred to in the second subparagraph shall be communicated to the Commission on request.

⁴¹ Regulation (EU) No 1380/2013 of the European Parliament and of the Council of 11 December 2013 on the Common Fisheries Policy, amending Council Regulations (EC) No 1954/2003 and (EC) No 1224/2009 and repealing Council Regulations (EC) No 2371/2002 and (EC) No 639/2004 and Council Decision 2004/585/EC (OJ L 354, 28.12.2013, p. 22).

- 3. The Commission is empowered to adopt implementing acts establishing the format of the risk assessment referred to in paragraph 2, second subparagraph, and the method to be used for that risk assessment. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 28(2).
- 4. By 31 December 2035, Member States shall ensure that for 50 % of the agglomerations of between-10 000 p.e and 100 000 p.e. above meet the requirements for urban wastewater entering collecting systems is subject to quaternary treatment set out in Part B and Table 3 of Annex I accordance with the methods of monitoring and evaluation of result laid down in Part D of Annex I paragraph 5 before discharge into areas included in a list referred to in paragraph 2 by:
 - (a) 31 December 2035 for 20% of these agglomerations;
 - (b) **31 December 2040 for 60 % of these agglomerations;**
 - (c) 31 December 2045 for all agglomerations.

By 31 December 2040, Member States shall ensure that urban wastewater entering collecting systems is subject to quaternary treatment in accordance with paragraph 5 before discharge into areas included in a list referred to in paragraph 2 with regard to all agglomerations of between 10 000 p.e and 100 000 p.e.

- 5. Samples taken in accordance with Article 21 and Part D of Annex I of this Directive shall comply with the parametric values set out in table 3 of Part B of Annex I. The maximum permitted number of samples which fail to conform to the parametric values of table 3 of Part B of Annex I is set out in table 4 of Part D of Annex I.
- 5. Member States shall ensure that discharges from urban wastewater treatment plants which are situated in an area included in a list referred to in paragraph 2 following one of the regular updates of the list required by that paragraph, fulfil the requirements laid down in paragraph 4 and in Part B and Table 3 of Annex I within seven years of the inclusion in that list, but not later than the deadlines set out in paragraph 4.

The Commission is empowered to adopt delegated acts in accordance with the procedure referred to in Article 27 to amend **the methods for monitoring and evaluation of results in** Parts B and D of Annex I in order to adapt the requirements and methods referred to in the second subparagraph to technological and scientific progress.

6. By 31 December 2030, the The Commission shall may adopt implementing acts to establish the monitoring and sampling methods to be used by the Member States to determine the presence and quantities in urban wastewater of the indicators set out in table 3 of Part B of Annex I. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 28(2).

Article 9

Extended producer responsibility

 Member States shall take measures to ensure that by [OP please insert the date = the last day of the third year from the date of entry into force of this Directive], producers who place any of the products listed in Annex III on the market have extended producer responsibility.

Such measures shall ensure that those producers cover:

- (a) the full costs for complying with the requirements set out in Article 8, including the costs for the quaternary treatment of urban wastewater to remove micropollutants resulting from the products and their residues they place on the market, for the monitoring of micropollutants referred to in Article 21(1), point (a); and
- (b) the costs for gathering and verifying data on products placed on the market; and
- (c) other costs required to exercise their extended producer responsibility.

- 2. Member States shall exonerate producers from their extended producer responsibility under paragraph 1 where the producers can demonstrate any of the following:
 - (a) the quantity of the product substances contained in the products they place on the Union market is below 2 1 tonne tonnes per year;
 - (b) the products they place on the market do not generate micropollutants in wastewaters at the end of their life.
- 3. The Commission is empowered to adopt implementing acts to establish detailed criteria on the uniform application of the condition laid down in paragraph 2, point (b) to specific categories of products **and their hazardousness**. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 28(2) **no later than [OP please insert the date = the last day of the second year from the date of entry into force of this Directive].**
- 4. Member States shall ensure that producers referred to in paragraph 1 exercise their extended producer responsibility collectively. by adhering to a producer responsibility organisation.

Member States shall ensure that:

- (a) the producers referred to in paragraph 1 are required to once every year provide the producer responsibility organisations with the following:
 - the annual quantities of the products listed in Annex III that they place on the market in the context of their professional activity;
 - (ii) information on the hazardousness of the products referred to in point (i) in the wastewaters at the end of their life;
 - (iii) when relevant, a list of products exonerated in accordance with paragraph 2;

- (b) the producers referred to in paragraph 1 are required to contribute financially to the producer responsibility organisations in order to cover the costs arising from their extended producer responsibility;
- (c) each producer's contribution, as referred to in point (b), is determined based on the quantities and hazardousness in the wastewaters of the substances contained in the products that are placed on the market;
- (d) producer responsibility organisations are subject to annual independent audits of their financial management, including their capacity to cover the costs referred to in paragraph 1 4, the quality and adequacy of the information collected under point (a) and the adequacy of the contributions collected under point (b).
- 5. Member States shall ensure that:
 - (a) the roles and responsibilities of all relevant actors involved, including producers referred to in paragraph 1, producer responsibility organisations, private or public operators of urban wastewater treatment plants and local competent authorities, are clearly defined;
 - (b) urban wastewater management objectives are established in order to comply with the requirements and deadlines set under Article 8(1), (4) and (5) and any other quantitative or qualitative objectives that are considered relevant for the implementation of the extended producer responsibility;
 - (c) a reporting system is in place to gather data on the products referred to in paragraph 1 placed on the market of the Member State by the producers and data on the quaternary treatment of wastewater, as well as other data relevant for the purposes of point (b) of this paragraph.

Minimum requirements for producer responsibility organisations

- 1. Member States shall take the necessary measures to ensure that any producer responsibility organisation established under Article 9(4):
 - (a) has a clearly defined geographical coverage coherent with the requirements set out in Article 8;
 - (b) has the necessary financial and organisational means to meet the extended producer responsibility obligations of the producers, including financial guarantees to ensure the continuity of the quaternary treatment of urban wastewater in accordance with Article 8 of this Directive in all circumstances;
 - (c) makes publicly available information about:
 - (i) its ownership and membership;
 - (ii) the financial contributions paid by producers;
 - (iii) the activities that it undertakes every year, including clear information on how its financial means are used.

The provision of information to the public under this Article shall be without prejudice to preserving the confidentiality of commercially sensitive information in conformity with the relevant Union and national law.

Member States shall ensure that such measures include a national recognition procedure of the producer responsibility organisations certifying their compliance with the requirements set out in this paragraph prior to their effective establishment and operation.

- 2. Member States shall establish an adequate monitoring and enforcement framework to ensure that producer responsibility organisations fulfill their obligations, that the financial means of producer responsibility organisations are properly used and that all actors having extended producer responsibility report reliable data to the competent authorities and, when requested, to the producer responsibility organisations.
- 3. Where, in the territory of a Member State, there are multiple producer responsibility organisations, the Member State concerned shall appoint at least one body independent of private interests or entrust a public authority to oversee the implementation.
- 4. Member State shall ensure that the producers established on the territory of another Member State and placing products on its market:
 - (a) appoint a legal or natural person established on its territory as an authorised representative for the purposes of fulfilling the extended producer responsibility obligations on its territory; or
 - (b) take equivalent measures to point (a).
- 5. Member States shall ensure a regular dialogue between relevant stakeholders involved in the implementation of extended producer responsibility, including producers and distributors, producer responsibility organisations, private or public operators of urban wastewater treatment plants local authorities and civil society organisations.
- 6. By the date of entry into force of this Directive, the Commission shall provide for the organisation of exchange of information, experience and best practices between Member States on the implementation of Articles 9 and 10 and notably on:
 - (a) the measures to control the establishment, the recognition and functioning of Producer Responsibility Organisations;
 - (b) the measures to control the compliance of producers with their obligations defined in this Directive;

- (c) the effective implementation of
 - (i) the coverage of the full cost as referred to in Article 9(1), and
 - (ii) the control of the methods of calculation of producers contributions by the extended producer responsibility organisation as referred to in point c) of Article 9(4);
- (d) the exonerations provided according to Article 9;
- (e) any other issue in relation to the effective implementation of Articles 9 and 10.

The Commission shall publish the results of the exchange of information, experience and best practices on these and other relevant aspects, and where relevant, provide recommendations and/or guidelines to Member States.

Based on the information provided by the Member States, the Commission shall establish and regularly update a list of the requests of exonerations received by Member States from producers under Article 9(2). This list shall be made available on request to the national competent authorities of the Member States.

Energy neutrality of urban wastewater treatment plants

- Member States shall ensure that energy audits, as defined in Article 2, point (32), of Directive (EU) 2023/1791, of urban wastewater treatment plants and collecting systems in operation are carried out every four years. Those audits shall be carried out in accordance with Article 8 of Directive 2012/27/EU and include an identification of the potential for costeffective measures to reduce the use of energy and /or enhance the use production of renewable energy, with a particular focus to identify and utilise the potential for biogas production, while reducing greenhouse gas methane emissions. The first audits shall be carried out:
 - (a) by 31 December 2025 2030 for urban wastewater treatment plants treating a load of 100 000 p.e. and above and the collecting systems connected to them;
 - (b) by 31 December 2030 2035 for urban wastewater treatment plants treating a load of between 10 000 p.e. and 100 000 p.e. and the collecting systems connected to them.
- 2. Member States shall ensure that urban wastewater treatment plants treating a load of 10000 p.e. and above produce the total annual energy from renewable sources, as defined in Article 2(1) of Directive (EU) 2018/2001, produced at national level by urban wastewater treatment plants treating a load of 10 000 p.e. and above is equivalent to at least: based notably on the results of the audits referred to in paragraph 1.

This energy shall be produced by urban wastewater treatment plant operators, on or off-site. A maximum of 30% of energy may be purchased from external sources.

