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From:	Secretary-General of the European Commission, signed by Ms Martine DEPREZ, Director
date of receipt:	27 October 2022
To:	Ms Thérèse BLANCHET, Secretary-General of the Council of the European Union

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Subject:	ANNEXES to the Proposal for a Directive of the European Parliament and of the Council amending Directive 2000/60/EC establishing a framework for Community action in the field of water policy, Directive 2006/118/EC on the protection of groundwater against pollution and deterioration and Directive 2008/105/EC on environmental quality standards in the field of water policy
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Delegations will find attached document COM(2022) 540 final - ANNEXES 1 to 6.

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Encl.: COM(2022) 540 final - ANNEXES 1 to 6



Brussels, 26.10.2022  
COM(2022) 540 final

ANNEXES 1 to 6

## ANNEXES

to the

**Proposal for a Directive of the European Parliament and of the Council  
amending Directive 2000/60/EC establishing a framework for Community action in the  
field of water policy, Directive 2006/118/EC on the protection of groundwater against  
pollution and deterioration and Directive 2008/105/EC on environmental quality  
standards in the field of water policy**

{SEC(2022) 540 final} - {SWD(2022) 540 final} - {SWD(2022) 543 final}

## ANNEX I

Annex V to Directive 2000/60/EC is amended as follows:

(1) points 1.1.1. to 1.1.4. are replaced by the following:

### **1.1.1. Rivers**

Biological elements

Composition and abundance of aquatic flora

Composition and abundance of benthic invertebrate fauna

Composition, abundance and age structure of fish fauna

Hydromorphological elements supporting the biological elements

Hydrological regime

quantity and dynamics of water flow

connection to groundwater bodies

River continuity

Morphological conditions

river depth and width variation

structure and substrate of the river bed

structure of the riparian zone

General physico-chemical elements supporting the biological elements

Thermal conditions

Oxygenation conditions

Salinity

Acidification status

Nutrient conditions

### **1.1.2. Lakes**

Biological elements

Composition, abundance and biomass of phytoplankton

Composition and abundance of other aquatic flora

Composition and abundance of benthic invertebrate fauna

Composition, abundance and age structure of fish fauna

Hydromorphological elements supporting the biological elements

Hydrological regime

quantity and dynamics of water flow

residence time

connection to the groundwater body

Morphological conditions

lake depth variation

quantity, structure and substrate of the lake bed

structure of the lake shore

General physico-chemical elements supporting the biological elements

Transparency

Thermal conditions

Oxygenation conditions

Salinity

Acidification status

Nutrient conditions

### **1.1.3. Transitional waters**

Biological elements

Composition, abundance and biomass of phytoplankton

Composition and abundance of other aquatic flora

Composition and abundance of benthic invertebrate fauna

Composition and abundance of fish fauna

Hydro-morphological elements supporting the biological elements

Morphological conditions

depth variation

quantity, structure and substrate of the bed

structure of the intertidal zone

Tidal regime

freshwater flow

wave exposure

General physico-chemical elements supporting the biological elements

Transparency

Thermal conditions

Oxygenation conditions

Salinity

Nutrient conditions

#### **1.1.4. Coastal waters**

Biological elements

Composition, abundance and biomass of phytoplankton

Composition and abundance of other aquatic flora

Composition and abundance of benthic invertebrate fauna

Hydromorphological elements supporting the biological elements

Morphological conditions

depth variation

structure and substrate of the coastal bed

structure of the intertidal zone

Tidal regime

direction of dominant currents

wave exposure

General physico-chemical elements supporting the biological elements

Transparency

Thermal conditions

Oxygenation conditions

Salinity

Nutrient conditions.’;

- (2) in point 1.2.1, the table ‘Physio-chemical quality elements’ is replaced by the following:

‘General physico-chemical quality elements

<b>Element</b>	<b>High status</b>	<b>Good status</b>	<b>Moderate status</b>
General conditions	The values of the general physico-chemical elements correspond totally or nearly totally to undisturbed conditions.  Nutrient concentrations remain within the range normally associated with undisturbed conditions.  Levels of salinity, pH, oxygen balance, acid neutralising capacity and temperature do not show signs of anthropogenic disturbance and remain within the range normally associated with undisturbed conditions.	Temperature, oxygen balance, pH, acid neutralising capacity and salinity do not reach levels outside the range established so as to ensure the functioning of the type specific ecosystem and the achievement of the values specified above for the biological quality elements.  Nutrient concentrations do not exceed the levels established so as to ensure the functioning of the ecosystem and the achievement of the values specified above for the biological quality elements.	Conditions consistent with the achievement of the values specified above for the biological quality elements.’;

- (3) in point 1.2.2, the table ‘Physio-chemical quality elements’ is replaced by the following:

‘General physico-chemical quality elements

<b>Element</b>	<b>High status</b>	<b>Good status</b>	<b>Moderate status</b>
General conditions	The values of the general physico-chemical elements correspond totally or nearly	Temperature, oxygen balance, pH, acid neutralising capacity,	Conditions consistent with the achievement of the values specified above for

<p>totally to undisturbed conditions.</p> <p>Nutrient concentrations remain within the range normally associated with undisturbed conditions.</p> <p>Levels of salinity, pH, oxygen balance, acid neutralising capacity, transparency and temperature do not show signs of anthropogenic disturbance and remain within the range normally associated with undisturbed conditions.</p>	<p>transparency and salinity do not reach levels outside the range established so as to ensure the functioning of the ecosystem and the achievement of the values specified above for the biological quality elements.</p> <p>Nutrient concentrations do not exceed the levels established so as to ensure the functioning of the ecosystem and the achievement of the values specified above for the biological quality elements.</p>	<p>the biological quality elements.’;</p>
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- (4) in point 1.2.3, the table ‘Physio-chemical quality elements’ is replaced by the following:

‘General physico-chemical quality elements

<b>Element</b>	<b>High status</b>	<b>Good status</b>	<b>Moderate status</b>
General conditions	<p>The general physico-chemical elements correspond totally or nearly totally to undisturbed conditions.</p> <p>Nutrient concentrations remain within the range normally associated with undisturbed conditions.</p> <p>Temperature, oxygen balance and transparency do not show signs of anthropogenic disturbance and remain within the range normally associated with undisturbed conditions.</p>	<p>Temperature, oxygenation conditions and transparency do not reach levels outside the ranges established so as to ensure the functioning of the ecosystem and the achievement of the values specified above for the biological quality elements.</p> <p>Nutrient concentrations do not exceed the levels established so as to ensure the functioning of the ecosystem and the achievement of the values specified above for the biological quality elements.</p>	<p>Conditions consistent with the achievement of the values specified above for the biological quality elements.’;</p>

- (5) in point 1.2.4, the table ‘Physio-chemical quality elements’ is replaced by the following:

‘General physico-chemical quality elements

Element	High status	Good status	Moderate status
General conditions	The general physico-chemical elements correspond totally or nearly totally to undisturbed conditions. Nutrient concentrations remain within the range normally associated with undisturbed conditions. Temperature, oxygen balance and transparency do not show signs of anthropogenic disturbance and remain within the ranges normally associated with undisturbed conditions.	Temperature, oxygenation conditions and transparency do not reach levels outside the ranges established so as to ensure the functioning of the ecosystem and the achievement of the values specified above for the biological quality elements. Nutrient concentrations do not exceed the levels established so as to ensure the functioning of the ecosystem and the achievement of the values specified above for the biological quality elements.	Conditions consistent with the achievement of the values specified above for the biological quality elements.’;

