STATUTORY RULES OF NORTHERN IRELAND

2015 No. 45

ENVIRONMENTAL PROTECTION

The Water Framework Directive (Priority Substances and Classification) (Amendment) Regulations (Northern Ireland) 2015

Made - - - -	*10th February 2015*
Coming into operation -	*4th March 2015*

£10.00

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The Department of the Environment being a Department designated (**a**) for the purposes of section 2(2) of the European Communities Act 1972 (**b**) in relation to the Environment acting in exercise of the powers conferred upon it by that section and by Article 5 of the Water (Northern Ireland) Order 1999(**c**) makes the following Regulations:

Citation, commencement and interpretation

1. These Regulations may be cited as the Water Framework Directive (Priority Substances and Classification) (Amendment) Regulations (Northern Ireland) 2015 and shall come into operation on 4th March 2015.

2. The Interpretation Act (Northern Ireland) 1954(**d**) applies to these Regulations as it applies to an Act of the Assembly.

Amendments to the Water Framework Directive (Priority Substances and Classification) Regulations (Northern Ireland) 2011

3.—(1) The Water Framework Directive (Priority Substances and Classification) Regulations (Northern Ireland) 2011(**e**) are amended in accordance with paragraphs (2) to (9).

(2) In regulation 2 (interpretation)—

(a) for the definition of "biological boundary value" substitute—

""biological boundary value" in respect of biological quality elements means the classification boundaries for ecological status as set out in Annex V of the Water Framework Directive and as agreed following the EU intercalibration exercise(**f**);";

(b) after the definition of "biological boundary value" insert—

""cyprinid" means a type of lake or river which, in the Department's judgement, would support a sustainable fish population dominated by cyprinid species;";

(c) after the definition of "river basin management plan" insert—

(**a**) S.I. 2008/301
(**b**) 1972 c.68
(**c**) 1999 (N.I. 6)
(**d**) 1954 c.33 (N.I.)
(**e**) S.R. 2011 No.10
(**f**) EU Commission Decision 2013/480/EU

""salmonid" means a type of lake or river which, in the Department's judgement, would support a sustainable fish population dominated by salmonid species;

"shellfish waters" means any water classified under the Surface Waters (Shellfish) (Classification) Regulations (Northern Ireland) 1997(**a**);".

(3) For regulation 4 (Environmental standards for priority substances and other dangerous substances) substitute—

"Environmental standards for priority substances, Intermittent Discharge Standards and standards for Shellfish Waters

4.—(1) Subject to paragraph (2), the Department shall apply the standards for priority substances in Table 46 of Part 2 of Schedule 1 to surface waters or parts thereof.

(2) The Department may apply standards for sediment or for biota or for both sediment and biota to certain substances instead of the standards set out in Table 46 of Part 2 of Schedule 1 in certain categories of surface waters. If the Department applies this option:

(a) it shall apply for mercury and its compounds, a standard of 20 µg/kg, and/or for hexachlorobenzene, a standard of 10 µg/kg, and/or for hexachlorobutadiene, a standard of 55 µg/kg, these standards being for prey tissue (wet weight), choosing the most appropriate indicator from among fish, molluscs, crustaceans and other biota;

(b) it shall ensure that the standards applied for sediment and biota offer at least the same level of protection as the standards for water set out in Table 46 of Part 2 of Schedule 1;

(c) it shall determine for the substances mentioned in sub paragraphs (a) and (b), the frequency of monitoring in biota and/or sediment;

(d) it shall monitor biota and sediment at least annually, unless technical knowledge and expert judgement justify a different interval.

(3) The Department shall apply the standards for intermittent discharges specified in Part 4 of Schedule 1.

(4) The Department shall apply the standards for shellfish waters specified in Part 1 of Schedule 5 and endeavour to respect the guideline values and comments specified in Part 2 of that Schedule."

(4) In regulation 7(2) for "Table 38" substitute "Table 46".

(5) In regulation 8(1) for "Table 38" substitute "Table 46".

(6) For Schedule 1 substitute Schedule 1 to these Regulations.

(7) For Schedule 2 substitute Schedule 2 to these Regulations.

(8) For Schedule 3 substitute Schedule 3 to these Regulations.

(9) Following Schedule 4 insert Schedule 4 to these Regulations.

Revocations

4. The Surface Waters (Fishlife) (Classification) Regulations (Northern Ireland) 1997(**b**) are revoked.

5. The Surface Waters (Fishlife) (Classification) (Amendment) Regulations (Northern Ireland) 2007(**c**) are revoked.

(**a**) S.R. 1997 No. 489
(**b**) S.R. 1997 No. 488
(**c**) S.R. 2007 No. 405

Sealed with the Official Seal of the Department of the Environment on 10th February 2015.

Dave Foster
A senior officer of the Department of the Environment

SCHEDULE 1

Regulation 3(6)

Schedule substituted for Schedule 1 to the Water Framework Directive (Priority Substances and Classification) Regulations (Northern Ireland) 2011

"SCHEDULE 1

PART 1

Criteria for identifying the types of river, lake or transitional water to which the environmental standards specified in Part 2 of this Schedule apply

1. Subject to paragraph 2, to determine the dissolved oxygen, ammonia and biochemical oxygen demand standards applicable to a river or any part thereof, the Department shall assign to that river or part thereof the Type specified in Table 1 below which corresponds with the applicable site altitude and applicable alkalinity range specified in that Table.

2. Having assigned a Type in accordance with Table 1, the Department shall assign the subsequent Type in accordance with column 1 of Table 2 below.

3. To determine the morphological conditions applicable to a river or part thereof, the Department shall assign to that river or part thereof the Type specified in Table 3 below which corresponds with the applicable descriptions in that Table.

4. To determine the river flow standards applicable to a river or any part thereof, the Department shall assign the Type specified in column 1 of Table 4 below which corresponds to the applicable descriptions specified in columns 2, 3 and 4 of that Table.

5. To determine the total phosphorus standards to apply to a lake or any part thereof, the Department shall assign to that lake or part thereof the appropriate geological category, depth category and colour category specified in Tables 5, 6 and 7 below respectively.

6. To determine the lake level standards applicable to a lake or any part thereof, the Department shall assign the Type specified in columns 1 and 2 of Table 8 below.

7. To determine the morphological conditions applicable to a lake or any part thereof, the Department shall assign the hydromorphological characteristics of the lake or part thereof as being of the type specified in column 1 of Table 9 below which corresponds to the applicable measurements specified in columns 3 and 4 of that Table.

Table 1

Criteria for identifying the types of river to which the dissolved oxygen, ammonia and biochemical oxygen demand standards for rivers apply

Site Altitude	*Alkalinity (as mg/l $CaCO_3$)*				
	Less than 10	10 to 50	50 to 100	100 to 200	Over 200
Under 80 metres	Type 1	Type 2	Type 3	Type 5	Type 7
Over 80 metres			Type 4	Type 6	

Table 2

Final typology for dissolved oxygen, ammonia and biochemical oxygen demand in rivers	
Column 1	Column 2
Upland and low alkalinity	Types (1+2), 4 and 6
Lowland and high alkalinity	Types 3, 5 and 7

Table 3

Criteria for identifying types of river to which morphological conditions apply

Type	*Characteristics*			
Bedrock channel	Normally high altitude	Channel cuts down laterally	May have waterfalls and/or cascades	Bedrock substrate
Cascade Step Pool	Normally high altitude	Channel cuts down	Both turbulent and tranquil flows	Cobble and boulder substrate
Pool-riffle-glide	Normally medium altitude	Often not confined within a valley	Slightly meandering	Pebble and cobble substrate
Meandering	Normally low altitude	Flow laminar and would naturally interact with floodplain	Meandering	More fines than other substrates

Table 4

Criteria for identifying types of river to which the river flow standards apply

Column 1	Column 2	Column 3	Column 4	
Type	*Standard Average Annual Rainfall mm (period 1961-1990)*	*Base Flow Index (BFI)*	*Catchment area (km^2)*	
A1	< 810.5	< 0.715	Any	
		≥ 0.715	≥ 251.8	
A2	< 810.5	≥ 0.715	< 251.8	≤ 100 (A2 headwaters) > 100 (A2 downstream)
	≥ 810.5 and < 1413	≥ 0.7495	Any	≤ 100 (A2 headwaters) > 100 (A2 downstream)
B1	≥ 810.5 and < 1155	≥ 0.3615 and < 0.7495	< 267.4	
B2	≥ 810.5 and < 1413	≥ 0.3615 and < 0.7495	< 267.4	
C2	≥ 1155 and < 1413	≥ 0.3615 and < 0.7495	< 267.4	
	≥ 1413	≥ 0.3615	≥ 32.33	
D2	≥ 1413	≥ 0.3615	< 32.33	
	≥ 810.5	< 0.3615	Any	

Table 5

Geological categories to which total phosphorus, phytoplankton and phytobenthos standards for lakes apply

Geological category	*Annual mean alkalinity (micro-equivalents per litre)*
Low alkalinity	< 200
Moderate alkalinity	200 – 1000
High alkalinity	> 1000
Marl	

Table 6

Depth categories to which total phosphorus standards for lakes apply

Depth category	*Mean depth (metres)*
Very shallow	< 3
Shallow	3 – 15
Deep	> 15

Table 7

Colour categories to which total phosphorus standards for lakes apply

Colour category	*Platinum (mg/l)*
Humic	> 30
Non humic	≤ 30

Table 8

Geological characteristics used to identify lake types to which lake level standards apply