Member States shall ensure that, at national level, total annual energy from renewable sources produced by urban wastewater treatments plants or energy purchased under the second subparagraph is equivalent to at least:

- (a) 50 20 % of the total annual energy used by such plants by 31 December 2030;
- (aa) 40 % of the total annual energy used by such plants by 31 December 2035;
- (b) 75.60 % of the total annual energy used by such plants by 31 December 2035.2040;
- (c) 100 % of the total annual energy used by such plants by 31 December 2040 2045.
- 3. The Commission may adopt an implementing act for establishing the methods to assess whether the objectives in paragraph 2 have been met. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 28(2).

Article 12

Transboundary cooperation

 Where waters within the area of jurisdiction of a Member State are adversely affected by discharges of urban wastewater from another Member State or third-country, the Member State whose waters are affected shall notify the other Member State or the third country and the Commission of the relevant facts.

This notification shall be immediate in case of incidental pollution that may significantly affect downstream water bodies.

The Member States concerned shall cooperate in order to identify the discharges in question and the measures to be taken at source to protect the waters that are affected in order to ensure conformity with this Directive. 2. The concerned Member States shall inform the Commission of any cooperation referred to in paragraph 1. The Commission shall participate in such cooperation at the request of the concerned Member States.

Article 13

Local climatic conditions

Member States shall ensure that the urban wastewater treatment plants built to comply with the requirements set out in Articles 6, 7, and 8 are designed, constructed, operated and maintained to ensure sufficient performance under all normal local climatic conditions. When designing the plants, seasonal variations of the load shall be taken into account.

Article 14

Discharges of non-domestic wastewater

 Member States shall ensure that the discharges of non-domestic wastewater into collecting systems and urban wastewater treatment plants are subject to prior regulations and/or specific authorisations by the competent authority or appropriate body.

Those prior regulations and/or specific authorisations shall ensure that the water quality requirements set out in other Union legislation are fulfilled, and, when applicable, that quality and quantity of relevant discharges of non-domestic wastewater is monitored.

Where prior regulations and/or specific authorisations are provided for discharges into collecting systems and wastewater treatment plants, Member States shall ensure that the competent authority:

- (a) consults and informs the operators of collecting systems and urban wastewater treatment plants into which the non-domestic wastewater is discharged before granting specific authorisations;
- (b) on request allows the operators of collecting systems and urban wastewater treatment plants receiving non-domestic wastewater discharge to consult the specific authorisations granted in their catchment areas on request.
- (c) where prior regulations are provided for discharges into collecting systems and urban wastewater treatment plants, Member States shall ensure that the operators of collecting systems and urban wastewater treatment plants into which the nondomestic wastewater is discharged, are consulted before the prior regulations are adopted.
- 2. Member States shall **ensure that competent authorities or appropriate bodies** take the appropriate measures, including a review of the **prior regulations and/or** specific authorisations, to identify, prevent and reduce as far as possible the sources of pollution in non-domestic wastewater referred to in paragraph 1 of this Article where any of the following situations arise:
 - (a) pollutants have been identified at the inlets and outlets of the urban wastewater treatment plant under the monitoring of Article 21(3);
 - (b) sludge arising from urban wastewater treatment is to be used in accordance with Council Directive 86/278/EEC⁴²;

⁴² Council Directive 86/278/EEC of 12 June 1986 on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture (OJ L 181, 4.7.1986, p. 6).

- (c) treated urban wastewater is to be reused in accordance with Regulation (EU) 2020/741;
- (d) the receiving waters are used for abstraction of water intended for human consumption as defined in Article 2, point (1), of Directive (EU) 2020/2184;
- (e) the pollution of the non-domestic wastewater discharged into the collecting system, or the urban wastewater treatment plant poses a risk to the operation of that system or plant.
- 3. The **prior regulations and** specific authorisations referred to in paragraph 1 **of this Article** shall fulfil the requirements set out in Part C of Annex I. The Commission is empowered to adopt delegated acts in accordance with the procedure referred to in Article 27 to amend Part C of Annex I in order to adapt it to technical and scientific progress in the field of environmental protection.
- 4. The specific authorisations referred to in paragraph 1 shall be reviewed and, where necessary, adapted at least every 6 ten years.

The prior regulations referred to in paragraph 1 shall be reviewed at regular intervals and, where necessary, adapted.

If the characteristics of the non-domestic wastewater, the urban wastewater treatment plant or the receiving water body change significantly, the specific authorisations shall be reviewed and adapted to these changes.

Water reuse and discharges of urban wastewater

 Member States shall systematically promote the reuse of treated wastewater from all urban wastewater treatment plants where appropriate. Where treated urban wastewater is reused for agricultural irrigation, it shall comply with the requirements established under Regulation (EU) 2020/741.

Where treated urban wastewater is reused for agricultural irrigation, Member States may derogate from the requirements for tertiary treatment in Table 2 of Annex I, for the fraction of treated urban wastewater that is exclusively destined for reuse in agricultural irrigation, where all of the following can be demonstrated:

- (a) the nutrient content in the fraction reused does not exceed the demand of the targeted crops; and
- (b) there are no risks for the environment, particularly in relation to eutrophication of the waters in the same catchment area; and there are no risks to human health particularly in relation to pathogenic organisms, and
- (c) the treatment plant has enough capacity to treat or store urban wastewater, in order to avoid discharge to receiving waters that is not meeting the requirements set out in Part B and Table 2 of Annex I in accordance with the control methods laid down in Part D of Annex I.
- Member States shall ensure that at least all discharges from urban wastewater treatment plants of 1 250 p.e and above are subject to prior regulations and/or specific authorisations. Such regulations and/or authorisations shall ensure that the requirements set out in Part B of Annex I are fulfilled.

- 3. The prior regulations and/or specific authorisations referred to in paragraph 2 shall be reviewed at least every 6 ten years and, if necessary, adapted. The provisions of the specific authorisations shall be updated in the cases where the characteristics of incoming urban wastewaters or the discharges from the urban wastewater treatment plant or of the receiving water body change significantly to ensure that those requirements set out in Part B of Annex I remain fulfilled.
- 4. Member States shall take all necessary measures to adapt their urban wastewater collection and treatment infrastructures to address increased loads of domestic wastewater, including the construction of new infrastructures where necessary. By doing so, Member States shall be considered to comply with the environmental objectives set out in Article 4 of Directive 2000/60/EC if all the following conditions are met:
 - (a) the construction or expansion of an urban wastewater treatment plant to treat increased loads or otherwise untreated loads of domestic wastewater is subject to prior authorisation in accordance with this Directive;
 - (b) the benefits of the urban wastewater treatment plant in (a) cannot for reasons of technical feasibility or disproportionate cost be achieved by other means, including the consideration of alternative points of discharge of urban wastewater plants, that would contribute to achieve the environmental objectives in Article 4 of Directive 2000/60/EC;

- (c) all technically feasible mitigating measures are taken to minimize the negative impacts of the urban wastewater treatment plant on the affected water bodies including where so is required, more stringent treatment requirements than those applied prior to the increase of domestic wastewater load, aiming to meet the requirements of the directives referred to in Part B, point 6, of Annex I;
- (d) all technically feasible mitigating measures are implemented to minimize the negative impact of other activities causing similar pressures in the same water bodies.

If failure to prevent deterioration or failure to achieve the objectives in Article 4 of Directive 2000/60/EC in a body of surface water is the result of an authorisation in (a), these authorisations in (a) shall be specifically set out and the abovementioned conditions explained in the River Basin Management Plans required under Article 13 of Directive 2000/60/EC.

Article 16

Biodegradable non-domestic wastewater

 Member States shall establish requirements for the discharge of biodegradable non-domestic wastewater that are appropriate to the nature of the industry concerned and that ensure at least the same level of environmental protection as the requirements set out in Ppart B of Annex I.

- 2. The requirements referred to in paragraph 1 of this Article shall apply when the following conditions are fulfilled:
 - (a) the wastewater originates from plants treating a load of 4 000 p.e. and above that belong to the industrial sectors listed in Annex IV and that do not carry out any of the activities listed in Annex I to Directive 2010/75/EU of the European Parliament and of the Council⁴³;
 - (b) the wastewater does not enter an urban wastewater treatment plant before it is discharged to receiving waters ('direct discharge').

Urban wastewater surveillance

- 1. Member States shall monitor the presence of the following public health parameters in urban wastewater:
 - (a) SARS-CoV-2 virus and its variants;
 - (b) poliovirus;
 - (c) influenza virus;
 - (d) emerging pathogens;
 - (e) contaminants of emerging concern;
 - (f) any other public health parameters that are considered relevant by the competent authorities of the Member States for monitoring.

 ⁴³ Directive 2010/75/EU of the European Parliament and of the Council of 24 November 2010 on industrial emissions (integrated pollution prevention and control) (OJ L 334 17.12.2010, p. 17).

- 2. For the purpose of paragraph 1, Member States shall set up a national system for permanent cooperation and coordination between competent authorities responsible for public health and competent authorities responsible for urban wastewater treatment with regard to:
 - (a) the identification of other relevant public health parameters than the ones referred to in paragraph 1 that are to be monitored at least in the inlet of urban wastewater;
 treatment plants, including for instance those in the following list:
 - (i) SARS-CoV-2 virus and its variants;
 - (ii) poliovirus;
 - (iii) influenza virus;
 - (iv) emerging pathogens;

(v) any other public health parameters that are considered relevant by the competent authorities of the Member States for monitoring;

- (b) the determination of the location and the frequency of urban wastewater sampling and analysis for each public health parameter identified in accordance with paragraph 1 point (a), taking into account thus regarding the available health data and the needs in terms of public health data and, where relevant, the local epidemiological situations;
- (c) the organisation of an appropriate and timely communication of the monitoring results to the competent authorities responsible for public health and to Union platforms, where such platforms are available, and in accordance with applicable law on protection of personal data.