(6) in point 1.2.5, the table is amended as follows:

- (a) the fifth row for the entry ‘Specific synthetic pollutants’ is deleted;
- (b) the sixth row for the entry ‘Specific non-synthetic pollutants’ is deleted;
- (c) the seventh row for table note (1) is deleted;

(7) point 1.2.6 is deleted;

(8) in point 1.3, the following fourth and fifth paragraphs are added:

‘Where the monitoring network involves earth observation and remote sensing rather than local sampling points, or other innovative techniques, the map of the monitoring network shall include information on the quality elements and the water bodies or groups of water bodies which have been monitored using such monitoring methods. Reference shall be made to CEN, ISO, or other international or national standards that have been applied to ensure that the temporal and spatial data obtained are as reliable as those obtained through the use of conventional monitoring methods at local sampling points.

Member States may apply passive sampling methods to monitor chemical pollutants, where appropriate, in particular for screening purposes, on the condition that those sampling methods do not underestimate the concentrations of pollutants for which environmental quality standards apply, and thus reliably identify “failure to achieve good status”, and that chemical analysis of water, biota or sediment samples, according to the environmental quality standards applied, is conducted wherever such failure is observed. Member States may also apply effect-based sampling methods subject to the same conditions.’;



- (9) in point 1.3.1., the last paragraph, 'Selection of quality elements', is replaced by the following:

*'Selection of quality elements*

Surveillance monitoring shall be carried out for each monitoring site for a period of one year during the period covered by a river basin management plan. The surveillance monitoring shall cover the following:

- (a) parameters indicative of all biological quality elements;
- (b) parameters indicative of all hydromorphological quality elements;
- (c) parameters indicative of all general physico-chemical quality elements;
- (d) priority list pollutants which are discharged or otherwise deposited into the river basin or sub-basin;
- (e) other pollutants discharged or otherwise deposited in significant quantities in the river basin or sub-basin.

However, where the previous surveillance monitoring exercise showed that the body concerned reached good status and there is no evidence from the review of impact of human activity referred to in Annex II that the impacts on the body have changed, the surveillance monitoring shall be carried out once during the period covered by three consecutive river basin management plans.;

- (10) point 1.3.2. is amended as follows:

'(a) in the third paragraph, 'Selection of monitoring sites', the first sentence is replaced by the following:

'Operational monitoring shall be carried out for all those bodies of water which on the basis of either the impact assessment carried out in accordance with Annex II or surveillance monitoring are identified as being at risk of failing to meet their environmental objectives under Article 4 and for those bodies of water into which priority list substances are discharged or otherwise deposited or into which river basin specific pollutants are discharged or otherwise deposited in significant quantities.;

(b) in the fourth paragraph, 'Selection of quality elements', the second indent is replaced by the following:

'– all priority substances discharged or otherwise deposited into water bodies and all river basin specific pollutants discharged or otherwise deposited into water bodies in significant quantities.;

- (11) in point 1.3.4, the table, the sixth row under the heading 'Physico-chemical', the words 'Other pollutants' are replaced by 'River basin specific pollutants';

- (12) point 1.4.1 is amended as follows:

- (a) in point (vii), the second sentence is deleted.;

(b) point (viii) is deleted;

(c) point (ix) is replaced by the following:

‘(ix) The results of the intercalibration exercise and the values established for the Member State monitoring system classifications in accordance with points (i) to (viii) shall be published within six months of the adoption of the delegated act in accordance with Article 20.’;

(13) in point 1.4.2, point (iii) is deleted;

(14) in point 1.4.3, the first paragraph, the first sentence is replaced by the following:

‘A body of water shall be recorded as achieving good chemical status where it is compliant with all the environmental quality standards set out in Part A of Annex I to Directive 2008/105/EC and the environmental quality standards established pursuant to Articles 8 and 8d of that Directive.’;

(15) in point 2.2.1., the following paragraph is added:

‘Where the monitoring network involves earth observation methods or remote sensing rather than local sampling points, or other innovative techniques, reference shall be made to CEN, ISO, or other international or national standards that have been applied to ensure that the temporal and spatial data obtained are as reliable as those obtained through the use of conventional monitoring methods at local sampling points.’;

(16) point 2.3.2. is replaced by the following:

### ‘2.3.2. Definition of good groundwater chemical status

Elements	Good status
General	<p>The chemical composition of the groundwater body is such that the concentrations of pollutants:</p> <ul style="list-style-type: none"><li>— as specified below, do not exhibit the effects of saline or other intrusions</li><li>— do not exceed the groundwater quality standards as referred to in Annex I to Directive 2006/118/EC, the threshold values for groundwater pollutants and indicators of pollution set pursuant to Article 3(1), point (b), of that Directive and the Union wide threshold values set pursuant to Article 8(3) of that Directive</li><li>— are not such as would result in failure to achieve the environmental objectives specified under Article 4 for associated surface waters nor any significant diminution of the ecological or chemical quality of such bodies nor in any significant damage to terrestrial ecosystems which depend directly on the groundwater body</li></ul>
Conductivity	<p>Changes in conductivity are not indicative of saline or other intrusion into the groundwater body’;</p>

(17) in point 2.4.1., the following paragraph is added:

‘Where the monitoring network involves earth observation or remote sensing rather than local sampling points, or other innovative techniques, reference shall be made to CEN, ISO, or other international or national standards that have been applied to ensure that the temporal and spatial data obtained are as reliable as those obtained through the use of conventional monitoring methods at local sampling points.’;

(18) point 2.4.5. is replaced by the following:

‘2.4.5. Interpretation and presentation of groundwater chemical status

In assessing the chemical status of groundwater, the results of individual monitoring points within a groundwater body shall be aggregated for the body as a whole. The mean value of the results of monitoring at each point in the groundwater body or group of bodies shall be calculated for the following parameters:

- (a) chemical parameters for which quality standards have been set in Annex I to Directive [2006/118/EC](#);
- (b) chemical parameters for which national thresholds have been set pursuant to Article 3(1), point (b), of Directive [2006/118/EC](#);
- (c) chemical parameters for which Union wide thresholds have been set pursuant to Article 8(3) of Directive [2006/118/EC](#).

The mean values referred to in the first paragraph shall be used to demonstrate compliance with good groundwater chemical status defined by reference to the quality standards and threshold values referred to in the first paragraph.

Subject to point 2.5, Member States shall provide a map of groundwater chemical status, colour-coded as follows:

Good: green

Poor: red

Member States shall also indicate by a black dot on the map, those groundwater bodies which are subject to a significant and sustained upward trend in the concentrations of any pollutant resulting from the impact of human activity. Reversal of a trend shall be indicated by a blue dot on the map.

These maps shall be included in the river basin management plans.’.

## ANNEX II

Annex VIII of Directive 2000/60/EC is amended as follows:

(1) point 10 is replaced by the following:

‘10. Materials in suspension, including micro/nanoplastics.’;

(2) point 13 is added:

’13. Microorganisms, genes or genetic material reflecting the presence of microorganisms resistant to antimicrobial agents, in particular microorganisms pathogenic to humans or livestock.’.

