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If a whole or part of a paragraph has been amended, the date of the amending regulation appears in square brackets at the end of the paragraph. If a whole paragraph or sub-paragraph has been deleted, the date of the deletion appears in square brackets beside the deleted paragraph or sub-paragraph.

Republic of Latvia

Cabinet

Regulation No. 858

Adopted 19 October 2004

Regulations Regarding the Characterisation of the Types, Classification, Quality Criteria of Surface Water Bodies and the Procedures for Determination of Anthropogenic Loads

*Issued pursuant to
Section 5, Paragraphs four, eight and nine and
Paragraph ten, Clauses 1, 3 and 4 of the Water Management Law*

I. General Provisions

1. This Regulation prescribes:

1.1. the characterisation of the types of surface water bodies and the classification of surface water bodies;

1.2. the procedures for the determination of anthropogenic loads, as well as the priority substances and the procedures for limiting the emission thereof;

1.3. high, good, moderate, poor and bad ecological quality criteria of surface waters, good and poor chemical quality criteria, as well as ecological potential criteria (also criteria of good ecological potential) of a heavily modified or artificial water body.

2. In order to prepare a river basin management plan (hereinafter – management plan) and programmes of measures, as well as to specify the environmental quality objectives to be included in the management plan (hereinafter – environmental quality objective), the State limited liability company “Latvian Environment, Geology and Meteorology Centre” (hereinafter – Centre), on the basis of the existing monitoring data and other data obtained, processed and compiled prior to the development of the management plan over an extended period of time, shall:

2.1. determine the water body types of rivers, lakes, coastal and transitional waters according to the criteria set out in Annex 1 to this Regulation;

2.2. according to the type, divide rivers, lakes, coastal and transitional waters into surface water bodies;

2.3. classify surface water bodies and heavily modified or artificial water bodies;

2.4. determine the environmental quality objectives for surface water bodies and, taking into account the quality of the particular water body and the impact of anthropogenic load thereon, determine the surface water bodies at risk of failing the environmental quality objectives.

[11 August 2009]

3. Upon the request of the Centre, State and local government authorities shall provide the information at the disposal thereof and the data necessary in order to characterise the types of surface water bodies and to assess their quality, as well as to determine the anthropogenic load of surface water bodies.

[11 August 2009]

II. Characterisation of the Types of Surface Water Bodies

4. The criteria for the types of surface water bodies referred to in Annex 1 to this Regulation shall be taken into account in determining the type of surface water bodies. The type of an artificial or heavily modified water body shall be determined, using the criteria of the type of a surface water body most accurately corresponding to the characteristics thereof.

[11 August 2009]

5. Upon dividing rivers, lakes, coastal and transitional waters into surface water bodies, substantial circumstances (for example, impact of anthropogenic load (also morphological changes of a water reservoir or watercourse), use of waters for extraction of drinking water, their relation to protected territories) shall be assessed, as well as the following conditions shall be complied with:

5.1. only surface water bodies corresponding to the relevant type of water bodies shall be joined into one water body;

5.2. the water body does not overlap with another water body and does not cross borders of another water body;

5.3. the water body according to the ecological and chemical quality is homogeneous;

5.4. waters of the water body are deemed discrete and significant elements of the hydrographical network.

6. Taking into account the conditions referred to in Paragraph 5 of this Regulation, a separate water body shall be:

6.1. a river or rivers, the catchment basin of which exceeds 100 km²;

6.2. a lake, the surface area of which is 0.5 km² or more;

6.3. a river, which has a smaller catchment basin, or a lake, which has a smaller surface area, than that referred in Sub-paragraph 6.1 or 6.2 of this Regulation accordingly, if separate water body is necessary in order to achieve the environmental quality objectives.

[11 August 2009]

7. The surface waters existing in the protected territories specified in the Water Management Law may be separate water bodies, if separate water body is necessary in order to ensure the protection and management of the particular territory and if such waters are deemed discrete and significant elements of the drainage system.

III. Procedures for the Determination of Anthropogenic Load and Procedures for Limiting the Emission of Priority Substances

8. In order to determine the load caused by anthropogenic activities for surface water bodies in each river basin district, the Centre shall:

8.1. compile and analyse information regarding the most substantial anthropogenic loads, including regarding extraction of water (taking into account the seasonal fluctuation of extraction of water, the total quantity of extraction of water per year and water losses in the distribution system) and determine such economic activities, which are related to industry, agriculture, community management and other fields of activities and due to which:

8.1.1. point or diffuse source pollution occurs;

8.1.2. polluting substances, also the priority substances specified in Annex 2 to this Regulation, the substances specified in Annex 5 to Cabinet Regulation No. 294 of 9 July 2002, *Procedures by which Polluting Activities of Category A, B and C shall be Declared and Permits for the Performance of Category A and B Polluting Activities shall be Issued*, (in relation to emission of polluting substances into water) and the particularly hazardous substances and hazardous substances to the aquatic environment specified in Cabinet Regulation No. 34 of 22 January 2002, *Regulations Regarding Discharge of Polluting Substances into Water*, are discharged into water;

8.1.3. the hydrological regime or morphology of surface waters changes, including due to deviation or redistribution of water flow;

8.2. survey the actual and planned (permitted) type of spatial planning specified in the spatial plans in effect (if such spatial plan does not exist, the type of land use shall be surveyed);

8.3. determine the economic activities, which should be taken into account when characterising the anthropogenic load of rivers, lakes, transitional and coastal waters, as well as artificial and heavily modified water bodies;

8.4. develop criteria, according to which the significance of anthropogenic loads, as well as the causes, extent and impact of anthropogenic loads shall be assessed;

8.5. evaluate whether it is possible to achieve the environmental quality objectives put forward for the water body or there is a risk of failing them.

[11 August 2009]

9. In assessing the anthropogenic load, the Centre shall use the data of water monitoring and information obtained in preparing the characterisation of the river basin.

[11 August 2009]

10. The priority substances, the emission of which should be limited, are specified in Annex 2 to this Regulation. Emission of priority substances shall be limited in accordance with the procedures specified in Cabinet Regulation No. 34 of 22 January 2002, *Regulations Regarding Discharge of Polluting Substances into Water*.

IV. Classification of and Quality Criteria for Surface Water Bodies, as well as Ecological Potential Criteria of a Heavily Modified or Artificial Water Body

11. Surface water bodies shall be divided in ecological quality classes and chemical quality classes.

12. Surface water bodies, in accordance with the ecological quality criteria (biological, hydromorphological, chemical and physico-chemical) specified in Annex 3 to this Regulation and the explanation of criteria specified in Annex 4, shall be divided into high (reference) ecological quality class, good ecological quality class or moderate ecological quality class. If data show that ecological quality of a water body is worse than the moderate, it shall be divided into poor ecological quality class or bad ecological quality class in order to be able to select the most appropriate measures for improvement of the relevant water body condition.

