

# Discharges to Surface Waters

## Guidance to the Applicant

## Local Authority Services National Training Group (WSTG)

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# Glossary of Terms

The following provides a glossary of terms used in this document. The definitions therein are not to be taken as comprehensive but solely as an aid to the non-technical reader.

***Abstraction***
In relation to water contained in any source of water, means the doing of anything whereby any of that water is removed from that source of water, whether temporarily or permanently, including anything whereby the water is so removed for the purpose of being transferred to another source of water *(Source: Water Services Act, 2007)*

***Agreed Limit of Detection***
The lowest concentration or quantity of a substance that can be distinguished from the absence of that substance. It should be agreed between the regulator and the applicant.

***Appropriate Assessment***
In accordance with Article 6(3) of the Habitats Directive (92/43/EEC), an Appropriate Assessment is an evaluation of the potential impacts of a plan or project on the conservation objectives of a Natura 2000 site (European network of special areas of conservation and special protection areas), and the development, where necessary, of mitigation or avoidance measures to mitigate negative effects.

***Aquifer***
A subsurface layer or layers of rock, or other geological strata, of sufficient porosity and permeability to allow either a significant flow of groundwater or the abstraction of significant quantities of groundwater (Groundwater Regulations, 2010).

***Attenuation***
A decrease in pollutant concentrations, flux, or toxicity as a function of physical, chemical and/or biological processes, individually or in combination, in the subsurface environment. Attenuation processes include dilution, dispersion, filtration, sorption, decay, and retardation.

***Authorised person***
A person appointed in writing by the Minister or by a Water Services Authority / Local Authority for the purposes of enforcing the legislation under which they have been appointed.

***Capacity***
A measure of the ability of groundwater to assimilate or absorb pollutants whilst still maintaining acceptable water quality in relation to applicable groundwater quality standards. The term relates primarily to the chemical status of a groundwater body.

***Coastal Water***
The area of surface water on the landward side of a line, every point of which is at a distance of one nautical mile on the seaward side from the nearest point of the baseline from which the breadth of territorial waters is measured, extending where appropriate to the outer limit of transitional waters.

***Compliance Point***
The point (location, depth) at which a compliance value should be met. Generally it is represented by a borehole or monitoring well from which representative groundwater samples can be obtained

***Compliance Value***
The concentration of a substance and associated compliance regime that, when not exceeded at the compliance point, will prevent pollution and/or achieve water quality objectives at the receptor.

***Conceptual Hydrogeological Model***
A simplified representation or working description of how a real hydrogeological system is believed to behave on the basis of qualitative analysis of desk study information, field observations and field data. A quantitative conceptual model includes preliminary calculations of water balances, including groundwater flow.

***Conservative Pollutants***
Pollutants which do not readily or easily react or biodegrade in the subsurface environment.

***Contaminant (Chemical) Load***
The volume and concentrations of chemical substances (pollutants) discharged to soil or groundwater.

***Diffuse Sources***
Diffuse sources of pollution are spread over wider geographical areas rather than at individual point locations. Diffuse sources include general land use activities and landspreading of industrial, municipal wastes and agricultural organic and inorganic fertilisers.

***Direct Input***
An input to groundwater that bypasses the unsaturated zone (e.g. direct injection through a borehole) or is directly in contact with the groundwater table in an aquifer either year round or seasonally.

***Domestic Waste Water***
Waste water of a composition and concentration (biological and chemical) normally discharged by a household, and which originates predominantly from the human metabolism or from day to day domestic type human activities, including washing and sanitation, but does not include fats, oils, grease or food particles discharged from a premises in the course of, or in preparation for, providing a related service or carrying on a related trade. (Water Services Act, 2007).

***Downgradient***
The direction of decreasing groundwater levels, i.e. flow direction. Opposite of upgradient.

***Dry Weather Flow (Effluent)***
For a waste water treatment plant, the Dry Weather Flow is the average daily flow to the plant without any contribution from stormwater inflow or infiltration of groundwater into the waste water collection system.

***Dry Weather Flow (Receiving Water)***
The Dry Weather Flow of a stream or river is the annual minimum daily mean flow rate with a return period of 50 years. The Dry Weather Flow is a statistical measure of low flow and usually requires reliable long term low flow data or sufficient information that would allow the estimation of the Dry Weather Flow.

***Environmental Quality Standard (EQS)***
The concentration of a particular pollutant or group of pollutants in a receiving water which should not be exceeded in order to protect human health and the environment.

***Good Groundwater Chemical Status***
The chemical status of a body of groundwater which meets all the conditions for good chemical status set out in Groundwater Regulations 2010, regulations 39 to 43.

***Good Groundwater Status***
Achieved when both the quantitative and chemical status of a groundwater body are good.

***Good Surface Water Chemical Status***
The chemical status of a body of groundwater which meets all the conditions for good chemical status set out in the Surface Water Regulations 2009, S.I. No. 272 of 2009.