## ANNEX III

### 'ANNEX I

#### GROUNDWATER QUALITY STANDARDS (QS)

Note 1: The QS for the pollutants listed under entries 3 to 7 shall apply from ... [OP: please insert the date = the first day of the month following 18 months after the entry into force of this amending Directive], with the aim of achieving good water chemical status at the latest by 22 December 2033.

(1) )	(2)	(3)	(4)	(5)	(6)
[Entry] N°	Name of substance	Category of substances	CAS number ( <sup>1</sup> )	EU number ( <sup>2</sup> )	Quality Standard ( <sup>3</sup> ) [µg/l unless otherwise indicated]
1	Nitrates	Nutrients	not applicable	not applicable	50 mg/l
2	Active substances in pesticides, including their relevant metabolites, degradation and reaction products ( <sup>4</sup> )	Pesticides	not applicable	not applicable	0,1 (individual)
					0,5 (total) ( <sup>5</sup> )
3	Per- and poly-fluorinated alkyl substances (PFAS) - sum of 24 ( <sup>6</sup> )	Industrial substances	See table note 6	See table note 6	0,0044 ( <sup>7</sup> )
4	Carbamazepine	Pharmaceuticals	298-46-4	not applicable	0,25
5	Sulfamethoxazole	Pharmaceuticals	723-46-6	not applicable	0,01
6	Pharmaceutical active substances –	Pharmaceuticals	not applicable	not applicable	0,25

(1)	(2)	(3)	(4)	(5)	(6)
	total <sup>(8)</sup>				
7	Non-relevant metabolites of pesticides (nrMs)	Pesticides	not applicable	not applicable	0,1 <sup>(9)</sup> or 1 <sup>(10)</sup> or 2,5 or 5 <sup>(11)</sup> (individual) 0,5 <sup>(9)</sup> or 5 <sup>(10)</sup> or 12,5 <sup>(11)</sup> (total) <sup>(12)</sup>

- (1) CAS: Chemical Abstracts Service.
- (2) EU number: European Inventory of Existing Commercial Substances (EINECS) or European List of Notified Chemical Substances (ELINCS).
- (3) This parameter is the QS expressed as an annual average value. Unless otherwise specified, it applies to the total concentration of all substances and isomers.
- (4) 'Pesticides' means plant protection products and biocidal products referred to in Article 2 of Regulation (EC) No 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products on the market and in Article 3 of Regulation (EU) No 528/2012 of the European Parliament and of the Council of 22 May 2012 concerning the making available on the market and use of biocidal products, respectively.
- (5) 'Total' means the sum of all individual pesticides detected and quantified in the monitoring procedure, including their relevant metabolites, degradation and reaction products.
- (6) This refers to the following compounds, listed with their CAS number, EU number and Relative Potency Factor (RPF): Perfluorooctanoic acid (PFOA) (CAS 335-67-1, EU 206-397-9) (RPF 1), Perfluorooctane sulfonic acid (PFOS) (CAS 1763-23-1, EU 217-179-8) (RPF 2), Perfluorohexane sulfonic acid (PFHxS) (CAS 355-46-4, EU 206-587-1) (RPF 0,6), Perfluorononanoic acid (PFNA) (CAS 375-95-1, EU 206-801-3) (RPF 10), Perfluorobutane sulfonic acid (PFBS) (CAS 375-73-5, EU 206-793-1) (RPF 0,001), Perfluorohexanoic acid (PFHxA) (CAS 307-24-4, EU 206-196-6) (RPF 0,01), Perfluorobutanoic acid (PFBA) (CAS 375-22-4, EU 206-786-3) (RPF 0,05), Perfluoropentanoic acid (PFPeA) (CAS 2706-90-3, EU 220-300-7) (RPF 0,03), Perfluoropentane sulfonic acid (PFPeS) (CAS 2706-91-4, EU 220-301-2) (RPF 0,3005), Perfluorodecanoic acid (PFDA) (CAS 335-76-2, EU 206-400-3) (RPF 7), Perfluorododecanoic acid (PFDoDA or PFDoA) (CAS 307-55-1, EU 206-203-2) (RPF 3), Perfluoroundecanoic acid (PFUnDA or PFUnA) (CAS 2058-94-8, EU 218-165-4) (RPF 4), Perfluoroheptanoic acid (PFHpA) (CAS 375-85-9, EU 206-798-9) (RPF 0,505), Perfluorotridecanoic acid (PFTrDA) (CAS 72629-94-8, EU 276-745-2) (RPF 1,65), Perfluoroheptane sulfonic acid (PFHpS) (CAS 375-92-8, EU 206-800-8) (RPF 1,3), Perfluorodecane sulfonic acid (PFDS) (CAS 335-77-3, EU 206-401-9) (RPF 2), Perfluorotetradecanoic acid (PFTeDA) (CAS 376-06-7, EU 206-803-4) (RPF 0,3), Perfluorohexadecanoic acid (PFHxDA) (CAS 67905-19-5, EU 267-638-1) (RPF 0,02), Perfluorooctadecanoic acid (PFODA) (CAS 16517-11-6, EU 240-582-5) (RPF 0,02), Ammonium perfluoro (2-methyl-3-oxahexanoate) (HFPO-DA or Gen X) (CAS 62037-80-3) (RPF 0,06), Propanoic Acid / Ammonium 2,2,3-trifluoro-3-(1,1,2,2,3,3-hexafluoro-3-(trifluoromethoxy)propoxy)propanoate (ADONA) (CAS 958445-44-8) (RPF 0,03), 2-(Perfluorohexyl)ethyl alcohol (6:2 FTOH) (CAS 647-42-7, EU 211-477-1) (RPF 0,02), 2-(Perfluorooctyl)ethanol (8:2 FTOH) (CAS 678-39-7, EU 211-648-0) (RPF 0,04) and Acetic acid / 2,2-difluoro-2-((2,2,4,5-tetrafluoro-5-(trifluoromethoxy)-1,3-dioxolan-4-yl)oxy)- (C6O4) (CAS 1190931-41-9) (RPF 0,06).
- (7) The QS refers to the sum of the 24 PFAS listed in footnote 6 expressed as PFOA-equivalents based on the potencies of the substances relative to that of PFOA, i.e. the RPFs in footnote 6.
- (8) 'Total' means the sum of all individual pharmaceuticals detected and quantified in the monitoring procedure, including relevant metabolites and degradation products.
- (9) Applicable to 'data-poor' nrMs, i.e. nrMs for which no reliable experimental data on chronic or acute effects of the nrM are available on the taxonomic group confidently predicted to be the most sensitive.
- (10) Applicable to 'data-fair' nrMs, i.e. nrMs for which reliable experimental data on chronic or acute effects of the nrM are available on the taxonomic group confidently predicted to be the most sensitive, but where the data are insufficient to qualify the substances as 'data-rich'.
- (11) Applicable to 'data-rich' nrMs, i.e. nrMs for which reliable experimental data, or equally reliable data obtained by alternative scientifically validated methods, are available on chronic or acute effects of the nrM on at least one species each of algae, of invertebrates, and of fish, allowing the most-sensitive taxonomic

group to be confidently confirmed, and for which a QS can be calculated using a deterministic approach based on reliable chronic experimental toxicity data on that taxonomic group; Member States may apply for this purpose the latest guidance established in the framework of the Common Implementation Strategy for Directive 2000/60/EC (Guidance document No. 27, as updated). The QS of 2,5 for individual nrMs shall apply unless the QS calculated by the deterministic approach is higher, in which case a QS of 5 shall apply.