Categories	
Column 1	Column 2
Peat	*Non-Peat*
mean water colour ≥90 hazen units; or	mean water colour <90 hazen units; or
≥75% of solid catchment area comprised of peat	<75% of solid catchment area comprised of peat

Table 9

Hydromorphological characteristics used to identify lake types to which morphological conditions apply

Column 1	Column 2	Column 3	Column 4
Type	*Lake-MImAS[(1)] code*	*Mean Depth*	*Alkalinity*
Low Alkalinity Very Shallow	P/L-vS	<4m	< 20 mgl^{-1} $CaCO_3$
Low Alkalinity Shallow/Deep	P/L-ShD	>4m	< 20 mgl^{-1} $CaCO_3$
Moderate Alkalinity Very Shallow	MA-vS	<4m	20 – 100 mgl^{-1} $CaCO_3$
Moderate Alkalinity Shallow/Deep	MA-ShD	>4m	20 – 100 mgl^{-1} $CaCO_3$
High Alkalinity Very Shallow	HA/M-vS	<4m	> 100 mgl^{-1} $CaCO_3$
High Alkalinity Shallow/Deep	HA/M-ShD	>4m	> 100 mgl^{-1} $CaCO_3$

[(1)] Morphological Impact Assessment System

PART 2

Environmental Standards

Environmental standards for river water quality

1. Once the Department has, in accordance with paragraphs 1 and 2 of Part I of this Schedule, assigned to a river or any part thereof a Type—

(a) specified in column 1 of Table 1 below, it shall apply, as applicable, the "high", "good", "moderate", "poor" or "bad" dissolved oxygen standard specified in columns 2, 3, 4, 5 and 6 respectively of that Table to that river or part thereof;

(b) specified in column 1 of Table 2 below, it shall apply, as applicable, the "high", "good", "moderate", "poor" or "bad" ammonia standard specified in columns 2, 3, 4, 5 and 6 respectively of that Table to that river or part thereof;

(c) specified in column 1 of Table 3 below, it shall apply, as applicable, the "high", "good", "moderate", "poor" or "bad" biochemical oxygen demand standard specified in columns 2, 3, 4, 5 and 6 respectively of that Table to that river or part thereof.

2. The Department shall apply the "high", "good", "moderate", "poor" or "bad" biochemical oxygen demand standard specified in Table 3 below only for the purpose of deciding action to meet the standard for dissolved oxygen.

3. The Department shall apply, as applicable, the "high", "good", "moderate", "poor" or "bad" reactive phosphorus standard to all rivers or parts of such rivers, calculated in accordance with the formula specified in sub paragraph (a)—

(a) RP standard = $10^{((1.0497 \times \log_{10}(A)+1.066) \times (\log_{10}(\text{reference condition RP})-\log_{10}(3,500)) + \log_{10}(3,500))}$;

(b) In relation to the above formula—

"RP standard" is the annual mean concentration of reactive phosphorus in ug/l estimated for the lower class boundary of high, good, moderate and poor ecological status, depending on the value of "A" used;

"A" has the value 0.702 when calculating the standard for high; 0.532 when calculating the standard for good; 0.356 when calculating the standard for moderate; and 0.166 when calculating the standard for poor;

"reference condition RP" = $10^{(0.454 (\log_{10}\text{alk}) - 0.0018 (\text{altitude}) + 0.476)}$ and represents the annual mean concentration of reactive phosphorus at near natural conditions. If the predicted value of reference condition RP is <7ug/l, reference condition RP is set to 7ug/l;

"$\log_{10}$alk" means $\log_{10}$(alkalinity), where alkalinity is the concentration of $CaCO_3$ in mg/l. For sites with an alkalinity greater than 250, alkalinity is set to 250. For sites with an alkalinity less than 2, it is set to 2;

"altitude" means the site's altitude above sea level in metres. For sites with an altitude greater than 355 metres, altitude is set to 355 metres.

4. The Department shall apply, as applicable, the "high", "good", "moderate" or "poor" temperature standards specified in columns 2, 3, 4 and 5 respectively of Table 4 below.

Environmental standards for river flows

5.—(1) Once the Department has, in accordance with paragraph 4 of Part I of this Schedule, assigned to a river or part thereof a Type specified in column 1 of Tables 5, 6, 7 or 8 below, it shall apply, as applicable, the "high", "good", "moderate" or "poor" river flow standards as specified by the boundary values in those Tables to that river or part thereof.

(2) The Department may, when assessing the water balance results against the "high", "good", "moderate" and "poor" boundary values, take into account the spatial extent of the river flow standard based upon the contiguous length or percentage length of the river water body.

(3) The result of this classification shall be used only to determine "high" status in accordance with Part 1 of Schedule 2.

Environmental standards for lake water quality

6. The Department shall apply, as applicable, the "high", "good", "moderate", "poor" or "bad" dissolved oxygen standard specified in Table 9 below to all lakes or parts of such lakes.

7. The Department shall apply the "good" salinity standard specified in Table 10 below to all lakes or parts of such lakes.

8. Once the Department has, in accordance with paragraph 5 of Part I of this Schedule, assigned to a lake or part thereof a geological category, depth category and colour category specified in Tables 5, 6 and 7 in that Part, it shall apply, as applicable, the "high", "good", "moderate", "poor" or "bad" total phosphorus standard to that lake or part thereof, calculated in accordance with the formulae specified in columns 1, 2, 3, 4 and 5 respectively of Table 11 below, where in relation to those formulae—

"R" represents the annual mean total phosphorus concentration expected for the lake in the absence of more than very minor phosphorus inputs to the lake resulting from human activities and, where a reliable estimate of 'C' is available, shall have the value given by the formula: Antilog_{10} [1.36 – (0.09 x A) + (0.24 x B)] for non-humic lakes; and Antilog_{10} [1.62 – (0.09) x A + (0.24 x B)] for humic lakes;

"A" = Log_{10} of the altitude in metres above mean sea level of the lake;

"B" = Log_{10} (C÷D);

"C" = the mean alkalinity of the lake in milli-equivalents per litre estimated for the lake;

"D" = the mean depth of the lake in metres;

"H" = 0.755 + (0.012 x C) – (0.001 x D); or 0.7, whichever is larger value; and

"G" = 0.506 + (0.023 x C) – (0.002 x D); or 0.46, whichever is the larger value.

9. If the Department does not have the necessary data to calculate the total phosphorus standard applicable to a lake or part thereof in accordance with paragraph 8, it shall apply, as applicable to the lake or part thereof, the "high", "good", "moderate", "poor" or "bad" total phosphorus standard specified in column 2, 3, 4, 5 and 6 respectively, of Table 12 below which corresponds with the combination of geological category and depth categories specified in column 1 of that Table that is applicable to the lake or part thereof.

Environmental standards for protection of inland lake water levels

10. Once the Department has assigned the characteristics of a lake or part thereof, in accordance with paragraph 6 of Part I of this Schedule, it shall apply, as applicable, to the lake or part thereof the "high", "good", "moderate" or "poor" lake standards specified in columns 1, 2, 3 and 4 of Table 13.

Environmental standards for transitional and coastal water quality

11. The Department shall apply, as applicable, the dissolved oxygen standards for "high", "good", "moderate", "poor" or "bad" specified in Table 14 and Table 15 below to transitional or coastal waters or parts thereof.

12. The Department shall apply, as applicable, the dissolved inorganic nitrogen standards for "high", "good", "moderate", "poor" or "bad" specified in Table 16 below to transitional or coastal waters or parts thereof.

Environmental standards for specific pollutants

13. The Department shall apply, as applicable, the standards for specific pollutants given in Tables 17 to 45 below to surface waters or parts thereof.

Environmental Standards for River Water Quality

Table 1

Standards for dissolved oxygen in rivers

Dissolved oxygen (percent saturation)					
(10-percentile)					
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Type[1]	High	Good	Moderate	Poor	Bad
Upland and low alkalinity	80	75	64	50	< 50
Lowland and high alkalinity	70	60	54	45	< 45

[1] Where a lowland, high alkalinity river is a salmonid river the standards for the upland, low alkalinity type will apply.

Table 2

Standards for ammonia in rivers

Total ammonia [1] (mg/l)					
(90-percentile)					
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Type	High	Good	Moderate	Poor	Bad
Upland and low alkalinity	0.2	0.3	0.75	1.1	> 1.1
Lowland and high alkalinity	0.3	0.6	1.1	2.5	> 2.5

[1] Note that Ammonia is a Specific Pollutant and considered as such for compliance. It is included in this section as it is commonly assessed alongside the other inorganic chemistry elements.

Table 3

Standards for Biochemical Oxygen Demand in rivers

Biochemical oxygen demand (mg/l)[1]					
(90-percentile)					
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Type[2]	High	Good	Moderate	Poor	Bad
Upland and low alkalinity	3	4	6	7.5	> 7.5
Lowland and high alkalinity	4	5	6.5	9	> 9

[1] The standard for Biochemical Oxygen Demand shall be used when deciding action to meet the standard for dissolved oxygen.

[2] Where a lowland, high alkalinity river is a salmonid river the standards for the upland, low alkalinity type will apply.

