

## SCHEDULE 2

### PART 1

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

1. The Department must 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, physicochemical 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 physicochemical 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 must 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.

**Changes to legislation:** There are currently no known outstanding effects for the The Water Framework Directive (Classification, Priority Substances and Shellfish Waters) Regulations (Northern Ireland) 2015, SCHEDULE 2. (See end of Document for details)

## PART 2

### Determining Chemical Status of Surface Waters

1. The Department must 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 must 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 must —

**Changes to legislation:** There are currently no known outstanding effects for the The Water Framework Directive (Classification, Priority Substances and Shellfish Waters) Regulations (Northern Ireland) 2015, SCHEDULE 2. (See end of Document for details)

- (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 must monitor morphological conditions within relevant water bodies.
  - (a) 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 must 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 Hydromorphology Assessment Technique specified in Table 1 of this Part.
  - (b) Once the Department has in accordance with paragraphs 7 of Part 1 of Schedule 1 assigned a type to a lake, the Department must 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.
  - (c) To assess the morphological condition of transitional and coastal water bodies, the Department must consider both direct and indirect pressures on the physical character of transitional and coastal waters at local scale, water body scale and catchment scale.
2. 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.

**Changes to legislation:** There are currently no known outstanding effects for the The Water Framework Directive (Classification, Priority Substances and Shellfish Waters) Regulations (Northern Ireland) 2015, SCHEDULE 2. (See end of Document for details)

**Table 1**

<b><i>Boundary values for the River Hydromorphology Assessment Technique</i></b>	
	Ecological quality ratio
High	$\geq 0.8$
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 must 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”.

**Changes to legislation:**

There are currently no known outstanding effects for the The Water Framework Directive (Classification, Priority Substances and Shellfish Waters) Regulations (Northern Ireland) 2015, SCHEDULE 2.