(<sup>12</sup>) 'Total' means the sum of all individual nrMs in each data category detected and quantified in the monitoring procedure.

## ANNEX IV

Annex II of Directive 2006/118/EC is amended as follows:

(1) in part A, the following paragraph is inserted after the first paragraph:

‘Member States shall ensure that competent authorities inform the European Chemicals Agency ECHA of threshold values for pollutants and indicators of pollution. ECHA shall publish that information without delay.’;

(2) in part B, point 2 is replaced by the following:

‘2. Man-made synthetic substances

Primidone

Trichloroethylene

Tetrachloroethylene’

(3) in Part C, the title is replaced by the following:

**‘Information to be provided by Member States with regard to the pollutants and their indicators for which threshold values have been established by the Member States’;**

(4) the following Part D is added:

‘Part D

**Repository of harmonised threshold values for groundwater pollutants of national, regional or local concern**

(1)	(2)	(3)	(4)	(5)	(6)
[Entry] N°	Name of substance	Category of substances	CAS number <sup>(1)</sup>	EU number <sup>(2)</sup>	Threshold value [µg/l unless otherwise indicated]
1	Trichloroethylene and Tetrachloroethylene (sum of two)	Industrial substances	79-01-6 and 127-18-4	201-167-4 and 204-825-9	10 (total) <sup>(3)</sup>

<sup>(1)</sup> CAS: Chemical Abstracts Service.

<sup>(2)</sup> EU number: European Inventory of Existing Commercial Substances (EINECS) or European List of Notified Chemical Substances (ELINCS).

<sup>(3)</sup> ‘Total’ means the sum of concentrations of Trichloroethylene and Tetrachloroethylene





## ANNEX V

Annex I to Directive 2008/105/EC is amended as follows:

- (1) the title is replaced by the following:

**‘ENVIRONMENTAL QUALITY STANDARDS (EQS) FOR PRIORITY SUBSTANCES IN SURFACE WATERS’;**

- (2) Part A is replaced by the following:

**‘PART A: ENVIRONMENTAL QUALITY STANDARDS**

Note 1: Where an EQS is listed between [], this value is subject to confirmation in the light of the opinion requested from the Scientific Committee on Health, Environmental and Emerging Risks.

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)
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[Entry ] N°	Name of substance	Category of substances	CAS number <sup>(1)</sup>	EU number <sup>(2)</sup>	AA-EQS <sup>(3)</sup> Inland surface waters <sup>(4)</sup>  [µg/l]	AA-EQS <sup>(3)</sup> Other surface waters  [µg/l]	MAC-EQS <sup>(5)</sup> Inland surface waters <sup>(4)</sup>  [µg/l]	MAC-EQS <sup>(5)</sup> Other surface waters  [µg/l]	EQS Biota <sup>(6)</sup> [µg/kg wet weight] or EQS Sediment [µg /kg dry weight] where so indicated	Identified as a priority hazardous substance	Identified as an Ubiquitous Persistent, Bioaccumul ative and Toxic (uPBT) substance	Identified as a substance that tends to accumulat e in sediment and/or biota
(1)	The substance Alachlor has been moved to Part C of Annex II											
(2)	Anthracene	Industrial substances	120-12-7	204-371-1	0,1	0,1	0,1	0,1		X		X
(3)	Atrazine	Herbicides	1912-24-9	217-617-8	0,6	0,6	2,0	2,0				
(4)	Benzene	Industrial substances	71-43-2	200-753-7	10	8	50	50				
(5)	Brominated diphenylethers	Industrial substances	not applicable	not applicable			0,14 <sup>(7)</sup>	0,014 <sup>(7)</sup>	[0,00028] <sup>(7)</sup>	X <sup>(8)</sup>	X	X
(6)	Cadmium and its compounds (depending on water hardness classes) <sup>(9)</sup>	Metals	7440-43-9	231-152-8	≤ 0,08 (Class 1) 0,08 (Class 2) 0,09 (Class 3) 0,15 (Class 4) 0,25 (Class 5)	0,2	≤ 0,45 (Class 1) 0,45 (Class 2) 0,6 (Class 3) 0,9 (Class 4) 1,5 (Class 5)	≤ 0,45 (Class 1) 0,45 (Class 2) 0,6 (Class 3) 0,9 (Class 4) 1,5 (Class 5)		X		X
(6a)	The substance Carbon tetrachloride has been moved to Part C of Annex II											

(7)	C <sub>10-13</sub> Chloroalkanes <sup>(10)</sup>	Industrial substances	85535-84-8	287-476-5	0,4	0,4	1,4	1,4		X		X
(8)	The substance Chlorfenvinphos has been moved to Part C of Annex II											
(9)	Chlorpyrifos (Chlorpyrifos-ethyl)	Organophosphate pesticides	2921-88-2	220-864-4	$4,6 \times 10^{-4}$	$4,6 \times 10^{-5}$	0,0026	$5,2 \times 10^{-4}$		X	X	X
(9a)	Cyclodiene pesticides: Aldrin Dieldrin Endrin Isodrin	Organochlorine pesticides	309-00-2 60-57-1 72-20-8 465-73-6	206-215-8 200-484-5 200-775-7 207-366-2	$\Sigma = 0,01$	$\Sigma = 0,005$	not applicable	not applicable		X		
(9b)	DDT total <sup>(11)</sup>	Organochlorine pesticides	not applicable	not applicable	0,025	0,025	not applicable	not applicable		X		
	para-para-DDT		50-29-3	200-024-3	0,01	0,01	not applicable	not applicable		X		
(10)	1,2-Dichloroethane	Industrial substances	107-06-2	203-458-1	10	10	not applicable	not applicable		X		
(11)	Dichloromethane	Industrial substances	75-09-2	200-838-9	20	20	not applicable	not applicable				
(12)	Di(2-ethylhexyl)-phthalate (DEHP)	Industrial substances	117-81-7	204-211-0	1,3	1,3	not applicable	not applicable		X		X
(13)	Diuron	Herbicides	330-54-1	206-354-4	0,049	0,0049	0,27	0,054				
(14)	Endosulfan	Organochlorine pesticides	115-29-7	204-079-4	0,005	0,0005	0,01	0,004		X		
(15)	Fluoranthene	Industrial substances	206-44-0	205-912-4	$7,62 \times 10^{-4}$	$7,62 \times 10^{-4}$	0,12	0,012	6,1	X	X	X
(16)	Hexachlorobenzene	Organochlorine pesticides	118-74-1	204-273-9			0,5	0,05	20	X		X