Table 4

Standards for temperature in rivers

Temperature (◦C) as an annual 98th percentile standard				
Column 1	*Column 2*	*Column 3*	*Column 4*	*Column 5*
Type	High	Good	Moderate	Poor
Salmonid	20	23	28	30
Cyprinid	25	28	30	32

Table 5

High environmental standards for river flows

Permitted abstraction per day as a percentage of the natural mean daily flow(Q)[1]		
High		
Column 1	Column 2	Column 3
	Maximum permitted % abstraction at Q exceeding Q_{95}[2]	Maximum permitted % abstraction at Q **not** exceeding Q_{95}
A1, A2 (downstream), A2 (headwaters), B1, B2, C2, D2	10	5

[1] 'Q' is the mean daily flow for a specified period of time

[2] 'Qx' is the Q that is expected to be exceeded by 'x' percent for a specified period of time

Table 6

Good environmental standards for river flows

Permitted abstraction per day as a percentage of the natural mean daily flow(Q)				
Good				
Column 1	Column 2	Column 3	Column 4	Column 5
River type	Maximum % abstraction at Q exceeding Q_{60}	Maximum % abstraction at Q exceeding Q_{70}	Maximum % abstraction at Q exceeding Q_{95}	Maximum % abstraction at Q **not** exceeding Q_{95}
A1	35	30	25	20
A2 (downstream), B1, B2	30	25	20	15
A2 (headwaters), C2, D2	25	20	15	10

Table 7

Moderate environmental standards for river flows

Permitted abstraction per day as a percentage of the natural mean daily flow(Q)				
Moderate				
Column 1	Column 2	Column 3	Column 4	Column 5
River type	Maximum % abstraction at Q exceeding Q_{60}	Maximum % abstraction at Q exceeding Q_{90}	Maximum % abstraction at Q exceeding Q_{95}	Maximum % abstraction at Q **not** exceeding Q_{95}
A1	70	50-70[(1)]	50	45
A2 (downstream), B1, B2,	70	45-70[(1)]	45	40
A2 (headwaters), C2, D2	70	40-70[(1)]	40	35

[(1)] incremental increase in allowable take at flows $<Q_{60}$ to $\geq Q_{90}$

Table 8

Poor environmental standards for river flows

Permitted abstraction per day as a percentage of the natural mean daily flow(Q)				
Poor				
Column 1	Column 2	Column 3	Column 4	Column 5
River type	Maximum % abstraction at Q exceeding Q_{60}	Maximum % abstraction at Q exceeding Q_{90}	Maximum % abstraction at Q exceeding Q_{95}	Maximum % abstraction at Q **not** exceeding Q_{95}
A1	Q_x less 25% of Q_{90}	Q_x less 25% of Q_{90}	75	70
A2 (downstream), B1, B2,	Q_x less 30% of Q_{90}	Q_x less 30% of Q_{90}	70	65
A2 (headwaters), C2, D2	Q_x less 35% of Q_{90}	Q_x less 35% of Q_{90}	65	60

Environmental Standards for Lake Water Quality

Table 9

Standards for dissolved oxygen in lakes

Status	*Mean in July – August (mg/l)*	
	Salmonid	Cyprinid
High	9	8
Good	7	6
Moderate	4	4
Poor	1	1
Bad	< 1	< 1

Table 10

Salinity Standards for lakes with no natural saline influence

Status	*Proposed Boundary*
	Annual Mean (micro Siemens per centimetre)
Good	1000

Table 11

Total phosphorus standards for lakes

Annual mean concentration of total phosphorous (µg/l)				
Column 1	Column 2	Column 3	Column 4	Column 5
High	Good	Moderate	Poor	Bad
R ÷ H; or 5, whichever is the larger value	R ÷ G; or 8, whichever is the larger value	(R ÷ G) ÷ 0.5	(R ÷ G) ÷ 0.25	> (R ÷ G) ÷ 0.25

Table 12

Type-specific total phosphorus standards for lakes where the standards specified in Table 11 above do not apply

Annual mean concentration of total phosphorus (µg/l)					
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Geological and depth category	High	Good	Moderate	Poor	Bad
High alkalinity; shallow	16	23	46	92	> 92
High alkalinity; very shallow	23	31	62	124	> 124
Moderate alkalinity; deep	8	12	24	48	> 48
Moderate alkalinity; shallow	11	16	32	64	> 64
Moderate alkalinity; very shallow	15	22	44	88	> 88
Low alkalinity; deep	5	8	16	32	> 32
Low alkalinity; shallow	7	10	20	40	> 40
Low alkalinity; very shallow	9	14	28	56	> 56
Marl; shallow	9	20	40	80	> 80
Marl; very shallow	10	24	48	96	> 96

Table 13

Environmental standards for lake water levels

Daily maximum % reduction in the habitable zone lake surface area for 99% of the days in any year			
Column 1	Column 2	Column 3	Column 4
High	Good	Moderate	Poor
1	5	10	20
The habitable zone lake surface is dependent on whether the lake is considered to have the geological sub-type "Peat" or "Non-Peat". The habitable zone lake surface area means the proportion of the reference conditions[(1)] lake surface area from the shore to a depth 5 metres deeper than the depth to which light penetration to the lake bed would be sufficient to enable the growth of rooted plants (macrophytes) or bottom-living algae. In the absence of field data to the contrary, the depth to which light penetration to the lake bed is sufficient to enable the growth of rooted plants (macrophytes) or bottom-living algae may be taken to be 2 metres for lakes with the geological sub-type of "Peat" and 7 metres for "Non-Peat" lakes. The lake habitable zone extends 5m below the level of light penetration to account for impacts on the aphotic habitat.			

[(1)] The reference conditions lake surface area means the natural lake surface area in the absence of any abstractions, discharges or other man-made influences

Environmental Standards for Transitional and Coastal Water Quality

Table 14

Dissolved oxygen standards for transitional and coastal waters with salinities normalised to 35

	Dissolved oxygen concentrations (mg/l) as 5-percentile values
High	5.7
Good	4.0
Moderate	2.4
Poor	1.6
Bad	<1.6

Table 15

Dissolved oxygen standards for transitional and coastal waters with salinities <35

	Dissolved oxygen concentrations (mg/l) as 5-percentile values
High	≥5.7
Good	≥4.0 and <5.7
Moderate	≥2.4 and <4.0
Poor	≥1.6 and <2.4
Bad	<1.6

Table 16

Dissolved inorganic nitrogen standards for coastal waters with salinities from 30-34.5 normalised to salinity of 32, and transitional waters with salinities < 30 normalised to a salinity of 25.

	Mean dissolved inorganic nitrogen concentration (micromoles per litre) during the period 1st December to 28th February
High	12
Good	18
Moderate	30
Poor	40.5
Bad	>40.5

Environmental Standards for Specific Pollutants

Table 17

Environmental standards for 2,4-Dichlorophenoxyacetic acid (2,4-D)

Good standards for rivers and freshwater lakes		*Good standards for transitional and coastal waters*	
Column 1	Column 2(1)	Column 3	Column 4(1)
Annual mean (µg/l)	95-percentile (µg/l)	Annual mean (µg/l)	95-percentile (µg/l)
0.3	1.3	0.3	1.3

(1) The standards for 2,4 D specified in Column 2 and Column 4 must not be used for the purpose of classifying the ecological status or potential of bodies of surface water.

Table 18

Environmental standards for 2,4-Dichlorophenol

Good standard for rivers and freshwater lakes		*Good standard for transitional and coastal waters*	
Column 1	Column 2	Column 3	Column 4
Annual mean (µg/l)	95-percentile (µg/l)	Annual mean (µg/l)	95-percentile (µg/l)
4.2	140	0.42	6

Table 19

Environmental standards for 3,4-Dichloroaniline

Good standard for rivers and freshwater lakes		*Good standard for transitional and coastal waters*	
Column 1	Column 2	Column 3	Column 4
Annual mean (µg/l)	95-percentile (µg/l)	Annual mean (µg/l)	95-percentile (µg/l)
0.2	5.4	0.2	5.4

Table 20

Environmental standards for arsenic (dissolved)

Good standard for rivers and freshwater lakes	*Good standard for transitional and coastal waters*
Column 1[(1)]	Column 2[(1)]
Annual mean (µg/l)	Annual mean (µg/l)
50	25

[(1)] The standard for arsenic refers to the dissolved fraction of a water sample obtained by filtration through a 0.45µm filter or any equivalent pre-treatment

Table 21

Environmental standards for benzyl butyl phthalate

Good standard for rivers and freshwater lakes		*Good standard for transitional and coastal waters*	
Column 1	Column 2	Column 1	Column 2
Annual mean (µg/l)	95-percentile (µg/l)	Annual mean (µg/l)	95-percentile (µg/l)
7.5	51	0.75	10

Table 22

Environmental standards for carbendazim

Good standards for rivers and freshwater lakes	
Column 1	Column 2
Annual mean (µg/l)	95-percentile (µg/l)
0.15	0.7

Table 23

Environmental standards for chlorine

Good standards for rivers and freshwater lakes		*Good standard for transitional and coastal waters*
Column 1	Column 2[(1)]	Column 3[(1)]
Annual mean concentration (µg/l) of total available chlorine	95-percentile concentration (µg/l) of total available chlorine	95-percentile concentration (µg/l) of total residual oxidant[(2)]
2	5	10

[(1)] The standards for chlorine specified in Column 2 and 3 must not be used for the purpose of classifying the ecological status or potential of bodies of surface water.

[(2)] The term "total residual oxidants" refers to the sum of all oxidising agents existing in water, expressed as available chlorine.