***Good Surface Water Status***
Achieved when both the quantitative and chemical status of a surface water body are good.

***Groundwater***
All water which is below the surface of the ground in the saturation zone and in direct contact with the ground or subsoil (Groundwater Regulations, 2010). The EPA interpretation of the settings in which groundwater can occur is presented in Section 3.2.1.

***Groundwater Body (GWB)***
A volume of groundwater defined as a groundwater management unit for the purposes of reporting to the European Commission under the Water Framework Directive. Groundwater bodies are defined by aquifers capable of providing more than 10 $m^3$ per day, on average, or serving more than 50 persons.

***Groundwater Dependent Terrestrial Ecosystems (GWDTEs)***
These are groundwater dependent wetlands, whereby the dependency is either on groundwater flow, level or chemistry as the controlling factors or qualifying interests of associated habitats. Examples are raised bogs, alkaline fens and turloughs. Groundwater dependent terrestrial ecosystems are listed on the EPA's register of protected areas in accordance with Regulation 8 of the Water Policy Regulations, 2003.

***Groundwater Protection Scheme (GWPS)***
A scheme comprising two principal components: a land surface zoning map which encompasses the hydrogeological elements of risk (of pollution); and a groundwater protection response matrix for different potentially polluting activities (DELG/EPA/GSI, 1999).

***Groundwater Protection Responses (GWPR)***
Control measures, conditions or precautions recommended as a response to the acceptability of an activity within a groundwater protection zone.

***Groundwater Protection Zone (GPZ)***
A zone delineated by integrating aquifer categories or source protection areas and associated vulnerability ratings. The zones are shown on a map, each zone being identified by a code, e.g. SO/H (outer source area with a high vulnerability) or Rk/E (regionally important karstified aquifer with an extreme vulnerability). Groundwater protection responses are assigned to these zones for different potentially polluting activities.

***Groundwater Recharge***
Two definitions: a) the process of rainwater or surface water infiltrating to the groundwater table; b) the volume (amount) of water added to a groundwater system.

***Groundwater Resource***
An aquifer capable of providing a groundwater supply of more than 10 $m^3$ a day as an average or serving more than 50 persons.

***Hazardous Substances***
Substances or groups of substances that are toxic, persistent and liable to bio-accumulate, and other substances or groups of substances which give rise to an equivalent level of concern. A list of hazardous substances has been published by the EPA (2010a).

***Hydraulic Conductivity***
The rate at which water can move through a unit volume of geological medium under a potential unit hydraulic gradient. The hydraulic conductivity can be influenced by the properties of the fluid, including its density, viscosity and temperature, as well as by the properties of the soil or rock.

***Hydraulic Gradient***
The change in total head of water with distance; the slope of the groundwater table or the piezometric surface.

***Indirect Input***
An input to groundwater where the pollutants infiltrate through soil, subsoil and/or bedrock to the groundwater table.

***Input***
The direct or indirect introduction of pollutants into groundwater as a result of human activity.

***Integrated Constructed Wetlands (ICWs)***
Constructed wetlands are artificially constructed or modified wetland systems supporting vegetation, which provide secondary treatment, by physical and biological means, to effluent from a primary treatment step. Constructed wetlands may also be used for tertiary treatment (EPA, 2009a). "Integrated constructed wetlands" have been developed in Ireland to integrate water quality, management of landscape-fit towards improving site aesthetics and enhancement of biodiversity. ICWs can primarily treat domestic waste water and farmyard soiled water. Guidance (DEHLG, 2010) is available that outlines the ICW concept, and provides information on site assessment, design, construction, operation, maintenance and monitoring.

***Integrated Pollution Prevention and Control (IPPC) Licence***
A licence for industrial and other activities issued by the EPA under the Environmental Protection Agency Acts, 1992 to 2011.

***Karst***
A distinctive landform characterised by features such as surface collapses, sinking streams, swallow holes, caves, turloughs and dry valleys, and a distinctive groundwater flow regime where drainage is largely underground in solutionally enlarged fissures and conduits.

***Lake***
A body of surface water, which may be artificial or natural.

***Landfill***
A waste disposal site or facility used for the deposit of waste onto or under land.

***Licence Application***
An application to a Local Authority or a Water Services Authority for a licence to discharge trade or sewage effluent to waters or to sewer

***Licensing Authority***
Includes the Water Services Authority (as defined in the Water Services Act, 2007) and the Local Authority (as defined in the Local Government Act, 2001) which includes County Councils and City Councils.

***Limit Objective***
This objective requires the implementation of all measures necessary to limit inputs of non-hazardous substances, into groundwater to ensure that such inputs do not cause deterioration in status or significant and sustained upward trends in their concentrations in groundwater.