12.¹ In determining the ecological quality class, the Centre shall take into account:

12.¹1. the monitoring data and other data obtained over an extended period of time;

12.¹2. the results of modelling;

12.¹3. the load caused by anthropogenic activities on the water body, which has been determined in accordance with Chapter III of this Regulation.

[11 August 2009]

13. Ecological quality of a surface water body is high (reference condition) if it has been established in monitoring that:

13.1. values of biological, physico-chemical and hydromorphological criteria conform to waters of the relevant type totally or nearly totally undisturbed by anthropogenic activities and the natural habitats observed are characteristic to waters of the relevant type;

13.2. synthetic substances (of artificial origin) are not detected in the water body or their concentration in water is lower than the concentration to be determined in a laboratory (such concentration, which may be detected during defining of the reference condition using available technological methods, shall be deemed the lowest concentration to be determined);

13.3. the concentration of polluting substances of natural origin in water detected in the water body conforms to the background level characteristic to waters of the relevant type undisturbed by anthropogenic activities.

[11 August 2009]

14. Ecological quality of a surface water body is good if values of biological and physico-chemical criteria obtained in monitoring only slightly differ from the values that have been determined for a surface water body of high quality (reference condition).

15. Ecological quality of a surface water body is moderate if values of biological and physico-chemical criteria obtained in monitoring are lower than the values that have been determined for a surface water body of good quality.

16. Ecological quality of a surface water body is poor if values of biological and physico-chemical criteria obtained in monitoring are lower than the values that have been determined for a surface water body of moderate quality, and the species and natural habitats found in the water body significantly differ from those characteristic to surface water bodies of the relevant type, which are not affected by anthropogenic activities.

17. Ecological quality of a surface water body is bad if values of biological and physico-chemical criteria obtained in monitoring are lower than the values that have been determined for a surface water body of poor quality, and majority of the species and natural habitats characteristic to surface water bodies of the relevant type not affected by anthropogenic activities are not found in the water body.

18. Artificial and heavily modified water bodies according to the ecological quality shall be divided into the highest possible ecological potential class, good ecological potential class, moderate ecological potential class, poor ecological potential class or bad ecological potential class. In order to determine the ecological potential of an artificial or heavily modified water body, the water body shall be considered as equivalent to the type of rivers, lakes, water bodies of transitional waters or coastal waters, to which the characteristics of the artificial or heavily modified water body correspond to the most. Upon dividing the particular artificial or heavily modified water body into an ecological potential class, the ecological quality criteria specified in this Regulation for the corresponding type of surface water bodies shall be used.

19. Surface water bodies and artificial and heavily modified water bodies shall be divided into a good chemical quality class or poor chemical quality class according to the chemical quality. Such surface water bodies and artificial and heavily modified water bodies shall be divided into the good chemical quality class, the concentration of chemical substances in which does not exceed the environmental quality norms specified in the regulatory enactments regarding environmental protection.

20. If the monitoring data show that a surface water body, taking into account different biological, hydromorphological, chemical or physico-chemical criteria, conforms to different quality classes (is not homogeneous), it shall be divided into the lowest quality class.

21. In order to determine which values of the ecological quality criteria conform to each quality class and to ensure the mutual comparability of classes, the Centre:

21.1. shall determine the quality criteria values corresponding to the reference condition (high quality or the highest possible ecological potential) on the basis of the monitoring data of reference objects, applying modelling or combining both of the referred to methods. If it is not possible to use such methods, the reference condition may be determined, taking into account an opinion of experts;

21.2. if the reference condition is determined on the basis of monitoring data, a network of reference objects shall be created, including therein water bodies belonging to all the types specified in Annex 1 to this Regulation, conforming to the high quality (reference condition) class. Such number of reference objects shall be selected, which allows to determine credible quality criteria values, taking into account the variability of the criteria and the information necessary for modelling;

21.3. if the reference condition is determined by applying modelling, information obtained over an extended period of time, the data on sediment composition and other data ensuring the credibility and conformity of values of the criteria characterising the reference condition with the relevant type of water bodies, shall be used;

21.4. if it is not possible to determine credible values of the criteria of reference conditions due to their high natural variability, the relevant quality criteria need not be used for the quality assessment of the relevant type. In such case it shall be justified in the river basin district management plan why such criteria has not been used;

21.5. values of the highest possible ecological potential determined for artificial or heavily modified water bodies shall be reviewed once every six years.

[11 August 2009]

21.¹ In order to ensure the comparability of monitoring systems in the European Community, the Centre shall:

21.¹1. carry out monitoring in order to obtain data for the determination of values of biological quality criteria;

21.¹2. express the results of the monitoring referred to in Sub-paragraph 21.¹ 1 of this Regulation in the form of ecological quality coefficients, showing the ratio of the value of biological criteria observed in a water body and the value of the same criteria in the reference object. The coefficients shall be expressed in numerical values from zero to one where the value, which is close to one, shall indicate high quality class and the values of poor quality class shall be close to zero;

21.¹3. express the limits of ecological quality classes in numerical values, dividing the ecological quality coefficients in five quality classes;

21.¹4. ensure the comparison of limit values between a high and good quality class, as well as between a good and moderate quality class within the framework of a process for the comparison of quality assessment systems organised by the European Union (hereinafter – intercalibration) and use the results of intercalibration for determination of the limits of quality classes;

21.¹5. a corresponding monitoring of water bodies shall be carried out for each type selected in the intercalibration process.

[11 August 2009]

V. Closing Provisions

22. Cabinet Regulation No. 93 of 17 February 2004, *Regulations Regarding the Characterisation of the Types, Classification, Quality Criteria of Surface Water Bodies and the Procedures for Determination of Anthropogenic Loads* (Latvijas Vēstnesis, 2004, No. 30), is repealed.

23. The State agency “Latvian Environment, Geology and Meteorology Agency” shall perform the tasks specified in this Regulation by 31 July 2009.