Table 24

Environmental standards for chlorothalonil

Good standards for rivers and freshwater lakes	
Column 1	Column 2
Annual mean (µg/l)	95-percentile (µg/l)
0.035	1.2

Table 25

Environmental standards for chromium VI

Good standard for rivers and freshwater lakes	*Good standards for transitional and coastal waters*	
Column 1	Column 2	Column 3[(1)]
Annual mean concentration (µg/l) of dissolved chromium VI	Annual mean concentration (µg/l) of dissolved chromium VI	95-percentile concentration (µg/l) of dissolved chromium VI
3.4	0.6	32

[(1)] The standard for chromium VI specified in column 3 must not be used for the purpose of classifying the ecological status or potential of bodies of surface water.

Table 26

Environmental standards for chromium III

Good standards for rivers and freshwater lakes	
Column 1	Column 2[(1)]
Annual mean concentration (µg/l) of dissolved chromium III	95-percentile concentration (µg/l) of dissolved chromium III
4.7	32

[(1)] The standard for chromium III specified in column 2 must not be used for the purpose of classifying the ecological status or potential of bodies of surface water

Table 27

Environmental standards for copper

Good standards for rivers and freshwater lakes	*Good standards for transitional and coastal waters[(2)]*
Column 1	Column 2
Annual mean concentration (µg/l) of dissolved copper	Annual mean concentration (µg/l) of dissolved copper
1(bioavailable)[(1)]	3.76 µg/l dissolved, where DOC[(3)] ≤ 1 mg/l
	3.76 +(2.677 × ((DOC/2) - 0.5)) µg/l dissolved, where DOC > 1 mg/l

[(1)] bioavailable means the fraction of the dissolved concentration of copper likely to result in toxic effects as determined using the Metal Bioavailability Assessment Tool (also referred to as a PNEC Estimator) for copper.

[(2)] The recommended salt water standard applies to the fraction of a water sample that passes through a 0.45-µm filter or that is obtained by any equivalent pre-treatment.

[(3)] "DOC" means the annual mean concentration of dissolved organic carbon in mg/l.

Table 28

Environmental standards for cyanide

Good standards for rivers and freshwater lakes		*Good standards for transitional and coastal waters*	
Column 1	Column 2[(1)]	Column 3	Column 4[(1)]
Annual mean concentration (µg/l) of 'free' cyanide (HCN and CN)	95-percentile concentration (µg/l) of 'free'cyanide (HCN and CN)	Annual mean concentration (µg/l) of hydrogen cyanide	95-percentile concentration (µg/l) of hydrogen cyanide
1	5	1	5

[(1)] The standards for cyanide specified in column 2 and column 4 must not be used for the purpose of classifying the ecological status or potential of bodies of surface water.

Table 29

Environmental standards for cypermethrin

Good standards for rivers and freshwater lakes		*Good standards for transitional and coastal waters*	
Column 1	Column 2	Column 3	Column 4
Annual mean (ng/l)	0.1	Annual mean (ng/l)	0.1
95-percentile (ng/l)	0.4	95-percentile (ng/l)	0.41

Table 30

Environmental standards for diazinon

Good standards for rivers and freshwater lakes		*Good standards for transitional and coastal waters*	
Column 1	Column 2	Column 3	Column 4
Annual mean (µg/l)	95-percentile (µg/l)	Annual mean (µg/l)	95-percentile (µg/l)
0.01	0.02	0.01	0.26

Table 31

Environmental standards for dimethoate

Good standards for rivers and freshwater lakes		*Good standards for transitional and coastal waters*	
Column 1	Column 2	Column 3	Column 4
Annual mean (µg/l)	95-percentile (µg/l)	Annual mean (µg/l)	95-percentile (µg/l)
0.48	4.0	0.48	4.0

Table 32

Environmental standards for glyhosate

Good standards for rivers and freshwater lakes		*Good standards for transitional and coastal waters*	
Column 1	Column 2	Column 3	Column 4
Annual mean (µg/l)	95-percentile (µg/l)	Annual mean (µg/l)	95-percentile (µg/l)
196	398	196	398

Table 33

Environmental standards for iron

Good standard for rivers and freshwater lakes	*Good standard for transitional and coastal waters*
Column 1	Column 2
Annual mean concentration (mg/l) of dissolved iron	Annual mean concentration (mg/l) of dissolved iron
1	1

Table 34

Environmental standards for linuron

Good standards for rivers and freshwater lakes		*Good standards for transitional and coastal waters*	
Column 1	Column 2	Column 3	Column 4
Annual mean (µg/l)	95-percentile (µg/l)	Annual mean (µg/l)	95-percentile (µg/l)
0.5	0.9	0.5	0.9

Table 35

Environmental standards for manganese

Good standard for rivers and freshwater lakes
Annual mean (µg/l) bioavailable
123[(1)]

[(1)] bioavailable means the fraction of the dissolved concentration of manganese likely to result in toxic effects as determined in accordance with the Metal Bioavailability Assessment Tool for manganese.

Table 36

Environmental standards for mecoprop

Good standards for rivers and freshwater lakes		*Good standards for transitional and coastal waters*	
Column 1	Column 2	Column 3	Column 4
Annual mean (µg/l)	95-percentile (µg/l)	Annual mean (µg/l)	95-percentile (µg/l)
18	187	18	187

Table 37

Environmental standards for methiocarb

Good standards for rivers and freshwater lakes	
Column 1	Column 2
Annual mean (µg/l)	95-percentile (µg/l)
0.01	0.77

Table 38

Environmental standards for pendimethalin

Good standards for rivers and freshwater lakes	
Column 1	Column 2
Annual mean (µg/l)	95-percentile (µg/l)
0.3	0.58

Table 39

Environmental standards for permethrin

Good standard for rivers and freshwater lakes		*Good standard for transitional and coastal waters*	
Column 1	Column 2	Column 3	Column 4
Annual mean (µg/l)	95-percentile (µg/l)	Annual mean (µg/l)	95-percentile (µg/l)
0.001	0.01	0.0002	0.001

Table 40

Environmental standards for phenol

Good standards for rivers and freshwater lakes		*Good standards for transitional and coastal waters*	
Column 1	Column 2	Column 3	Column 4
Annual mean (µg/l)	95-percentile (µg/l)	Annual mean (µg/l)	95-percentile (µg/l)
7.7	46	7.7	46

Table 41

Environmental standards for tetrachloroethane (TCE)

Good standards for rivers and freshwater lakes	
Column 1	Column 2
Annual mean (µg/l)	95-percentile (µg/l)
140	1848

Table 42

Environmental standards for toluene

Good standards for rivers and freshwater lakes		*Good standards for transitional and coastal waters*	
Column 1	Column 2	Column 3	Column 4
Annual mean (µg/l)	95-percentile (µg/l)	Annual mean (µg/l)	95-percentile (µg/l)
74	380	74	370

Table 43

Environmental standards for triclosan

Good standards for rivers and freshwater lakes		*Good standards for transitional and coastal waters*	
Column 1	Column 2	Column 3	Column 4
Annual mean (µg/l)	95-percentile (µg/l)	Annual mean (µg/l)	95-percentile (µg/l)
0.1	0.28	0.1	0.28

Table 44

Environmental standards for un-ionised ammonia as nitrogen

Good standard for rivers and freshwater lakes	*Good standard for transitional and coastal waters*
Annual mean (µg/l)	Annual mean (µg/l)
Not applicable	21

Table 45

Environmental standards for zinc

Good standards for rivers and freshwater lakes	*Good standards for transitional and coastal waters*
Column 1	Column 2
Annual mean	Annual mean
10.9 bioavailable[(1)] plus Ambient Background Concentration[(2)] (µg/l) dissolved	6.8 dissolved plus Ambient Background Concentration (µg/l)

[(1)] bioavailable means the fraction of the dissolved concentration of zinc likely to result in toxic effects as determined using the Metal Bioavailability Assessment Tool (also referred to as a PNEC Estimator) for zinc.

[(2)] Ambient Background Concentration is an estimate of background levels of zinc based on a low percentile of monitoring data. A figure of 1 µg/l has been estimated for freshwaters in Northern Ireland.

Table 46

Environmental quality standards for priority substances and other substances for which standards have been set at EU-level

Name of substance	*Chemical Abstracts Service number*	*All rivers and lakes*		*All transitional and coastal waters*	
		Good		Good	
		Annual mean[(i)] (AA-EQS) (µg/l)	Maximum allowable concentration[(ii)] (MAC-EQS) (µg/l)	Annual mean[(i)] (AA-EQS) (µg/l)	Maximum allowable concentration[(ii)] (MAC-EQS) (µg/l)
Alachlor	15972-60-8	0.3	0.7	0.3	0.7
Anthracene	120-12-7	0.1	0.4	0.1	0.4
Atrazine	1912-24-9	0.6	2.0	0.6	2.0
Benzene	71-43-2	10	50	8	50
Brominated diphenylether[(iii)]	32534-81-9	0.0005	not applicable	0.0002	not applicable
Cadmium and its compounds (depending on water hardness classes)[(iv)]	7440-43-9	≤ 0.08 (class 1)	≤ 0.45 (class 1)	0.2	≤ 0.45 (class 1)
		0.08 (class 2)	0.45 (class 2)		0.45 (class 2)
		0.09 (class 3)	0.6 (class 3)		0.6 (class 3)
		0.15 (class 4)	0.9 (class 4)		0.9 (class 4)
		0.25 (class 5)	1.5 (class 5)		1.5 (class 5)
Carbon-tetrachloride	56-23-5	12	not applicable	12	not applicable
C10-13 Chloroalkanes	85535-84-8	0.4	1.4	0.4	1.4
Chlorfenvinphos	470-90-6	0.1	0.3	0.1	0.3
Chlorpyrifos (Chlorpyrifos-ethyl)	2921-88-2	0.03	0.1	0.03	0.1
Cyclodiene pesticides: Aldrin Dieldrin Endrin Isodrin	 309-00-2 60-57-1 72-20-8 465-73-6	Σ=0.01	not applicable	Σ=0.005	not applicable
DDT total[(v)]	not applicable	0.025	not applicable	0.025	not applicable
Para-para-DDT	50-29-3	0.01	not applicable	0.01	not applicable
1,2-	107-06-2	10	not applicable	10	not applicable