***Limit Value***
The mass, expressed in terms of a specific parameter, concentration or level of an emission, or both a specific concentration and level of an emission, that may not be exceeded during one or more periods of time. In this guidance, when not exceeded at the source, the limit value will prevent an unacceptable release to groundwater.

***Minimum Reporting Value (MRV)***
The lowest concentration of a substance that can be determined with a given degree of confidence using commonly available analytical methods, primarily used in the context of hazardous substances. MRVs are not necessarily equivalent to limits of detection.

***Non-hazardous Substances***
Pollutants listed in Schedule 2 of the Groundwater Regulations 2010 that are not considered hazardous, as well as any other non-hazardous pollutants not listed in Schedule 2 but presenting an existing or potential risk of pollution. Non-hazardous substances are listed in a document by the EPA (2010a).

***On-site Waste Water Treatment Systems (OSWTSs)***
A generic term for small-scale waste water treatment systems associated with single houses and small communities or facilities, and mostly associated with septic tanks and intermittent filter systems offering secondary treatment of raw waste water effluent.

***Pathway***
The route which a particle of water and/or chemical or biological substance takes through the environment from a source to a receptor location. Pathways are determined by natural hydrogeological characteristics and the nature of the contaminant, but can also be influenced by the presence of features resulting from human activities (e.g., abandoned ungrouted boreholes which can direct surface water and associated pollutants preferentially to groundwater).

***Permeability***
A measure of a soil or rock's ability or capacity to transmit water under a potential hydraulic gradient (synonymous with hydraulic conductivity).

***Point Source***
Any discernible, confined or discrete conveyance from which pollutants are or may be discharged. These may exist in the form of pipes, ditches, channels, tunnels, conduits, containers, and sheds, or may exist as distinct percolation areas, integrated constructed wetlands, or other surface application of pollutants at individual locations. Examples are discharges from waste water works and effluent discharges from industry.

***Polluting Matter***
Any substance liable to cause pollution, and, for the purpose of this definition, 'substance' includes bacteria and other pathogens, where relevant, and the expression "polluting matter" shall be construed accordingly. *(Source European Communities Environmental Objectives (Surface Waters) Regulations, 2009).*

***Pollution***
The direct or indirect introduction, as a result of human activity, of substances or heat into the air, water or land which may be harmful to human health or the quality of aquatic ecosystems or terrestrial ecosystems directly depending on aquatic ecosystems which result in damage to material property, or which impair or interfere with amenities and other legitimate uses of the environment (Groundwater Regulations, 2010).

***Poorly Productive Aquifers (PPAs)***
Low-yielding bedrock aquifers that are generally not regarded as important sources of water for public water supply but that nonetheless may be important in terms of providing domestic and small community water supplies and of delivering water and associated pollutants to rivers and lakes via shallow groundwater pathways.

***Population Equivalent (p.e.)***
A conversion value which aims at evaluating non-domestic pollution in reference to domestic pollution fixed by EEC directive (Urban Waste Water Treatment Directive 91/271/EEC) at 60 g/day $BOD_5$.

***Pore water***
Water that occupies void spaces between mineral grains in unlithified (uncemented) sediments.

***Preferential Flow***
A generic term used to describe water movement along favoured pathways through a geological medium, bypassing other parts of the medium. Examples include pores formed by soil fauna, plant root channels, weathering cracks, fissures and/or fractures.

***Prevent Objective***
Taking all measures necessary and reasonable to avoid the entry of hazardous substances into groundwater and to avoid any significant increase in their concentration in groundwater.

***Priority Substances***
Those substances or groups of substances, identified by the Commission in accordance with Article 16(2) of the Water Framework Directive and listed in Tables 11 and 12 of Schedule 6 of the European Communities Environmental Objectives (Surface Waters) Regulations, 2009 that have been prioritised for action by the setting of environmental quality standards at Community level.

***Priority Hazardous Substances***
Those substances or groups of substances forming a subset of priority substances identified by the Commission in accordance with Article 16(3) of the Water Framework Directive and for which measures have to be taken to cease or phase-out discharges, losses and emissions and which are listed in Table 12 of Schedule 6 of the European Communities Environmental Objectives (Surface Waters) Regulations, 2009.

***Receptor-based Water Quality Standards***
Standards developed to protect receptors, which include drinking water standards, environmental quality standards for surface waters and minimum reporting values. They are used to develop compliance values for assessing inputs to groundwater.

***Receptors***
Receptors are existing and potential future groundwater resources, drinking water supplies (e.g. springs and abstraction wells), surface water bodies into which groundwater discharges (e.g. streams) and groundwater dependent terrestrial ecosystems (GWDTEs).

***Regulator***
In this document, the EPA or the relevant local authority depending on the type of discharge licence and location.