[11 August 2009]

Informative Reference to the European Union Directives

[11 August 2009]

This Regulation contains legal norms arising from:

1) Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy;

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

Prime Minister

I. Emsis

Minister for the Environment

R. Vējonis

Types of Surface Water Bodies

[11 August 2009]

1. Rivers

No.	Area of the catchment basin	Longitudinal gradient of the bottom of the bed (in a 1 – 3 km section)	Type	Characterisation of the type
1.1.	Small (< 100 km ²)	Large (> 1.0 m/km)	Small ritral-type river	The river is shallow, the speed of the current exceeds 0.2 m/s. The substrate of the bed is formed by sand, gravel and rocks
1.2.	Small (< 100 km ²)	Small (< 1 m/km)	Small potamal-type river	The river is shallow, the speed of the current is less than 0.2 m/s. The substrate of the bed is formed by sand covered in detritus of organic origin and silt
1.3.	Medium large (100–1000 km ²)	Large (> 1 m/km)	Medium ritral-type river	The river is medium deep, the speed of the current exceeds 0.2 m/s. The substrate of the bed is formed by sand, gravel and rocks
1.4.	Medium large (100–1000 km ²)	Small (< 1 m/km)	Medium potamal-type river	The river is medium deep, the speed of the current is less than 0.2 m/s. The substrate of the bed is formed by sand covered in detritus of organic origin and silt
1.5.	Large (> 1000 km ²)	Large (> 1 m/km)	Large ritral-type river	The river is deep, the speed of the current exceeds 0.2 m/s. The substrate of the bed is formed by sand, gravel and rocks
1.6.	Large (> 1000 km ²)	Small (< 1 m/km)	Large potamal-type river	The river is deep, the speed of the current is less than 0.2 m/s. The substrate of the bed is formed by sand covered in detritus of organic origin and silt

Notes.

1. The types of rivers in Latvia have been specified, using System B of the European Community.

2. According to the height above sea level, geographical longitude and latitude all river water bodies of Latvia have been divided in one class, because significant ecological differences between rivers have not been observed in Latvia due to such indicators.

3. Riverbeds of Latvia are mainly of carbonatic origin, therefore, one class – rivers with carbonate bed – has been singled out in typology.

4. In determining the individual type of water bodies (rivers) in accordance with Paragraph 2 of this Regulation, the average speed of the current shall be calculated in accordance with the requirements of Cabinet Regulation No. 631 of 23 August 2005, *Regulations Regarding Latvian Construction Standard LBN 224-05 "Amelioration Systems and Hydrotechnical Structures"*.

2. Lakes

No.	Average depth	Water hardness	Chromaticity	Type
2.1.	Very shallow (< 2 m)	Hard-water (> 165 mkS/cm)	Oligohumous (< 80 Pt-Co)	Very shallow clearwater lake with high water hardness
2.2.	Very shallow (< 2 m)	Hard-water (> 165 mkS/cm)	Polyhumous (> 80 Pt-Co)	Very shallow brown-water lake with high water hardness
2.3.	Very shallow (< 2 m)	Soft-water (< 165 mkS/cm)	Oligohumous (< 80 Pt-Co)	Very shallow clearwater lake with low water hardness
2.4.	Very shallow (< 2 m)	Soft-water (< 165 mkS/cm)	Polyhumous (> 80 Pt-Co)	Very shallow brown-water lake with low water hardness
2.5.	Shallow (2–9 m)	Hard-water (> 165 mkS/cm)	Oligohumous (< 80 Pt-Co)	Shallow clearwater lake with high water hardness
2.6.	Shallow (2–9 m)	Hard-water (> 165 mkS/cm)	Polyhumous (> 80 Pt-Co)	Shallow brown-water lake with high water hardness
2.7.	Shallow (2–9 m)	Soft-water (< 165 mkS/cm)	Oligohumous (< 80 Pt-Co)	Shallow clearwater lake with low water hardness
2.8.	Shallow (2–9 m)	Soft-water (< 165 mkS/cm)	Polyhumous (> 80 Pt-Co)	Shallow brown-water lake with low water hardness
2.9.	Deep (> 9 m)	Hard-water (> 165 mkS/cm)	Oligohumous (< 80 Pt-Co)	Deep clearwater lake with high water hardness
2.10.	Deep (> 9 m)	Soft-water (< 165 mkS/cm)	Oligohumous (< 80 Pt-Co)	Deep clearwater lake with low water hardness

Notes.

1. The types of lakes in Latvia have been specified, using System B of the European Community.

2. According to the height above sea level, geographical longitude and latitude all lake water bodies of Latvia have been divided in one class, because significant ecological differences between lakes have not been observed in Latvia due to such indicators.

3. Water hardness (electric conductivity) has been selected as an indicator characterising the geological structure of the lake bed.

4. According to the size all lake water bodies of Latvia have been divided in one class – lakes, the water surface area of which exceeds 50 hectares.

3. Transitional waters

No.	Water salinity (permilles)	Average depth (m)	Wave exposure	Blending	Dominant substrate	Type
3.1.	0.5 < 5–6	< 30	Moderately exposed	Partially stratified	Silt	Transitional waters of the Gulf of Riga

Notes.

1. The types of transitional waters in Latvia have been specified, using System B of the European Community.

2. According to the geographical longitude and latitude water bodies of transitional waters of Latvia have been divided in one class, because significant ecological differences between transitional waters have not been observed in Latvia due to such indicators.

3. The criterion “tidal range” of the System B of the European Community has not been used because tides have not been observed on the coast of Latvia.

4. Coastal waters

No.	Water salinity (permilles)	Average depth (m)	Wave exposure	Blending	Residence time (24-hours)	Dominant substrate	Type
4.1.	6 < 18–20	< 30	Exposed	Complete	< 7	Sand-gravel	Open sandy south-eastern coast of the Baltic Sea
4.2.	6 < 18–20	< 30	Exposed	Complete	< 7	Boulders	Open rocky south-eastern coast of the Baltic Sea
4.3.	0.5 < 6	< 30	Moderately exposed	Complete	< 7	Sand-gravel	Sandy coast of the Gulf of Riga
4.4.	0.5 < 6	< 30	Moderately exposed	Complete	< 7	Boulders	Rocky coast of the Gulf of Riga

Notes.

1. The types of coastal waters in Latvia have been specified, using System B of the European Community.

2. According to the geographical longitude and latitude water bodies of coastal waters of Latvia have been divided in one class, because significant ecological differences between coastal waters have not been observed in Latvia due to such indicators.

3. The criterion “tidal range” of the System B of the European Community has not been used because tides have not been observed on the coast of Latvia.

