This licence was amended on 3 February 2014 under Regulation 33 of the Waste Water Discharge (Authorisation) Regulations 2007, as amended. The details of Amendment A must be read in conjunction with this licence. The amendment document is entitled "Technical Amendment A".

**LICENCE REG NO D0004-01 HAS BEEN REVOKED**
Please note that Licence Reg. No. D0004-01 was reviewed and replaced by Licence Reg. No. D0004-02.




Headquarters
P.O. Box 3000
Johnstown Castle Estate
County Wexford
Ireland

# WASTE WATER DISCHARGE LICENCE

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|---|---|
| **Licence Register Number:** | D0004-01 |
| **Licensee:** | Kildare County Council<br>Aras Chill Dara<br>Devoy Park<br>Naas<br>County Kildare |
| **Agglomeration:** | Lower Liffey Valley Regional Sewerage Scheme |

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WASTE WATER DISCHARGE (AUTHORISATION) REGULATIONS 2007

# WASTE WATER DISCHARGE LICENCE

Decision of Agency, under Regulation 28(1) of the Waste Water Discharge (Authorisation) Regulations 2007.

Reference number: **D0004-01**

The Agency in exercise of the powers conferred on it by the Waste Water Discharge (Authorisation) Regulations 2007, for the reasons hereinafter set out, hereby grants this waste water discharge licence to **Kildare County Council, Aras Chill Dara, Devoy Park, Naas, County Kildare** in respect of the agglomeration named **Lower Liffey Valley Regional Sewerage Scheme,** subject to Conditions, as set out in the schedules attached hereto.

The licence authorises the discharge of waste water from the waste water works which services the agglomeration described below subject to conditions.

A copy of the Decision is attached.

***Licensed Discharges, in accordance with the Second Schedule of the Waste Water Discharge (Authorisation) Regulations, 2007***

| Discharges from agglomerations with a population equivalent of more than 10,000 |
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GIVEN under the Seal of the Agency this 6th day of May 2009

PRESENT when the seal of the Agency
was affixed hereto:

Ms Laura Burke Director/Authorised Person

# *INTRODUCTION*

This introduction is not part of the licence and does not purport to be a legal interpretation of the licence.

This application relates to the Lower Liffey Valley Regional Sewerage Scheme agglomeration and is based on the proposed upgrade capacity of the waste water treatment plant (WWTP) (150,000 population equivalent (p.e.)). A combined sewer network serves the agglomeration and the primary discharge (SW1) from the WWTP is located at Leixlip, southeast of the town in Saint Catherine's Park.

The existing WWTP at Leixlip has a maximum treatment capacity of 80,000 p.e. The plant is divided into two treatment streams, the Main Plant (45,000 p.e.) and the Intel Plant (35,000 p.e.), treating effluent from the Intel (Ireland) installation in Leixlip and a minor contribution from the general catchment. The discharge from the Main Plant and Intel Plant combine prior to discharge into the River Liffey.

Both the Main and Intel plants include primary settlement, activated aeration, secondary settlement with ferric sulphate addition for phosphate reduction and the Intel Plant also includes sand filtration (tertiary treatment).

The River Liffey, at the WWTP discharge point, is designated as a proposed Natural Heritage Area (Site Code 000128). The designated site includes the River Liffey from Leixlip Bridge on the Kildare-Dublin border to downstream of the weir at Glenaulin, Palmerstown, County Dublin, and is considered important because of the diversity of the habitats within the site, ranging from aquatic to terrestrial.

The River Liffey discharges into the South Dublin Bay and River Tolka Estuary (c.23km downstream of the WWTP discharge), which is designated as a Special Protected Area (SPA) (Site Code 004024).

There are fourteen discharges from the waste water works, i.e. the primary discharge and thirteen storm water overflows (SWO). Eight of the SWOs are associated with pumping stations and may also act as emergency overflows in the event of prolonged pump failure. There are no secondary discharges in the agglomeration. Two SWOs discharge to the Rye Water, 1 SWO discharges to the Lyreen Stream which flows into the Rye Water, 2 SWOs discharge to the Shinkeen Stream and 1 SWO discharges to Silleachain Stream.

Upgrade works for the Lower Liffey Valley Sewerage Scheme agglomeration are due to be completed by the end of January 2012. These works include the upgrade of the Leixlip WWTP from 80,000 p.e. to 150,000 p.e. and the construction of the necessary upgrading works to the collection systems in the five towns of Kilcock, Maynooth, Celbridge and Leixlip and connection of the Straffan Main Drainage System to the Lower Liffey Valley Regional Sewerage Scheme. These improvement works will rectify problems of:

- High rates of groundwater infiltration.
- Surcharging of sections of sewer under existing flow conditions.
- Frequent discharge from storm water overflows into adjacent watercourses.
- Insufficient hydraulic capacity in existing systems to cater for future development.

The licence requires appropriate remedial action, within specified timeframes, to be undertaken in order to address each of the discharge locations within the agglomeration. This remedial action will ensure that appropriate protection is afforded to the receiving water environment.

The licence sets out in detail the conditions under which Kildare County Council will control and manage the waste water discharges from the agglomeration covered by this licence.

The legislation governing this licence relates specifically to, and is restricted to, the regulation and control of waste water discharges from the agglomeration. Therefore any odour or noise issue that maybe associated with the waste water works including the treatment plant cannot be addressed by this licence.

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# *Glossary of Terms*

All terms in this licence should be interpreted in accordance with the definitions in the Waste Water Discharge (Authorisation) Regulations, 2007, unless otherwise defined in this section.