Name of substance	*Chemical Abstracts Service number*	*All rivers and lakes*		*All transitional and coastal waters*	
		Good		Good	
		Annual mean[(i)] (AA-EQS) (µg/l)	Maximum allowable concentration[(ii)] (MAC-EQS) (µg/l)	Annual mean[(i)] (AA-EQS) (µg/l)	Maximum allowable concentration[(ii)] (MAC-EQS) (µg/l)
Dichloroethane					
Dichloromethane	75-09-2	20	not applicable	20	not applicable
Di(2-ethylhexyl)-phthalate (DEHP)	117-81-7	1.3	not applicable	1.3	not applicable
Diuron	330-54-1	0.2	1.8	0.2	1.8
Endosulfan	115-29-7	0.005	0.01	0.0005	0.004
Fluoranthene	206-44-0	0.1	1	0.1	1
Hexachloro-benzene	118-74-1	0.01[(vi)]	0.05	0.01[(vi)]	0.05
Hexachloro-butadiene	87-68-3	0.1[(vi)]	0.6	0.1[(vi)]	0.6
Hexachloro-cyclohexane	608-73-1	0.02	0.04	0.002	0.02
Isoproturon	34123-59-6	0.3	1.0	0.3	1.0
Lead and its compounds	7439-92-1	7.2	not applicable	7.2	not applicable
Mercury and its compounds	7439-97-6	0.05[(vi)]	0.07	0.05[(vi)]	0.07
Naphthalene	91-20-3	2.4	not applicable	1.2	not applicable
Nickel and its compounds	7440-02-0	20	not applicable	20	not applicable
Nonylphenol (4-Nonylphenol)	104-40-5	0.3	2.0	0.3	2.0
Octylphenol ((4-(1,1',3,3'-tetramethylbutyl)-phenol))	140-66-9	0.1	not applicable	0.01	not applicable
Pentachloro-benzene	608-93-5	0.007	not applicable	0.0007	not applicable
Pentachloro-phenol	87-86-5	0.4	1	0.4	1
Benzo(a)pyrene	50-32-8	0.05	0.1	0.05	0.1
Benzo(b)fluor-anthene	205-99-2	Σ=0.03	not applicable	Σ=0.03	not applicable
Benzo(k)fluor-anthene	207-08-9				
Benzo(g,h,i)-perylene	191-24-2	Σ=0.002	not applicable	Σ=0.002	not applicable
Indeno(1,2,3-cd)-pyrene	193-39-5				
Simazine	122-34-9	1	4	1	4
Tetrachloro-ethylene	127-18-4	10	not applicable	10	not applicable

Name of substance	*Chemical Abstracts Service number*	*All rivers and lakes*		*All transitional and coastal waters*	
		Good		Good	
		Annual mean[(i)] (AA-EQS) (µg/l)	Maximum allowable concentration[(ii)] (MAC-EQS) (µg/l)	Annual mean[(i)] (AA-EQS) (µg/l)	Maximum allowable concentration[(ii)] (MAC-EQS) (µg/l)
Trichloro-ethylene	79-01-6	10	not applicable	10	not applicable
Tributyltin compounds (Tributhyltin-cation)	36643-28-4	0.0002	0.0015	0.0002	0.0015
Trichloro-benzenes	12002-48-1	0.4	not applicable	0.4	not applicable
Trichloro-methane	67-66-3	2.5	not applicable	2.5	not applicable
Trifluralin	1582-09-8	0.03	not applicable	0.03	not applicable

[(i)] This parameter is the Environmental Quality Standard expressed as an annual average value (AA-EQS). Unless otherwise specified, it applies to the total concentrations of all isomers of the pollutant concerned.

[(ii)] This parameter is the Environmental Quality Standard 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.

[(iii)] For the group of priority substances covered by brominated diphenylethers listed in Decision 2455/2001/EC, an EQS is established only for congener numbers 28, 47, 99, 100, 153 and 154.

[(iv)] For cadmium and its compounds the EQS values vary dependent upon the hardness of the water as specified in five class categories (class 1: <40mg $CaCO_3$/l, class 2: 40 to <50mg $CaCO_3$/l, class 3: 50 to <100mg $CaCO_3$/l, class 4: 100 to <200mg $CaCO_3$/l and class 5: ≥200mg $CaCO_3$/l).

[(v)] DDT total comprises the sum of the isomers 1,1,1-trichloro-2,2 bis (*p*-chlorophenyl) ethane (CAS number 50-29-3; EU number 200-024-3); 1,1,1-trichloro-2 (*o*-chlorophenyl)-2-(*p*-chlorophenyl) ethane (CAS number 789-02-6; EU number 212-332-5); 1,1-dichloro-2,2 bis (*p*-chlorophenyl) ethylene (CAS number 72-55-9; EU number 200-784-6); and 1,1-dichloro-2,2 bis (*p*-chlorophenyl) ethane (CAS number 72-54-8; EU number 200-783-0).

[(vi)] If the Department does not apply standards for biota it shall introduce stricter standards for water in order to achieve the same level of protection as the standards for biota set out in regulation 4. The Department shall notify the European Commission of the reasons and basis for using this approach, the alternative standards used, the data and the methodology by which the alternative standards were derived and the categories of surface water to which they would apply.

Application of the standards set out in Table 46

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.

The calculation of the arithmetic mean, the analytical method used and, where there is no appropriate analytical method meeting the minimum performance criteria, the method of applying a standard must be in accordance with implementing acts adopting technical specifications for chemical monitoring and quality of analytical results, in accordance with the Water Framework Directive.

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.

However, in accordance with section 1.3.4. of Annex V to the Water Framework Directive, the Department may introduce statistical methods, such as a percentile calculation, to ensure an acceptable level of confidence and precision for determining compliance with the MAC-EQS.

With the exception of cadmium, lead, mercury and nickel (hereinafter "metals") the standards set out in Table 46 are expressed as total concentrations in the whole water sample. In the case of metals the standards refer to the dissolved concentration i.e. the dissolved phase of a water sample obtained by filtration through a 0.45 μm filter or any equivalent pre-treatment.

The Department may, when assessing the monitoring results against the standards, take into account:

natural background concentrations for metals and their compounds, if they prevent compliance with the standard; and

hardness, pH or other water quality parameters that affect the bioavailability of metals.

PART 3

Boundary values for biological quality elements

Boundary values for aquatic plants and animals in rivers

1. The Department shall apply, as applicable, to any river or part thereof, the "high", "good", "moderate", "poor" or "bad" benthic invertebrate fauna boundary value for rivers specified in Tables 1 and 2 below.

2. The Department shall apply, as applicable, to any river or part thereof, the "high", "good", "moderate", "poor" or "bad" phytobenthos boundary value for rivers specified in Table 3 below.

3. The Department shall apply, as applicable, to any river or part thereof, the "high", "good", "moderate", "poor" or "bad" aquatic macrophyte boundary value for rivers specified in Table 4 below.

4. The Department shall apply, as applicable, to any river or part thereof, the "high", "good", "poor" or "bad" freshwater fish boundary value for rivers specified in Table 5 below.

Boundary values for aquatic plants and animals in lakes

5. To determine the phytoplankton and phytobenthos boundaries to apply to a lake or any part thereof, the Department shall assign to that lake or any part thereof, the appropriate geological category, depth category and colour category specified in Schedule 1 Part 1, Tables 5, 6 and 7 respectively.

6. The Department shall apply, as applicable, to any lake or part thereof, the "high", "good", "moderate", "poor" or "bad" phytoplankton boundary values for lakes specified in columns 2, 3, 4, 5 and 6 of Table 6 below and columns 2, 3, 4, 5 and 6 of Table 7 below and columns 2 and 3 of Table 8 below respectively.

7. The Department shall apply, as applicable, to any lake or part thereof, the "high", "good", "moderate", "poor" or "bad" phytobenthos boundary value for lakes specified in Table 9 below.

8. The Department shall apply, as applicable, to any lake or part thereof, the "high", "good", "moderate", "poor" or "bad" aquatic macrophyte boundary value for lakes specified in Table 10 below.

9. The Department shall apply, as applicable, to any lake or part thereof, the "high", "good", "moderate", "poor" or "bad" freshwater fish boundary value for lakes specified in Table 11 below.

Boundary values for aquatic plants and animals in transitional and coastal waters

10. The Department shall apply, as applicable, to any transitional water, coastal water or part thereof, the "high", "good", "moderate", "poor" or "bad" benthic invertebrate fauna boundary values for transitional and coastal waters specified in Tables 12 and 13 below.

11. The Department shall apply, as applicable, to any transitional water, coastal water or part thereof, the "high", "good", "moderate", "poor" or "bad" aquatic angiosperm boundary value for transitional and coastal waters specified in Table 14 below.

12. The Department shall apply, as applicable, to any transitional water, coastal water or part thereof, the "high", "good", "moderate", "poor" or "bad" phytoplankton boundary value for transitional and coastal waters specified in Table 15 below.

13. The Department shall apply, as applicable, to any transitional water, coastal water or part thereof, the "high", "good", "moderate", "poor" or "bad" aquatic macroalgae boundary values for transitional and coastal waters specified in Tables 16 and 17 below.