Minister for the Environment

R. Vējonis

Priority Substances, the Emission of which Need to be Limited

[11 August 2009]

No	CAS number ⁽¹⁾	EU number ⁽²⁾	Name of the substance ⁽³⁾	Notes
1.	15972-60-8	240-110-8	Alachlor	
2.	120-12-7	204-371-1	Anthracene	X
3.	1912-24-9	217-617-8	Atrazine	
4.	71-43-2	200-753-7	Benzene	
5.	not applicable	not applicable	Brominated diphenylether ⁽⁴⁾	X
5.1.	32534-81-9	not applicable	Pentabromodiphenylether (congener numbers 28, 47, 99, 100, 153 and 154)	
6.	7440-43-9	231-152-8	Cadmium and its compounds	X
7.	85535-84-8	287-476-5	C ₁₀₋₁₃ Chloroalkanes	X
8.	470-90-6	207-432-0	Chlorfenvinphos	
9.	2921-88-2	220-864-4	Chlorpyrifos (Chlorpyrifos-ethyl)	
10.	107-06-2	203-458-1	1,2-dichloroethane	
11.	75-09-2	200-838-9	Dichloromethane	
12.	117-81-7	204-211-0	Di(2-ethylhexyl) phthalate (DEHP)	
13.	330-54-1	206-354-4	Diuron	
14.	115-29-7	204-079-4	Endosulfan	X
15.	206-44-0	205-912-4	Fluoranthene ⁽⁵⁾	
16.	118-74-1	204-273-9	Hexachloro-benzene	X
17.	87-68-3	201-765-5	Hexachloro-butadiene	X
18.	608-73-1	210-158-9	Hexachloro-cyclohexane	X
19.	34123-59-6	251-835-4	Isoproturon	
20.	7439-92-1	231-100-4	Lead and its compounds	
21.	7439-97-6	231-106-7	Mercury and its compounds	X
22.	91-20-3	202-049-5	Naphthalene	
23.	7440-02-0	231-111-14	Nickel and its compounds	
24.	25154-52-3	246-672-0	Nonylphenol	X
24.1.	104-40-5	203-199-4	4-Nonylphenol	X
25.	1806-26-4	217-302-5	Octylphenol	
25.1.	140-66-9	not applicable	4-(1,1?,3,3?-tetramethylbutyl)- phenol	
26.	608-93-5	210-172-5	Pentachlorobenzene	X
27.	87-86-5	231-152-8	Pentachlorophenol	
28.	not applicable	not applicable	Polyaromatic hydrocarbons	X
28.1.	50-32-8	200-028-5	Benzo(a)pyrene	X
28.2.	205-99-2	205-911-9	Benzo(b)fluor-anthrene	X

28.3.	191-24-2	205-883-8	Benzo(g,h,i)-perylene	X
28.4.	207-08-9	205-916-6	Benzo(k)fluor-anthrene	X
28.5.	193-39-5	205-893-2	Indeno(1,2,3-cd)pyrene	X
29.	122-34-9	204-535-2	Simazine	
30.	not applicable	not applicable	Tributyltin compounds	X
30.1.	36643-28-4	not applicable	Tributyltin-cation	X
31.	12002-48-1	234-413-4	Trichloro-benzenes	
32.	67-66-3	200-663-8	Trichloromethane (chloroform)	
33.	1582-09-8	216-428-8	Trifluralin	

Notes.

1. X – specially hazardous substance to the aquatic environment, emissions and discharges of which should be eliminated until 22 December 2020.
2. ⁽¹⁾ Number of the substance in the register of chemical substances *Chemicals Abstracts Service*.
3. ⁽²⁾ Number of the substance in the European Inventory of Existing Commercial Chemical Substances (EINECS) or the European List of Notified Chemical Substances (ELINCS).
4. ⁽³⁾ Where groups of substances have been selected, typical individual representatives are listed as indicative parameters. For these groups of substances, the indicative parameter must be defined through the analytical method.
5. ⁽⁴⁾ Only pentabromobiphenylether (CAS-number 32534-81-9) shall be deemed a specially hazardous substance to the aquatic environment.
6. ⁽⁵⁾ Fluoranthene as an indicator of other, more dangerous polyaromatic hydrocarbons.

Ecological Quality Criteria for the Classification of Surface Water Bodies
[11 August 2009]

No.	Quality criteria	Rivers	Lakes	Transitional waters	Coastal waters
1.	Biological criteria				
1.1.	Composition, abundance and biomass of phytoplankton	(1)	v	v	v
1.2.	Composition and abundance of macrophytes	v	v	v	v
1.3.	Composition and abundance of zoobenthos	v	v	v	v
1.4.	Composition and abundance of fish species	v	v	v	
1.5.	Age structure of fish fauna	v	v		
2.	Hydromorphological elements supporting the biological elements				
2.1.	Hydrological regime				
2.1.1.	quantity and dynamics of water flow	v	v		
2.1.2.	residence time		v		
2.1.3.	connection to the groundwater body	v	v		
2.1.4.	river continuity	v			
2.2.	Morphological conditions				
2.2.1.	depth variations	v	v	v	v
2.2.2.	width variations	v			
2.2.3.	dominant substrate composition of the bed	v	v	v	v
2.2.4.	cross-section of the bed		v	v	
2.2.5.	structure of the shore zone	v			
2.2.6.	shore structure		v		
2.2.7.	structure of the tidal zone			v	v
2.3.	Tidal regime				
2.3.1.	freshwater flow			v	
2.3.2.	direction of the main currents				v
2.3.3.	wave exposure			v	v
3.	Chemical and physico-chemical elements supporting the biological elements				
3.1.	General criteria				
3.1.1.	water transparency		v	v	v
3.1.2.	thermal conditions	v	v	v	v
3.1.3.	oxygenation conditions	v	v	v	v
3.1.4.	salinity	v	v	v	v
3.1.5.	acidification	v	v		
3.1.6.	concentration of nutrients	v	v	v	v
3.2.	Pollutants				
3.2.1.	artificial polluting substances discharged into the	v	v	v	v

	particular water body				
3.2.2.	other polluting substances discharged into the particular water body	v	v	v	v

Notes.

1. v – the criterion, according to which the ecological quality of waters of the relevant group shall be evaluated.

2. (1) – to be assessed only in rivers, length of which exceeds 100 km and area of the catchment basin of which exceeds 1000 km².

3. – the following standards shall be used for taking of zoobenthos samples:

3.1. standard LVS EN ISO 5667-3:2007 “Water quality – Sampling – Part 3: Guidance on the preservation and handling of samples”;

3.2. standard LVS EN 27828:2003 “Water quality – Methods of biological sampling – Guidance on handnet sampling of aquatic benthic macro-invertebrates”;

3.3. standard LVS EN 28265:2003 “Water quality – Design and use of quantitative samplers for benthic macro-invertebrates on stony substrata in shallow freshwaters”;

3.4. standard LVS EN ISO 9391:2003 “Water quality – Sampling in deep waters for macro-invertebrates – Guidance on the use of colonization, qualitative and quantitative samplers”;

3.5. standard LVS EN ISO 8689-1:2004 “Water quality – Biological classification of rivers – Part 1: Guidance on the interpretation of biological quality data from surveys of benthic macroinvertebrates”;

3.6. standard LVS EN ISO 8689-2:2004 “Water quality – Biological classification of rivers – Part 2: Guidance on the presentation of biological quality data from surveys of benthic macroinvertebrates”.