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| **AER** | Annual Environmental Report. |
| **Agglomeration** | An area where the population or economic activities or both are sufficiently concentrated for a waste water works to have been put in place. |
| **Agreement** | Agreement in writing. |
| **Annually** | At least one measurement in any one year. |
| **Application** | The application for this licence. |
| **Attachment** | Any reference to Attachments in this licence refers to attachments submitted as part of the licence application. |
| **Biannually** | All or part of a period of six consecutive months. |
| **Biennially** | Once every two years. |
| **BOD** | 5 day Biochemical Oxygen Demand (without nitrification suppression). |
| **CEN** | Comité Européen De Normalisation – European Committee for Standardisation. |
| **COD** | Chemical Oxygen Demand. |
| **Combined approach** | In relation to a waste water works, means the control of discharges and emissions to waters whereby the emission limits for the discharge are established on the basis of the stricter of either or both, the limits and controls required under the Urban Waste Water Regulations, and the limits determined under statute or Directive for the purpose of achieving the environmental objectives established for surface waters, groundwater or protected areas for the water body into which the discharge is made. |
| **Daily** | During all days when discharges are taking place; with at least one measurement per day. |
| **Dangerous Substances** | As defined under the Dangerous Substances Directive (2006/11/EC). |
| **Day** | Any 24 hour period. |
| **Discharge limits** | Those limits, specified for a particular parameter in *Schedule A: Discharges* of this licence. |
| **Discharge Point** | The point from which a waste water discharge occurs. |
| **DO** | Dissolved oxygen. |
| **Documentation** | Any report, record, result, data, drawing, proposal, interpretation or other document, in written or electronic form, that is required by this licence. |

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| **Domestic Waste Water** | Waste water from residential settlements and services that originates predominantly from human metabolism and from household activities. |
| **Drawing** | Any reference to a drawing or drawing number means a drawing or drawing number contained in the application, unless otherwise specified in this licence. |
| **EMP** | Environmental Management Programme. |
| **Environmental damage** | As defined in Directive 2004/35/EC. |
| **EPA** | Environmental Protection Agency. |
| **Fortnightly** | A minimum of 24 times per year, at approximately two week intervals. |
| **GC/MS** | Gas chromatography/mass spectroscopy. |
| **ICP** | Inductively coupled plasma spectroscopy. |
| **Incident** | The following shall constitute an incident for the purposes of this licence:<br>(i) any discharge that does not comply with the requirements of this licence;<br>(ii) any incident with the potential for environmental contamination of surface water or groundwater, or posing an environmental threat to land, or requiring an emergency response by the relevant Water Services Authority. |
| **Industrial waste water** | Any waste water that is discharged from premises used for carrying on any trade or industry or other non-domestic use and excludes run-off rain water. |
| **Licensee** | Kildare County Council, Aras Chill Dara, Devoy Park, Naas, County Kildare. |
| **Licensing Regulations** | Waste Water Discharge (Authorisation) Regulations 2007 (S.I. No. 684 of 2007). |
| **Local Authority** | Kildare County Council. |
| **Maintain** | Keep in a fit state, including such regular inspection, servicing, calibration and repair as may be necessary to perform its function. |
| **Monthly** | A minimum of 12 times per year, at intervals of approximately one month. |
| **National Environmental Complaints Procedure** | As established under the National Environmental Enforcement Network. |

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| **Population Equivalent** | A measurement of organic biodegradable load and a population equivalent of 1 (1 p.e.) means the organic biodegradable load having a five-day biochemical oxygen demand ($BOD_5$) of 60g of oxygen per day; the load being calculated on the basis of the maximum average weekly load entering the waste water works during the year, excluding unusual situations such as those due to heavy rain. |
| **Primary Discharge** | The discharge with the largest volume being discharged from the waste water works. |
| **Priority Substances** | Substances identified in accordance with Article 16(2) of Directive 2000/60/EC and listed in Annex X of Directive 2000/60/EC, as amended. Among these substances there are priority hazardous substances which means substances identified in accordance with Article 16(3) and (6) of Directive 2000/60/EC for which measures have to be taken in accordance with Article 16(1) and (8) of Directive 2000/60/EC. |
| **Protected Areas** | Areas designated as requiring special protection under specific Community legislation for the protection of their surface water and groundwater or for the conservation of habitats and species of European sites directly dependant on water and listed in the register established by the Agency in accordance with Article 8 of the Water Policy Regulations. |
| **PRTR** | Pollutant Release and Transfer Register. |
| **Quarterly** | All or part of a period of three consecutive months beginning on the first day of January, April, July or October. |
| **Regional Fisheries Board** | Eastern Regional Fisheries Board. |
| **Sample(s)** | Unless the context of this licence indicates to the contrary, the term samples shall include measurements taken by electronic instruments. |
| **Secondary Discharge** | A potential, occasional or continuous discharge from the waste water works other than a primary discharge or a storm water overflow. |
| **Specified discharges** | Those discharges listed in *Schedule A: Discharges* of this licence. |
| **Standard method** | A National, European or internationally recognised procedure (e.g., I.S. EN, ISO, CEN, BS or equivalent); or an in-house documented procedure based on the above references; a procedure as detailed in the current edition of "Standard Methods for the Examination of Water and Wastewater" (prepared and published jointly by A.P.H.A., A.W.W.A. & W.E.F.), American Public Health Association, 1015 Fifteenth Street, N.W., Washington DC 20005, USA; or an alternative method as may be agreed by the Agency. |
| **Storm water overflow** | A structure or device on a sewerage system designed and constructed for the purpose of relieving the system of excess flows that arise as a result of rain water or melting snow in the sewered catchment, the excess flow being discharged to receiving waters. |
| **SSRS** | Small Stream Risk Score. |

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| **The Agency** | Environmental Protection Agency. |
| **Waste Water** | Domestic waste water or the mixture of domestic waste water with industrial waste water. |
| **Waste Water Works** | Sewers and their accessories (or any part thereof) and all associated structural devices, including waste water treatment plants, which are owned by, vested in, controlled or used by a water services authority for the collection, storage, treatment or discharge of waste water. |
| **Water Services Authority** | Kildare County Council. |
| **Weekly** | During all weeks when discharges are taking place; with at least one measurement in any one week. |
| **WSIP** | Water Services Investment Programme. |
| **WWTP** | Waste Water Treatment Plant. |

# Decision & Reasons for the Decision

The Environmental Protection Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of this licence, any discharges from the agglomeration served by the waste water works will comply with and will not contravene any of the requirements of Regulation 6 of the Waste Water Discharge (Authorisation) Regulations, 2007.