3. 2. When a public health emergency due to SARS-CoV-2 is declared by the competent authority responsible for public health in the Member State, the presence of SARS-CoV-2 and its variants relevant public health parameters shall be monitored in urban wastewaters from at least 70 % a representative distribution of the national population, to the extent that the relevant health parameters are found in the urban wastewaters. and at least one sample shall be taken per week for agglomerations of 100 000 p.e. and more. This monitoring shall continue until this the competent authority declares that the public health emergency due to SARS-CoV-2 has ended, or during a longer period if deemed useful for other purposes, according to the same competent authority.

To determine whether there is a public health emergency, the competent authority shall take into account-consider Commission decisions adopted pursuant to Article 23(1) of Regulation (EU) 2022/2371 of the European Parliament and of the Council⁴⁴, assessments of the European Centre for Disease Prevention and Control, decisions of the World Health Organisation (WHO) taken in accordance with the International Health Regulations and Commission decisions adopted pursuant to Article 23(1) of Regulation .../... of the European Parliament and of the Council⁴⁵=.

4.3. For agglomerations of 100 000 p.e. and above, Member States shall, by 1 January 2025 [OP please insert the date = the last day of the third year from the date of adoption of the implementing act in the following subparagraph], ensure that antimicrobial resistance is monitored at least twice a year at the inlets and outlets of in urban wastewater. treatment plants and, when relevant, in the collecting systems.

⁴⁴ Regulation (EU) 2022/2371 of the European Parliament and of the Council of 23 November 2022 on serious cross-border threats to health and repealing Decision No 1082/2013/EU. (OJ L 314, 6.12.2022, p. 26–63).

 ⁴⁵ + OP: Please insert in the text the number of the Regulation contained in document PE-CONS
 40/22 (2020/0322(COD)) and insert the number, date, title and OJ reference of that
 Regulation in the footnote.

By [OP please insert the date = the last day of the second year from the date of entry into force of this Directive], Tthe Commission shall adopt implementing acts in accordance with the procedure referred to in Article 28(2) to ensure an a uniform application of this Directive by establishing a minimum frequency of sampling and a harmonised methodology for measuring antimicrobial resistance in urban wastewaters.

54. Results from monitoring referred to in this Article shall be reported in accordance with Article 22(1), point (g).

Article 18

Risk assessment and management

- By [OP please insert the date = the last day of the second year after the date of entry in force of this Directive] 31 December 2027, Member States shall identify and assess the risks caused by urban wastewater discharges to the environment and human health and at least those related to the following:
 - (a) the quality of a water body used for the abstraction of water intended for human consumption as defined in Article 2, point (1), of Directive (EU) 2020/2184;
 - (b) the quality of bathing water falling within the scope of Directive 2006/7/EC;
 - (c) the good ecological status of a water body as defined in Article 2, point (22), of Directive 2000/60/EC;
 - (d c) the quality of a water body where aquaculture activities as defined in Article 4, point (25), of Regulation (EU) No 1380/2013 take place.
 - (d) the status of the receiving groundwater body as defined in Article 2 of Directive 2000/60/EC as well as all other environmental objective as stated in Article 4 of the same Directive for the receiving groundwater body.

- (e) the status of the receiving surface water body as defined in Article 2 of Directive 2000/60/EC as well as all other environmental objective as stated in Article 4 of the same Directive for the receiving surface water body.
- 2. Where risks have been identified in accordance with paragraph 1, Member States shall adopt appropriate measures to address them, which shall include where appropriate the following measures:
 - (aa) taking additional measures to prevent and reduce pollution of wastewater at source in complement to the measures referred to in Article 14(2);
 - (a) establishing collecting systems in accordance with Article 3 for agglomerations with a p.e. of less than 1 000 1 250;
 - (b) applying secondary treatment in accordance with Article 6 to discharges of urban wastewater from agglomerations with a p.e. of less than 1 000 1 250;
 - (c) applying tertiary treatment in accordance with Article 7 to discharges of urban wastewater from agglomerations with a p.e. of less than 10 000;
 - (d) applying quaternary treatment in accordance with Article 8 to discharges of urban wastewater from agglomerations with a p.e. of less than 10 000;
 - (e) establishing integrated urban wastewater management plans in accordance with Article
 5 for agglomerations below 10 000 p.e. and adoption of measures referred to in
 Annex V;
 - (f) applying more stringent requirements for the treatment of collected urban wastewaters than the requirements set out in Annex 4 I, Ppart B.

3. The identification of the risks carried out in accordance with paragraph 1 of this Article shall be reviewed every 5 six years aligned with the timing of the review of the River Basin Management Plans developed under the Directive 2000/60/EC and starting on 31 December 2033. A summary of the identified risks accompanied with a description of the measures adopted in accordance with paragraph 2 of this Article shall be included in the appropriate River Basin Management Plans and in the national implementation programmes referred to in Article 23 and communicated to the Commission on request.

Article 19

Access to sanitation

Without prejudice to the principles of subsidiarity and proportionality, whilst taking into account the local, regional and cultural perspectives and circumstances for sanitation, Member States shall take all necessary measures to improve access to sanitation for all, in particular for vulnerable and marginalised groups.

For that purpose, Member States shall by 31 December 2027 12 January 2029:

- (a) identify categories of people without access, or with limited access, to sanitation facilities, including vulnerable and marginalised groups, and provide reasons for such lack of access;
- (b) assess the possibilities for improving access to sanitation facilities for the categories of people referred to in point (a) such people;
- (c) for all agglomerations of 10 000 p.e. and above, encourage the establishment of a sufficient number of sanitation facilities in public spaces, which are freely and, in particular for women, safely accessible and ensure the information to the public.

Sludge and resource recovery

- Member States shall take the necessary measures to ensure that sludge management routes are conform to the waste hierarchy provided for in Article 4 of Directive 2008/98/EC. Such routes shall maximize prevention, preparing for reuse, and recycling and other material recovery of resources and minimize the adverse effects on the environment.
- 2. The Commission is empowered to adopt delegated implementing acts in accordance with the procedure referred to in Article 27 to supplement this Directive by setting out to ensure uniform application of this Directive by specifying the minimum reuse and recycling rates for phosphorus and nitrogen from sludge, and from urban wastewater not reused under the derogation of Article 15(1), taking in order to take into account available technologies, resources, and economic viability for phosphorus and nitrogen recovery. in sludge. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 28(2).

Article 21

Monitoring

- 1. Member States shall ensure that competent authorities, **appropriate bodies or the operator of the urban wastewater treatment plant** monitor:
 - (a) discharges from urban wastewater treatment plants in order to verify compliance with the requirements of Part B of Annex I in accordance with the methods for monitoring and evaluation of results laid down in Part D of Annex I and; this monitoring shall include including loads and concentrations of the parameters listed in Part B of Annex I;

- (b) amounts, composition and destination of sludge, taking into account requirements of Directive 86/278/EEC for sludge intended to be used in agriculture;
- (c) the destination of the treated urban wastewater including the share of reused water where the derogation of Article 15(1) is used, the quantities per year and per month of urban wastewater reused in agriculture that is subject to a derogation referred to in Article 15(1); the nutrient content of the fraction reused for agricultural irrigation and the period during which that fraction is reused compared to the monthly water and nutrient demand of the crops targeted by this reused urban wastewater;
- (d) the greenhouse gases-produced and the energy used and produced by CO₂, N₂O, CH₄
 emitted from urban wastewater treatment plants of above 10 000 p.e. and above, by means of analysis, calculations or modelling where appropriate;
- (e) the energy used and produced by urban wastewater treatment plants of 10 000 p.e and above.
- 2. For all agglomerations of 10 000 p.e. and above referred to in Articles 5(1) and (3), Member States shall ensure that competent authorities, monitor the concentration and loads of pollutants from storm water of urban runoff discharged appropriate bodies or operators of the collecting system carry out representative monitoring, at relevant points, of sewer overflows into water bodies and of discharges of urban runoff from separate systems, in order to estimate the concentration and loads of the parameters listed in Table 1 of Annex I, and, where relevant, of Table 2, as well as the content of microplastics and relevant pollutants. Member States may use the results of this monitoring in view of modelling where deemed appropriate.
- 3. For all agglomerations of above 10 000 p.e. and above, Member States shall ensure that competent authorities, appropriate bodies or the operator of the urban wastewater treatment plant monitor, at the inlets and outlets of urban wastewater treatment plants, the concentration and loads in the urban wastewater of the following elements:
 - (a) pollutants that are expected to be found in urban wastewaters listed in:
 - Annexes VIII and X to Directive 2000/60/EC, the Annex I to Directive 2008/105/EC, Annex I to Directive 2006/118/EC and Part B of Annex II to Directive 2006/118/EC;
 - the Annex to Decision 2455/2001/EC of the European Parliament and of the Council⁴⁶;
 - (iii) Annex II to Regulation (EC) No 166/2006 of the European Parliament and of the Council⁴⁷;
 - (iv) Annexes I and II to Directive 86/278/EEC.
 - (b) parameters listed in Part B of Annex III to Directive (EU) 2020/2184, where urban wastewater is discharged in a catchment area referred to in Article 8 of that Directive;
 - (c) the presence of microplastics.

Pollutants listed under points (a) and (b) may be excluded from the monitoring under this paragraph as long as it can be demonstrated, inter alia on the basis of monitoring results, that they are absent in urban wastewaters.

⁴⁶ Decision No 2455/2001/EC of the European Parliament and of the Council of 20 November 2001 establishing the list of priority substances in the field of water policy and amending Directive 2000/60/EC (Text with EEA relevance) (OJ L 331, 15.12.2001, p. 1).