14. The Department shall apply, as applicable, to any transitional water or part thereof, the "high", "good", "moderate", "poor" or "bad" fish boundary value for transitional waters specified in Table 18 below.

Table 1

Benthic invertebrate fauna Walley Hawkes Paisley Trigg (WHPT) boundary values (WHPT Average Score per Taxon) for rivers

Boundary values for the degree to which the annual mean sensitivity to disturbance of the observed taxa differs from the annual mean sensitivity of the taxa expected under reference conditions	
	Ecological quality ratio
High	0.97
Good	0.86
Moderate	0.72
Poor	0.59
Bad	< 0.59

Table 2

Benthic invertebrate fauna Walley Hawkes Paisley Trigg (WHPT) boundary values (WHPT Number of TAXA) for rivers

Boundary values for the degree to which the annual mean number of disturbance-sensitive taxa differs from the annual mean number of taxa expected under reference conditions	
	Ecological quality ratio
High	0.80
Good	0.68
Moderate	0.56
Poor	0.47
Bad	< 0.47

Table 3

Phytobenthos (Diatom) boundary values for rivers

Boundary values for the degree to which the relative annual mean abundances of nutrient-sensitive and nutrient-tolerant groups of diatom taxa differ from the relative annual mean abundances of these groups of taxa expected under reference conditions	
	Ecological quality ratio
High	0.80
Good	0.60
Moderate	0.40
Poor	0.20
Bad	< 0.20

Table 4

Macrophyte boundary values for rivers

Boundary values for the degree to which the annual mean abundances of disturbance-sensitive and disturbance-tolerant macrophyte taxa differ from the annual mean abundances of those taxa under reference conditions	
	Ecological quality ratio
High	0.80
Good	0.60
Moderate	0.40
Poor	0.20
Bad	< 0.20

Table 5

Freshwater Fish FCS2 (Ireland) boundary values for rivers

	Ecological quality ratio[(1)]
High	0.845 < EQR<= 1.0
Good	0.54 < EQR <= 0.854
Moderate	0.12 < EQR <= 0.54
Poor	0.007 < EQR <= 0.12
Bad	0 <= EQR <= 0.007

(1) FCS2 (Ireland) is the Fisheries Classification Scheme 2 (Ireland) model developed for WFD Ecoregion 17 which is the island of Ireland

Table 6

Phytoplankton boundary values for lakes – chlorophyll a

Boundary values for the degree to which the biomass of phytoplankton taxa (as represented by the annual mean chlorophyll a concentration) differ from the biomass of those phytoplankton taxa (annual mean chlorophyll a concentration) expected under reference conditions					
Ecological quality ratio					
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Lake Type	High alkalinity, shallow Marl shallow	High alkalinity, very shallow Moderate alkalinity, very shallow Low alkalinity, very shallow Marl very shallow	Moderate alkalinity, deep Moderate alkalinity, shallow Moderate alkalinity shallow humic	Low alkalinity, shallow Low alkalinity, shallow humic	Low alkalinity deep
High	0.55	0.63	0.50	0.64	0.64
Good	0.32	0.30	0.33	0.29	0.33
Moderate	0.16	0.15	0.17	0.15	0.17
Poor	0.05	0.05	0.05	0.05	0.05
Bad	< 0.05	< 0.05	< 0.05	< 0.05	< 0.05

Table 7

Phytoplankton boundary values for lakes – plankton trophic index

Ecological quality ratio					
Column 1	Column 2	Column 3	Column 4	Column 5	Column 6
Lake Type	High alkalinity, shallow Moderate alkalinity very shallow Low alkalinity very shallow humic Marl very shallow	High alkalinity very shallow	Moderate alkalinity, deep Moderate alkalinity shallow Low alkalinity, shallow humic Low alkalinity very shallow Clear water Marl Shallow	Low alkalinity Deep Clear Water Low alkalinity shallow Clear Water	Low alkalinity shallow humic
High	0.93	0.91	0.95	0.98	0.96
Good	0.82	0.80	0.84	0.87	0.85
Moderate	0.70	0.68	0.72	0.75	0.73
Poor	0.58	0.56	0.60	0.63	0.61
Bad	<0.58	<0.56	<0.60	<0.63	<0.61

Table 8

Phytoplankton boundary values for lakes – cyanobacteria biomass

Ecological quality ratio		
Column 1	Column 2	Column 3
Lake Type	All Low and Moderate alkalinity and Marl Lakes	High alkalinity Lakes
High	0.47	0.63
Good	0.32	0.43
Moderate	0.23	0.34
Poor	0.13	0.21
Bad	< 0.13	< 0.21

Table 9

Phytobenthos boundary values for lakes

Boundary values for the degree to which the relative annual mean abundances of nutrient-sensitive and nutrient-tolerant groups of diatom taxa differ from the relative annual mean abundances of these groups of taxa expected under reference conditions		
	Ecological quality ratio	
Column 1	Column 2	Column 3
	High and Low alkalinity lakes	Moderate alkalinity lakes
High	0.92	0.93
Good	0.70	0.66
Moderate	0.46	0.46
Poor	0.23	0.23
Bad	< 0.23	< 0.23

Table 10

Aquatic macrophyte boundary values for lakes

Boundary values for the degree to which the annual mean abundance of disturbance-sensitive macrophyte[(1)] taxa differ from the annual mean abundance of those taxa expected under reference conditions	
	Ecological quality ratio
Column 1	Column 2
High	0.90
Good	0.68
Moderate	0.42
Poor	0.33
Bad	< 0.33

[(1)] The term "macrophyte" refers to larger plants, typically including flowering plants, mosses and larger algae, but not including single-celled phytoplankton or diatoms.

Table 11

Freshwater Fish FiL2 boundary values for lakes

	Ecological quality ratio[(1)]
High	0.76 < EQR<= 1.0
Good	0.53 < EQR <= 0.76
Moderate	0.32 < EQR <= 0.53
Poor/Bad	0 <= EQR <= 0.32

[(1)] FiL2 is the Fish in Lakes version 2 model developed for WFD Ecoregion 17 which is the island of Ireland

Table 12

Benthic invertebrate fauna boundary values for IMPOSEX in coastal waters

Boundary values for the degree to which the annual mean occurrence and degree of tributyl tin (TBT) -induced imposex in the common dog whelk, Nucella lapillus, differs from the annual mean occurrence and degree of imposex expected under reference conditions using the Vas Deferens Stage Index (VDSI) (UKTAG Method ISBN 978-1-906934-35-4)		
	Ecological quality ratio	Vas Deferens Stage Index (VDSI)
High	0.95	0.3
Good	0.34	4
Moderate	0.17	5

Table 13

Benthic invertebrate fauna boundary values for the INFAUNAL Quality Index (IQI) for transitional and coastal waters

Boundary values relating to the degree to which the annual mean number of benthic invertebrate taxa in soft sediments, the diversity of taxa, and the ratio of disturbance-sensitive and disturbance-tolerant taxa differ from that expected under reference conditions (UKTAG Method ISBN 978-1-906934-34-7)	
	Ecological quality ratio
High	0.75
Good	0.64
Moderate	0.44
Poor	0.24
Bad	< 0.24

Table 14

Aquatic angiosperm boundary values in transitional and coastal waters

Aquatic Angiosperm[(1)] Boundary values relating to the degree to which the annual mean shoot density, and spatial extent of sea grass beds, differ that expected under reference conditions (UKTAG Method ISBN 978-1-906934-36-1)	
	Ecological quality ratio
High	0.8
Good	0.6
Moderate	0.4
Poor	0.2
Bad	< 0.2

[(1)] The term "angiosperm" refers to flowering plants. In transitional waters and coastal waters, angiosperms include sea grasses and the flowering plants found in salt marshes, salt marsh tools have not yet been developed.

Table 15

Phytoplankton boundary values for transitional and coastal waters

Boundary values relating to the degree to which biomass, taxonomic composition, bloom frequency and bloom intensity for phytoplankton[(1)] differ from that expected under reference conditions (UKTAG Method ISBN 978-1-906934-41-5 for Transitional Waters and UKTAG Method ISBN 978-1-906934-33-0 for Coastal Waters)	
	Ecological quality ratio
High	0.8
Good	0.6
Moderate	0.4
Poor	0.2
Bad	< 0.2

(1) The term "phytoplankton" refers to solitary and colonial unicellular algae and cyanobacteria that live in the water column, at least for part of their lifecycle.

Table 16

Aquatic macroalgae boundary values in transitional and coastal waters

Boundary values relating to the degree to which mean species richness, proportion of red, green and opportunist seaweeds and ecological status group ratio on rocky intertidal areas differ from that expected under reference conditions (UKTAG Method ISBN 978-1-906934-39-2)	
	Ecological quality ratio
High	0.8
Good	0.6
Moderate	0.4
Poor	0.2
Bad	< 0.2

Table 17

Aquatic macroalgae boundary values in transitional and coastal waters

Boundary values relating to the degree to which opportunistic macroalgal[(1)] extent, biomass and entrainment differ from that expected under reference conditions (UKTAG Method ISBN978-1-906934-37-8)	
	Ecological quality ratio
High	0.8
Good	0.6
Moderate	0.4
Poor	0.2
Bad	< 0.2

(1) The term "macroalgae" refers to multicellular algae such as seaweeds and filamentous algae.

