

S.I. No. 254/2001 — Urban Waste Water Treatment Regulations, 2001

S.I. No. 440/2004 — Urban Waste Water Treatment (Amendment) Regulations, 2004



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First Schedule - Collecting Systems

A collecting system shall take into account waste water treatment requirements.

The design, construction and maintenance of a collecting system shall be undertaken in accordance with the best technical knowledge not entailing excessive costs, notably regarding;

- volume and characteristics of urban waste water.
- prevention of leaks, and
- limitation of pollution of receiving waters due to storm water overflows.

Second Schedule - Part 1

The values for concentrations or for the percentage of reduction shall apply.

Parameters	Concentration	Minimum percentage of reduction ⁽¹⁾	Reference method of measurement
Biochemical oxygen demand (BOD5 at 20° C) without nitrification ⁽²⁾	25 mg/l O ₂	70-90	Homogenized, unfiltered, undecanted sample. Determination of dissolved oxygen before and after five-day incubation at 20° C ± 1° C, in complete darkness. Addition of a nitrification inhibitor
Chemical oxygen demand (COD)	125 mg/l O ₂	75	Homogenized, unfiltered, undecanted sample Potassium dichromate
Total suspended solids	35 mg/l	90	<ul style="list-style-type: none">- Filtering of a representative sample through a 0,45 µm filter membrane. Drying at 105°C and weighing- Centrifuging of a representative sample (for at least five mins with mean acceleration of 2,800 to 3,200 g), drying at 105°C and weighing

Third Schedule - Sensitive Areas

Part 1

Rivers

River Boyne, County Meath	6.5 km section downstream of sewage treatment works outfall at Blackcastle, Navan, County Meath.
River Camlin, County Longford	From sewage treatment works at Longford to entry into the River Shannon.
River Castlebar, County Mayo	Downstream of sewage treatment works outfall at Knockthomas to entry into Lough Cullin.
River Liffey	Downstream of Osberstown sewage treatment works to Leixlip reservoir, County Kildare.
River Nenagh, County Tipperary	Downstream of sewage treatment works outfall in Nenagh to entry into Lough Derg.
River Tullamore, County Offaly	0.5 km section downstream of sewage treatment works outfall in Tullamore.

Lakes

Lough Derg and Lough Ree on the River Shannon.
Lough Leane, County Kerry.
Lough Oughter, County Cavan.

Part 2 Rivers

River Blackwater (Monaghan)	From the confluence of the River Shambles to Newmills Bridge.
River Brosna	Downstream of Mullingar sewage outfall [opposite intersection of regional road (R400) with N52 south of Mullingar], to Lough Ennell.
River Cavan	From the bridge at Lisdarn downstream of Cavan Town to the Annalee River confluence.
River Proules	Downstream of Carrickmacross sewage outfall, to confluence with the River Glyde.
River Barrow	Downstream of Portarlinton sewage outfall, to Graiguenamanagh Bridge.
River Triogue	Downstream of Portlaoise sewage outfall, to confluence with the River Barrow.
River Nore	Downstream of Kilkenny sewage outfall, to Inistioge Bridge.
River Hind	Downstream of Roscommon Town sewage outfall, to Lough Ree.
River Suir	Downstream of Thurles sewage outfall, to Twoford Bridge.
River Suir	Downstream of Clonmel sewage outfall, to Coolnamuck Weir.
Little Brosna River	Downstream of Roscrea sewage outfall below its confluence with the Bunow River, to the bridge near Brosna House.
River Blackwater (Munster)	Downstream of Mallow railway bridge, to Ballyduff Bridge.

Lakes

Lough Ennell, County Westmeath.
Lough Muckno, County Monaghan.
Lough Monalty, County Monaghan.

Estuaries

Broadmeadow Estuary (Inner)	From the bridge west of Lissenhall (Broadmeadow River) to the railway viaduct.
Liffey Estuary	From Islandbridge weir to Poolbeg Lighthouse, including the River Tolka basin and South Bull Lagoon.
Slaney Estuary (Upper)	From Enniscorthy railway bridge to Macmine.
Slaney Estuary (Lower)	From Macmine to Drinagh / Big Island
Barrow Estuary	From the weir at Bahana Wood to New Ross Bridge.
Suir Estuary (Upper)	From Coolnamuck Weir to Mount Congreve.
Bandon Estuary Upper	From Inishannon Bridge to Kinsale Western Bridge.
Bandon Estuary Lower	Downstream of Kinsale Western Bridge, to Money Point.
Lee Estuary Upper (Tralee)	From Ballymullin Bridge to seaward end of Tralee Ship Canal / Annagh Island.
Feale Estuary Upper	Downstream of Finuge Bridge, to Poulnahaha old Railway Bridge.
Cashen / Feale Estuary	Downstream of Poulnahaha old Railway Bridge, to Moneycashen.
Killybegs Harbour	Killybegs Harbour inside Kane's Rock / Carntullagh Head.
Castletown Estuary	From the weir 130 m downstream St. Johns Bridge (Castletown River) to Pile Light.
Blackwater Estuary Upper	From Bullsod Island (1 km downstream Lismore Bridge) to Dromana Ferry.
Blackwater Estuary Lower	Downstream of Dromana Ferry, to near East Point, Youghal Harbour

Fourth Schedule

Industrial Waste Water

Industrial waste water entering collecting systems and urban waste water treatment plants shall be subject to such pre-treatment as is required in order to:

- protect the health of staff working in collecting systems and treatment plants;
- ensure that collecting systems, waste water treatment plants and associated equipment are not damaged;
- ensure that the operation of a waste water treatment plant and the treatment of sludge are not impeded;
- ensure that discharges from treatment plants do not adversely affect the environment or prevent receiving waters from complying with other Community Directives;
- ensure that sludge can be disposed of safely in an environmentally acceptable manner.