 ⁴⁷ Regulation (EC) No 166/2006 of the European Parliament and of the Council of 18 January 2006 concerning the establishment of a European Pollutant Release and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC (Text with EEA relevance) (OJ L 33, 4.2.2006, p. 1).

For all agglomerations of above 10 000 p.e., Member States shall ensure that **competent authorities, appropriate bodies or the operator of the wastewater treatment plant** monitor the presence of microplastics in the sludge **when relevant and, notably, when it is reused in agriculture**.

- 4. The monitoring referred to in the first and second subparagraphs 3 shall be carried out with the following frequencies:
 - (a) at least two samples per year, with maximum 6 7 months between the samples, for agglomerations of 100 000 150 000 p.e. and more above;
 - (b) at least one sample every 2 two years for agglomerations of between 10 000 p.e. and 100 000 150 000 p.e.

This monitoring frequency may be halved in subsequent years if the monitoring results for the pollutants referred to in paragraph 3 are below applicable Environmental Quality Standards under Directive 2008/105/EC during the first three successive years of the monitoring. The monitoring frequency should be reviewed at least every year.

5. The Commission is empowered to adopt implementing acts in accordance with the procedure referred to in Article 28 to ensure a uniform application of this Directive by establishing a methodology for measuring greenhouse gas emissions from urban wastewater treatment plants and microplastics in urban wastewater and sludge referred to in this Article. The Commission shall provide the methodologies by [OP please insert date = 24 months from the date of entry into force of this Directive] in accordance with the procedure referred to in Article 28(2).

Article 22

Information on monitoring of implementation

- 1. Member States, assisted by the European Environment Agency (EEA), shall:
 - (a) by 31 December 2025 2030, set up a data set containing information collected in accordance with Article 21 including information concerning the parameters referred to in Article 21(1), point (a), and the results of the tests with regard to the pass/fail criteria established in Part D of Annex I and update that data set annually thereafter;
 - (b) by 31 December 2025 2030, set up a data set indicating the percentage of urban wastewater which is collected and treated in accordance with Article 3 and update that data set annually thereafter;
 - (c) by 31 December 2025 2030, set up a data set containing information on the implementation of measures taken to implement Article 4(4 5) and on the percentage of the urban wastewater load from agglomerations above 2 000 p.e. which is treated in individual systems and update that data set annually thereafter;
 - (d) by 31 December 2025 2030, set up a data set containing information on the number of samples collected and the number of samples taken in accordance with Part D of Annex I that have failed;
 - (e) by 31 December 2025 2030, set up a data set containing information on greenhouse gas emissions with a breakdown between different gasses and on the total energy used and renewable energy produced by each urban wastewater treatment plant of 10 000 p.e. and above as well as a calculation of the percentage of achievement of the targets set out in Article 11(2) and update that data set annually thereafter;

- (f) by 31 December 2025 2030, set up a data set containing information on measures taken in accordance with point 3 of Annex V and update that data set annually thereafter;
- (g) by 31 December 2025 2030, set up a data set containing the monitoring results referred to in accordance with Article 17(1) and (4) (3) and update that data set annually thereafter;
- (h) by 31 December 2025 2030, set up a data set containing the list of areas identified as sensitive to eutrophication in accordance with Article 7(2) and update that data set every 5 years thereafter in accordance with Article 7(2);
- (i e) by 31 December 2030, set up a data set containing the list of areas identified as areas where the concentration or the accumulation of micropollutant represents a risk for human health or the environment in accordance with Article 8(2) and update that data set every 5 years thereafter in accordance with Article 8(2);
- (j) by 12 January 2029, set up a data set containing information on measures taken to improve access to sanitation in accordance with Article 19, including information on the share of their population that has access to sanitation and update that data set every 6 years thereafter.
- (k) by 31 December 2030, set up a data set containing the monitoring results referred to in point (c) of Article 21(1) with a comparison of the monthly water and nutrient demand of the crops targeted by the reused fraction of treated urban wastewater referred to in Article 15(1), and update that dataset annually thereafter;
- 2. Member States shall ensure that the Commission and the EEA have permanent access to the data sets referred to in paragraph 1.
- The information reported by Member States in accordance with Article 5 of Regulation (EC) No 166/2006 shall be taken into account for the reporting required under this Article for those pollutants related with urban wastewaters.

With regard to the information referred to in paragraph 1, the EEA shall provide the public with access to relevant data through the European Pollutant Release and Transfer Register established under Regulation (EC) No 2006/166.

4. The Commission is empowered to adopt implementing acts specifying the format of the information to be provided in accordance with paragraph 1. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 28(2). The Commission shall provide the format by [OP please insert the date = the last day of the first year from the date of entry into force of this Directive].

Article 23

National implementation programme

 By [OP please insert date = the last day of the twenty-third thirty fifth month after the date of entry into force of this Directive], Member States shall establish a national implementation programme for this Directive.

Those programmes shall include:

- a) an assessment of the level of implementation of Articles 3 to 8;
- b) the identification and planning of investments required to implement this Directive for each agglomeration, including an indicative financial estimation and a prioritisation of those investments related to the size of the agglomeration and the level of environmental impact of untreated urban wastewater and related risks for environment or human health;

- c) an estimate of investments needed to renew, upgrade or replacement of existing urban wastewater infrastructures, including collecting systems, based on their age technical and operational condition and depreciation rates;
- d) the identification, or at least an indication, of potential sources of public financing, when needed to complement user charges.
- 2. By ...[OP: please insert the date = the last day of the thirty-fifth fortieth month after the date of entry into force of this Directive], Member States shall submit to the Commission their national implementation programmes, except where they demonstrate, based on the monitoring results referred to in Article 21, that they are in compliance with Articles 3 to 8.
- Member States shall update their national implementation programmes at least every 5 6 years. They shall submit them to the Commission by 31 December, except where they can demonstrate that they are in compliance with Articles 3 to 8.
- 4. The Commission is empowered to adopt implementing acts establishing the methods and formats for submission of the national implementation programmes. Those implementing acts shall be adopted by [OP please insert the date = the last day of the sixth month from the date of entry into force of this Directive] in accordance with the examination procedure referred to in Article 28(2).
- 5. Member States may include in their first national implementation programmes an extension of maximum six years of the following deadlines:
 - (a) the deadlines referred to in Article 3(2) and/or in Article 6(2) on the conditions that:
 - (i) on [OP please insert the date=day of entry into force of the Directive],
 - less than 50 % of these agglomerations are provided with collecting systems and their discharges are not subject to secondary treatment on their territory, in accordance with Part B and Table 1 of Annex I, or

- less than 50% of the urban wastewater load of these agglomerations is collected in collecting systems and their discharges are not subject to secondary treatment on their territory, in accordance with Part B and Table 1 of Annex I.
- (ii) the national implementation programme includes:
 - the number of agglomerations between 1 250 and 2 000 p.e. that lacks complete collecting system and secondary treatment on [OP please insert the date=day of entry into force of the Directive]; and
 - a plan detailing the necessary investments to reach full compliance for these agglomerations within the extended deadlines; and
 - the technical or economic reasons justifying the extension of the deadlines referred to in the Articles 3(2) and/or 6(2).

Member States which acceded to the Union in 2004 may include in their first national implementation programmes an extension of up to 8 years of the deadlines referred to in Article 3(2) and/or Article 6(2) if all the conditions of point (a) are fulfilled.

Member States which acceded to the Union after 2006 may include in their first national implementation programmes an extension of up to 12 years of the deadlines referred to in Article 3(2) and/or Article 6(2) if all the conditions of point (a) are fulfilled.

In their first national implementation programme, Member States may include an extension of up to 8 years of the deadlines referred to in Article 3(2) and/or Article 6(2) for the agglomerations where it can be demonstrated that the achievement of the required infrastructures is particularly difficult due to the necessity to preserve cultural heritage. The national implementation programme shall include a list of these agglomerations accompanied with a justification for the derogation and a timeline to finalise the required infrastructures in these agglomerations.

- (b) the deadline for agglomerations referred to in Article 7(3) on the conditions that:
 - (i) at least 50 % of these agglomerations are not applying tertiary treatment according to the requirements set out in Council Directive 91/271/EEC or do not meet the requirements of Table 2 on [OP please insert the date=day of entry into force of the Directive]; and
 - (ii) the national implementation programme includes:
 - the number of agglomerations referred to in Article 7(3) lacking tertiary treatment according to the requirements set out in Council Directive 91/271/EEC on [OP please insert the date=day of entry into force of the Directive]; and
 - a plan detailing the necessary investments to reach full compliance for these agglomerations within the extended deadlines; and
 - the technical or economic reasons justifying the extension of the deadlines referred to in Article 7(3).

The extensions of these deadlines shall be effective only if the conditions referred to in the first subparagraph are fulfilled. The Commission shall notify the Member States if these conditions are not fulfilled by [OP please insert the date=the last day of the sixth month after the deadline referred to in Article 23(2)].

Article 24

Information to the public

 Member States shall ensure that adequate and up-to-date information on urban wastewater collection and treatment is available to the public online, in a user-friendly and customised way, in for each agglomeration of above 1 250 p.e. or each relevant administrative area. The information shall include at least the data listed in Annex VI.

The information referred to in paragraph 1 shall also be provided by other means upon justified request.

- 2. In addition, where costs are recovered totally or partly through a water tariff system, Member States shall ensure that all persons households in agglomerations of above 10 000 p.e., and preferably above 1 250 p.e., connected to collecting systems receive regularly and at least once a year, in the most appropriate and easily accessible form, including for example on their invoice or by digital means such as smart applications or websites, without having to request it, the following information:
 - (a) information on the compliance of the collection and treatment of urban wastewater with Articles 3, 4, 6, 7 and 8, including a comparison between the actual releases of pollutants in receiving waters with the limit values set out in Tables 1, 2 and 3 of Annex I;
 - (b) the volume or estimated volume of urban wastewater collected and treated per year or per billing period for the household or the connected entity in cubic meter, together with yearly trends and the price of urban wastewater collection and treatment for the that household (cost per litre and cubic meter);
 - a comparison of the yearly volume of load of urban wastewater collected and treated for the household per year and an indication of the average volume of a household in the concerned agglomeration;
 - (d) a link to the online content referred to in paragraph 1.

