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# NEW WASTEWATER DIRECTIVE

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# **New Wastewater Directive – European Commission**

[Link and comments](#)

<https://data.consilium.europa.eu/doc/document/PE-85-2024-INIT/en/pdf>

The directive has been negotiated and adopted in this form by all countries. We will wait for its transposition into national law

# **New Wastewater Directive**

## Justification for the New Directive

**In 2019, an evaluation of the old Water Directive (from 1991) took place.**

The evaluation showed a significant improvement in water quality as a result of the directive's implementation.

However, it revealed three challenges that were not fully addressed:

1. Not all groups of pollutants (e.g., microplastics) were covered, and smaller wastewater sources (e.g., below 2000 PE) were not adequately addressed.
2. A reduction in greenhouse gas emissions in the wastewater sector is needed.
3. The level of transparency is highly variable and, in many areas, insufficient.

# New Wastewater Directive

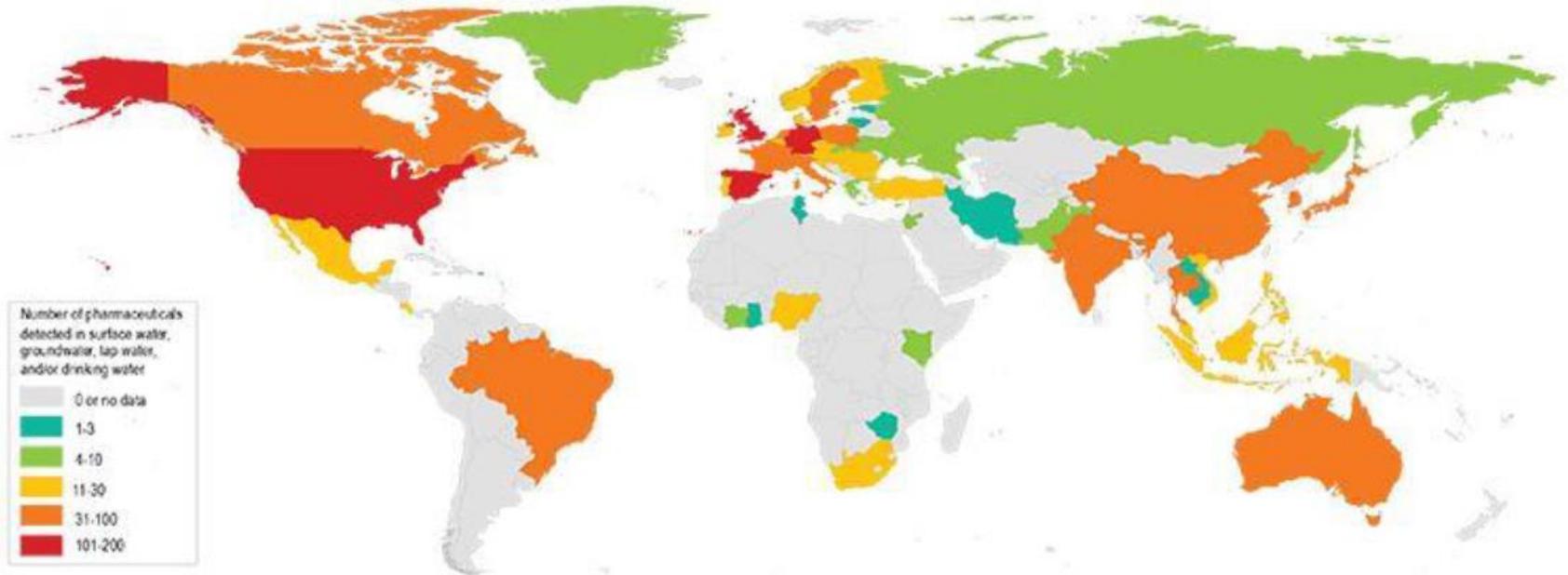
## Justification for the New Directive

Category	BOD (PE)	Total Nitrogen (PE)	Total Phosphorus (PE)	E. Coli (PE)	Micropollutants (PE)
Untreated load from overflows, decentralized treatment systems, small agglomerations, etc.	39 395 298	57 159 194	54 993 361	51 224 149	105 766 283
Untreated load from 517 million PE sent to centralized systems	26 752 894	133 967 530	93 607 423	19 886 613	158 360 974
Total untreated load (1) + (2)	66 148 182	191 126 724	148 600 784	71 110 762	264 127 257
Untreated load assuming maximum and feasible treatment implementation	34 239 042	88 219 608	47 658 013	5 736 591	130 837 224
% of untreated load that is 'possible to treat' ((3)-(4))/(3)	48.24%	53.84%	67.93%	91.93%	50.46%