Table 18

Fish boundary values for transitional waters

Boundary values relating to the degree to which the annual mean composition and abundance of disturbance-sensitive fish taxa differ from the annual mean composition and abundance of disturbance-sensitive fish taxa expected under reference conditions	
	Ecological quality ratio
High	0.81
Good	0.58
Moderate	0.4
Poor	0.2
Bad	< 0.2

PART 4

Intermittent Discharge Standards

Table 1

Intermittent standards for dissolved oxygen in rivers

Salmonid waters			
	Dissolved oxygen concentration (mg/l)		
Return period	1 hour	6 hours	24 hours
1 month	5.0	5.5	6.0
3 months	4.5	5.0	5.5
1 year	4.0	4.5	5.0
Cyprinid waters			
	Dissolved oxygen concentration (mg/l)		
Return period	1 hour	6 hours	24 hours
1 month	4.0	5.0	5.5
3 months	3.5	4.5	5.0
1 year	3.0	4.0	4.5
The standards apply when the concurrent concentration of un-ionised ammonia concentration is below 0.02 mg/l. The following correction factors apply at higher concurrent un-ionised concentrations: Where the un-ionised ammonia lies between 0.02-0.15mg NH3-N/I: the correction factor is an addition of (0.97 x log (mg NH3-N/I) + 3.8) mg O2/l. For concentrations that exceed 0.15 mg NH3-N/I, the correction factor is +2 mg O2/litre. A correction factor of 3mg O2/l is added for salmonid spawning grounds.			

Table 2

Intermittent standards for un-ionised ammonia in rivers

Salmonid waters			
	Un-ionised Ammonia concentration (mg NH3-N/l)		
Return period	1 hour	6 hours	24 hours
1 month	0.065	0.025	0.018
3 months	0.095	0.035	0.025
1 year	0.105	0.040	0.030
Cyprinid waters			
	Un-ionised Ammonia concentration (mg NH3-N/l)		
Return period	1 hour	6 hours	24 hours
1 month	0.150	0.075	0.030
3 months	0.225	0.125	0.050
1 year	0.250	0.150	0.065

The above limits apply when the concurrent concentration of dissolved oxygen is above 5 mg/l. At lower concentrations of dissolved oxygen the following correction factor applies: For dissolved oxygen less than 5mg/l DO, multiply the standard by 0.0126 and the concentration of dissolved oxygen in mg O/litre, C, raised to the power of 2.72, that is, $0.0126\ C^{2.72}$.

The standards also assume that the concurrent pH is greater than 7 and temperature is greater than 5 degrees Centigrade. For lower pH and temperatures the following correction factors apply: Where the pH is less than 7, multiply the standard by 0.0003 and by the value of the pH, p, raised to the power of 4.17, that is: $0.0003p^{4.17}$. Where the temperature is less than 5 degrees Centigrade, multiply this correction factor by a further 0.5.

Table 3

99th percentile standards for biochemical oxygen demand in rivers

Status	*Types of river*	*99th percentile BOD (mg/l)*
High	1,2,4,6 and salmonid	7.0
High	3,5 and 7	9.0
Good	1,2,4,6 and salmonid	9.0
Good	3,5 and 7	11.0
Moderate	1,2,4,6 and salmonid	14.0
Moderate	3,5 and 7	14.0
Poor	1,2,4,6 and salmonid	16.0
Poor	3,5 and 7	19.0

Table 4

99th percentile standards for ammonia in rivers

Status	*Types of river*	*Total ammonia (mg NH4-N/l)*	*Un-ionised ammonia (mg NH3-N/l)*
		99th percentile	*99th percentile*
High	1,2,4,6 and salmonid	0.5	0.04
High	3,5 and 7	0.7	0.04
Good	1,2,4,6 and salmonid	0.7	0.04
Good	3,5 and 7	1.5	0.04
Moderate	1,2,4,6 and salmonid	1.8	0.04
Moderate	3,5 and 7	2.6	0.04
Poor	1,2,4,6 and salmonid	2.6	0.04
Poor	3,5 and 7	6.0	-

Table 5

Types of river to which the proposed 99th percentile standards in Tables 3 and 4 apply

Alkalinity (as mg/l $CaCO_3$)					
Altitude	Less than 10	10-50	50-100	100-200	Over 200
Under 80 metres	Type 1	Type 2	Type 3	Type 5	Type 7
Over 80 metres			Type 4	Type 6”	

SCHEDULE 2

Reg 3(7)

Schedule substituted for Schedule 2 to the Water Framework Directive (Priority Substances and Classification) Regulations (Northern Ireland) 2011

“SCHEDULE 2

PART 1

Determining Ecological Status of Surface Waters that are not designated Heavily Modified or Artificial

1. The Department shall classify the ecological status of surface water bodies that are not designated as heavily modified or artificial in accordance with the following steps:

(a) estimate representative values of appropriate indicators of the condition of the relevant biological, physiochemical and hydromorphological quality elements from monitoring or modelling results. The appropriate indicators shall include:

(i) indicators of biological and other quality elements expected to be most sensitive to the pressures to which the water body is subject;

(ii) the values for physicochemical quality elements at risk of being so altered as to be failing a physicochemical standard ;

(iii) the concentrations of those specific pollutants likely to be in the water body in quantities that could cause a failure of a specific pollutant;

(iv) the concentrations of those priority substances likely to be in the water body in quantities that could cause failure of chemical status; and

(v) the criteria for hydromorphological elements relevant to high status.

(b) compare the values of the appropriate indicators estimated from monitoring or modelling with the applicable standards and biological boundary values in Schedule 1 of these Regulations.

(c) classify the ecological status of the water body as “high” if the values of all the appropriate indicators of the biological, physicochemical, chemical and hydrological quality elements comply with the highest corresponding standards given in Schedule 1; the assessment of morphological condition carried out in accordance with Part 4 paragraph 1 of this Schedule reflects totally or nearly totally undisturbed conditions; and there is no evidence that a high impact alien

species, as identified on the Ecoregion 17 list, has become established and is having an ecological effect on the water body.

(d) where the biological quality elements and the general chemical and physiochemical elements and specific pollutants are high and the chemical status is good but the hydromorphological status is less than high, then the overall status of the surface water body is "good".

(e) where a surface water body is not classified as "high" ecological status in accordance with paragraph 1(c), the Department shall classify the ecological status of the surface water body according to the lowest classed biological or physicochemical quality element. If the lowest classed quality element is a specific pollutant or other physicochemical quality element, the class assigned shall be no lower than "moderate" ecological status.

2. In this part, "high impact alien species" means a non-native species of plant or animal that has a detrimental effect on the aquatic ecology or environment.

PART 2

Determining Chemical Status of Surface Waters

1. The Department shall classify the chemical status of surface water bodies in accordance with the following steps:

(a) estimate from monitoring or modelling results the concentrations in the surface water body of appropriate priority substances listed in Schedule 1 of these Regulations. The appropriate substances shall include those likely to be in the surface water body in quantities that could cause a failure of the corresponding environmental quality standard.

(b) compare the values of the appropriate substances estimated from monitoring or modelling with the applicable standards in Schedule 1.

(c) classify the chemical status of the surface water body as good unless the standard for one or more priority substances is failed. If one or more is failed, classify as failing to achieve good chemical status.

PART 3

Determining Ecological Potential of Heavily Modified and Artificial Water Bodies

1. The Department shall classify a surface water body designated as heavily modified or artificial as—

(a) "good ecological potential" if the following conditions are met:

(i) all applicable mitigation measures have been taken; and

(ii) the values of all the indicators of the quality elements not sensitive to hydromorphological pressures related to the heavily modified or artificial water body designation, including biology, specific pollutants and other physicochemical quality elements achieve the standards for "high" or "good".

(b) "moderate ecological potential" if the following conditions are met:

(i) not all applicable mitigation measures have been taken and the values of one or more of the indicators of the quality elements not sensitive to hydromorphological pressures directly related to the heavily modified or artificial water body designation, including biology, specific pollutants and other physicochemical quality elements achieve the standards for "high", "good" or "moderate"; or

(ii) all applicable mitigation measures have been taken and the values of one or more of the indicators of the quality elements not sensitive to hydromorphological pressures directly related to the heavily modified or artificial water body designation, including biology, specific pollutants and other physicochemical quality elements achieve the standards for "moderate".

(c) "poor ecological potential" if the values of one or more of the indicators of the biological quality elements not sensitive to hydromorphological pressures directly related to the heavily modified or artificial water body designation achieve the standards for "poor".

(d) "bad ecological potential" if the values of one or more of the indicators of biological quality elements not sensitive to hydromorphological pressures directly related to the heavily modified or artificial water body designation achieve the standards for "bad".

2. In order to determine how to classify surface water bodies designated as heavily modified or artificial in accordance with paragraph 1, the Department shall—

(a) determine whether or not all practicable mitigation has been taken to improve the modified or artificial hydromorphological characteristics of the surface water body other than that which would have a significant adverse impact on:

(i) the use served by the modified or artificial characteristics; or

(ii) the wider environment.

(b) estimate representative values of indicators of the condition of the relevant biological and physicochemical quality elements from monitoring or modelling results. The indicators shall include:

(i) indicators of the biological quality elements which are not sensitive to the artificial or heavily modified characteristics of the water body;

(ii) the concentrations of those specific pollutants likely to be in the surface water body in quantities that could cause a failure of a specific pollutant standard; and

(iii) the values for those other physicochemical quality elements at risk of being so altered as to be failing a physicochemical standard.

(c) compare the values of the indicators estimated from monitoring or modelling with the applicable standards in Schedule 1 of these Regulations.