***River***
A body of inland water flowing for the most part on the surface of the land but which may flow underground for part of its course (Groundwater Regulations, 2010). Upland rivers are generally fast flowing and lowland rivers are generally slow flowing and meandering.

***River Basin***
The area of land from which all surface water run-off flows, through a sequence of streams, rivers and lakes, into the sea at a single river mouth, estuary or delta.

***River Basin District (RBD)***
A group of river basins formally defined by Water Policy (2003) for the purposes of reporting Water Framework Directive requirements to the European Commission.

***River Basin Management Plan (RBMP)***
A detailed document describing the characteristics of a river basin district, the environmental objectives that need to be achieved, and the pollution control measures required to achieve these objectives through a specified work programme.

***Saturated Zone***
The zone below the water table in an aquifer in which all pores and fissures and fractures are filled with water at a pressure that is greater than atmospheric.

***Section 4 Licence***
A licence to discharge to waters, given by local authorities under the Local Government (Water Pollution) Acts 1977 to 1990.

***Section 16 Licence***
A licence to discharge to waters, given by Irish Water under the Local Government (Water Pollution) Acts 1977 to 1990.

***Sewer***
Drainage pipes and sewers of every description, including storm water sewers, owned by, vested in or controlled by a water services authority, an authorised provider of water services or a person providing water services jointly with or on behalf of a water services authority or an authorised provider of water services, but does not include a drain or service connection *(Source: Water Services Act, 2007)*

***Sewage Effluent***
Effluent from any works, apparatus, plant or drainage pipe used for the disposal to waters of sewage, whether treated or untreated *(Source: Local Government (Water Pollution) Act 1977)*

***Significant and Sustained Upward Trend***
Any statistically and environmentally significant increase in concentration of a pollutant, group of pollutants, or indicator of pollution in groundwater (EPA, 2010b).

***Soil (topsoil)***
The uppermost layer of soil in which plants grow.

***Source Pathway Receptor (SPR) Model***
A SPR model involves identifying whether and how pollution sources are connected to a receptor via a pathway. A conceptual model provides an understanding of all the relationships between SPR factors in a particular hydrogeological setting.

***Source Protection Area***
The catchment area around a groundwater source which contributes water to that source (Zone of Contribution), divided into two areas; the Inner Protection Area (SI) and the Outer Protection Area (SO). The SI is designed to protect the source against the effects of human activities that may have an immediate effect on the source, particularly in relation to microbiological pollution. It is defined by a 100-

day time of travel (TOT) from any point below the water table to the source. The SO covers the remainder of the zone of contribution of the groundwater source.

***Special Areas of Conservation (SACs)***
Areas selected and designated under the Natural Habitats Regulations, 1997 (as amended in 1998 and 2005) for the protection of certain habitats and species.

***Storm Water***
Runoff of rainwater mainly in urban settings during high intensity rainfall events. Stormwater may enter and discharge to groundwater or other receptors through storm drains.

***Subsoil***
Unlithified (uncemented) geological strata or materials beneath the topsoil and above bedrock.

***Surface Water***
A discrete and significant element of surface water such as a lake, reservoir, stream, river or canal, part of a stream, river or canal, a transitional water or a stretch of coastal water. *(European Communities Environmental Objectives (Surface Waters) Regulations, 2009)*

***Surface Water Bodies***
Inland waters, except groundwater, which are on the land surface (such as reservoirs, lakes, rivers, transitional waters, coastal waters and, under some circumstances, territorial waters) and which occur within a WFD River Basin District.

***Sustainable Urban Drainage Systems (SuDS)***
Generic term used to describe conveyance systems and control structures designed to intercept, manage, and dispose of surface drainage and stormwater in urban settings and the built environment. Components of SuDS may include drains, ponds, soakaways, recharge basins, and porous pavements.

***Threshold Values (TVs)***
Chemical concentration values for substances listed in Schedule 5 of the Groundwater Regulations (2010), which are used for the purpose of chemical status classification of groundwater bodies.

***Trade Effluent***
Effluent from any works, apparatus, plant or drainage pipe used for the disposal to a waste water works of any liquid (whether treated or untreated), either with or without particles of matter in suspension therein, which is discharged from premises used for carrying on any trade or industry (including mining), but does not include domestic waste water or storm water (Water Services Act, 2007).

***Transitional Waters***
Bodies of surface water in the vicinity of river mouths which are partly saline in character as a result of their proximity to saline coastal waters, and which are substantially influenced by freshwater flows.

***Trigger Level***
A parameter value specified in a licence or authorisation, the achievement or exceedance of which requires certain actions to be taken by the licensee.

***UK TAG***
The United Kingdom Technical Advisory Group, a partnership of UK environment and conservation agencies set up to interpret and support the implementation of the Water Framework Directive. The EPA is an invited member of the UK TAG.