(17)	Hexachlorobutadiene	Industrial substances (solvents)	87-68-3	201-765-5	$9 \times 10^{-4}$		0,6	0,6	21	X		X
(18)	Hexachlorocyclohexane	Insecticides	608-73-1	210-168-9	0,02	0,002	0,04	0,02		X		X
(19)	Isoproturon	Herbicides	34123-59-6	251-835-4	0,3	0,3	1,0	1,0				
(20)	Lead and its compounds	Metals	7439-92-1	231-100-4	1,2 <sup>(12)</sup>	1,3	14	14		X		X
(21)	Mercury and its compounds	Metals	7439-97-6	231-106-7			0,07	0,07	[10] <sup>(13)</sup>	X	X	X
(22)	Naphthalene	Industrial substances	91-20-3	202-049-5	2	2	130	130				
(23)	Nickel and its compounds	Metals	7440-02-0	231-111-4	2 <sup>(12)</sup>	3,1	8,2	8,2				
(24)	Nonylphenols <sup>(14)</sup> (4-Nonylphenol)	Industrial substances	84852-15-3	284-325-5	0,037	0,0018	2,1	0,17		X		
(25)	Octylphenols <sup>(15)</sup> ((4-(1,1',3,3'-tetramethylbutyl)-phenol))	Industrial substances	140-66-9	205-426-2	0,1	0,01	not applicable	not applicable		X		
(26)	Pentachlorobenzene	Industrial substances	608-93-5	210-172-0	0,007	0,0007	not applicable	not applicable		X		X
(27)	Pentachlorophenol	Organochlorine pesticides	87-86-5	201-778-6	0,4	0,4	1	1		X		
(28)	Polyaromatic hydrocarbons (PAHs) <sup>(16)</sup>	Combustion products	not applicable	not applicable	not applicable	not applicable	not applicable	not applicable	Sum of Benzo(a)pyrene equivalents [0,6] <sup>(17)</sup>	X	X	X
	Benzo(a)pyrene		50-32-8	200-028-5			0,27	0,027	[0,6]			

	Benzo(b)fluoranthene		205-99-2	205-911-9			0,017	0,017	see footnote 17			
	Benzo(k)fluoranthene		207-08-9	205-916-6			0,017	0,017	see footnote 17			
	Benzo(g,h,i)perylene		191-24-2	205-883-8			$8,2 \times 10^{-3}$	$8,2 \times 10^{-4}$	see footnote 17			
	Indeno(1,2,3-cd)pyrene		193-39-5	205-893-2			not applicable	not applicable	see footnote 17			
	Chrysene		218-01-9	205-923-4			0,07	0,007	see footnote 17			
	Benzo(a)anthracene		56-55-3	200-280-6			0,1	0,01	see footnote 17			
	Dibenz(a,h)anthracene		53-70-3	200-181-8			0,014	0,0014	see footnote 17			
(29)	The Substance Simazine has been moved to Part C of Annex II											
(29a)	Tetrachloroethylene	Industrial substances	127-18-4	204-825-9	10	10	not applicable	not applicable				
(29b)	Trichloroethylene	Industrial substances	79-01-6	201-167-4	10	10	not applicable	not applicable		X		
(30)	Tributyltin compounds <sup>(18)</sup> (Tributyltin-cation)	Biocides	36643-28-4	not applicable	0,0002	0,0002	0,0015	0,0015	[1,3] <sup>(19)</sup>	X	X	X
(31)	Trichlorobenzenes	Industrial substances (solvents)	12002-48-1	234-413-4	0,4	0,4	not applicable	not applicable				
(32)	Trichloromethane	Industrial substances	67-66-3	200-663-8	2,5	2,5	not applicable	not applicable				
(33)	Trifluralin	Herbicides	1582-09-8	216-428-8	0,03	0,03	not applicable	not applicable		X		

(34)	Dicofol	Organochlorine pesticides	115-32-2	204-082-0	$[4,45 \times 10^{-3}]$	$[0,185 \times 10^{-3}]$	not applicable <sup>(20)</sup>	not applicable <sup>(20)</sup>	[5.45]	X		X
(35)	Perfluorooctane sulfonic acid and its derivatives (PFOS)	Industrial substances	1763-23-1	217-179-8	Coverd by substance group 65 (Per- and poly-fluorinated alkyl substances (PFAS) – sum of 24)							
(36)	Quinoxifen	Plant protection products	124495-18-7	not applicable	0,15	0,015	2,7	0,54		X		X
(37)	Dioxins and dioxin-like compounds <sup>(21)</sup>	Industrial byproducts	not applicable	not applicable			not applicable	not applicable	Sum of PCDDs+ PCDFs+ PCB-DLs equivalents $[3,5 \times 10^{-5}]$ <sup>(22)</sup>	X	X	X
(38)	Aclonifen	Herbicides	74070-46-5	277-704-1	0,12	0,012	0,12	0,012				
(39)	Bifenox	Herbicides	42576-02-3	255-894-7	0,012	0,0012	0,04	0,004				
(40)	Cybutryne	Biocides	28159-98-0	248-872-3	0,0025	0,0025	0,016	0,016				
(41)	Cypermethrin <sup>(23)</sup>	Pyrethroid pesticides	52315-07-8	257-842-9	$3 \times 10^{-5}$	$3 \times 10^{-6}$	$6 \times 10^{-4}$	$6 \times 10^{-5}$				X
(42)	Dichlorvos	Organophosphate pesticides	62-73-7	200-547-7	$6 \times 10^{-4}$	$6 \times 10^{-5}$	$7 \times 10^{-4}$	$7 \times 10^{-5}$				
(43)	Hexabromocyclododecane (HBCDD) <sup>(24)</sup>	Industrial substances	See footnote 24	See footnote 24	$[4,6 \times 10^{-4}]$	$[2 \times 10^{-5}]$	0,5	0,05	[3,5]	X	X	X

(44)	Heptachlor and heptachlor epoxide	Organochlorine pesticides	76-44-8 / 1024-57-3	200-962-3 / 213-831-0	$[1,7 \times 10^{-7}]$	$[1,7 \times 10^{-7}]$	$3 \times 10^{-4}$	$3 \times 10^{-5}$	[0,013]	X	X	X
(45)	Terbutryn	Herbicides	886-50-0	212-950-5	0,065	0,0065	0,34	0,034				
(46)	17 alpha-ethinylestradiol (EE2)	Pharmaceuticals (Estrogenic hormones)	57-63-6	200-342-2	$1,7 \times 10^{-5}$	$1,6 \times 10^{-6}$	not derived	not derived				
(47)	17 beta-estradiol (E2)	Pharmaceuticals (Estrogenic hormones)	50-28-2	200-023-8	0,00018	$9 \times 10^{-6}$	not derived	not derived				
(48)	Acetamiprid	Neonicotinoid pesticides	135410-20-7 / 160430-64-8	603-921-1	0,037	0,0037	0,16	0,016				
(49)	Azithromycin	Pharmaceuticals (Macrolide antibiotics)	83905-01-5	617-500-5	0,019	0,0019	0,18	0,018				X
(50)	Bifenthrin	Pyrethroid pesticides	82657-04-3	617-373-6	$9,5 \times 10^{-5}$	$9,5 \times 10^{-6}$	0,011	0,001				X
(51)	Bisphenol-A (BPA)	Industrial substances	80-05-7	201-245-8	$3,4 \times 10^{-5}$	$3,4 \times 10^{-5}$	130	51	0,005	X		
(52)	Carbamazepine	Pharmaceuticals	298-46-4	206-062-7	2,5	0,25	$1,6 \times 10^3$	160				
(53)	Clarithromycin	Pharmaceuticals (Macrolide antibiotics)	81103-11-9	658-034-2	0,13	0,013	0,13	0,013				X