In reaching this decision the Environmental Protection Agency has had regard to the requirements and objectives of Regulation 6 of the Regulations and has considered the application and supporting documentation received from the applicant and the report of its inspector.

# Part I Schedule of Discharges Licensed

In pursuance of the powers conferred on it by the Waste Water Discharge (Authorisation) Regulations, 2007, the Environmental Protection Agency (the Agency), under Regulation 28(1) of the said Regulations grants this Waste Water Discharge Licence to Kildare County Council, Aras Chill Dara, Devoy Park, Naas, County Kildare. The licence authorises the discharge of waste water from the waste water works servicing the Lower Liffey Valley Regional Sewerage Scheme agglomeration described below subject to conditions listed in Part II, with the reasons therefor and the associated schedules attached thereto.

***Licensed Discharges, in accordance with the Second Schedule of the Waste Water Discharge (Authorisation) Regulations, 2007***

| Discharges from agglomerations with a population equivalent of more than 10,000 |
|---|

# Part II Conditions

## Condition 1. Scope

1.1 Statutory Obligations

1.1.1 This licence is for the purposes of Waste Water Discharge licensing under the Waste Water Discharge (Authorisation) Regulations, 2007, only and nothing in this licence shall be construed as negating the licensee's statutory obligations or requirements under any other enactments or regulations.

1.1.2 This licence shall be technically amended, as and when considered by the Agency, to ensure compliance with such environmental quality standard as may be prescribed for surface water classification of the receiving water body.

1.2 The agglomeration is the area outlined in red on Drawing No. Leixlip B.1 of the application. Any reference in this licence to agglomeration shall mean the area thus outlined in red.

1.3 The primary discharge to waters from the waste water works shall be restricted to those listed and described in *Schedule A: Discharges* of this licence, and shall be as set out in the licence application or as modified under Condition 1.7 of this licence and subject to the conditions of this licence.

1.4 The discharges to waters from the waste water works shall be controlled and managed and shall take place as set out in this licence. All programmes required to be carried out under the terms of this licence become part of this licence.

1.5 For the purposes of this licence, the locations of the waste water discharges authorised by this licence are as presented on Drawing No. Leixlip B.5.A of the application.

1.6 No alteration to the waste water works or any part thereof that would, or is likely to, result in a material change to or increase in discharges sufficient to represent a risk of causing a breach of emission standards specified in the licence shall be carried out or commenced without prior notice to, and without the agreement of, the Agency.

1.7 Treatment Capacities

1.7.1 The licensee shall, on an annual basis, undertake an assessment of the remaining organic and hydraulic treatment capacities within the waste water works (capacity of plant, less flow-load calculation for representative period).

1.7.2 The licensee shall maintain such available capacity within the waste water works as is necessary to ensure that there is no environmental risk posed to the receiving water environment as result of the discharges.

1.7.3 Where the licensee determines, as part of those assessments undertaken in Condition 1.7.1 above, that the remaining treatment capacity will be exceeded within the ensuing three year period, the licensee shall notify the Agency and seek a licence review, as appropriate.

*Reason: To clarify the scope of this licence.*

# Condition 2. Interpretation

2.1 Emission limit values for discharges to waters in this licence shall be interpreted in the following way:

2.1.1 Composite Sampling

(i) No pH value shall deviate from the specified range.

(ii) For BOD and COD, no more than the relevant number of samples specified in *Schedule B3: Interpretation of Discharge Monitoring Results* of this licence – Column 2 shall exceed the Emission Limit Value based on the number of samples taken as listed in *Schedule B3: Interpretation of Discharge Monitoring Results* of this licence – Column 1. No individual concentration result similarly calculated shall exceed the emission limit value by more than 100%.

(iii) For Suspended Solids, no more than the relevant number of samples specified in *Schedule B3: Interpretation of Discharge Monitoring Results* of this licence – Column 2 shall exceed the Emission Limit Value based on the number of samples taken as listed in *Schedule B3: Interpretation of Discharge Monitoring Results* of this licence – Column 1. No individual concentration result similarly calculated shall exceed the emission limit value by more than 150%.

(iv) For parameters other than pH, flow, BOD, COD & Suspended Solids eight out of ten consecutive composite results shall not exceed the emission limit value. No individual result similarly calculated shall exceed the emission limit value by more than 20%.

(v) No mass emission limit values for parameters specified in *Schedule A: Discharges* of this licence shall be exceeded.

2.1.2 Discrete Sampling

For parameters other than pH, no grab sample value shall exceed the emission limit value by more than 200%.

*Reason: To clarify the interpretation of limit values fixed under the licence.*

# Condition 3. Discharges

3.1 Where discharges from the waste water works are required to comply with Emission Limit Values by a date specified in *Schedule A: Discharges* of this licence, the Water Services Authority shall, at all times prior to this date, take such measures as are necessary to ensure that significant environmental pollution is not caused as a result of the discharge.