<https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A52022SC0541>

# New Wastewater Directive

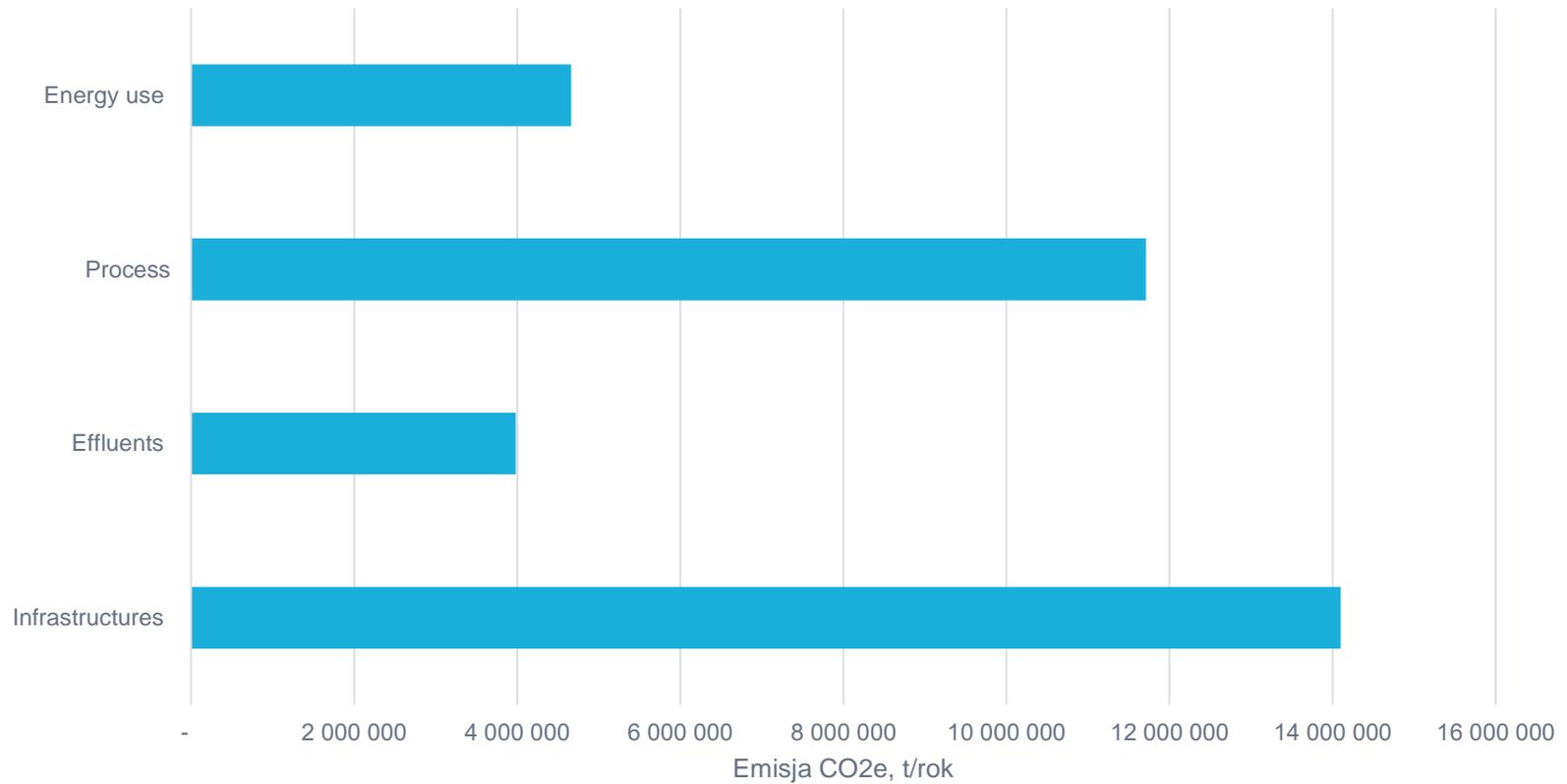
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# New Wastewater Directive