***Unacceptable Input to Groundwater***
An input of hazardous substances to groundwater, or pollution resulting from an input of non-hazardous substances to groundwater, where these inputs are not exempted by the provisions of Regulation 14 of the Groundwater Regulations (2010).

***Unsaturated Zone***
The zone between the land surface and the water table, in which pores, fractures and fissures are only partially filled with water. Also known as the vadose zone.

***Vulnerability***
The intrinsic geological and hydrogeological characteristics that determine the ease with which groundwater may be contaminated by human activities (Fitzsimmons et al, 2003).

***Waste Licence***
A licence for activities in the waste sector given by the EPA under the Waste Management Acts, 1996 to 2010.

***Waste Water Effluent***
Any quantity or volume of waste water generated from a domestic, industrial, or commercial facility. Typically disposed of via an onsite waste water treatment system or a specially designed treatment facility such as a waste water treatment plant.

***Waste Water Discharge Licence or Certificate of Authorisation***
Issued by the EPA to sanitary authorities under the Waste water Discharge (Authorisation) Regulations 2007 and 2011.

***Water Body***
A WFD management unit. It refers to all types of waters, including surface water bodies, transitional and coastal water bodies, as well as groundwater bodies.

***Water Table***
The uppermost level of saturation in an aquifer at which the pressure is atmospheric.

***Water Pollution***
The discharge by man, directly or indirectly, of substances or energy into the aquatic environment, the results of which are such as to cause hazards to human health, harm to living resources and to aquatic ecosystems, damage to amenities or interference with other legitimate uses of water.

***Water Services Authority***
Includes a County Council or a City Council as defined in the Local Government Act, 2001, (sanitary authority or local authority).

***Zone of Contribution (ZOC)***
The area surrounding a pumped well or spring that encompasses all areas or features that supply groundwater to the well or spring. It is defined as the area required to support an abstraction and/or overflow (in the case of springs) from long-term groundwater recharge

# Guidance to the Applicant – Discharge to Surface Waters

**THESE GUIDANCE NOTES MUST BE READ IN FULL BEFORE THE APPLICATION FORM MAY BE COMPLETED**

# ‘GUIDANCE ON APPLYING FOR A DISCHARGE LICENCE’

## Application for a Licence to Discharge to Surface Waters

The Local Government (Water Pollution) Acts, 1977 & 1990

**THESE GUIDANCE NOTES MUST BE READ IN FULL BEFORE THE APPLICATION FORM MAY BE COMPLETED**

# 1. About the Guidance Notes

These guidance notes have been prepared to assist persons in the preparation of an application for a licence to **discharge effluent to surface waters**. The document should be read with reference to the Application Form available from the licensing authority.

The information contained herein is for guidance only and should not be interpreted as definitive as regards the information a Licensing Authority may seek in respect of a licence application.

Guidance is provided on the following matters:

- Legal obligations to obtain a licence;
- General procedures for processing a licence application;
- Details of a Notice in respect of a licence to discharge to Waters;
- Information to be submitted concerning the characteristics of the effluent;
- Information required concerning prior treatments;
- Information concerning the impact on receiving waters;
- Guidance on how to determine the impact of the discharge on the receiving environment;

**Section 2** identifies discharges for which a licence to discharge must be held. A licence to discharge to water is required under Sections 4 of the Local Government (Water Pollution) Act, 1977.

This guidance refers to the 'licensing authority'. In respect of licenses to discharge to waters the licensing authority is the local authority/ sanitary authority / water services authority in whose functional area the discharge is located.

**Section 3** provides details of the process involved in making an application to the licensing authority for a licence to discharge effluent to water. The Applicant's responsibilities in terms of completing the application form and in terms of taking actions as prescribed in legislation are also outlined in this section.