3.2 No specified discharge from the waste water works shall exceed the emission limit values set out in *Schedule A: Discharges* of this licence.

3.3 The Water Services Authority shall take such measures as are necessary to ensure that no deterioration in the quality of the receiving waters shall occur as a result of the discharge.

3.4 There shall be no discharge from the discharge point(s) specified in *Schedule A.3: Discharges to be Discontinued* of this licence from the dates specified therein.

3.5 Storm water overflows shall be as specified in *Schedule A.4: Storm Water Overflows* of this licence.

3.6 The licensee shall ensure that all or any of the following:

- Gross solids
- Litter

associated with discharges from the waste water works do not result in an impairment of, or an interference with, amenities or the environment.

*Reason: To provide for the protection of the environment by way of control and limitation of discharges.*

# Condition 4. Control and Monitoring

4.1 The licensee shall carry out such sampling, analyses, measurements, examinations, maintenance and calibrations as set out below and in accordance with *Schedule B: Monitoring* of this licence.

4.1.1 Analyses shall be undertaken by competent staff in accordance with documented operating procedures.

4.1.2 Such procedures shall be assessed for their suitability for the test matrix and performance characteristics shall be determined.

4.1.3 Such procedures shall be subject to a programme of Analytical Quality Control verified by a competent third party using control standards with evaluation of test responses.

4.1.4 Where any analysis is sub-contracted it shall be to a competent laboratory.

4.2 The licensee shall ensure that:

(i) Sampling and analysis for all parameters listed in the Schedules to this licence, and

(ii) Any reference measurement methods to calibrate automated measurement system shall be carried out in accordance with CEN standards. If CEN standards are not available, ISO, national or international standards that will ensure the provision of data of an equivalent scientific quality shall apply.

4.3 The licensee shall install on all emission points such sampling points or equipment, including any data-logging or other electronic communication equipment, as may be required by the Agency. All such equipment shall be consistent with the safe operation of all sampling and monitoring systems.

4.4 All automatic monitors and samplers shall be functioning at all times (except during maintenance and calibration) when the discharges are being made unless alternative sampling or monitoring has been agreed in writing by the Agency for a limited period. In the event of the malfunction of any continuous monitor, the licensee shall

contact the Agency as soon as practicable and alternative sampling and monitoring facilities shall be put in place. Agreement for the use of alternative equipment, other than in emergency situations, shall be obtained from the Agency.

4.5 Monitoring and analysis equipment shall be operated and maintained as necessary so that monitoring accurately reflects the discharge (or ambient conditions where that is the monitoring objective).

4.6 In the case of composite sampling of discharge(s) from the waste water works, a separate composite sample or homogeneous sub-sample (of sufficient volume as advised by the Agency) shall be refrigerated immediately after collection and retained as required for Agency use.

4.7 The licensee shall clearly label and provide safe and permanent access to all on-site sampling and monitoring points and to off-site points as required by the Agency.

4.8 The licensee shall establish and maintain corrective action procedures and shall take corrective action should the specified requirements of this licence not be fulfilled. The responsibility and authority for initiating further investigation and corrective action in the event of a reported non-conformity with this licence shall be defined by the licensee.

4.9 The licensee shall establish and maintain a programme for maintenance and operation of all plant and equipment to ensure that no unauthorised waste water discharges take place. This programme shall be based on the instructions issued by the manufacturer/supplier or installer of the equipment. Appropriate record keeping and diagnostic testing shall support this maintenance programme. The licensee shall clearly allocate responsibility for the planning, management and execution of all aspects of this programme to appropriate personnel.

4.10 The location, frequency, methods and scope of monitoring, sampling and analyses, as set out in this licence, may be amended with the agreement of the Agency following evaluation of test results.

4.11 Toxicity

The acute toxicity of the undiluted final effluent from the primary discharge point to at least four relevant aquatic species from different trophic levels shall be determined by standardised and internationally accepted procedures and carried out by a competent laboratory. Copies of the complete reports shall be submitted by the licensee to the Agency as part of the second AER and testing shall be repeated annually on the two most sensitive species. The report shall be submitted as part of the AER unless otherwise agreed with the Agency.

4.12 A representative sample of effluent from the primary discharge point shall be screened for the presence of organic compounds and metals within six months of the date of grant of this licence. The list of parameters for analysis shall include, as a minimum, those organic compounds and metals identified as relevant having regard to the Water Policy Regulations 2003 and amendments (S.I. No. 722 of 2003 and amendments) and any other relevant legislation. Such screening shall be repeated at intervals as requested by the Agency thereafter.

4.13 Storm water overflows

4.13.1 The licensee shall, prior to the date for submission of the second AER (required under Condition 6.10), carry out an investigation for the identification and assessment of storm water overflows. The assessment shall include a determination of compliance with the criteria for storm water overflows, as set out in the DoEHLG '*Procedures and Criteria in Relation to*

*Storm Water Overflows*', 1995 and any other guidance as may be specified by the Agency. A report on the storm water overflows shall be submitted to the Agency as part of the second AER.

4.13.2 The licensee shall carry out an assessment of storm water overflows at least once every three years thereafter and report to the Agency on each occasion as part of the AER. The licensee shall maintain a written record of all assessments and remedial measures arising from the assessment.

4.14 The licensee shall prepare a PRTR report for the primary discharge. The substances to be included in the PRTR shall be as agreed by the Agency each year by reference to EC Regulation No. 166/2006 concerning the establishment of the European Pollutant and Transfer Register and amending Council Directives 91/689/EEC and 96/61/EC. The PRTR shall be prepared in accordance with any relevant guidelines issued by the Agency and shall be submitted electronically in specified format and as part of the AER.