(54)	Clothianidin	Neonicotinoid pesticides	210880-92-5	433-460-1	0,01	0,001	0,34	0,034				
(55)	Deltamethrin	Pyrethroid pesticides	52918-63-5	258-256-6	$1,7 \times 10^{-6}$	$1,7 \times 10^{-7}$	$1,7 \times 10^{-5}$	$3,4 \times 10^{-6}$				X
(56)	Diclofenac	Pharmaceuticals	15307-86-5 / 15307-79-6	239-348-5 / 239-346-4	0,04	0,004	250	25				X
(57)	Erythromycin	Pharmaceuticals (Macrolide antibiotics)	114-07-8	204-040-1	0,5	0,05	1	0,1				X
(58)	Esfenvalerate	Pyrethroid pesticides	66230-04-4	613-911-9	$1,7 \times 10^{-5}$	$1,7 \times 10^{-6}$	0,0085	0,00085				X
(59)	Estrone (E1)	Pharmaceuticals (Estrogenic hormones)	53-16-7	200-164-5	$3,6 \times 10^{-4}$	$1,8 \times 10^{-5}$	not derived	not derived				
(60)	Glyphosate	Herbicides	1071-83-6	213-997-4	0,1 <sup>(25)</sup> 86,7 <sup>(26)</sup>	8,67	398,6	39,86				
(61)	Ibuprofen	Pharmaceuticals	15687-27-1	239-784-6	0,22	0,022						X
(62)	Imidacloprid	Neonicotinoid pesticides	138261-41-3 / 105827-78-9	428-040-8	0,0068	$6,8 \times 10^{-4}$	0,057	0,0057				
(63)	Nicosulfuron	Herbicides	111991-09-4	601-148-4	0,0087	$8,7 \times 10^{-4}$	0,23	0,023				
(64)	Permethrin	Pyrethroid pesticides	52645-53-1	258-067-9	$2,7 \times 10^{-4}$	$2,7 \times 10^{-5}$	0,0025	$2,5 \times 10^{-4}$				X

(65)	Per- and poly-fluorinated alkyl substances (PFAS) – sum of 24 <sup>(27)</sup>	Industrial substances	not applicable	not applicable	Sum of PFOA equivalents 0,0044 <sup>(28)</sup>	Sum of PFOA equivalents 0,0044 <sup>(28)</sup>	not applicable	not applicable	Sum of PFOA equivalents 0,077 <sup>(28)</sup>	X	X	X
(66)	Silver	Metals	7440-22-4	231-131-3	0,01	0,006 (10% salinity) 0,17 (30% salinity)	0,022	not derived				
(67)	Thiacloprid	Neonicotinoid pesticides	111988-49-9	601-147-9	0,01	0,001	0,05	0,005				
(68)	Thiamethoxam	Neonicotinoid pesticides	153719-23-4	428-650-4	0,04	0,004	0,77	0,077				
(69)	Triclosan	Biocides	3380-34-5	222-182-2	0,02	0,002	0,02	0,002				
(70)	Total of active substances in pesticides, including their relevant metabolites, degradation and reaction products <sup>(29)</sup>	Plant protection products and biocides			0,5 <sup>(30)</sup>	0,5 <sup>(30)</sup>						

<sup>(1)</sup> CAS: Chemical Abstracts Service.

<sup>(2)</sup> EU number: European Inventory of Existing Commercial Substances (EINECS) or European List of Notified Chemical Substances (ELINCS).

<sup>(3)</sup> This parameter is the EQS expressed as an annual average value (AA-EQS). Unless otherwise specified, it applies to the total concentration of all substances and isomers.

<sup>(4)</sup> Inland surface waters encompass rivers and lakes and related artificial or heavily modified water bodies.

<sup>(5)</sup> This parameter is the EQS expressed as a maximum allowable concentration (MAC EQS). Where the MAC EQS are marked as "not applicable", the AA EQS values are considered protective against short-term pollution peaks in continuous discharges since they are significantly lower than the values derived on the basis of acute toxicity.

<sup>(6)</sup> If an EQS biota is given, it, rather than the water EQS, shall be applied, without prejudice to the provision in Article 3(3) of this Directive allowing an alternative biota taxon, or another matrix, to be monitored instead, as long as the EQS applied provides an equivalent level of protection. Unless otherwise indicated, the biota EQS relate to fish. For substances numbered 15 (Fluoranthene), 28 (PAHs), and 51 (Bisphenol-A) the biota EQS refers to crustaceans and molluscs. For the purpose of assessing chemical status, monitoring of Fluoranthene and PAHs, and Bisphenol-A in fish is not appropriate. For substance number 37 (Dioxins and dioxin-like compounds), the biota EQS relates to fish, crustaceans and molluscs, in line with Commission Regulation (EU) No 1259/2011\* Annex Section 5.3.

<sup>(7)</sup> For the group of priority substances covered by brominated diphenylethers (No 5), the EQS refer to the sum of the concentrations of congener numbers 28, 47, 99, 100, 153 and 154.