3. When determining whether all practicable mitigation has been taken, mitigation measures may be excluded which would contribute only a very minor improvement in the ecology of the water body.

PART 4

Determining High Status for Morphological Elements

1. The Department shall monitor morphological conditions within relevant water bodies.

2. Once the Department has, in accordance with paragraph 3 of Part 1 of Schedule 1, assigned a type to a river or part thereof, the Department shall consider both direct and indirect pressures on the physical character of rivers at local scale, water body scale and catchment scale. The physical character of a river includes the condition of the channel bed, banks and riparian zone, channel pattern and river continuity. Classification shall be assigned according to the ecological quality ratio in the River Hyrdromorphology Assessment Technique specified in Table 1 of this Part.

3. Once the Department has in accordance with paragraph 7 of Part 1 of Schedule 1 assigned a type to a lake, the Department shall consider both direct and indirect pressures on the physical character of lakes in the shore zone and open water. Morphological

Condition Limits are used to represent thresholds of alteration in morphological conditions beyond which conditions could be altered in ways that could result in deterioration in status. A Morphological Condition Limit of 5% is the boundary between High Ecological Status and Good Ecological Status and a Morphological Condition Limit of 15% is the boundary between Good Ecological Status and Moderate Ecological Status.

4. To assess the morphological condition of transitional and coastal water bodies, the Department shall consider both direct and indirect pressures on the physical character of transitional and coastal waters at local scale, water body scale and catchment scale.

5. High Status morphological condition must not be assigned to—

(a) any water body that has been identified as being at risk of failing to achieve good ecological status due to the extent of morphological pressures; or

(b) any artificial or heavily modified water body.

Table 1

Boundary values for the River Hydromorphology Assessment Technique	
	Ecological quality ratio
High	>=0.8
Good	0.6 - < 0.8
Moderate	0.4 - <0.6
Poor	0.2 - <0.4
Bad	<0.2

PART 5

Determining Overall Status of Surface Water Bodies

1. The Department shall determine the overall status of a surface water body, other than those designated as heavily modified or artificial, by combining the classification of ecological status and chemical status in one of the following and alternative ways:

(a) where the ecological and hydromorphological status of a surface water body is high and the chemical status of the surface water body is good, then the overall status of the surface water body is “high”.

(b) where the biological quality elements and the general chemical and physiochemical elements and specific pollutants are high and the chemical status is good but the hydromorphological status is less than high, then the overall status of the surface water body is “good”

(c) where the ecological status is good and the chemical status is good, then the overall status is “good”.

(d) where the ecological status is high, good or moderate, and the chemical status is failing to achieve good, then the overall status is “moderate”.

(e) where the ecological status is moderate and irrespective of chemical status, then the overall status is “moderate”.

(f) where the ecological status is poor or bad and irrespective of the chemical status, the overall status shall be the same classification as the ecological status, that is “poor” or “bad”.”

SCHEDULE 3

Reg 3(8)

Schedule to be substituted for Schedule 3 to the Water Framework Directive (Priority Substances and Classification) Regulations (Northern Ireland) 2011

"SCHEDULE 3

Determining Quantitative status of Groundwater

1.—(1) The Department shall determine the quantitative status of a body of groundwater as follows—

(a) by determining whether or not one or more of the indicators in Column 1 of Table 1 are applicable to the body of groundwater; and

(b) if any of those indicators are applicable, by carrying out appropriate investigations to determine whether or not the criteria in Column 2 of Table 1 corresponding to the applicable indicator or indicators for poor quantitative status are satisfied.

(2) The body of groundwater shall be classified as—

(a) "good groundwater quantitative status" where—

(i) none of the indicators set out in Column 1 of Table 1 are applicable, or

(ii) one or more of those indicators are applicable but none of the corresponding criteria for poor groundwater status set out in Column 2 of Table 1 are satisfied; and

(b) in any other case as "poor groundwater quantitative status".

Table 1

Risk indicators and classification criteria for groundwater quantitative status

Column 1	*Column 2*
Saline or other intrusions into a groundwater body: a) Failure of a threshold value i.e. electrical conductivity for groundwater as derived in accordance with the Groundwater Regulations (Northern Ireland) 2009; or b) Other indications of intrusions of poor quality water into the body of groundwater (Note: "intrusion" is interpreted to be intrusion of poor quality water into a groundwater body from another water body, rather than the movement of a plume of poor quality water within the body).	i) Significant and sustained upward trend in electrical conductivity indicating saline intrusion; ii) Significant and sustained upward trend in the concentration of other indicators of intrusion; iii) Existing evidence that a point of abstraction has been rendered unsuitable for use without prior treatment as a result of an intrusion.
Surface water: a) Flow conditions in an associated surface water body are unsatisfactory, and there is reason to suspect that groundwater abstraction impacts (on the surface water body) are a significant component of the failure to achieve flow standards.	i) Flow conditions are preventing the surface water body maintaining or achieving the target status class and the reduction in river flow in the surface water body concerned (resulting solely from groundwater abstraction) represents ≥50% of the value of the allowable abstraction (based on the flow

(Note: Flow conditions are considered unsatisfactory if they are failing to meet the appropriate WFD flow standards and in doing so, preventing the surface water body maintaining of achieving its target status class).	standards).
Groundwater Dependant Terrestrial Ecosystems (GWDTE): a) Indications of damage to a GWDTE caused by insufficient water availability identified through the departure from predefined environmental supporting conditions, including flow and groundwater level (or chemistry) which are required to maintain dependent communities in a favourable state.	i) A significant proportion of the departure from the predefined environmental supporting conditions can be attributed to anthropogenic quantitative pressures in the groundwater body, affecting groundwater availability to the GWDTE.
Water balance: a) Indications that the total annual volume of groundwater being abstracted from the groundwater body exceeds the long term annual average rate of recharge to the groundwater body (taking in to account an allowance where relevant for dependent ecosystems).	i) The annual average volume of groundwater abstracted from the groundwater body represents more than the long-term annual average rate of recharge to the groundwater body and there are sustained trends of long term falling groundwater levels within the groundwater body."

SCHEDULE 4

Reg 3(9)

Schedule to be inserted after Schedule 4 to the Water Framework Directive (Priority Substances and Classification) Regulations (Northern Ireland) 2011

"SCHEDULE 5

PART 1

Shellfish Waters Standards

Table 1

Shellfish Waters Standards

Parameter	*Units*	*Standard*
Temperature	◦C	A discharge affecting shellfish waters must not cause the temperature of the water to exceed by more than 2◦C the temperature of the waters not so affected.
pH		pH values will not reach levels outside of the range established so as to ensure the functioning of the ecosystem and the achievement of the values specified for the biological

		quality elements under Good Ecological Status
Silver	Annual mean (AA-EQS) (µg/l)	0.5
	Maximum allowable concentration (MAC-EQS) (µg/l)	1

PART 2

Microbial Guideline Value

Microbial Guideline Value

1. In shellfish waters, the Department shall endeavour to respect the microbial guideline value in the shellfish flesh and intervalvular liquid as set out in Table 1 to this Part, in addition to the mandatory standards set out in these Regulations.

Compliance with the microbial guideline value

2.—(1) Subject to sub-paragraph (2), in relation to any period of 12 months, shellfish waters shall be treated as complying with the guideline value set out in Table 1 to this Part, if 75 per cent of the samples taken comply with the guideline value.

(2) Non-compliant samples may be ignored for the purposes of sub-paragraph (1) if they are the result of natural cause or force majeure.

Sampling and analysis

3.—(1) The Department shall ensure that the guideline value adopted as a result of paragraph 1 and samples are analysed in accordance with the following provisions of this paragraph.

(2) Subject to sub-paragraph (1), sampling shall be carried out at least at the minimum frequency specified in Table 1 to this Part.

(3) Where sampling shows that the guideline value adopted as a result of paragraph 1 is not being met, the Department shall establish whether this is the result of chance, a natural phenomenon or pollution, and shall adopt appropriate measures to prevent deterioration.

(4) Samples shall be analysed using the reference methods of analysis specified in Table 1 to this Part or methods which are at least as reliable as the reference methods.

Table 1

Microbial Standard for shellfish waters

Parameter	*Units*	*Guideline values and comments*	*Reference methods of analysis*	*Minimum sampling and measuring frequency*
Escherichia coli (E.coli)	cfu/100ml	≤230 in the shellfish flesh and intervalvular liquid	ISO16649 part 3 or equivalent	Quarterly”

EXPLANATORY NOTE

(This note is not part of the Regulations)

These Regulations replace Schedules 1, 2 and 3 of The Water Framework Directive (Priority Substances and Classification) Regulations (Northern Ireland) 2011 and add a new Schedule to those Regulations. These Regulations set out the classification schemes used under the implementation of Directive 2000/60/EC establishing a framework for Community action in the field of water policy (O.J. No. L327, 22.12.2000 p.60).

Schedule 1 requires the Department to assign a type or types and to apply environmental standards and biological boundary values in respect of rivers, lakes, transitional and coastal waters.

Schedules 2 and 3 require the Department to classify surface waters and groundwaters.

Schedule 4 adds a new Schedule to The Water Framework Directive (Priority Substances and Classification) Regulations (Northern Ireland) 2011 requiring the Department to apply pH, silver and temperature standards and endeavour to respect a microbial value with respect to shellfish waters.

Regulations 4 and 5 revoke The Surface Waters (Fishlife) (Classification) Regulations (Northern Ireland) 1997 and The Surface Waters (Fishlife) (Classification) (Amendment) Regulations (Northern Ireland) 2007.

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