4.15 The licensee shall, within six months of the date of grant of this licence, develop and establish a Data Management System for collation, archiving, assessing and graphically presenting the monitoring data generated as a result of this licence.

4.16 The licensee shall carry out monthly monitoring of the influent stream to both the Main Plant and Intel Plant for BOD, COD, Total Nitrogen and Total Phosphorus in order to measure the mass loadings and removal efficiencies within the treatment plants.

4.17 Prior to submitting ambient monitoring data, the licensee must consult with the Agency with regard to the appropriate format for submittal.

4.18 The licensee shall, within twelve months of the date of grant of this licence, undertake an assessment of the predicted impacts on protected areas arising as a result of the discharges from the agglomeration. This assessment should be carried out in accordance with the provisions of the Habitats Directive 92/43/EEC and must establish conservation objectives for the site in conjunction with appropriate mitigation responses for any predicted impacts identified. The assessment shall be submitted as part of the AER.

4.19 The scope of the assessment referred to in Condition 4.18 shall be agreed in advance with the National Parks and Wildlife Service (NPWS).

4.20 Dangerous Substances and Priority Substances

4.20.1 The licensee shall, within six months of the date of grant of this licence, carry out an investigation of the dangerous substances and priority substances within the agglomeration's waste water. This investigation shall include:

(a) the identification of the sources of dangerous substances and priority substances detected during monitoring of the primary discharge;

(b) the identification of measures to minimise dangerous substances and priority substances concentrations, as far as practicable, in the discharges from the waste water works.

The licensee shall implement all recommendations arising from a report or reports on this investigation within such a time period as agreed by the Agency, with a view to:

(i) minimising the fluoride concentration in the receiving water;

(ii) achieving a maximum receiving water mercury concentration at the edge of the mixing zone of 0.07µg/l by 31st December 2010; and

(iii) achieving a receiving water mercury level in biota at the edge of the mixing zone of ≤ 20µg/kg.

4.20.2 The licensee shall, within three months of the date of grant of this licence, submit to the Agency for agreement, a monitoring programme proposal for:

(i) the evaluation of the mercury levels in biota at the edge of the mixing zone of the primary discharge (SW1), and

(ii) assessment of performance against the receiving water standards specified under Condition 4.20.1.

Biota monitoring shall, as a minimum, be carried out annually having regard to the requirements of Article 2 of Council Directive 2008/105/EC.

4.20.3 Sample analysis for mercury shall include mercury and its compounds.

*Reason: To provide for the protection of the environment by way of control and monitoring of discharges.*

# Condition 5. Programmes of Improvements

5.1 The licensee shall, as a part of the second AER (required under Condition 6.10), prepare and submit to the Agency a programme of infrastructural improvements to maximise the effectiveness and efficiency of the waste water works in order to:

a) achieve improvements in the quality of all discharges from the works;

b) meet the emission limit values specified in *Schedule A: Discharges*, of this licence;

c) give effect to Regulation 2 of the Waste Water Discharge (Authorisation) Regulations 2007 (S.I. No. 684 of 2007);

d) reduce phosphorus loadings in the discharge to the maximum practicable extent;

e) reduce ammonia loadings in the discharge to the maximum practicable extent;

f) meet the obligations of Condition 1.7.

5.2 The programme of infrastructural improvements referred to in Condition 5.1 shall include an assessment of:

a) the waste water treatment plant, having regard to the effectiveness of the treatment provided by reference to the following:

(i) the existing level of treatment, capacity of treatment plant and associated equipment;

(ii) the emission limit values specified in *Schedule A: Discharges*, of this licence;

(iii) designations of the receiving water body;

(iv) downstream abstractions and uses of water;

(v) water quality objective for the receiving water body;

(vi) the standards and volumetric limitations applied to any industrial waste water that is licensed to discharge to the waste water works.

b) the integrity of the waste water works having regard to:

(i) capacity of the waste water works;

(ii) leaks from the waste water works;

(iii) misconnected drainage from foul sewers into the surface water drainage network;

(iv) infiltration by surface water;

(v) infiltration by groundwater;

(vi) such other aspects of the works as may be specified by the Agency.

c) all storm water overflows associated with the waste water works to determine the effectiveness of their operation and in particular to identify improvements necessary to comply with the requirements of this licence.

5.3 The programme of infrastructural improvements shall include a plan for implementation for each individual improvement identified. The plan for implementation shall:

a) in the case of the assessment carried out under Conditions 5.2(a) (waste water treatment plant), and 5.2(c) (storm water overflows):

(i) clearly identify and describe the improvement and the timeframe for implementation;

(ii) specify the parametric emission(s) that will be affected by the implementation of the improvement;

(iii) estimate the costs and sources of funding required to implement the improvement including, where appropriate, details of submissions made to the Department of the Environment, Heritage and Local Government and sanctions received;

(iv) identify the anticipated improvements in the quality of the receiving waters as a result of the implementation of the improvement.

b) in the case of the assessment carried out under Condition 5.2(b) (waste water works):

(i) identify, evaluate and describe the infrastructural works necessary to implement those works listed under *Schedule C: Specified Improvement Programme* of this licence;

(ii) clearly identify and describe the improvement and the timeframe for its implementation;

(iii) estimate the costs and sources of funding required to implement the improvement including, where appropriate, details of submissions made to the Department of the Environment, Heritage and Local Government and sanctions received.

5.4 The licensee shall complete the improvements as set out in *Schedule C: Specified Improvement Programme* of this licence, by 31st January 2012 in order to ensure compliance with the emission limit values as set out in *Schedule A: Discharges* of this licence.