Fifth Schedule

Reference methods for monitoring and evaluation of results

1	Sanitary authorities shall ensure that a monitoring method is applied which corresponds at least with the level of requirements described below. Alternative methods to those mentioned in paragraphs 2, 3 and 4 may be used provided that it can be demonstrated that equivalent results are obtained.						
2	Flow-proportional or time-based 24-hour samples shall be collected at the same well-defined point in the outlet and if necessary in the inlet of the treatment plant, in order to monitor compliance with the requirements for discharged waste water specified in these Regulations. Good international laboratory practices aiming at minimising the degradation of samples between collection and analysis shall be applied.						
3	<p>The minimum annual number of samples shall be determined according to the size of the treatment plant and be collected at regular intervals during the year:</p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 35%; padding: 5px;">2,000 to 9,999 p.e.</td> <td style="padding: 5px;">12 samples during the first year: four samples in subsequent years, if it can be shown that the water during the first year complies with the provisions of these Regulations; if one sample of the four fails, 12 samples must be taken in the year that follows.</td> </tr> <tr> <td style="padding: 5px;">10,000 to 49,999 p.e.</td> <td style="padding: 5px; text-align: center;">12 samples</td> </tr> <tr> <td style="padding: 5px;">50,000 p.e. or over</td> <td style="padding: 5px; text-align: center;">24 samples.</td> </tr> </table>	2,000 to 9,999 p.e.	12 samples during the first year: four samples in subsequent years, if it can be shown that the water during the first year complies with the provisions of these Regulations; if one sample of the four fails, 12 samples must be taken in the year that follows.	10,000 to 49,999 p.e.	12 samples	50,000 p.e. or over	24 samples.
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10,000 to 49,999 p.e.	12 samples						
50,000 p.e. or over	24 samples.						
4	<p>The treated waste water shall be assumed to conform to the relevant parameters if, for each relevant parameter considered individually, samples of the water show that it complies with the relevant parametric value in the following way:</p> <ul style="list-style-type: none"> (a) for the parameters specified in Part 1 of the Second Schedule, a maximum number of samples which are allowed to fail the requirements, expressed in concentrations and/or percentage reductions in Part 1 of the Second Schedule, is set out in the Table to this Schedule; (b) for the parameters in Part 1 of the Second Schedule expressed in concentrations, the failing samples taken under normal operating conditions must not deviate from the parametric values by more than 100% but, for the parametric value in concentration relating to total suspended solids, deviations of up to 150% may be accepted; (c) for those parameters specified in Part 2 of the Second Schedule the annual mean of the samples for each parameter shall conform to the relevant parametric values. 						
5	Extreme values for the water quality in question shall not be taken into consideration when they are the result of unusual situations such as those due to heavy rain.						

Table

Series of samples taken in any year	Maximum permitted number of samples which fail to conform
4 - 7	1
8 - 16	2
17 - 28	3
29 - 40	4
41 - 53	5
54 - 67	6
68 - 81	7
82 - 95	8
96 - 110	9
111 - 125	10
126 - 140	11
141 - 155	12
156 - 171	13
172 - 187	14
188 - 203	15
204 - 219	16
220 - 235	17
236 - 251	18
252 - 268	19
269 - 284	20
285 - 300	21
301 - 317	22
318 - 334	23
335 - 350	24
351 - 365	25

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Part 2

Requirements for discharges from urban waste water treatment plants to sensitive areas. One or both parameters may be applied depending on the local situation. The values for concentration or for the percentage of reduction shall apply.

Parameters	Concentration	Minimum percentage of reduction ⁽¹⁾	Reference method of measurement
Total phosphorus	2 mg/l P (10,000 - 100,000 p.e.) 1 mg/l P (more than 100,000 p.e.)	80	Molecular absorption spectrophotometry
Total nitrogen ⁽²⁾	15 mg/l N (10,000 - 100,000 p.e.) ⁽³⁾ 10 mg/l N (more than 100,000 p.e.) ⁽³⁾	70-80	Molecular absorption spectrophotometry

⁽¹⁾ Reduction in relation to the load of the influent.

⁽²⁾ Total nitrogen means the sum of total Kjeldahl nitrogen (organic and ammoniacal nitrogen), nitrate — nitrogen and nitrite — nitrogen.

⁽³⁾ These values for concentration are annual means as referred to in paragraph 4 (c) of the Fifth Schedule. However, the requirements for nitrogen may be checked using daily averages when it is proven, in accordance with paragraph 1 of that Schedule, that the same level of protection is obtained. In this case, the daily average must not exceed 20 mg/l of total nitrogen for all the samples when the temperature of the effluent in the biological reactor is superior or equal to 12°C. The conditions concerning temperature can be replaced by a limitation on the time of operation to take account of regional climatic conditions.

Insertion into **Part 2 of the Third Schedule** under the heading “Estuaries” of the following:

Lee Estuary/Lough Mahon — From the salmon weir (downstream of waterworks intake) to Monkstown (excluding North Channel at Great Island).

Owennacurra Estuary/North Channel — From North Channel (Great Island) upstream of Marloag Point including Owennacurra Estuary upstream to Dungourney river confluence.”.