Where information regarding individual usage is not available, the information in points (a) to (d) above will be provided at agglomeration level in a user-friendly manner via a website or smart application.

3. The Commission may adopt delegated acts in accordance with the procedure set out in Article 27 to amend paragraph 2 of this Article and Annex VI by updating the information to be provided to the public online and to the persons households connected to collecting systems in order to adapt these requirements to technical progress and the availability of data in the field.

4. The Commission may adopt implementing acts specifying the format and the methods of presenting the information to be provided in accordance with paragraphs 1 and 2. Those implementing acts shall be adopted in accordance with the examination procedure referred to in Article 28(2).

Article 25

Access to Justice

- Member States shall ensure that, in accordance with the relevant national legal system, members of the public concerned have access to a review procedure before a court of law, or another independent and impartial body established by law to challenge the substantive or procedural legality of decisions or acts or omissions subject to Articles 6, 7 or 8 of this Directive when at least one of the following conditions is met:
 - (a) they have a sufficient interest;
 - (b) they maintain the impairment of a right, where administrative procedural law of a Member State requires this as a precondition.

Standing in the review procedure shall not be conditional on the role that the concerned member of the public played during a participatory phase of the decision-making procedures under this Directive.

The review procedure shall be fair, equitable, timely and not prohibitively expensive, and shall provide for adequate and effective redress mechanisms, including injunctive relief as appropriate.

2. Member States shall determine at what stage the decisions, acts or omissions referred to in paragraph 1 may be challenged.

Article 26

Compensation

- Member States shall ensure that, where damage to human health has occurred as a result of a violation of national measures that were adopted pursuant to this Directive, the individuals affected have the right to claim and obtain compensation for that damage from the relevant natural or legal persons in accordance with national law. and, where appropriate, from the relevant competent authorities responsible for the violation.
- 2. Member States shall ensure that, as part of the public concerned, non-governmental organisations promoting the protection of human health or the environment and meeting any requirements under national law are allowed to represent the individuals affected and bring collective actions for compensation. Member States shall ensure that a claim for a violation leading to a damage cannot be pursued twice, by the individuals affected and by the non-governmental organisations referred to in this paragraph.
- 3-2. Member States shall ensure that national rules and procedures relating to claims for compensation are designed and applied in such a way that they do not render impossible or excessively difficult the exercise of the right to compensation for damage caused by a violation pursuant to paragraph 1.
- 4. Where there is a claim for compensation in accordance with paragraph 1, supported by evidence from which a causality link may be presumed between the damage and the violation, Member States shall ensure that the onus is on the person responsible for the violation to prove that the violation did not cause or contribute to the damage.
- 5-3. Member States shall ensure that may establish the limitation periods for bringing actions for compensation referred to in paragraph 1 are not shorter than 5 years. Such periods shall not begin to run before the violation has ceased and the person claiming the compensation knows or can reasonably be expected to know that he or she suffered damage from a violation pursuant to paragraph 1.

Article 27

Exercise of the delegation

- 1. The power to adopt delegated acts is conferred on the Commission subject to the conditions laid down in this Article.
- 2. The power to adopt delegated acts referred to in Articles 4(3), 6(3), 7(4), 8(5), 14(3), 20(2), and 24(3) shall be conferred on the Commission for a period of five years from [OP please insert the date = the date of entry into force of this Directive]. The Commission shall draw up a report in respect of the delegation of power not later than nine months before the end of the five-year period. The delegation of power shall be tacitly extended for periods of an identical duration unless the European Parliament or the Council opposes such extension not later than three months before the end of each period.
- 3. The delegation of power referred to in Articles 4(3), 6(3), 7(4), 8(5), 14(3), 20(2), and 24(3) may be revoked at any time by the European Parliament or by the Council. A decision to revoke shall put an end to the delegation of the power specified in that decision. It shall take effect the day following the publication of the decision in the Official Journal of the European Union or at a later date specified therein. It shall not affect the validity of any delegated acts already in force.
- Before adopting a delegated act, the Commission shall consult experts designated by each Member State in accordance with the principles laid down in the Interinstitutional Agreement of 13 April 2016 on Better Law-Making.
- 5. As soon as it adopts a delegated act, the Commission shall notify it simultaneously to the European Parliament and to the Council.

6. A delegated act adopted pursuant to Articles 4(3), 6(3), 7(4), 8(5), 14(3), 20(2), or 24(3) shall enter into force only if no objection has been expressed either by the European Parliament or by the Council within a period of two months of notification of that act to the European Parliament and the Council or if, before the expiry of that period, the European Parliament and the Council have both informed the Commission that they will not object. That period shall be extended by two months at the initiative of the European Parliament or of the Council.

Article 28

Committee

- The Commission shall be assisted by the committee for the adaptation to scientific and technical progress and implementation of the directive on urban wastewater treatment established by Directive 91/271/EEC. That committee shall be a committee within the meaning of Regulation (EU) No 182/2011.
- 2. Where reference is made to this paragraph, Article 5 of Regulation (EU) No 182/2011 shall apply.

Article 29

Penalties

1. Without prejudice to the obligations of Member States under Directive 2008/99/EC of the European Parliament and of the Council of 19 November 2008 on the protection of the environment through criminal law, Member States shall lay down the rules on penalties applicable to infringements of national provisions adopted pursuant to this Directive and shall take all measures necessary to ensure that they are implemented. The penalties provided for shall be effective, proportionate and dissuasive. They shall include, as appropriate, financial penalties proportionate to the turnover of the legal person or to the salary of the natural person having committed the breach, taking into account specificities of Small and Medium Enterprises.

- 2. Member States shall ensure that the penalties established pursuant to this Article give due regard to the following, as applicable:
 - (a) the nature, gravity, and extent of the violation infringement;
 - (b) the intentional or negligent character of the violation;
 - (c) (b) the population or the environment affected by the violation infringement, bearing in mind the impact of the infringement on the objective of achieving a high level of protection of human health and the environment;
 - (c) the repetitive or singular character of the infringement;
- 3. Member States shall without undue delay notify the Commission of the rules and measures referred to in paragraph 1 and of any subsequent amendments affecting them.

Article 30

Evaluation

- By 31 December 2030 2035 and by 31 December 2040 2041, the Commission shall carry out an evaluation of this Directive based in particular on the following elements:
 - (a) the experience gained through the implementation of this Directive;
 - (b) the data sets referred to in Article 22(1);
 - (c) relevant scientific, analytical and epidemiological data, including results from research projects funded by the Union;
 - (d) WHO recommendations, where available;

- (e) an analyse analysis of the possible need to adapt the list of products to be covered by extended producer responsibility to the evolution of the range of products placed on the market, improved knowledge on the presence of micropollutants in wastewaters, and their impacts on public health and the environment, and data resulting from the new monitoring obligations on micropollutants in the inlets and outlets of the urban wastewater treatment plants and an analysis of the need to revise the condition for exoneration from extended producer responsibility referred to in point (a) of Article 9(2);
- (f) evaluate the objective of energy neutrality in order to analyse the technical and economic feasibility to achieve a higher energy autonomy of the sector;
- (g) an evaluation of the possibilities for measuring greenhouse gas emissions from the urban wastewater sector and for setting requirements for actual measurements in connection with the monitoring.

The Commission shall present a report on the main findings of the evaluation referred to in the first subparagraph to the European Parliament, the Council, the European Economic and Social Committee, and the Committee of the Regions.

2. Member States shall provide the Commission with the information necessary for the preparation of the report referred to in paragraph 1, second subparagraph.

Article 31

Review

Every five years, the Commission shall present a report to the European Parliament and the Council on the implementation of this Directive, accompanied, where the Commission finds it appropriate, by relevant legislative proposals.

Article 32

Repeal and transitional provisions

- Directive 91/271/EC, as amended by the acts listed in Part A of Annex VII to this Directive, is repealed with effect from [OP please insert the date = the first day of the twenty-fourth thirty first month after the date of entry into force of this directive] without prejudice to the obligations of the Member States relating to the time limits- for the transposition into national law of the Directives set out in Part B of Annex VII to this Directive.
- In respect of Mayotte, Article 3(1) and Article 6(1) shall apply from 31 December 2027
 2030 and Article 3(2) and Article 6(2) shall apply from [OP please insert the date = last day of the fifteenth year after the entry into force of this Directive]. in respect of Mayotte.

Paragraph 1a of Article 3 and paragraph 1a of Article 4 of Council Directive 91/271/EEC shall continue to apply until 30 December 2030.

3. By way of a derogation to paragraph 1, fFor urban wastewater discharges that are treated by urban wastewater treatment plants treating a load of 150 000 p.e. 100 000 p.e. and above and that are not required to comply with the requirements set out in Article 7(1) by 31 December 2030 2035, Article 5 of Council Directive 91/271/EC shall continue to apply until 31 December 2035 2040.

For urban wastewater discharges from agglomerations of between 10 000 p.e. and **above** 100 000 p.e. that are not required to comply with the requirements set out in Article 7(3) by 31 December 2035, Article 5 of Council Directive 91/271/EC shall continue to apply: until 31 December 2040.