5.5 The licensee shall put in place a programme of measures for the gathering, recording and retention of information in relation to the infrastructural components of the waste water works. This information shall be in the form of 'As-Constructed' drawings and electronic mapping tools, or in any other format as required by the Agency.

5.6 The licensee shall implement the Specified Improvement Programme as defined in *Schedule C: Specified Improvement Programme* of this licence, by the dates specified therein. The licensee shall, as a part of the second AER (required under Condition 6.10) provide detail on all measures proposed and undertaken including progress reports on infrastructural works and a statement of compliance with timeframes set out in this licence.

*Reason: To provide for the improvement of the waste water works on a planned basis having regard to the desirability of ongoing assessment, recording and reporting of matters affecting the receiving water environment.*

## Condition 6. Notifications, Records and Reports

6.1 The licensee, shall notify the Agency by both telephone and facsimile, to the Agency's headquarters in Wexford, or to such other Agency office as may be specified by the Agency, as soon as practicable after the occurrence of any incident (as defined in this licence), unless otherwise agreed by the Agency. The licensee shall include as part of the notification, date and time of the incident, summary details of the occurrence, and where available, the steps taken to minimise any discharges.

6.2 In the case of any incident relating to a discharge to water, the licensee shall notify the Eastern Regional Fisheries Board and the relevant downstream water services authority, as soon as practicable after such an incident.

6.3 The licensee shall notify the Agency, as soon as is practicable, where a discharge from the waste water works has ceased permanently.

6.4 The licensee shall make a record of any incident. This record shall include details of the nature, extent, and impact of, and circumstances giving rise to, the incident. The record shall include all corrective actions taken to manage the incident, to minimise the effect on the environment, and to avoid recurrence. The licensee shall, as soon as practicable following incident notification, submit to the Agency the incident record including clean up and recurrence prevention measures.

6.5 The licensee shall record all complaints of an environmental nature related to the discharge(s) to waters from the waste water works in accordance with the national environmental complaints procedure. Each such record shall give details of the date and time of the complaint, the name of the complainant (if provided), and the nature of the complaint. A record shall also be kept of the response made in the case of each complaint.

6.6 The licensee shall record all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence.

6.7 The licensee shall as a minimum keep the following documents at the headquarters of the licensee or such office as may be agreed by the Agency:

(i) the licence application and all associated documentation;

(ii) the licence(s) relating to the discharge(s) to waters from the waste water works;

(iii) the previous year's AER;

(iv) records of all sampling, analyses, measurements, examinations, calibrations and maintenance carried out in accordance with the requirements of this licence;

(v) relevant correspondence with the Agency;

(vi) up to date drawings/plans showing the location of key process and environmental infrastructure, including monitoring locations and discharge points;

(vii) up to date operational procedures for all monitoring and control equipment necessary to give effect to this licence.

This documentation shall be available to the Agency for inspection at all reasonable times.

6.8 The licensee shall, within six months of date of grant of this licence, establish and maintain a Public Awareness and Communications Programme to ensure that members of the public can obtain, at all reasonable times, environmental information relating to the discharge.

6.9 Unless otherwise agreed by the Agency, all reports and notifications submitted to the Agency shall:

(i) be sent to Administration, Office of Environmental Enforcement (OEE) at the Agency's Headquarters or to such other Agency office agreed by the Agency;

(ii) comprise one original and three copies unless additional copies are required by Agency;

(iii) be formatted in accordance with any written instruction or guidance issued by the Agency;

(iv) include whatever information may be required by the Agency;

(v) be identified by a unique code, indicate any modification or amendment, and be correctly dated to reflect any such modification or amendment;

(vi) be accompanied by a written interpretation setting out their significance in the case of all monitoring data; and

(vii) be transferred electronically to the Agency's computer system if required by the Agency.

6.10 The licensee shall submit to the Agency, by the 28th February of each year, an AER covering the previous calendar year. This report, which shall be to the satisfaction of the Agency, shall include as a minimum the information specified in *Schedule D: Annual Environmental Report* of this licence and shall be prepared in accordance with any relevant guidelines issued by the Agency.

6.11 All reports shall be certified accurate and representative by the Director of Services or a nominated, suitably qualified and experienced deputy.

6.12 The licensee shall comply with any notice as issued by the Agency in relation to the quality, quantity or location of a discharge from the waste water works.

*Reason: To provide for the collection and reporting of adequate information on the activity.*

# Condition 7. Financial Charges and Provisions

7.1 Agency Charges

7.1.1 The licensee shall pay to the Agency an annual contribution of €6,738, or such sum as the Agency from time to time determines, having regard to variations in the extent of reporting, auditing, inspection, sampling and analysis or other functions carried out by the Agency, towards the cost of monitoring the discharge as the Agency considers necessary for the performance of its functions under the Waste Water Discharge (Authorisation) Regulations 2007. The first payment shall be a pro-rata amount for the period from the date of this licence to the 31st day of December, and shall be paid to the Agency within one month from the date of the licence. In subsequent years the licensee shall pay to the Agency such revised annual contribution as the Agency shall from time to time consider necessary to enable performance by the Agency of its relevant functions under the Waste Water Discharge (Authorisation) Regulations 2007 and all such payments shall be made within one month of the date upon which demanded by the Agency.

7.1.2 In the event that the frequency or extent of monitoring, investigations or other functions carried out by the Agency needs to be increased, the licensee shall contribute such sums as determined by the Agency to defray its costs in regard to items not covered by the said annual contribution.

7.2 Environmental Liabilities

7.2.1 The licensee shall as part of the AER provide an annual statement as to the measures taken or adopted in relation to the prevention of environmental damage, and the financial provisions in place in relation to the underwriting of costs for remedial actions following anticipated events or accidents/incidents, as may be associated with discharges or overflows from the waste water works.