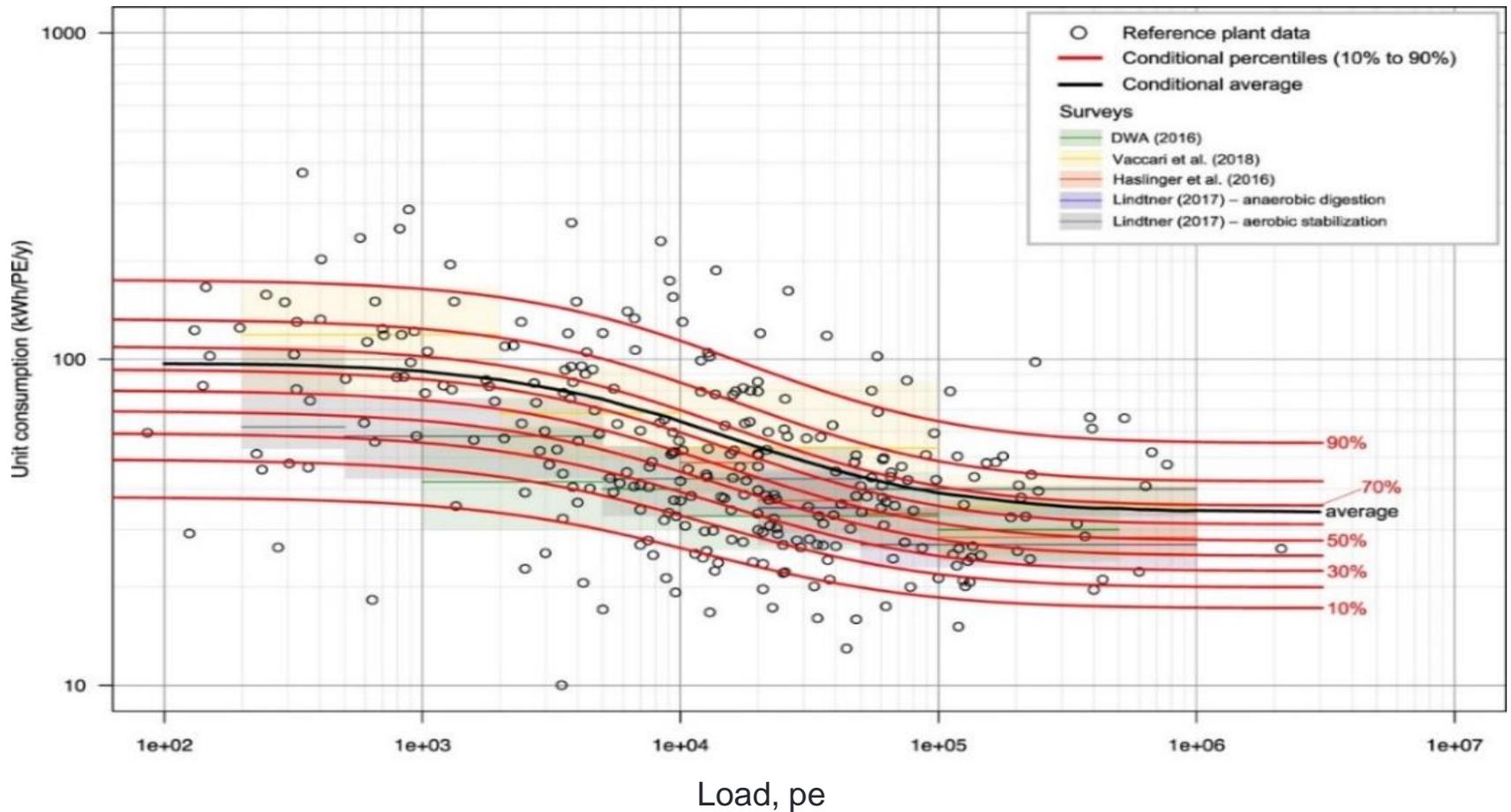
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# New Wastewater Directive

## Justification for the New Directive



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# New Wastewater Directive

## Extension

The scope of the directive has been expanded

**BEFORE:** Environmental protection

**NOW: Environmental protection + Health protection + Greenhouse gas emissions + Transparency and management in the water and sewage sector**

# New Wastewater Directive

## Nitrogen and phosphorus

Parameter	Concentration	Minimal reduction
Total phosphorus	0,5 – 0,7 mg/l	90
		
Total nitrogen	8-10 mg/l	85
		

**There are no significant changes regarding organic compounds. Only OWO has been added (it can be used instead of COD).**

# New Wastewater Directive

## Micropollutants

Parameter	Minimal reduction
Micropollutants (see note no.1)	80 % (see note no.2)

Effectiveness is measured based on the analysis of at least 6 micropollutants, with Group I containing twice as many micropollutants as Group II (see next slide).

# New Wastewater Directive

## Micropollutants

- (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);

# New Wastewater Directive

## Micropollutants

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 5-methyl-benzotriazole (CAS No 136-85-6).