- (<sup>8</sup>) Tetra, Penta, Hexa, Hepta, Octa and Decabromodiphenylether (CAS numbers 40088-47-9, 32534-81-9, 36483-60-0, 68928-80-3, 32536-52-0, 1163-19-5, respectively).
- (<sup>9</sup>) For Cadmium and its compounds (No 6) the EQS values vary depending on the hardness of the water as specified in five class categories (Class 1: <40 mg CaCO<sub>3</sub>/l, Class 2: 40 to <50 mg CaCO<sub>3</sub>/l, Class 3: 50 to <100 mg CaCO<sub>3</sub>/l, Class 4: 100 to <200 mg CaCO<sub>3</sub>/l and Class 5: ≥200 mg CaCO<sub>3</sub>/l).
- (<sup>10</sup>) No indicative parameter is provided for this group of substances. The indicative parameter(s) must be defined through the analytical method.
- (<sup>11</sup>) DDT total comprises the sum of the isomers 1,1,1 trichloro 2,2 bis (p chlorophenyl) ethane (CAS 50 29 3, EU 200 024 3); 1,1,1 trichloro 2 (o chlorophenyl) 2 (p chlorophenyl) ethane (CAS 789 02 6, EU 212 332 5); 1,1-dichloro 2,2 bis (p chlorophenyl) ethylene (CAS 72 55 9, EU 200 784 6); and 1,1 dichloro 2,2 bis (p chlorophenyl) ethane (CAS 72 54 8, EU 200 783 0).
- (<sup>12</sup>) These EQS refer to bioavailable concentrations of the substances.
- (<sup>13</sup>) The EQS for biota refers to methyl mercury.
- (<sup>14</sup>) Nonylphenol (CAS 25154-52-3, EU 246-672-0) including isomers 4-nonylphenol (CAS 104-40-5, EU 203-199-4) and 4-nonylphenol (branched) (CAS 84852-15-3, EU 284-325-5).
- (<sup>15</sup>) Octylphenol (CAS 1806-26-4, EU 217-302-5) including isomer 4-(1,1',3,3'-tetramethylbutyl)-phenol (CAS 140-66-9, EU 205-426-2).
- (<sup>16</sup>) Benzo(a)pyrene (CAS 50-32-8) (RPF 1), benzo(b)fluoranthene (CAS 205-99-2) (RPF 0,1), benzo(k)fluoranthene (CAS 207-08-9) (RPF 0,1), benzo(g,h,i)perylene (CAS 191-24-2) (RPF 0), indeno(1,2,3-cd)pyrene (CAS 193-39-5) (RPF 0,1), chrysene (CAS 218-01-9) (RPF 0,01), benzo(a)anthracene (CAS 56-55-3) (RPF 0,1), and dibenz(a,h)anthracene (CAS 53-70-3) (RPF 1). The PAHs anthracene, fluoranthene and naphthalene are listed separately.
- (<sup>17</sup>) For the group of polyaromatic hydrocarbons (PAHs) (No 28), the biota EQS refers to the sum of the concentrations of seven of the eight PAHs listed in footnote 17 expressed as benzo(a)pyrene equivalents based on the carcinogenic potencies of the substances relative to that of benzo(a)pyrene, i.e. the RPFs in footnote 16. Benzo(g,h,i)perylene does not need to be measured in biota for the purposes of determining compliance with the overall EQS biota.
- (<sup>18</sup>) Tributyltin compounds including tributyltin-cation (CAS 36643-28-4).
- (<sup>19</sup>) Sediment EQS
- (<sup>20</sup>) There is insufficient information available to set a MAC-EQS for these substances.
- (<sup>21</sup>) This refers to the following compounds:  
 7 polychlorinated dibenzo-p-dioxins (PCDDs): 2,3,7,8-T4CDD (CAS 1746-01-6, EU 217-122-7), 1,2,3,7,8-P5CDD (CAS 40321-76-4), 1,2,3,4,7,8-H6CDD (CAS 39227-28-6), 1,2,3,6,7,8-H6CDD (CAS 57653-85-7), 1,2,3,7,8,9-H6CDD (CAS 19408-74-3), 1,2,3,4,6,7,8-H7CDD (CAS 35822-46-9), 1,2,3,4,6,7,8,9-O8CDD (CAS 3268-87-9)  
 10 polychlorinated dibenzofurans (PCDFs): 2,3,7,8-T4CDF (CAS 51207-31-9), 1,2,3,7,8-P5CDF (CAS 57117-41-6), 2,3,4,7,8-P5CDF (CAS 57117-31-4), 1,2,3,4,7,8-H6CDF (CAS 70648-26-9), 1,2,3,6,7,8-H6CDF (CAS 57117-44-9), 1,2,3,7,8,9-H6CDF (CAS 72918-21-9), 2,3,4,6,7,8-H6CDF (CAS 60851-34-5), 1,2,3,4,6,7,8-H7CDF (CAS 67562-39-4), 1,2,3,4,7,8,9-H7CDF (CAS 55673-89-7), 1,2,3,4,6,7,8,9-O8CDF (CAS 39001-02-0)  
 12 dioxin-like polychlorinated biphenyls (PCB-DLs): 3,3',4,4'-T4CB (PCB 77, CAS 32598-13-3), 3,3',4',5'-T4CB (PCB 81, CAS 70362-50-4), 2,3,3',4,4'-P5CB (PCB 105, CAS 32598-14-4), 2,3,4,4',5'-P5CB (PCB 114, CAS 74472-37-0), 2,3',4,4',5'-P5CB (PCB 118, CAS 31508-00-6), 2,3',4,4',5'-P5CB (PCB 123, CAS 65510-44-3), 3,3',4,4',5'-P5CB (PCB 126, CAS 57465-28-8), 2,3,3',4,4',5'-H6CB (PCB 156, CAS 38380-08-4), 2,3,3',4,4',5'-H6CB (PCB 157, CAS 69782-90-7), 2,3',4,4',5,5'-H6CB (PCB 167, CAS 52663-72-6), 3,3',4,4',5,5'-H6CB (PCB 169, CAS 32774-16-6), 2,3,3',4,4',5,5'-H7CB (PCB 189, CAS 39635-31-9).
- (<sup>22</sup>) For the group of Dioxins and dioxin-like compounds (No 37), the biota EQS refers to the sum of the concentrations of the substances listed in footnote 20 expressed as toxic equivalents based on the World Health Organisation 2005 Toxic Equivalence Factors.
- (<sup>23</sup>) CAS 52315-07-8 refers to an isomer mixture of cypermethrin, alpha-cypermethrin (CAS 67375-30-8, EU 257-842-9), beta-cypermethrin (CAS 65731-84-2, EU 265-898-0), theta-cypermethrin (CAS 71691-59-1) and zeta-cypermethrin (CAS 52315-07-8, EU 257-842-9).
- (<sup>24</sup>) This refers to 1,3,5,7,9,11-Hexabromocyclododecane (CAS 25637-99-4, EU 247-148-4), 1,2,5,6,9,10- Hexabromocyclododecane (CAS 3194-55-6, EU 221-695-9), α-Hexabromocyclododecane (CAS 134237-50-6), β-Hexabromocyclododecane (CAS 134237-51-7) and γ-Hexabromocyclododecane (CAS 134237-52-8).
- (<sup>25</sup>) For freshwater used for the abstraction and preparation of drinking water.

(<sup>26</sup>)For freshwater not used for the abstraction and preparation of drinking water.

(<sup>27</sup>)This refers to the following compounds, listed with their CAS number, EU number and Relative Potency Factor (RPF):

