## STATUTORY RULES OF NORTHERN IRELAND

# 2014 No. 208

# The Groundwater (Amendment) Regulations (Northern Ireland) 2014

#### **Insertion of Schedule**

**12.** A Schedule shall be inserted into the Groundwater Regulations (Northern Ireland) 2009 as follows:

### "SCHEDULE

Regulation 8

#### Groundwater Threshold Values

Table 1

Threshold values for assessing groundwater chemical status

| Parameter                  | Unit  | To examine if groundwater abstraction is causing saline or other intrusions | To examine if groundwater is providing a significant contribution to the failure of the environmental objectives of associated surface water bodies | for potable use is deteriorating, possibly resulting in | To examine the spatial extent of a groundwater body or group of bodies that are exceeding an EU Standard or threshold value |
|----------------------------|-------|---|---|---|---|
| Ammonium                   | mg/l  |   |   |   | 0.29  |
| Arsenic                    | μg/l  |   |   |   | 7.5   |
| Atrazine                   | μg/l  |   |   |   | 0.075   |
| Cadmium                    | μg/l  |   |   |   | 3.75  |
| Chloride                   | mg/l  | 25  |   |   |   |
| Electrical<br>Conductivity | μS/cm | 800   |   | 1875  |   |

<sup>(1)</sup> The surface water environmental standards are set out in Schedule 1 to The Water Framework Directive (Priority Substances and Classification) Regulations (Northern Ireland) 2011(S.R. 2011 No. 10)

<sup>(2)</sup> The "dilution factor" is taken to be the fraction of the average annual river flow derived from groundwater inflows. It can be estimated from established hydrological indices such as the baseflow index, or from the ratio of catchment groundwater recharge to effective precipitation.

| Parameter   | Unit | To examine if groundwater abstraction is causing saline or other intrusions | To examine if groundwater is providing a significant contribution to the failure of the environmental objectives of associated surface water bodies | To examine if the quality of groundwater that is abstracted for potable use is deteriorating, possibly resulting in a need for increased purification | To examine the spatial extent of a groundwater body or group of bodies that are exceeding an EU Standard or threshold value |
|---|------|---|---|---|---|
| Lead  | μg/l |   |   |   | 18.8  |
| MCPA  | μg/l |   |   |   | 0.075   |
| Mecoprop  | μg/l |   |   |   | 0.075   |
| Mercury   | μg/l |   |   |   | 0.75  |
| Nitrate (as NO <sub>3)</sub>  | mg/l |   |   | 37.5  | 37.5  |
| Simazine  | μg/l |   |   |   | 0.075   |
| Sulphate  | mg/l |   |   |   | 187.5   |
| Tetrachloroethylene   | μg/l |   |   | 7.5   | 7.5   |
| Trichloroethylene   | μg/l |   |   | 7.5   | 7.5   |
| Any pollutant in relation to which a surface water environmental standard has been set <sup>(1)</sup> |      |   | 0.5 x (surface water standard divided by dilution factor)(2)  |   |   |

<sup>(1)</sup> The surface water environmental standards are set out in Schedule 1 to The Water Framework Directive (Priority Substances and Classification) Regulations (Northern Ireland) 2011(S.R. 2011 No. 10)

Table 2

Threshold values for assessing the risk to wetlands

| Column header                    | Annual mean nitrate concentration (mg/l NO <sub>3</sub> ) |               |     |
|----------------------------------|---|---------------|-----|
|                                  | Altitude Above Ordnance Datum                             |               |     |
| Wetland type                     | up to 175   | more than 175 | any |
|                                  | metres  | metres        |     |
| Quaking bog                      | 18  | 4             |     |
| Wet dune                         |   |               | 13  |
| Fen (mesotrophic) and Fen Meadow | 22  | 9             |     |

<sup>(2)</sup> The "dilution factor" is taken to be the fraction of the average annual river flow derived from groundwater inflows. It can be estimated from established hydrological indices such as the baseflow index, or from the ratio of catchment groundwater recharge to effective precipitation.

| Column header   | Annual mean nitrate concentration (mg/l NO <sub>3</sub> ) |                      |     |
|---|---|----------------------|-----|
|   | Altitude Above Ordnance Datum                             |                      |     |
| Wetland type  | up to 175<br>metres                                       | more than 175 metres | any |
| Fen (oligotrophic and wetlands at tufa forming springs) | 20  | 4                    |     |
| Wet grassland   | 26  | 9                    |     |
| Wet heath   | 13  | 9                    |     |
| Peatbog and woodland on peatbog                         |   |                      | 9   |
| Wetland directly irrigated by spring or seepage         |   |                      | 9   |
| Swamp (mesotrophic) and reedbed                         |   |                      | 22  |
| Swamp (oligotrophic)                                    |   |                      | 18  |
| Wet woodland  | 22  | 9"                   |     |