Minister for the Environment

R. Vējonis

Criteria for the Determination of High, Good and Moderate Ecological Quality of Surface Water Bodies

[11 August 2009]

1. Rivers

No.	High status	Good status	Moderate status
1.1.	Biological criteria		
1.1.1.	Phytoplankton		
	<p>The composition of taxonomic groups of phytoplankton corresponds totally or nearly totally to conditions undisturbed by anthropogenic activities.</p> <p>The average phytoplankton abundance is wholly consistent with the type-specific physico-chemical conditions of surface water bodies and is not such as to significantly alter the type-specific water transparency conditions. Planktonic blooms occur at a frequency and intensity which is consistent with the type-specific physico-chemical conditions of surface water bodies.</p>	<p>There are slight changes in the composition and abundance of planktonic taxa compared to the type-specific communities of water bodies. Such changes do not indicate any accelerated growth of algae resulting in undesirable disturbances to the balance of organisms present in the water body or to the physico-chemical quality of the water or sediment. A slight increase in the frequency and intensity of the type-specific planktonic blooms may occur.</p>	<p>There are changes in the composition and abundance of planktonic taxa compared to the type-specific communities of water bodies exceeding good quality indicators and a significant undesirable disturbance in the values of other biological and physico-chemical quality elements may occur.</p> <p>A moderate increase in the frequency and intensity of planktonic blooms may occur in comparison to good status. Persistent blooms of phytoplankton may occur during summer months.</p>
1.1.2.	Macrophytes and phytobenthos		
	<p>The composition of taxonomic groups of macrophytes and phytobenthos corresponds totally or nearly totally to conditions undisturbed by anthropogenic activities.</p> <p>There are no detectable changes in the average macrophytic and the average phytobenthic abundance.</p>	<p>There are slight changes in the indicators of the composition and abundance of macrophytic and phytobenthic taxa compared to the type-specific communities. Such changes do not indicate any accelerated growth of phytobenthos or higher forms of plant life resulting in undesirable disturbances to the balance of organisms</p>	<p>The indicators of the composition of macrophytic and phytobenthic taxa differ from the type-specific community and are significantly more distorted than at good status. Moderate changes in the average macrophytic and the average phytobenthic abundance are evident in comparison to good status.</p>

		present in the water body or to the physico-chemical quality of the water or sediment. The phytobenthic community is not adversely affected by bacterial tufts and coats present due to anthropogenic activity.	The phytobenthic community may be interfered with and in some areas, displaced by bacterial tufts and coats present as a result of anthropogenic activities.
1.1.3.	Benthic invertebrate fauna		
	<p>The indicators of the composition and abundance of taxonomic groups of benthic invertebrate taxa correspond totally or nearly totally to conditions undisturbed by anthropogenic activities.</p> <p>The ratio of disturbance sensitive taxa to insensitive taxa shows no signs of alteration from levels undisturbed by anthropogenic activities.</p> <p>The level of diversity of invertebrate taxa shows no sign of alteration from levels undisturbed by anthropogenic activities.</p>	<p>There are slight changes in the indicators of the composition and abundance of benthic invertebrate taxa compared to the type-specific communities.</p> <p>The ratio of disturbance-sensitive taxa to insensitive taxa shows slight alteration from type-specific levels of water bodies.</p> <p>The level of diversity of invertebrate taxa shows slight signs of alteration from type-specific levels undisturbed by anthropogenic activities.</p>	<p>The composition and abundance of benthic invertebrate taxa differ from the type-specific community more than for good status. Major taxonomic groups of the type-specific community are absent.</p> <p>The ratio of disturbance-sensitive taxa to insensitive taxa, and the level of diversity, are substantially lower than the type-specific level and significantly lower than for good status.</p>
1.1.4.	Fish fauna		
	<p>The indicators of the composition and abundance of taxonomic groups of fish correspond totally or nearly totally to conditions undisturbed by anthropogenic activities.</p> <p>All the type-specific disturbance-sensitive fish species are present.</p> <p>The age structures of the fish communities show little sign of anthropogenic disturbance and are not indicative of a failure in the reproduction or development of any particular species.</p>	<p>There are slight changes in species composition and abundance from the type-specific communities.</p> <p>Changes are attributable to anthropogenic impacts on physico-chemical and hydromorphological quality elements. The age structures of the fish communities show signs of disturbance attributable to anthropogenic impacts, and, in a few instances, are indicative of a failure in the reproduction or development of a particular species, to the extent that some age classes may be missing.</p>	<p>The composition and abundance of fish species differ from the type-specific community more than for good status. Changes are attributable to anthropogenic impacts on physico-chemical and hydromorphological quality elements. The age structure of the fish communities shows major signs of anthropogenic disturbance, to the extent that a moderate proportion of the type-specific species are absent or of very low abundance.</p>

1.2.	Hydromorphological criteria		
1.2.1.	Hydrological regime		
	The quantity and dynamics of flow, and the resultant connection to groundwaters, reflect totally, or nearly totally, conditions undisturbed by anthropogenic activities.	Conditions consistent with the achievement of the values of parameters characterising good ecological quality for biological elements	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.
1.2.2.	River continuity		
	The continuity of the river is not disturbed by anthropogenic activities and allows undisturbed migration of aquatic organisms and sediment transport.	Conditions consistent with the achievement of the values of parameters characterising good ecological quality for biological elements.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.
1.2.3.	Morphological conditions		
	Channel patterns, width and depth variations, flow velocities, substrate conditions and both the structure and condition of the riparian zones correspond totally or nearly totally to conditions undisturbed by anthropogenic activities.	Conditions consistent with the achievement of the values of parameters characterising good ecological quality for biological elements.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.
1.3.	Physico-chemical criteria		
1.3.1.	General conditions		
	The values of physico-chemical elements correspond totally or nearly totally to conditions undisturbed by anthropogenic activities. Nutrient concentrations remain within the range normally associated with waters undisturbed by anthropogenic activities. Temperature, salinity, oxygen balance, pH level and acid neutralising capacity do not show signs of disturbance and remain within the range normally associated with waters undisturbed by	Temperature, salinity, oxygen balance, pH level and acid neutralising capacity 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 for good ecological status 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 of parameters characterising good ecological quality for	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.

	anthropogenic activities.	biological elements.	
1.3.2.	Specific synthetic pollutants		
	Concentrations close to zero and at least below the limits of detection of the most advanced analytical techniques in general use.	Concentrations not in excess of the chemical quality requirements set in accordance with the regulatory enactments regarding environmental quality norms for surface waters.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.
1.3.3.	Specific non-synthetic pollutants		
	Concentrations remain within the range normally associated with waters undisturbed by anthropogenic activities (background levels).	Concentrations not in excess of the chemical quality requirements set in accordance with the regulatory enactments regarding environmental quality norms for surface waters.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.