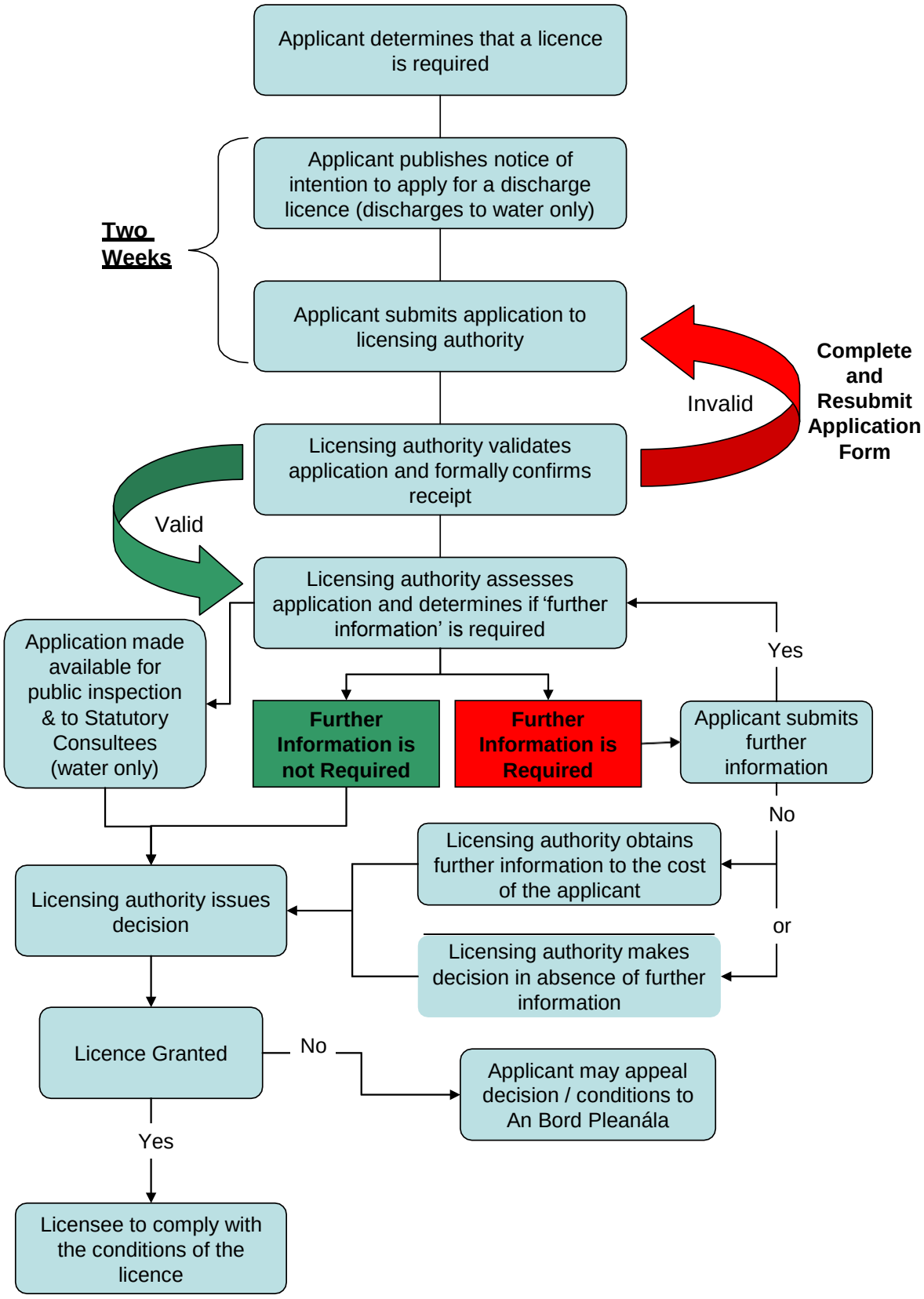
**Section 4** provides guidance on the completion of the various parts of the application form and on the information to form part of the application. Technical guidance is also provided to assist the applicant in determining the potential impact of the proposed discharge on the environment.

**Section 5** refers to the next steps that take place following the making of an application.

Please note that this document does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the Local Government (Water pollution) Acts, 1977 and 1990 and all associated Regulations.

An overview of the procedure involved in licensing of discharges to water is provided hereunder.

# Process for Licensing Discharges to Water



# 2. Requirement for a Discharge Licence

## *2.1 Licence from the Local Authority*

Local Authorities and the Environmental Protection Agency (EPA) have legal responsibility for the control of pollution through the regulation of emissions to the environment. Effluent discharges to waters can be regulated by the EPA or local authorities through licensing.

It is an offence to cause or permit the discharge of any trade effluent or sewage effluent to any waters except under and in accordance with a licence issued by the appropriate regulatory authority. The EPA and local authority may prescribe conditions in a licence for the preservation and protection of the environment.

The type and scale of the activity will determine the regulatory authority responsible for licensing of effluent discharges.

1. Activities which are listed in the First Schedule of the Environmental Protection Agency Act, 1992 (as amended by the Protection of the Environment Act, 2003), are licensable by the EPA.

2. Local authorities are responsible for licensing discharges to air and water from activities which fall below the thresholds specified in the First Schedule of the Environmental Protection Agency Act, 1992 (as amended).

A copy of the First Schedule of the Environmental Protection Agency Act, 1992 (as amended) is included in Appendix A of this document. Applicants for a licence to discharge to waters must first determine the appropriate regulatory authority for licensing of the activity causing the discharge.

## *2.2 Discharges to Water*

Local authorities are given powers under the Local Government (Water Pollution) Acts, 1977 & 1990 to control the discharge of effluent to waters.

If the activity causing the discharge does not fall under the remit of the First Schedule of the Environmental Protection Agency Act, 1992 (as amended by the Protection of the Environment Act, 2003) an application for a licence must be made to the local authority in whose functional area the discharge is to occur.