7.2.2 The licensee shall arrange for the completion, by an independent and appropriately qualified consultant, of a comprehensive and fully costed Environmental Liabilities Risk Assessment (ELRA) to address the liabilities from present or planned discharges. A report on this assessment shall be submitted to the Agency for agreement with the second AER. The ELRA shall be reviewed as necessary to reflect any significant change to the volume or character of effluent discharged, and in any case every three years following initial agreement (the results of the review shall be notified as part of the AER).

7.2.3 As part of the measures identified in Condition 7.2.1 the licensee shall, to the satisfaction of the Agency, make financial provision to cover any liabilities identified in Condition 7.2.2. The amount of indemnity held shall be reviewed and revised as necessary, but at least triennially. Proof of renewal or revision of such financial indemnity shall be included in the annual 'Statement of Measures' report identified in Condition 7.2.1.

7.2.4 The licensee shall have regard to the Environmental Protection Agency Guidance on Environmental Liability Risk Assessment, Residuals Management Plans and Financial Provision when implementing Conditions 7.2.1, 7.2.2 and 7.2.3 above.

*Reason: To provide for adequate financing for monitoring and financial provisions for measures to protect the environment.*

# SCHEDULE A: Discharges

## *A.1 Primary Waste Water Discharge*

**Primary Discharge Point Code:** SW1

**Name of Receiving Waters:** River Liffey (IE_EA_09_1870)

**Location:** 301633E 235839N

| Parameter | Emission Limit Value | |
|---|---|---|
| pH | 6.0 - 9.0 | |
| | mg/l | kg/day |
| BOD | 8 | -- |
| COD | 100 | -- |
| Nitrite (as N) | 1 | -- |
| Nitrate (as N) | 14.9 | -- |
| Suspended Solids | 20 Note 1 / 15 Note 2 | -- |
| Total Phosphorus (as P) | 1 Note 1 / 0.5 Note 2 | -- |
| Orthophosphate (as P) | 0.39 Note 2 | -- |
| Ammonia (as N) | 2.75 Note 2 | -- |
| Fluoride | -- | 180 |
| Oils, Fats and Grease | 15 | -- |

**Note 1:** Emission limit value applicable until 30th January 2012.
**Note 2:** Emission limit value applicable from 31st January 2012.

## *A.2 Secondary Waste Water Discharges*

**There shall be no Secondary Waste Water Discharges.**

## *A.3 Discharges to be discontinued*

**No discharge is required to be discontinued in this schedule.**

## *A.4 Storm Water Overflows*

| Discharge Point Code | Location | Name of Receiving Waters |
|---|---|---|
| **SW2** | Leixlip Waste Water Treatment Plant<br>Storm Water Overflow<br>301546E 235839N | River Liffey<br>(IE_EA_09_1870) |
| **SW3** | Rye River Walk, Kilcock<br>Pumping Station<br>288868E 239585N | Rye Water<br>(Tributary of River Liffey) |
| **SW4** | Old Dunboyne Road, Maynooth<br>Pumping Station<br>294412E 238713N | Rye Water<br>(Tributary of River Liffey) |
| **SW5** | Maynooth Castle, Maynooth<br>Storm Water Overflow<br>297173E 233844N | Lyreen Stream (to Rye Water) |
| **SW6** | Celbridge Pumping Station, Castletown,<br>Celbridge - Pumping Station<br>298219E 233796N | River Liffey<br>(IE_EA_09_1870) |
| **SW7** | Castletown Gate Slip, Celbridge<br>Storm Water Overflow<br>297585E 233309N | River Liffey<br>(IE_EA_09_1870) |
| **SW8** | Castletown Gate Slip, Celbridge<br>Storm Water Overflow<br>297584E 233306N | River Liffey<br>(IE_EA_09_1870) |
| **SW9** | Primrose Hill, Celbridge - Pumping Station<br>297379E 232911N | River Liffey<br>(IE_EA_09_1870) |
| **SW10** | Ballyoulster, Celbridge - Pumping Station<br>298650E 233375N | Shinkeen Stream (to River Liffey) |
| **SW11** | Ballyoulster, Celbridge<br>Storm Water Overflow<br>298649E 233370N | Shinkeen Stream (to River Liffey) |
| **SW12** | Abbey Farm, Celbridge - Pumping Station<br>296936E 232433N | River Liffey<br>(IE_EA_09_1870) |
| **SW13** | Mill Lane, Leixlip - Storm Water Overflow<br>301155E 235871N | Silleachain Stream (to River Liffey) |
| **SW14** | Lodgepark, Straffan - Pumping Station<br>292834E 229614N | River Liffey<br>(IE_EA_09_1870) |