2. Lakes

No.	High status	Good status	Moderate status
2.1.	Biological criteria		
2.1.1.	Phytoplankton		
	The indicators of the composition and abundance of taxonomic groups of phytoplankton correspond totally or nearly totally to conditions undisturbed by anthropogenic activities. The average phytoplankton biomass is consistent with the type-specific physico-chemical conditions of surface water bodies and is not such as to significantly alter the type-specific water transparency conditions. Planktonic blooms occur at a frequency and intensity which is consistent with the type-specific physico-chemical conditions of surface water bodies.	There are slight changes in the indicators of the composition and abundance of planktonic taxa compared to the type-specific communities. Such changes do not indicate any accelerated growth of algae resulting in undesirable disturbances to the balance of organisms present in the water body or to the physico-chemical quality of the water or sediment. A slight increase in the frequency and intensity of the type-specific planktonic blooms may occur.	There are changes in the composition and abundance of planktonic taxa compared to the type-specific communities of water bodies exceeding good status and a significant undesirable disturbance in the values of other biological and physico-chemical quality elements may occur. A moderate increase in the frequency and intensity of planktonic blooms may occur in comparison to good status. Persistent blooms of phytoplankton may occur during summer months.
2.1.2.	Macrophytes and phytobenthos		
	The indicators of the composition of taxonomic groups of macrophytes and	There are slight changes in the indicators of the composition and abundance	The indicators of the composition of macrophytic and phytobenthic taxa differ

	<p>phytobenthos correspond totally or nearly totally to conditions undisturbed by anthropogenic activities.</p> <p>There are no detectable changes in the average macrophytic and the average phytobenthic abundance.</p>	<p>of macrophytic and phytobenthic taxa compared to the type-specific communities. Such changes do not indicate any accelerated growth of phytobenthos or higher forms of plant life resulting in undesirable disturbance to the balance of organisms present in the water body or to the physico-chemical quality of the water. The phytobenthic community is not adversely affected by bacterial tufts and coats present due to anthropogenic activity.</p>	<p>from the type-specific community and are significantly more distorted than at good status. Changes in the average macrophytic and the average phytobenthic abundance are evident.</p> <p>The phytobenthic community may be interfered with and in some areas, displaced by bacterial tufts and coats present as a result of anthropogenic activities.</p>
2.1.3.	Benthic invertebrate fauna		
	<p>The indicators of the composition and abundance of taxonomic groups of benthic invertebrate taxa correspond totally or nearly totally to conditions undisturbed by anthropogenic activities.</p> <p>The ratio of disturbance-sensitive taxa to insensitive taxa shows no signs of alteration from levels undisturbed by anthropogenic activities.</p> <p>The level of diversity of invertebrate taxa shows no sign of alteration from levels undisturbed by anthropogenic activities.</p>	<p>There are slight changes in the composition and abundance of invertebrate taxa compared to the type-specific communities.</p> <p>The ratio of disturbance-sensitive taxa to insensitive taxa shows slight alteration from type-specific levels of water bodies.</p> <p>The level of diversity of invertebrate taxa shows slight signs of alteration from levels undisturbed by anthropogenic activities.</p>	<p>The composition and abundance of benthic invertebrate taxa differ from the type-specific community more than for good status. Major taxonomic groups of the type-specific community are absent.</p> <p>The ratio of disturbance-sensitive taxa to insensitive taxa, and the level of diversity, are lower than the type-specific level and significantly lower than for good status.</p>
2.1.4.	Fish fauna		
	<p>The indicators of the composition and abundance of taxonomic groups of fish correspond totally or nearly totally to conditions undisturbed by anthropogenic activities.</p> <p>All the type-specific disturbance-sensitive fish</p>	<p>There are slight changes in species composition and abundance from the type-specific communities. Changes are attributable to anthropogenic impacts on physico-chemical and hydromorphological quality elements. The age structures of the fish communities</p>	<p>The indicators of the composition and abundance of fish species differ from the type-specific community more than for good status. Changes are attributable to anthropogenic impacts on physico-chemical and hydromorphological quality elements. The age structure</p>

	species are present. The age structures of the fish communities show little sign of anthropogenic disturbance and are not indicative of a failure in the reproduction or development of any particular species.	show signs of disturbance attributable to anthropogenic impacts, and, in a few instances, are indicative of a failure in the reproduction or development of a particular species, to the extent that some age classes may be missing.	of the fish communities shows major signs of anthropogenic disturbance, to the extent that a moderate proportion of the type specific species are absent.
2.2. Hydromorphological criteria			
2.2.1. Hydrological regime			
	The quantity and dynamics of flow, level, residence time, and the resultant connection to groundwaters, reflect totally, or nearly totally, conditions undisturbed by anthropogenic activities.	Conditions consistent with the achievement of the values of parameters characterising good ecological quality for biological elements.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.
2.2.2. Morphological conditions			
	Lake depth variation, quantity and structure of the substrate, and both the structure and condition of the lake shore zone correspond totally or nearly totally to conditions undisturbed by anthropogenic activities.	Conditions consistent with the achievement of the values of parameters characterising good ecological quality for biological elements.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.
2.3. Physico-chemical criteria			
2.3.1. General conditions			
	The values of physico-chemical elements correspond totally or nearly totally to conditions undisturbed by anthropogenic activities. Nutrient concentrations remain within the range normally associated with waters undisturbed by anthropogenic activities. Temperature, transparency, salinity, pH level, oxygen balance and acid neutralising capacity do not show signs of anthropogenic disturbance and remain within the range normally associated with waters undisturbed by	Temperature, transparency, salinity, pH level, oxygen balance and acid neutralising capacity 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 for good ecological status 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 of parameters characterising	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements

	anthropogenic activities.	good ecological quality for biological elements.	
2.3.2.	Specific synthetic pollutants		
	Concentrations close to zero and at least below the limits of detection of the most advanced analytical techniques in general use.	Concentrations not in excess of the chemical quality requirements set in accordance with the regulatory enactments regarding environmental quality norms for surface waters.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.
2.3.3.	Specific non-synthetic pollutants		
	Concentrations remain within the range normally associated with waters undisturbed by anthropogenic activities (background levels).	Concentrations not in excess of the chemical quality requirements set in accordance with the regulatory enactments regarding environmental quality norms for surface waters.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.