Effluent discharges for which **a discharge licence must be obtained** under the Local Government (Water Pollution) Act, 1977 are as follows:

- All domestic wastewater discharges to surface water;
- All trade effluent discharges to surface water;
- All discharges of domestic wastewater greater than $5m^3$ in any period of 24 hours which is discharged to an aquifer (groundwater) from a septic tank or other disposal unit by means of a percolation area, soakage pit or other method;
- All trade effluent discharges to groundwater;
- All trade effluent discharges to sewer;

The following discharges are **exempt from having to hold a discharge licence** under the Local Government (Water Pollution) Act, 1977:

- Discharges to tidal waters from vessels or marine structures;
- Discharges from a sewer owned by, vested in or controlled by a Water Services Authority;
- Discharges exempted from licensing under Regulations made by the Minister in accordance with Section 4(10) of the Local Government (Water Pollution) Act, 1977;
- Trade effluent discharged by a Water Services Authority in the course of the performance of its powers and duties, other than from a sewer;
- Domestic sewage not exceeding in volume $5m^3$ in any period of 24 hours which is discharged to an aquifer from a septic tank or other disposal unit by means of a percolation area, soakage pit or other method (including ICW);
- The discharge of domestic-type effluent only to sewer;
- The discharge of storm water only to sewer;
- Discharges subject to IPPC licensing by the EPA. Such activities are identified in the First Schedule to the Environmental Protection Agency Act, 1992 - 2007

# 3. Application Procedure

## 3.1 Pre-Application

### *Initial Consultation with the Licensing Authority*

Although not mandatory, it is advisable that applicants make contact with the licensing authority prior to submitting an application for discharges to waters. Prior consultation has the following advantages:

- confirmation can be given as to the appropriate licensing authority;
- information to be submitted with the application can be clarified which may avoid the possibility of a request for further information and resulting delays in the determination of the licence application;
- advice can be sought on any amendments necessary to the existing proposals to allow an application to be processed ( e.g. the level treatment proposed may not be sufficient);
- advice on the source of information necessary to complete the application form.

Arrangements for prior consultations should be made by contacting the licensing authority in advance. Contact details are provided on the Application Form.

### *Notice of Intention to Apply for a Licence to Discharge to Waters*

Where a person proposes to submit an application to the licensing authority for a licence to discharge effluent to waters, they must first publish notice of their intention to apply for the licence in a newspaper circulating in the functional area of the licensing authority to which they are applying. This is a legal requirement under the *Local Government (Water Pollution) Regulations, 1978*.

The requirement to publish such a notice relates to applications for a licence to discharge to **waters** only i.e. there is no requirement to publish notice of the intention to discharge to sewer.

Applicants should ensure the Notice is placed in a newspaper which is acceptable to the licensing authority. Some licensing authorities have pre-approved lists of acceptable newspapers.

Section 5 of the *Local Government (Water Pollution) Regulations, 1978* lists the information that must be contained in the notice as follows:

1. The name of the applicant and the name of the licensing authority to which application is being made;
2. A general description of the effluent;
3. The name and location of the premises from which the effluent is to be discharged;
4. The waters to which the effluent is to be discharged;
5. In the case of the discharge of trade effluent, the nature of the trade or industry from which the discharge will be generated.

The licence application must be submitted to the licensing authority within **two weeks** of the date of publication of the newspaper notice. A copy of the original newspaper notice must be included with the application form (full page containing the notice showing the date of publication).

Where an application has not been submitted within the two week period following the publication of the notice a further notice may be required. A further notice may also be required where the original notice does not comply with the requirements of the Regulations or is deemed to include inadequate information or is misleading to the public. The costs of all notices are the responsibility of the applicant.

It is important to note that the notice must contain the heading: **"Discharge of Effluent to Waters"**

The following is the standard template which meets the requirements of the Regulations:

**Discharge of Effluent to Waters**

Notice is hereby given that **Name** (*insert Applicant's name)* intend to apply to **Cavan County Council** for a licence to discharge **Trade/Sewage/Trade and Sewage** *(choose relevant option*)* effluent from a premises in **Location** (*provide the full address of the premises from which it is intended to discharge)* following **X Treatment** (*indicate the level of treatment to be provided to the effluent prior to discharge*) to **Name** *(insert the name of the waterbody to which it is intended to discharge the effluent*) **Surface Water**

** Note: In the case of the discharge of a trade effluent to waters, the newspaper notice is to include a brief description of the nature of the trade / industry from which the effluent is generated.*

**An application will not be considered by the licensing authority until such time as an appropriate notice has been published in an appropriate newspaper.**

## 3.2 Completing the Application Form

An application for a licence to discharge to water must be made using an application form available from the licensing authority in whose functional area the discharge is proposed.

Multiple discharges from the one premises may require multiple applications. Advice on this matter can be obtained from the licensing authority.