# SCHEDULE B: Monitoring

## *B.1 Monitoring of Primary Waste Water Discharge*

**Primary Discharge Monitoring Point Code:** SW1 (Grid Ref. 301657E 235852N)

| Parameter | Monitoring Frequency | Analysis Method/Technique |
|---|---|---|
| **Flow** | Continuous<br>Daily [Note 1] | On-line flow meter with recorder |
| **pH** | Weekly | pH electrode/meter and recorder |
| **Biochemical Oxygen Demand** | Fortnightly [Note 2] | Standard Method |
| **Chemical Oxygen Demand** | Fortnightly [Note 2] | Standard Method |
| **Suspended Solids** | Fortnightly [Note 2] | Standard Method |
| **Total Nitrogen (as N)** | Fortnightly [Note 2] | Standard Method |
| **Nitrate (as N)** | Fortnightly [Note 2] | Standard Method |
| **Nitrite (as N)** | Fortnightly [Note 2] | Standard Method |
| **Oxidised Nitrogen (as N)** | Fortnightly [Note 2] | Standard Method |
| **Ammonia (as N)** | Fortnightly [Note 2] | Standard Method |
| **Total Phosphorus (as P)** | Fortnightly [Note 2] | Standard Method |
| **Orthophosphate (as P)** | Fortnightly [Note 2] | Standard Method |
| **Fluoride** | Fortnightly [Note 2] | Standard Method |
| **Oils, fats & greases** | Quarterly | Standard Method |
| **Mercury and its compounds** | Quarterly [Note 2] | Standard Method |
| **Metals and Organic Compounds** [Note 3] | Biannually [Note 4] | Standard Method |
| **Toxicity** [Note 5] | Annual [Note 4] | To be agreed by the Agency |
| **Visual Inspection** | Daily | Sample and examine for colour |

**Note 1:** Total effluent volume discharged over the 24-hour period in which the composite sample is collected shall be recorded.
**Note 2:** All samples shall be collected on a 24-hour time-based proportional composite sampling basis.
**Note 3:** Having identified the most relevant pollutants from screening (Condition 4.12), subsequent monitoring for these pollutants shall be carried out at the specified frequency, unless otherwise agreed by the Agency.
**Note 4:** Samples to be taken at times that coincide with the treatment of leachate where possible.
**Note 5:** The number of toxic units (Tu) = 100/x hour $EC/LC_{50}$ in percentage vol/vol so that higher Tu values reflect greater levels of toxicity. For test regimes where species death is not easily detected, immobilisation is considered equivalent to death.

## *B.2 Monitoring of Secondary Waste Water Discharge*

**There shall be no Secondary Waste Water Discharges.**

## *B.3 Interpretation of Discharge Monitoring Results*

| No of samples taken in any one year | Maximum number of samples may which exceed ELV |
|---|---|
| 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 |

## *B.4 Ambient Monitoring*

### *Receiving Water Monitoring*

**Location: Upstream:** aSW1u upstream of SW1 (301537E, 235828N)
**Downstream:** aSW1d downstream of SW1 (302295E, 235179N)

| Parameter | Monitoring Frequency [Note 1] | Analysis Method/Technique |
|---|---|---|
| pH | Ten samples/year [Note 2] | pH electrode/meter |
| BOD | Ten samples/year [Note 2] | Standard Method |
| Orthophosphate (as P) | Ten samples/year [Note 2] | Standard Method |
| Total Nitrogen (as N) | Ten samples/year [Note 2] | Standard Method |
| Ammonia | Ten samples/year [Note 2] | Standard Method |
| Fluoride | Ten samples/year [Note 2] | Standard Method |
| Mercury and its compounds | Ten samples/year [Note 2] | Standard Method |
| Metals and Organic Compounds [Note 3] | Annually | Standard Method |
| Visual inspection | Weekly | Sample and examine for colour |

**Note 1:** Ambient monitoring to be submitted to the Agency in accordance with Condition 4.17 of this licence.
**Note 2** Samples shall be taken at not less than monthly intervals.
**Note 3:** Having identified the most relevant pollutants from screening (Condition 4.12), subsequent monitoring for these pollutants shall be carried out at a frequency agreed by the Agency.

# SCHEDULE C: Specified Improvement Programme

## *C.1 Improvement Programme for Primary Discharge*

| Specified Improvement | Completion Date |
|---|---|
| **Waste water treatment plant upgrade and ancillary works** | 31st January 2012 |
| **Waste water sewer network infiltration/capacity improvement works** | 31st January 2012 |
| **Any other works notified in writing by the Agency** | As agreed |

## *C.2 Improvement Programme for Secondary Discharge(s)*

**No improvements works are specified.**

## *C.3 Improvement Programme for Storm Water Overflows*

| Specified Improvement | Completion Date |
|---|---|
| **Upgrading of sewer network to ensure all Storm Water Overflows comply with the criteria outlined in the DoEHLG *'Procedures and Criteria in relation to Storm Water Overflows, 1995'*** | 31st January 2012 |
| **Any other works notified in writing by the Agency** | As agreed |

# SCHEDULE D: Annual Environmental Report

| Annual Environmental Report Content [Note 1] |
|---|
| Discharges from the agglomeration. |
| Summary report on monthly influent monitoring. |
| Data collection and reporting requirements under the Urban Waste Water Treatment Directive. |
| Complaints summary. |
| Pollutant Release and Transfer Register - report for previous year. |
| Pollutant Release and Transfer Register - proposal for current year. |
| Effluent toxicity testing report. |
| Ambient monitoring summary. |
| Storm water overflow identification and inspection report. |
| Reported incidents summary. |
| Report on progress made and proposals being developed to meet the improvement programme requirements. |
| Development/Infrastructural works summary (completed in previous year or prepared for current year). [Note 2] |
| Statement of Measures required to prevent environmental damage under Environmental Liabilities Directive (2004/35/EC). |
| Dangerous Substances and Priority Substances investigation report. |
| Receiving water monitoring programme. |
| Assessment of predicted impact on habitats. |
| Any other items specified by the Agency. |

**Note 1:** Content may be revised subject to the agreement of the Agency.
**Note 2:** This summary report shall provide detail on all measures proposed and undertaken under the Water Services Investment Programme for the Lower Liffey Valley Regional Sewerage Scheme agglomeration, including progress reports on infrastructural works and a statement of compliance with timeframes set out in this licence.

Sealed by the seal of the Agency on this the 6th day of May 2009.

PRESENT when the seal of the Agency was affixed hereto:

Ms Laura Burke Director/Authorised Person