3. Transitional waters

No.	High status	Good status	Moderate status
3.1.	Biological criteria		
3.1.1.	Phytoplankton		
	<p>The indicators of the composition and abundance of taxonomic groups of phytoplankton correspond totally or nearly totally to conditions undisturbed by anthropogenic activities.</p> <p>The indicators of the phytoplankton biomass are consistent with the type-specific physico-chemical conditions and are not such as to significantly alter the type-specific water transparency conditions. Planktonic blooms occur at a frequency and intensity which is consistent with the type-specific physico-chemical conditions.</p>	<p>There are slight changes in the indicators of the composition and abundance of planktonic taxa compared to the type-specific communities. Such changes do not indicate any accelerated growth of algae resulting in undesirable disturbances to the balance of organisms present in the water body or to the physico-chemical quality of the water.</p> <p>A slight increase in the frequency and intensity of the type-specific planktonic blooms may occur.</p>	<p>The indicators of the composition of macrophytic and phytobenthic taxa differ from the type-specific community and are significantly more distorted than at good status.</p> <p>Biomass is moderately disturbed and may be such as to produce a significant undesirable disturbance in the condition of other biological quality elements.</p> <p>A moderate increase in the frequency and intensity of planktonic blooms may occur in comparison to good status. Persistent blooms of phytoplankton may occur during summer months.</p>
3.1.2.	Macroalgae		

	<p>The indicators of the composition of taxonomic groups of macroalgal taxa correspond totally or nearly totally to conditions undisturbed by anthropogenic activities.</p> <p>There are no detectable changes in macroalgal cover due to anthropogenic activities.</p>	<p>There are slight changes in the indicators of the composition and abundance of macroalgal taxa compared to the type-specific communities. Such changes do not indicate any accelerated growth of phyto-benthos or higher forms of plant life resulting in undesirable disturbance to the balance of organisms present in the water body or to the physico-chemical quality of the water.</p>	<p>The indicators of the composition of macroalgal taxa differ from the type-specific community and are significantly more distorted than at good status. Moderate changes in the average macroalgal abundance are evident compared to good status and may be such as to result in an undesirable disturbance to the balance of organisms present in the water body.</p>
3.1.3.	Angiosperms		
	<p>The indicators of the composition and abundance of taxonomic groups of angiosperms correspond totally or nearly totally to conditions undisturbed by anthropogenic activities.</p> <p>There are no detectable changes in angiosperm abundance due to anthropogenic activities.</p>	<p>There are slight changes in the composition of angiosperm taxa compared to the type-specific communities.</p> <p>Angiosperm abundance shows slight signs of disturbance.</p>	<p>The indicators of the composition of angiosperm taxa differ from the type-specific community and are significantly more distorted than at good status.</p> <p>There are moderate distortions in the abundance of angiosperm taxa compared to good status.</p>
3.1.4.	Benthic invertebrate fauna		
	<p>The indicators of the composition and abundance of taxonomic groups of benthic invertebrate taxa correspond totally or nearly totally to conditions undisturbed by anthropogenic activities.</p> <p>All the disturbance-sensitive taxa associated with conditions undisturbed by anthropogenic activities are present.</p>	<p>There are slight changes in the composition and abundance of benthic invertebrate taxa compared to the type-specific communities. Most of the sensitive taxa of the type-specific communities are present.</p>	<p>The composition and abundance of benthic invertebrate taxa differ from the type-specific community more than for good status. Taxa indicative of pollution are present.</p> <p>Many of the sensitive taxa of the type-specific communities are absent.</p>
3.1.5.	Fish fauna		
	<p>The indicators of the composition and abundance of taxonomic groups of fish correspond</p>	<p>The abundance of the disturbance-sensitive species shows slight signs of distortion from type-specific</p>	<p>Anthropogenic impact on physico-chemical or hydromorphological quality elements is so significant that</p>

	totally or nearly totally to conditions undisturbed by anthropogenic activities.	conditions attributable to anthropogenic impacts on physico-chemical or hydromorphological quality elements.	many type-specific species are absent.
3.2.	Hydromorphological criteria		
3.2.1.	Tidal regime		
	The freshwater flow regime corresponds totally or nearly totally to conditions undisturbed by anthropogenic activities.	Conditions consistent with the achievement of the values of parameters characterising good ecological quality for biological elements	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.
3.2.2.	Morphological conditions		
	Depth variations, substrate conditions, and both the structure and condition of the intertidal zones correspond totally or nearly totally to conditions undisturbed by anthropogenic activities.	Conditions consistent with the achievement of the values of parameters characterising good ecological quality for biological elements.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.
3.3.	Physico-chemical criteria		
3.3.1.	General conditions		
	Physico-chemical elements correspond totally or nearly totally to conditions undisturbed by anthropogenic activities. Nutrient concentrations remain within the range normally associated with waters undisturbed by anthropogenic activities. Temperature, oxygen balance, salinity and transparency do not show signs of anthropogenic disturbance and remain within the range normally associated with conditions undisturbed by anthropogenic activities.	Temperature, oxygen balance, salinity and transparency, as well as nutrient concentrations do not reach levels outside the ranges established so as to ensure the functioning of the ecosystem and the achievement of the values of parameters characterising good ecological quality for biological elements.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.
3.3.2.	Specific synthetic pollutants		
	Concentrations close to zero and at least below the limits of detection of the most advanced analytical techniques in general use.	Concentrations not in excess of the chemical quality requirements set in accordance with the regulatory enactments	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.

		regarding environmental quality norms for surface waters.	
3.3.3.	Specific non-synthetic pollutants		
	Concentrations remain within the range normally associated with waters undisturbed by anthropogenic activities (background levels).	Concentrations not in excess of the chemical quality requirements set in accordance with the regulatory enactments regarding environmental quality norms for surface waters.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.