# **New Wastewater Directive**

## Micropollutants – responsibility of producers

**According to the assumptions, micropollutant producers should bear the costs of their treatment. In principle, any investments or additional operational costs should be covered by the manufacturer.**

# New Wastewater Directive

## Effluent quality monitoring – sample number

— PE 1 000 do 9 999: <sub>i</sub>	One sample per month
— PE 10 000–49 999:	Two samples per month  In case of micropollutants - one sample per month
— PE 50 000 –149 999 <sub>j</sub> :	One sample per week  In case of micropollutants - two samples per month
— PE > 150 000:	Two samples per week  In case of micropollutants - two samples per month

# New Wastewater Directive

## Monitoring

For **PE >10,000**, there is an obligation to **monitor a very broad spectrum** of parameters at the inlet and outlet of wastewater treatment plants for substances specified in:

- Annex VIII and X to Directive 2000/60/EC,
- Annex to Directive 2008/105/EC,
- Annex I to Directive 2006/118/EC and
- Part B of Annex II to Directive 2006/118/EC,
- Annex to Decision 2455/2001/EC of the European Parliament and the Council,
- Annex II to Regulation (EC) No 166/2006 of the European Parliament and the Council,
- Annex I and II to Directive 86/278/EEC,
- As well as parameters listed in Part B of Annex III to Directive (EU) 2020/2184, in cases where municipal wastewater is discharged into the catchment area referred to in Article 8 of this directive

# New Wastewater Directive

## Monitoring

### Monitoring Obligation for SARS-COV-2

- To be implemented in case of a declared public health threat.
- Samples to be taken **once per week** (for PE >100,000).
- Monitoring should cover a stream representing at least **70% of the population** (meaning smaller treatment plants are not excluded from monitoring!).

### For PE >10,000, there is a monitoring obligation for:

- Greenhouse gas emissions,
- Energy consumption,
- Microplastics (including in sludge).

# New Wastewater Directive

## Public access to information

Among the information publicly available on the Internet will also be:

- The total municipal wastewater load expressed in population equivalents (PE) generated in the agglomeration,
- Justification for why a specific municipal wastewater load is not collected or treated,
- Information on the quality of discharged municipal wastewater,
- Total annual investment costs and total annual operational costs (detailed),**
- Information on cost coverage methods,**
- Investment plans,**
- Summary of the nature and statistics of complaints and responses provided.

# New Wastewater Directive

## Risk control and assessment

**New Obligation:** Assessment and management of risks to the environment and human health caused by municipal wastewater discharges.

**In case of risk occurrence:** Implementation of appropriate actions exceeding the minimum requirements of the directive.

# New Wastewater Directive

## Combined sewer overflows

**By December 31, 2033**, integrated municipal wastewater management plans must be developed for agglomerations with a PE of 100,000 or more, aimed at combating pollution from stormwater (urban runoff and storm overflows). These plans will include specific targets for pollution reduction!

# New Wastewater Directive

## Combined sewer overflows

These plans must include an **initial condition analysis**, covering:

- The current capacity for treating stormwater wastewater.
- The use of mathematical models to analyze urban runoff and municipal wastewater flows, incorporating the latest climate forecasts and estimating pollutant loads released into receiving waters during rainfall events.

# New Wastewater Directive

## Combined sewer overflows

These plans must also include **pollution reduction targets for storm overflows and urban runoff**, including a **guideline objective** stating that stormwater overflows should account for no more than **1% of the annual load of collected municipal wastewater**, calculated under dry weather conditions (**deadline: December 31, 2035**).

- The gradual elimination of untreated urban wastewater discharges through **separate collection networks**, unless it can be demonstrated that these discharges do not have a negative impact on the quality of the receiving waters.

# New Wastewater Directive

## Inne zagadnienia

- **Incentives for wastewater reuse**

- In the future, additional legal requirements may be introduced to regulate **minimum recovery rates for phosphorus (P) and nitrogen (N) from sewage sludge**

- New provisions have been introduced allowing claims for **compensation, including collective claims**, in cases of health damage resulting from violations of national measures adopted based on the directive

- New provisions have been introduced requiring **penalties for violations of national regulations related to the implementation of directives**

# New Wastewater Directive

## Deadlines

	2033	2036	2039	2045
<b>Nitrogen and phosphorus</b>	20% WWTPs bigger than 10 000 pe	40% WWTPs bigger than 10 000 pe	60% WWTPs bigger than 10 000 pe	100% WWTPs bigger than 10 000 pe

WWTP – wastewater treatment plant

# New Wastewater Directive

## Deadlines

	2033	2036	2039	2045
<b>Micropollutants</b>	10% WWTPs bigger than 10 000 pe	30% WWTPs bigger than 10 000 pe	60% WWTPs bigger than 10 000 pe	100% WWTPs bigger than 10 000 pe

# New Wastewater Directive

## Deadlines

	2028	2032	2035	2045
<b>Energy</b>	Energy audits for wastewater treatment plants with a PE above 100,000.	Energy audits for all wastewater treatment plants with a PE above 10,000. Intermediate goal.	Intermediate goal in achieving energy neutrality.	Achieving the goal of energy neutrality and the associated goal of reducing greenhouse gas emissions.