 (a) until 31 December 2033 for agglomerations that are not required to comply with the requirements set out in Article 7(3) by [OP please insert the date = the date of entry into force of this Directive];

- (b) until 31 December 2039 for agglomerations that are not required to comply with the requirements set out in Article 7(3) by 31 December 2033;
- (c) until 31 December 2045 for agglomerations that are not required to comply with the requirements set out in Article 7(3) by 31 December 2039; or a later date compliant with the derogation provided for in Article 7(3) second subparagraph.
- 3a. By way of a derogation to paragraph 1, for urban wastewater treatment plants referred to in Article 7(3)(ter), the requirements set out in Article 5 of Council Directive 91/271/EEC shall continue to apply until 31 December 2040.
- 3b. By way of a derogation to paragraph 1, from [OP please insert the date = the date of entry into force of this Directive], Articles 15 and 17 of Council Directive 91/271/EEC and Commission Implementing Decision 2014/431/EU [2] shall apply to Member States until 31 December 2030.
- 4. References to the repealed Directive shall be construed as references to this Directive and shall be read in accordance with the correlation table in Annex [VIII].

Article 33

Transposition

 Member States shall bring into force the laws, regulations and administrative provisions necessary to comply with Articles [...] and Annexes [...] [refer to the articles and annexes which have been amended in substance by comparison with the repealed Directives] by [OP please insert the date = the last day of the twenty-third thirtieth month after the date of entry into force of this Directive]. They shall immediately communicate the text of those measures to the Commission. When Member States adopt those measures, they shall contain a reference to this Directive or be accompanied by such a reference on the occasion of their official publication. They shall also include a statement that references in existing laws, regulations and administrative provisions to the Directive repealed by this Directive shall be construed as references to this Directive. Member States shall determine how such reference is to be made and how that statement is to be formulated.

 Member States shall communicate to the Commission the text of the main provisions measures of national law which they adopt in the field covered by this Directive.

Article 34

Entry into force

This Directive shall enter into force on the twentieth day following that of its publication in the Official Journal of the European Union.

Articles [...] and Annexes [...] [refer to the articles and annexes which are unchanged by comparison with the repealed Directive] shall apply from [...] [OP please insert the date = the first day of the twenty-fourth month after the date of entry into force of this Directive].

Article 35

Addressees

This Directive is addressed to the Member States.

Done at Brussels,

For the European Parliament The President For the Council The President

ANNEX 1 I. REQUIREMENTS FOR URBAN WASTEWATER

A. COLLECTING SYSTEMS

Collecting systems shall take into account wastewater treatment requirements.

The design, construction and maintenance of collecting systems shall be undertaken in accordance with the best technical knowledge not entailing excessive costs, notably regarding:

- volume and characteristics of urban wastewater,
- prevention of leaks **of wastewater**,
- prevention of inflow and infiltration into the collecting systems,
- limitation of pollution of receiving waters due to storm water sewer overflows
 considering the relevant requirements in Article 5 and Annex V.

B. DISCHARGE FROM URBAN WASTEWATER TREATMENT PLANTS TO RECEIVING WATERS

- Urban wastewater treatment plants shall be designed or modified so that representative samples of the incoming bwastewater and of treated effluent can be obtained before discharge to receiving waters.
- Discharges from urban wastewater treatment plants and urban wastewater treatment plants serving agglomerations referred to subject to treatment in accordance with Articles 6, 7 and 8 shall meet the requirements shown in Table 1 of this Annex.

- 3. Discharges from urban wastewater treatment plants referred to in paragraph 1 and 3 of Article 7(1) or from urban wastewater treatment plants serving agglomerations referred to in Article 7(3) and in Article 8 in accordance with those Articles shall, in addition to the requirements referred to in point 2, meet the requirements shown in Table 2 of this Annex, except in cases where Article 7(5) is applied.
- 4. Discharges from urban wastewater treatment plants referred to in Article 8(1) or from urban wastewater treatment plants serving agglomerations and included in the list referred to in Article 8(24) shall, in addition to the requirements referred to in points 2 and 3, meet the requirements set out in Table 3 of this Annex.
- 5. Authorisations and/or regulations for discharges from urban wastewater treatment plants using plastic biomedia shall include an obligation to permanently monitor and prevent all unintentional such biomedia from being released into receiving waters the environment.
- 6. More stringent requirements than those set out in Tables 1, 2 and 3 shall be applied where necessary to ensure that the receiving waters fulfil the requirements laid down in Directives 2000/60/EC, 2008/56/EC, 2008/105/EC and 2006/7/EC.
- The points of discharge of urban wastewater shall be chosen, as far as possible, so as to minimize the harmful effects on receiving waters.

C. Specific Authorisations for discharge of non-domestic wastewater

- 1. The **prior regulations and/or** specific authorisation referred to in Article 14(1) shall ensure the following:
 - (a) the polluting substances contained in the non-domestic wastewater do not impede the operation of the wastewater treatment plant, do not damage collecting systems, wastewater treatment plants and associated equipment and do not prevent the reuse of treated water and the recovery of **nutrients or other materials from urban wastewater or** sludge;

- (b) the polluting substances contained in the non-domestic wastewater do not harm the health of the staff working in collecting systems and urban wastewater treatment plants;
- (c) the polluting substances contained in the non-domestic wastewater can be abated by the urban wastewater treatment plant;
- (d) where an urban wastewater treatment plant treats discharges from an installation holding a permit referred to in Article 4 of Directive 2010/75/EU, the pollutant load from the discharges of that plant does not exceed the pollutant load that would be discharged if the discharges were released directly from the installation and were compliant with the emission limit values **applicables according to this Directive**; set in accordance with Article 15(3) of that Directive and any additional measures taken in accordance with Article 18 of that Directive;
- (e) the pollutant load in the discharge from the urban wastewater treatment plant does not deteriorate the good ecological status or potential or good chemical status of the receiving water body and does not prevent that water body from achieving such status, in accordance with the objectives set out in Article 4 of Directive 2000/60/EC.
- 2. The specific authorisation shall include an annex, which documents the fulfilment of all the conditions set out in point 1. The provisions of the specific authorisations shall be updated in the cases where the characteristics of the non-domestic wastewater, of the urban wastewater treatment plant or of the receiving water body change significantly to ensure that those conditions remain fulfilled.

D. METHODS FOR MONITORING AND EVALUATION OF RESULTS

1. Member States shall ensure that a monitoring method is applied which fulfils the requirements set out in points 2 to 5. All methods of analysis shall comply with minimum performance criteria as the ones defined in the Directive 2009/90/EC and other relevant rules.

Alternative methods to those referred to in points 2, 3 and 4 may be used provided that it can be demonstrated that equivalent results are obtained.

Member States shall provide the Commission with all relevant information concerning the applied monitoring method.

 Flow-proportional or time-based 24-hour samples shall be collected at the same welldefined point in the outlet and, if necessary, in the inlet of the urban wastewater treatment plant. However, any time-based samples used to monitor micropollutants shall may be 48-hour samples.

Good international laboratory practices aiming at minimizing the degradation of samples between collection and analysis shall be applied.

3. The minimum annual number of samples shall be determined according to the size of the treatment plant and be collected at regular intervals during the year:

1 250 to 9 999 p.e.:	One sample per month (see Note 1)
10 000 to 49 999 p. e.:	Two samples per month
	For micropollutants, one sample per month
50 000 to 99 999 149 999 p.e.:	One sample per week.
	For micropollutants, two samples per week month
100 000 150 000 p.e. or over -above:	One sample per day Two samples per week
	For micropollutants, two samples per week month

Note 1: For agglomerations concerned by seasonal activity, intervals of maximum two months without sampling are accepted provided that additional samples are taken during the months of seasonal activity. A total of 12 samples shall be taken throughout the year.

- 4. The treated **urban** wastewater shall be assumed to conform to the relevant parameters if, for each relevant parameter considered individually, samples of the water show that it complies with the relevant parametric value in the following way:
 - (a) for the parameters specified in Table 1 and Table 3, a maximum number of samples which are allowed to fail the requirements, expressed in concentrations and/or percentage reductions, is specified in Table 4;
 - (b) for the parameters of Table 1 expressed in concentrations, the failing samples taken under normal operating conditions must not deviate from the parametric values by more than 100%, except for the parameter total suspended solids, for which deviations from the parametric values of up to 150 % may be accepted;

- (c) for those parameters specified in Table 2 the annual mean of the samples for each parameter shall be conform to the relevant parametric values set out in that table. One or both parameters may be applied depending on the local situation. The values for concentration or for the minimum percentage of reduction shall apply;
- (d) for the parameters specified in Table 3, each sample taken shall be conform to the parametric values set out in that table the frequency of sampling referred to in paragraph 3 of Part D of Annex I means that one sample is taken in the inlet and one sample is taken in the outlet of the urban wastewater treatment plant in order to verify compliance with the minimum percentage of removal of table 3 of Annex I. The average percentage of removal of all substances used in the calculation shall be used in order to assess whether the required 80% minimum percentage of removal has been reached.
- 5. The samples shall be taken so that they reflect the pollution during dry weather flow. conditions. Extreme values for the water quality in question shall not be taken into consideration when they are the result of unusual situations due to heavy rain.
- Analyses concerning discharges from lagooning shall be carried out on filtered samples; however, the concentration of total suspended solids in unfiltered water samples of such discharges shall not exceed 150 mg/l.

Table 1: Requirements for discharges from urban waste water treatment plants subject to Article 6 of the Directive. The values for concentration or for the percentage of reduction shall apply.

	1	1	
Parameters	Concentration	Minimum percentage of reduction ⁴⁸ (see Note 4)	Reference method of measurement
Biochemical oxygen demand (BOD ₅ at 20 °C) without nitrification (see Note 1)	25 mg/l O ₂	70-90 40 under Article 4 (2) 6(3)	Homogenized, unfiltered, undecanted sample. Determination of dissolved oxygen before and after five- day incubation at 20 °C \pm 1 °C, in complete darkness. Addition of a nitrification inhibitor
Chemical oxygen demand (COD) (See Note 2)	125 mg/l O ₂	75	Homogenized, unfiltered, undecanted sample Potassium dichromate
Total Organic Carbon (See Note 2)	37 mg/l	75	EN 1484
Total suspended solids	35 mg/l (see Note 3)	90 (see Note 3)	 Filtering of a representative sample through a 0,45 μm filter membrane. Drying at 105 °C and weighing
			 Centrifuging of a representative sample (for at least five mins with mean acceleration of 2800 to 3200 g), drying at 105 °C and weighing

Note 1: The parameter can be replaced by another parameter: total organic carbon (TOC) or total oxygen demand (TOD) if a relationship can be established between BOD₅ and the substitute parameter.