4. Coastal waters

No.	High status	Good status	Moderate status
4.1.	Biological criteria		
4.1.1.	Phytoplankton		
	<p>The indicators of the composition and abundance of phytoplanktonic taxa are consistent with conditions undisturbed by anthropogenic activities.</p> <p>The average phytoplankton biomass is consistent with the type-specific physico-chemical conditions and is not such as to significantly alter the type-specific water transparency conditions.</p> <p>Planktonic blooms occur at a frequency and intensity which is consistent with the type-specific physico-chemical conditions.</p>	<p>The composition and abundance of phytoplanktonic taxa show slight signs of disturbance. Such changes do not indicate any accelerated growth of algae resulting in undesirable disturbances to the balance of organisms present in the water body or to the physico-chemical quality of the water.</p> <p>A slight increase in the frequency and intensity of the type-specific planktonic blooms may occur.</p>	<p>The composition and abundance of planktonic taxa show signs of moderate disturbance.</p> <p>Algal biomass is substantially outside the range associated with type-specific conditions, and is such as to impact upon other biological quality elements.</p> <p>A moderate increase in the frequency and intensity of planktonic blooms may occur in comparison to good status. Persistent blooms of phytoplankton may occur during summer months.</p>
4.1.2.	Macroalgae and angiosperms		
	<p>All disturbance-sensitive macroalgal and angiosperm taxa associated with conditions undisturbed by anthropogenic activities are present.</p> <p>The levels of macroalgal</p>	<p>Most disturbance-sensitive macroalgal and angiosperm taxa associated with conditions undisturbed by anthropogenic activities are present.</p> <p>The level of macroalgal cover and angiosperm abundance show slight signs of</p>	<p>A moderate number of the disturbance-sensitive macroalgal and angiosperm taxa associated with conditions undisturbed by anthropogenic activities are present compared to good status.</p>

	cover and angiosperm abundance are consistent with conditions undisturbed by anthropogenic activities.	disturbance.	Macroalgal cover and angiosperm abundance is moderately disturbed and may be such as to result in an undesirable disturbance to the balance of organisms present in the water body.
4.1.3.	Benthic invertebrate fauna		
	The indicators of the composition and abundance of taxonomic groups of benthic invertebrate taxa correspond totally or nearly totally to conditions undisturbed by anthropogenic activities. All the disturbance-sensitive taxa associated with conditions undisturbed by anthropogenic activities are present.	There are slight changes in the composition and abundance of benthic invertebrate taxa compared to the type-specific communities. Most of the sensitive taxa of the type-specific communities are present.	The level of diversity and abundance of invertebrate taxa is moderately outside the range associated with the type-specific conditions than at good status. Taxa indicative of pollution are present. Many of the sensitive taxa of the type-specific communities are absent.
4.2.	Hydromorphological criteria		
4.2.1.	Tidal regime		
	The freshwater flow regime and the direction and speed of dominant currents correspond totally or nearly totally to conditions undisturbed by anthropogenic activities.	Conditions consistent with the achievement of the values of parameters characterising good ecological quality for biological elements.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.
4.2.2.	Morphological conditions		
	The depth variation, structure and substrate of the coastal bed, and both the structure and condition of the inter-tidal zones correspond totally or nearly totally to conditions undisturbed by anthropogenic activities.	Conditions consistent with the achievement of the values of parameters characterising good ecological quality for biological elements.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.
4.3.	Physico-chemical criteria		
4.3.1.	General conditions		
	Physico-chemical elements correspond totally or nearly totally to conditions undisturbed by anthropogenic activities.	Temperature, oxygenation conditions, salinity and water transparency do not reach levels outside the ranges established so as to ensure the	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for

	Nutrient concentrations remain within the range normally associated with waters undisturbed by anthropogenic activities. Temperature, oxygen balance, salinity and transparency do not show signs of anthropogenic disturbance and remain within the range normally associated with conditions undisturbed by anthropogenic activities.	functioning of the ecosystem and the achievement of the values of parameters characterising good ecological quality for biological elements. Nutrient concentrations do not exceed the levels established so as to ensure the functioning of the ecosystem and the achievement of the values of parameters characterising good ecological quality for biological elements.	biological elements.
4.3.2.	Specific synthetic pollutants		
	Concentrations close to zero and at least below the limits of detection of the most advanced analytical techniques in general use.	Concentrations not in excess of the chemical quality requirements set in accordance with the regulatory enactments regarding environmental quality norms for surface waters.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.
4.3.3.	Specific non-synthetic pollutants		
	Concentrations remain within the range normally associated with waters undisturbed by anthropogenic activities (background levels).	Concentrations not in excess of the chemical quality requirements set in accordance with the regulatory enactments regarding environmental quality norms for surface waters.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological quality for biological elements.

5. Artificial or heavily modified surface water bodies

No.	Maximum ecological potential	Good ecological potential	Moderate ecological potential
5.1.	Biological criteria		
	The values of the relevant biological quality elements reflect, as far as possible, those associated with the closest comparable surface water body type, given the physical conditions which result from the artificial or heavily modified characteristics of the water body.	There are slight changes in the values of the relevant biological quality elements as compared to the values found at maximum ecological potential.	There are moderate changes in the values of the relevant biological quality elements as compared to the values found at maximum ecological potential.
5.2.	Hydromorphological criteria		
	The hydromorphological conditions are consistent with the only impacts on the surface water	Conditions consistent with the achievement of the values for the biological quality	Conditions consistent with the achievement of the values for the

	body being those resulting from the artificial or heavily modified characteristics of the water body once all mitigation measures have been taken to ensure the best approximation to ecological continuum, in particular with respect to migration of fauna and appropriate spawning and breeding grounds.	elements.	biological quality elements.
5.3. Physico-chemical criteria			
5.3.1. General conditions			
	<p>Physico-chemical elements correspond totally or nearly totally to the conditions undisturbed by anthropogenic activities associated with the surface water body type most closely comparable to the artificial or heavily modified body concerned.</p> <p>Nutrient concentrations remain within the range normally associated with such waters undisturbed by anthropogenic activities.</p> <p>The levels of temperature, oxygen balance and pH are consistent with the those found in the surface water body type most closely comparable to the artificial or heavily modified body concerned under conditions undisturbed by anthropogenic activities.</p>	<p>The values for physico-chemical elements are within the ranges established so as to ensure the functioning of the ecosystem and the achievement of the values for the biological quality elements.</p> <p>Temperature and pH do not reach levels outside the ranges established so as to ensure the functioning of the ecosystem and the achievement of the values 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 for the biological quality elements.</p>	<p>Conditions consistent with the achievement of the values for the biological quality elements.</p>
5.3.2. Specific synthetic pollutants			
	Concentrations close to zero and at least below the limits of detection of the most advanced analytical techniques in general use.	Concentrations not in excess of the chemical quality requirements set in accordance with the regulatory enactments regarding environmental quality norms for surface waters.	Conditions consistent with the achievement of the values of parameters characterising moderate ecological potential for biological elements.
5.3.3. Specific non-synthetic pollutants			
	Concentrations remain within the range normally associated with waters undisturbed by anthropogenic activities (background levels).	Concentration not in excess of the chemical quality requirements specified in accordance with this Regulation.	Conditions consistent with the achievement of the values of parameters characterising

			moderate ecological potential for biological elements.
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Minister for the Environment

R. Vējonis