

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 must assign to that river or part thereof the Type specified in Table 1 below which corresponds with the applicable site altitude and applicable alkalinity specified in that Table.

2. Having assigned a Type in accordance with Table 1, the Department must 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 must 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 must 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 must 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 must assign the Type specified in Columns 1 and 2 of Table 8.

7. To determine the morphological conditions applicable to a lake or any part thereof, the Department must 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

<i>Site Altitude</i>		<i>Alkalinity (as mg/l CaCO₃)</i>				
		Less than 10	10 to 50	50 to 100	100 to 200	Over 200
Under metres	80	Type 1	Type 2	Type 3	Type 5	Type 7
Over metres	80			Type 4		

Table 2

<i>Final typology for dissolved oxygen, ammonia and biochemical oxygen demand in rivers</i>	
Column 1	Column 2
Upland and low alkalinity	Types (1+2), 4 and 6

Status: This is the original version (as it was originally made).

<i>Final typology for dissolved oxygen, ammonia and biochemical oxygen demand in rivers</i>	
Lowland and high alkalinity	Types 3, 5 and 7

Table 3

Criteria for identifying types of river to which morphological conditions apply

<i>Type</i>	<i>Characteristics</i>			
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	
<i>Type</i>	<i>Standard Annual Rainfall mm (period 1961-1990)</i>	<i>Base Flow Index (BFI)</i>	<i>Catchment area (km²)</i>	
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
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	

Column 1	Column 2	Column 3	Column 4
<i>Type</i>	<i>Standard Annual Rainfall mm (period 1961-1990)</i>	<i>Base Flow Index (BFI)</i>	<i>Catchment area (km²)</i>
	≥ 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

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

Table 6

Depth categories to which total phosphorus standards for lakes apply

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

Table 7

Colour categories to which total phosphorus standards for lakes apply

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

Table 8

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

<i>Categories</i>	
Column 1	Column 2
<i>Peat</i>	<i>Non-Peat</i>
mean water colour ≥90 hazen units; or	mean water colour <90 hazen units; or

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<i>Categories</i>	
Column 1	Column 2
<i>Peat</i>	<i>Non-Peat</i>
≥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
<i>Type</i>	<i>Lake-MImAS⁽¹⁾ code</i>	<i>Mean Depth</i>	<i>Alkalinity</i>
Low Alkalinity Very Shallow	P/L-vS	<4m	< 20 mg ^l ⁻¹ CaCO ₃
Low Alkalinity Shallow/ Deep	P/L-ShD	>4m	< 20 mg ^l ⁻¹ CaCO ₃
Moderate Alkalinity Very Shallow	MA-vS	<4m	20 – 100 mg ^l ⁻¹ CaCO ₃
Moderate Alkalinity Shallow/Deep	MA-ShD	>4m	20 – 100 mg ^l ⁻¹ CaCO ₃
High Alkalinity Very Shallow	HA/M-vS	<4m	> 100 mg ^l ⁻¹ CaCO ₃
High Alkalinity Shallow/ Deep	HA/M-ShD	>4m	> 100 mg ^l ⁻¹ CaCO ₃

(1) Morphological Impact Assessment System