⁴⁸— Reduction in relation to the load of the influent.

Note 2: Member States shall measure either the Chemical oxygen demand (COD) or the Total Organic Carbon.

Note 3: This requirement is optional.

Note 4: Reduction in relation to the load of the influent.

Table 2: Requirements for tertiary treatment of discharges from urban wastewater treatment plants referred to in Article 7(1) and or from urban waste water treatmet plants serving agglomerations referred to in Article 7(3). For discharges from urban wastewater treatment plants referred to in Article 7(1), both parameters shall apply. For agglomerations referred to in Article 7(3), Θ one or both parameters may be applied depending on the local situation. The values for concentration or for the percentage of reduction shall apply.

Parameters	Concentration	Minimum percentage of reduction ⁴⁹ (See Note 1)	Reference method of measurement
Total phosphorus (see Note 2)	0,5 mg/l 1 mg/l (10 000 – 150 000 p.e.) 0,5 mg/l (more than 150 000 p.e.)	90 87,5	Molecular absorption spectrophotometry
Total nitrogen (see Note 2)	6 mg/L 10 mg/l (10 000 – 150 000 p.e.) 8 mg/l (more than 150 000 p.e.) (see Note 3)	85 80 (see Note 1a)	Molecular absorption spectrophotometry

Note 1: Natural nitrogen retention shall not be taken into account in the calculation of the minimum percentage Rreduction in relation to the load of the influent or to the load generated in an agglomeration if the same level of environmental protection can be ensured. If a fraction of treated urban wastewater is used for agricultural irrigation, nutrients in that fraction may be included in the calculation of the influent load and be excluded from the discharged load.

⁴⁹—Reduction in relation to the load of the influent.

Note 1a: In exceptional situations due to specific local circumstances where it is demonstrated that part of Nitrogen originated from urban wastewater can be eliminated in the receiving waters, natural nitrogen retention may be taken into account in Member States where natural nitrogen retention was taken into account in the calculation of the minimum percentage reduction of Nitrogen referred to under table 2 of Annex I of Council Directive 91/271/EEC until [OP please insert the date = last day of the fifteenth year after the entry into force of the Directive] for the calculation of the minimum percentage reduction of nitrogen referred to in table 2 of Part B of Annex I if all the following conditions are fulfilled:

- (1) the average hydraulic retention time of the discharged effluent is at least 1,5 years before it reaches the area sensitive to nitrogen designated under Article 7(2);
- (2) continuous monitoring and assessment programme of the total nitrogen parameter is ensured:
 - (a) in the outlets of all urban wastewater treatment plants and where relevant in the urban runoff from agglomerations of 1 250 p.e. and above located in the catchment area of the area designated sensitive to nitrogen under Article 7(2); and
 - (b) in the relevant inlets of the concerned area designated under Article 7(2); and
 - (c) at the representative sampling locations in the receiving waters and relevant water bodies in the catchment area of the concerned area designated under Article 7(2);
- (3) the minimum percentage reduction for nitrogen of Table 2 is met; this percentage shall be calculated on the basis of the data collected from continuous monitoring and assessment programme referred to in point (2);
- (4) it can be demonstrated that nitrogen releases from urban wastewater treatment plants in the catchment area are not harmful for the environment, including for biodiversity, and human health and do not modify the ecosystem;

- (5) the concentration of nutrients in the areas referred to in point (c) of condition (2) are compliant with the condition set under Annex V.1.2.1 of Directive 2000/60/EC to define good ecological status of those areas;
- (6) the use of natural nitrogen retention is reported to the Commission in accordance with Article 22(1)(a), as well to potentially affected neighboring Member States, together with all the elements necessary to verify that conditions (1), (2), (3), (4) and (5) above are fulfilled.

Note 2: This requirement shall apply on [OP please insert the date = date of adoption of this Directive] to existing urban wastewater treatment plants obliged to meet the deadlines established under Article 7(1) and to agglomerations under Article 7(3). Until these deadlines are met, the obligations of Article 32(3) shall apply to these urban wastewater treatment plants.

Note 3: Where the temperature in the effluent of the biological reactor is below 12 °C, including situations where the effluent of the biological reactor is below 5 °C, the results of the samples taken may be excluded from the calculation of the annual mean for nitrogen as referred to in point (4)(c) of Part D of this Annex where all the following can be demonstrated:

- (1) no adverse effect to the environment is ensured;
- (2) excessive costs and/or excessive energy consumption would be required to reach the values for nitrogen in Table 2.

Table 3: Requirements for quaternary treatment of discharges from urban wastewater treatment plants referred to in Article 8 (1) and or from urban wastewater treatment plants serving agglomerations referred to in Article 8(34).

Indicators	Minimum percentage of removal in relation to the load of the influent
Substances that can pollute water even at low concentrations (see Note 1)	80 % (see Note 2)

Note 1: The concentration of the organic substances referred to in points (a) and (b) shall be measured.

(a) Category 1 (substances that can be very easily treated):

(i) Amisulprid (CAS No 71675-85-9),

- (ii) Carbamazepine (CAS No 298-46-4),
- (iii) Citalopram (CAS No 59729-33-8),
- (iv) Clarithromycin (CAS No 81103-11-9),
- (v) Diclofenac (CAS No 15307-86-5),
- (vi) Hydrochlorothiazide (CAS No 58-93-5),
- (vii) Metoprolol (CAS No 37350-58-6),
- (viii) Venlafaxine (CAS No 93413-69-5);
- (b) Category 2 (substances that can be easily disposed of):
 - (i) Benzotriazole (CAS No 95-14-7),
 - (ii) Candesartan (CAS No 139481-59-7),
 - (iii) Irbesartan (CAS No 138402-11-6),
 - (iv) mixture of 4-Methylbenzotriazole (CAS No 29878-31-7) and 56-methyl- benzotriazole (CAS No 136-85-6).

Note 2: The percentage of removal shall be calculated for at least six substances. The number of substances in category 1 shall be twice the number of substances in category 2. If less than six substances can be measured in sufficient concentration, the competent authority shall designate other substances to calculate the minimum percentage of removal when it is necessary. The average of the **specific** percentages of removal of all **single** substances used in the calculation shall be used in order to assess whether the required 80 % minimum percentage of removal has been reached.

Table 4: Requirement for samples		
Series of samples taken in any year	Maximum permitted number of samples which fail to conform	
4-7	1	
8-16	2	
17-28	3	
29-40	4	
41-53	5	
54-67	6	
68-81	7	
82-95	8	
96-110	9	
111-125	10	
126-140	11	
141-155	12	
156-171	13	
172-187	14	
188-203	15	
204-219	16	
220-235	17	
236-251	18	
252-268	19	
269-284	20	
285-300	21	
301-317	22	
318-334	23	
335-350	24	
351-365	25	

ANNEX 2 II. AREAS SENSITIVE TO EUTROPHICATION

- Areas located in the catchments of the Baltic Sea, the Black Sea, parts of the North Sea and parts of the Adriatic Sea identified as sensitive to eutrophication under Directive 2008/56/EC. and parts of the Adriatic Sea identified as sensitive to eutrophication under Directive 2008/56/EC;
- 2. Natural freshwater lakes, other freshwater bodies, estuaries and coastal waters which are found to be eutrophic or which in the near future may become eutrophic if protective action is not taken.

The following elements shall be taken into account when considering which nutrient should be reduced by further treatment:

- (a) lakes and streams reaching lakes/reservoirs/closed bays which are found to have a poor water exchange, whereby accumulation may take place. In these areas, the removal of phosphorus should be included unless it can be demonstrated that the removal will have no effect on the level of eutrophication. Where discharges from large agglomerations are made, the removal of nitrogen may also be considered;
- (b) estuaries, bays and other coastal waters which are found to have a poor water exchange, or which receive large quantities of nutrients. Discharges from small agglomerations are usually of minor importance in those areas, but for large agglomerations, the removal of phosphorus and/or nitrogen should be included unless it can be demonstrated that the removal will have no effect on the level of eutrophication;
- Surface freshwaters intended for the abstraction of drinking water which could contain more than the concentration of nitrate laid down under the relevant provisions of Directive (EU) 2020/2184 if protective action is not taken;

- 4. Areas where further treatment than that prescribed in Article 7 of this Directive is necessary to comply with other Union acts in the environmental field, including in particular water bodies covered by Directive 2000/60/EC which are at risk of not maintaining or achieving good ecological status or potential.
- 5. Any other areas found by the Member States to be sensitive to eutrophication.

ANNEX **3 III**. LIST OF PRODUCTS COVERED BY EXTENDED PRODUCER RESPONSIBILITY

- Medicinal products for human use falling within the scope of Directive 2001/83/EC of the European Parliament and of the Council⁵⁰.
- Cosmetic products falling within the scope of Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products⁵¹.

⁵⁰ Directive 2001/83/EC of the European Parliament and of the Council of 6 November 2001 on the Community code relating to medicinal products for human use (*OJ L 311, 28.11.2001, p. 67–128*).

⁵¹ Regulation (EC) No 1223/2009 of the European Parliament and of the Council of 30 November 2009 on cosmetic products (OJ L 342, 22.12.2009, p. 59–209).