Perfluorooctanoic acid (PFOA) (CAS 335-67-1, EU 206-397-9) (RPF 1), Perfluorooctane sulfonic acid (PFOS) (CAS 1763-23-1, EU 217-179-8) (RPF 2), Perfluorohexane sulfonic acid (PFHxS) (CAS 355-46-4, EU 206-587-1) (RPF 0,6), Perfluorononanoic acid (PFNA) (CAS 375-95-1, EU 206-801-3) (RPF 10), Perfluorobutane sulfonic acid (PFBS) (CAS 375-73-5, EU 206-793-1) (RPF 0,001), Perfluorohexanoic acid (PFHxA) (CAS 307-24-4, EU 206-196-6) (RPF 0,01), Perfluorobutanoic acid (PFBA) (CAS 375-22-4, EU 206-786-3) (RPF 0,05), Perfluoropentanoic acid (PFPeA) (CAS 2706-90-3, EU 220-300-7) (RPF 0,03), Perfluoropentane sulfonic acid (PFPeS) (CAS 2706-91-4, EU 220-301-2) (RPF 0,3005), Perfluorodecanoic acid (PFDA) (CAS 335-76-2, EU 206-400-3) (RPF 7), Perfluorododecanoic acid (PFDoDA or PFDoA) (CAS 307-55-1, EU 206-203-2) (RPF 3), Perfluoroundecanoic acid (PFUnDA or PFUnA) (CAS 2058-94-8, EU 218-165-4) (RPF 4), Perfluoroheptanoic acid (PFHpA) (CAS 375-85-9, EU 206-798-9) (RPF 0,505), Perfluorotridecanoic acid (PFTrDA) (CAS 72629-94-8, EU 276-745-2) (RPF 1,65), Perfluoroheptane sulfonic acid (PFHpS) (CAS 375-92-8, EU 206-800-8) (RPF 1,3), Perfluorodecane sulfonic acid (PFDS) (CAS 335-77-3, EU 206-401-9) (RPF 2), Perfluorotetradecanoic acid (PFTeDA) (CAS 376-06-7, EU 206-803-4) (RPF 0,3), Perfluorohexadecanoic acid (PFHxDA) (CAS 67905-19-5, EU 267-638-1) (RPF 0,02), Perfluorooctadecanoic acid (PFODA) (CAS 16517-11-6, EU 240-582-5) (RPF 0,02), and Ammonium perfluoro (2-methyl-3-oxahexanoate) (HFPO-DA or Gen X) (CAS 62037-80-3) (RPF 0,06), Propanoic Acid / Ammonium 2,2,3-trifluoro-3-(1,1,2,2,3,3-hexafluoro-3-(trifluoromethoxy)propoxy)propanoate (ADONA) (CAS 958445-44-8) (RPF 0,03), 2- (Perfluorohexyl)ethyl alcohol (6:2 FTOH) (CAS 647-42-7, EU 211-477-1) (RPF 0,02), 2-(Perfluorooctyl)ethanol (8:2 FTOH) (CAS 678-39-7, EU 211-648-0) (RPF 0,04) and Acetic acid / 2,2-difluoro-2-((2,2,4,5-tetrafluoro-5-(trifluoromethoxy)-1,3-dioxolan-4-yl)oxy)- (C6O4) (CAS 1190931-41-9) (RPF 0,06)

(<sup>28</sup>) For the group of PFAS (No 65), the EQS refer to the sum of the concentrations of the 24 PFAS listed in footnote 27 expressed as PFOA-equivalents based on the potencies of the substances relative to that of PFOA, i.e. the RPFs in footnote 27.

(<sup>29</sup>) ‘Pesticides’ means plant protection products as referred to in Article 2 of Regulation (EC) No 1107/2009 and biocidal products as defined in Article 3 of Regulation (EU) No 528/2012.

(<sup>30</sup>) ‘Total’ means the sum of all individual pesticides detected and quantified in the monitoring procedure, including their relevant metabolites, degradation and reaction products.’;

(3) Part B is amended as follows:

(a) in point 1, the first paragraph is replaced by the following:

‘For any given surface water body, applying the AA-EQS means that, for each representative monitoring point within the water body, the arithmetic mean of the concentrations measured at different times during the year does not exceed the standard.’;

(b) in point 2, the first paragraph is replaced by the following:

‘For any given surface water body, applying the MAC-EQS means that the measured concentration at any representative monitoring point within the water body does not exceed the standard.’.

## ANNEX VI

### 'ANNEX II

## ENVIRONMENTAL QUALITY STANDARDS FOR RIVER BASIN SPECIFIC POLLUTANTS

### PART A: LIST OF CATEGORIES OF RIVER BASIN SPECIFIC POLLUTANTS

1. Organohalogen compounds and substances which may form such compounds in the aquatic environment.
2. Organophosphorous compounds.
3. Organotin compounds.
4. Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment.
5. Persistent hydrocarbons and persistent and bioaccumulable organic toxic substances.
6. Cyanides.
7. Metals and their compounds.
8. Arsenic and its compounds.
9. Biocides and plant protection products.
10. Materials in suspension, including micro/nanoplastics
11. Substances which contribute to eutrophication (in particular, nitrates and phosphates).
12. Substances which have an unfavourable influence on the oxygen balance and can be measured using parameters such as BOD, COD, etc.
13. Microorganisms, genes or genetic material reflecting the presence of microorganisms resistant to antimicrobial agents, in particular microorganisms pathogenic to humans or livestock.

## PART B: THE PROCEDURE FOR DERIVING ENVIRONMENTAL QUALITY STANDARDS FOR RIVER BASIN SPECIFIC POLLUTANTS

Methods used for the establishment of EQS for river basin specific pollutants shall include the following steps:

- (a) identification of the receptors and compartments or matrices at risk from the substance of concern;
- (b) collation and quality assessment of data on the properties of the substance of concern, including its (eco)toxicity, in particular from reports on laboratory, mesocosm and field studies which cover both chronic and acute effects in both fresh and saltwater environments;
- (c) extrapolation of (eco)toxicity data to no-effect or similar concentrations using deterministic or probabilistic methods, and selection and application of appropriate assessment factors to address uncertainties and derive EQS;
- (d) comparison of EQS for different receptors and compartments, and selection of critical EQS, i.e. the EQS that provides protection to the most sensitive receptor in the most relevant compartment or matrix.

## PART C: REPOSITORY OF HARMONISED ENVIRONMENTAL QUALITY STANDARDS FOR RIVER BASIN SPECIFIC POLLUTANTS

[Entry] N°	Name of substance	Category of substances	CAS number <sup>(1)</sup>	EU number <sup>(2)</sup>	AA-EQS <sup>(3)</sup> Inland surface waters <sup>(4)</sup> [µg/l]	AA-EQS <sup>(3)</sup> Other surface waters [µg/l]	MAC-EQS <sup>(5)</sup> Inland surface waters <sup>(4)</sup> [µg/l]	MAC-EQS <sup>(5)</sup> Other surface waters [µg/l]	EQS Biota <sup>(6)</sup> [µg/kg wet weight] or EQS Sediment where so indicated [µg/kg dry weight]	
1	Alachlor <sup>(7)</sup>	Pesticides	15972-60-8	240-110-8	0,3	0,3	0,7	0,7		
2	Carbon tetrachloride <sup>(7)</sup>	Industrial substances	56-23-5	200-262-8	12	12	not applicable	not applicable		

3	Chlorfenvi nphos <sup>(7)</sup>	Pesticide	470-90-6	207- 432-0	0,1	0,1	0,3	0,3		
4	Simazine ( <sup>7</sup> )	Pesticide	122-34-9	204- 535-2	1	1	4	4		

(1) CAS: Chemical Abstracts Service.

(2) EU number: European Inventory of Existing Commercial Substances (EINECS) or European List of Notified Chemical Substances (ELINCS).

(3) This parameter is the EQS expressed as an annual average value (AA-EQS). Unless otherwise specified, it applies to the total concentration of all substances and isomers.

(4) Inland surface waters encompass rivers and lakes and related artificial or heavily modified water bodies.

(5) This parameter is the EQS expressed as a maximum allowable concentration (MAC EQS). Where the MAC EQS are marked as "not applicable", the AA EQS values are considered protective against short-term pollution peaks in continuous discharges since they are significantly lower than the values derived on the basis of acute toxicity.

(6) If a biota EQS is given, it, rather than the water EQS, shall be applied, without prejudice to the provision in Article 3(3) of this Directive allowing an alternative biota taxon, or another matrix, to be monitored instead, as long as the EQS applied provides an equivalent level of protection. Unless otherwise indicated, the biota EQS relate to fish.

(7) Substance previously listed as a priority substance in Annex X to Directive [2000/60/EC](#) or Annex I to Directive [2008/105/EC](#).