ANNEX 4 IV. INDUSTRIAL SECTORS

- 1. Milk-processing
- 2. Manufacture of fruit and vegetable products
- 3. Manufacture and bottling of soft drinks
- 4. Potato-processing
- 5. Meat industry
- 6. Breweries
- 7. Production of alcohol and alcoholic beverages
- 8. Manufacture of animal feed from plant products
- 9. Manufacture of gelatine and of glue from hides, skin and bones
- 10. Malt-houses
- 11. Fish-processing industry

ANNEX 5-V. CONTENT OF THE INTEGRATED URBAN WASTEWATER MANAGEMENT PLANS

- An analysis of the initial situation of the drainage area of the urban wastewater treatment plant of the concerned agglomeration, including at least the following:
 - (a) a detailed description of the network of collecting systems, the urban wastewater and urban runoff storage and conducting capacities of that network and the existing urban wastewater treatment capacities in case of rainfall;
 - (b) In case of combined sewers, a dynamic analysis of the flows of urban runoff and urban wastewaters in case of rainfall, based on monitoring data or the use of hydrological, hydraulic and water quality models that take into account state-of-the-art climate projections and including an estimate of the pollution loads of the parameters referred to in Table 1 and, where relevant, Table 2 of Annex I as well as microplastics and relevant pollutants released in receiving waters in case of rainfall;
 - (c) In case of separate sewers, a detailed description of the monitoring requirements at relevant points of separate systems where discharges of urban runoff are expected to be polluted as identified under Art. 5(2), point (d), to identify relevant and feasible measures as required in paragraph 3 of this Annex.
- Objectives for the reduction of pollution from storm water sewer overflows and urban runoff, including the following:
 - (a) an indicative objective that storm water sewer overflow, represents no more than 1 % only a small percentage, preferably below 2% of the annual collected urban wastewater load calculated in dry weather conditions;

This indicative target shall objective should be met by:

- (i) 31 December 2035 2040 for all agglomerations of 100 000 p.e. and above;
- (ii) 31 December 2040 2045 for agglomerations of 10 000 p.e. and above identified in accordance with paragraph 2 of referred to in Article 5;

- (b) the progressive reduction of macroplastics.elimination of untreated discharges of urban runoff through separate collection networks, unless it can be demonstrated that those discharges do not cause adverse impacts on the quality of receiving waters;
- 3. The measures to be taken to achieve the objectives referred to in point 2 and to reduce the pollution from urban runoff discharges in separate systems, based on the outcome of the monitoring in Article 21(2), accompanied with a clear identification of the actors involved and their responsibilities in the implantation implementation of the integrated plan.
- 4. When assessing which measures to be taken under point 3, Member States shall ensure that their competent authorities consider at least the following:
 - (a) firstly, preventive measures aiming at avoiding the entry of unpolluted rain waters into collecting systems, including measures promoting natural water retention or rainwater harvesting, and measures increasing green spaces or limiting impermeable surfaces in the agglomerations;
 - (b) secondly, measures to better manage and optimize the use of existing infrastructure including collecting systems, storage volumes, urban wastewater treatment plants with the aim to ensure that polluted rain waters are collected and treated, and releases of untreated urban wastewater or polluted urban runoff into receiving waters are minimised;
 - (c) finally, where necessary to achieve the objectives referred to in point 2, additional mitigation measures including the adaptation of the infrastructure for the collection, storage and treatment of urban wastewater or the creation of new infrastructures with a priority to green infrastructure such as vegetated ditches, treatment wetlands and storage ponds designed in order to support biodiversity. Where relevant, water reuse shall be considered in the context of the development of the integrated urban wastewater management plans referred to in Article 5.

ANNEX 6 VI. INFORMATION TO THE PUBLIC

- (1) The competent authority and the operator(s) responsible for urban wastewater collection and treatment services, including information on the ownership structure of the operators and their contact information.
- (2) The total urban wastewater load expressed in population equivalents (p.e.) generated in the agglomeration, with details on the share of that load (in %) that is:
 - (a) collected and treated in urban wastewater treatment plants;
 - (b) treated by registered individual systems;
 - (c) not collected or treated.
- (3) Where relevant, a justification for why a certain load of urban wastewater is not collected or treated.
- (4) Information on the quality of the urban wastewater discharged from the agglomeration to each receiving water body, including the following elements:
 - (a) annual average concentrations and the load of pollutants covered by Article 21 released by each urban wastewater treatment plant;
 - (b) an estimate of the load of the discharges from individual systems for the parameters referred to in Tables 1 and 2 of Annex I;
 - (c) for agglomerations of 10 000 p.e. and above, an estimate of the load of the discharges from combined sewer and separate sewer collecting systems for urban runoff and storm water sewer overflows for the parameters referred to in Tables 1 and 2 of Annex I.

- (5) total annual investment costs and total annual operational costs, with a distinction between collection and treatment costs, total annual costs related to staff, energy, consumables, administration and other costs as well as average annual investment and operational costs per household and per cubic meter of urban wastewater collected and treated, and per average household where costs are recovered totally or partly through a water tariff system or per agglomeration level in other cases;
- (6) information on how the costs referred to in point 5 are covered and, where costs are recovered through a tariff system, information on the structure of the tariff per cubic meter of urban wastewater collected and treated information on the structure of the tariff either per cubic meter of urban wastewater collected and treated or per cubic meter of water supplied, including fixed and variable costs and a breakdown between costs for collection, treatment, administration and other costs;
- investment plans for urban wastewater collection and treatment infrastructures at agglomeration level, with foreseen impacts on urban wastewater services tariffs, and intended financial and societal benefits;
- (8) for each urban wastewater treatment plant in the agglomeration of 10 000 p.e. and above:
 - (a) the total load (in p.e.) treated and the energy required to treat the urban wastewater (in kWh total and per cubic meter);
 - (b) the total renewable energy produced (GWh/year) each year, including a breakdown per source of energy;
 - (c) the tonnes of CO₂-equivalent produced or avoided per year due to the operation of the urban wastewater treatment plant.

- (9) the total greenhouse gas emissions (in tonnes of CO₂ equivalent) produced or avoided per year by the operation of urban wastewater collection and treatment infrastructures of 10 000 p.e. and above in each agglomeration and, if available, the total greenhouse gas emissions (in tonnes of CO₂ equivalent) produced during the construction of those infrastructures;
- a summary of the nature and statistics regarding complaints and of the answers provided by the urban wastewater treatment plant operators on matters falling within the scope of this Directive.

ANNEX 7 VII

Part A

Repealed Directive

with list of the successive amendments thereto

(referred to in Article [19])

Council Directive 91/271/EEC (OJ L 135, 30.5.1991, p. 40)	
Commission Directive 98/15/EC (OJ L 67, 7.3.1998, p. 29)	
Regulation (EC) No 1882/2003 of the European Parliament and of the Council (OJ L 284, 31.10.2003, p. 1)	only Annex III, point 21
Regulation (EC) No 1137/2008 of the European Parliament and of the Council (OJ L 311, 21.11.2008, p. 1)	only Annex, point 4.2
Council Directive 2013/64/EU (OJ L 353, 28.12.2013, p. 8)	only Article 1

Part B

Time-limits for transposition into national law

Directive	Time-limit for transposition
91/271/EC	30 June 1993
98/15/EC	30 September 1998
2013/64/EU	 31 December 2018 as regards Article 1(1), (2) and (3) 30 June 2014 as regards Article 1(5), point (a) 31 December 2014 as regards Article 1(5), point (b)

ANNEX 8 VIII

Correlation Table

Directive 91/271/EC	This Directive
Article 1	Article 1
Article 2, introductory wording	Article 2, introductory wording
Article 2, points 1 to 4	Article 2, points 1 to 4
-	Article 2, points 5 and 6
Article 2, point 5	Article 2, point 7
-	Article 2, points 8 and 9
Article 2, point 6	Article 2, point 10
Article 2, point 8	Article 2, point 11
-	Article 2 ,points 12 and 13
Article 2, point 10	Article 2, point 14
Article 2, point 11	Article 2, point 15
-	Article 2, point 16 to 23
Article 3(1)	Article 3(1)
-	Article 3(2)
Article 3(2)	Article 3(3)
Article 3(1) third subparagraph	Article 4(1)
-	Article 4(2)
-	Article 4(3)
-	Article 4(4)
-	Article 4(5)
-	Article 5
Article 4(1)	Article 6(1)
-	Article 6(2)

-	Article 6(3)
Article 4(4)	Article 6(4)
-	Article 7(1)
-	Article 7(2)
Article 5(2)	Article 7(3)
-	Article 7(4)
Article 5(4)	Article 7(5)
Article 5(5)	Article 7(6)
Article 5(7)	Article 7(7)
-	Article 8
-	Article 9
-	Article 10
-	Article 11
Article 9	Article 12(1)
-	Article 12(2)
Article 10	Article 13
Article 11(1)	Article 14(1)
-	Article 14(2)
-	Article 14(3)
Article 11(3)	Article 14(4)
-	Article 15(1)
Article 12(2)	Article 15(2)
Article 12(3)	Article 15(3)
-	Article 16
-	Article 17
-	Article 18
-	Article 19

-	Article 20
Article 15(1)	Article 21(1)
-	Article 21(2)
-	Article 21(3)
-	Article 22
Article 17(1)	Article 23(1)
-	Article 23(2)
-	Article 23(3)
-	Article 23(4)
-	Article 24
-	Article 25
-	Article 26
-	Article 27
Article 18	Article 28
-	Article 29
-	Article 30
-	Article 31
-	Article 32
Article 19	Article 33
-	Article 34
Article 20	Article 35
Annex I	Annex I(A)
Annex I(B)	Annex I(B)
Annex I(C)	Annex I(C)
Annex I(D)	Annex I(D)
Annex II	Annex II
-	Annex III

Annex III	Annex IV
-	Annex V
-	Annex VI
-	Annex VII
-	Annex VIII