Application forms must be signed and dated by the appropriate person(s) as required in the relevant parts of the form. Failure to provide such signatures will result in the application being deemed incomplete and the licensing authority will be unable to process the application further until such time as the appropriate signatures are provided.

Where any part of the application form does not provide sufficient space to supply the information required additional sheets may be attached to the form. A template for additional sheets is provided in Appendix B of this document.

All relevant supporting information must be included with the application form. Such supporting information may include an associated environmental impact statement, a foreshore licence, the results of any investigations carried out, etc. All additional documentation must be complete and include a table of contents. Where the supporting information is related to a particular Part or Section of the application form, this must be referenced on the cover page to the supporting information.

A Checklist is included as part of the application form to ensure that all required information is included with the application.

An application for a licence to discharge to water will be deemed invalid where the applicant fails to provide appropriate signatures, fails to provide appropriate notice of the intention to discharge to waters or fails to provide the appropriate fee in support of the application.

In all other circumstances where a licensing authority identifies that sections of the form have not been completed appropriately, the licensing authority may request further information in accordance with Section 7(3) of the 1978 Regulations.

## 3.3 *Documentation / Information to Support the Application*

The Local Government (Water Pollution) Regulations, 1978 require that licence applications must be accompanied by particular information as follows.

1. Plans and other particulars to describe the premises, drainage system and any works, apparatus or plant from which the effluent is to be discharged;
2. Identify the waters to which the discharge is to be made and the point of discharge;
3. Particulars of the nature, chemical composition, anticipated temperature, volume and rate of discharge;
4. Details of the proposed method of any treatment of the effluent and the period or periods during which the effluent is to be discharged;
5. A general description of the process or activity giving rise to the discharge;
6. The results of any investigation made into the impact of the discharge on the receiving waters;
7. Particulars of the quality of the receiving waters. This is to include as a minimum, a description of the chemical and bacteriological condition of the receiving water at the point of discharge.
8. Particulars of the volume and flow rate of receiving waters, indicating 95%ile flow and Dry Weather Flow (DWF);
9. Details of the effects of the discharge on the receiving waters, which is to address the chemical and ecological qualities of the receiving water.

The application form includes sections for the insertion of the aforementioned information.

The licensing authority may, in accordance with the Local Government (Water Pollution) Regulations, 1978 request further information as may be reasonably requested to assist them in making a determination on the application such as particulars of the quality and volume of discharge, the effects of the discharge on the waters and the results of any investigation made. To that end the licensing authority may require:

1. A biological quality assessment / ecological assessment of the receiving waters;
2. Toxicity testing of the effluent;
3. Details of proposals for dealing with sludge.

The Regulations require that additional information requested by the licensing authority should be provided within 3 months of the request. If an applicant fails to submit the requested information within this timeframe the licensing authority may carry out investigations necessary to gather the information requested, the cost of which may be charged to the applicant. Alternatively, the licensing authority may proceed to make a determination of the application in the absence of such information.

## 3.4. Submitting the Application

Applicants for a licence to discharge effluent to **waters**, are required to submit ***one original*** signed hard copy of the application form and any additional sheets plus ***three copies*** and ***any additional sheets*** to the licensing authority. An original copy of the newspaper notice is to be included plus the three copies of the notice.

The completed application form, accompanied by all relevant information and payment, is to be sent to the address given on the application form.

## 3.5. Application Fee

Applications must be accompanied by an application fee. The amount of the fee is prescribed in the Local Government (Water Pollution) (Fees) Regulations, 2001 and currently stands at €380. This fee may be revised at any time by the Minister through the introduction of amendment legislation.

The application will not be processed unless the correct fee has been included.

Payment is to be made by cheque or bank draft made payable to the appropriate licensing authority.

# 4. The Application Form

**Part I – Declaration & Signatures**
This part of the application form is to be completed by all applicants for a licence to discharge to any waterbody. Declarations and signatures are required from the Applicant confirming that they are aware of their legal obligations under the Local Government (Water Pollution) Acts to implement the conditions of any licence granted in terms of the discharge identified in their application.

**Part II – General Details**
This part is to be completed by all applicants for a licence to discharge to any waterbody. This part of the form requires that contact details of the Applicant (and as applicable the Agent making the application on behalf of the Applicant) are provided. Details about the premises and activity from which the effluent discharge relates are also to be provided in this part of the application form.

**Part III – Effluent Details**
This part is to be completed by all applicants for a licence to discharge to any waterbody. Details on the effluent quality and volume must be provided in this part of the application form. Any proposed effluent treatment and pollution control measures are also to be detailed in this part.

**Part IV – Discharges to Surface Water**
This part is to be completed by all applicants where it is proposed to discharge trade effluent or domestic wastewater (or both) to any surface water. Information on the existing receiving water quality must be provided. Guidance is provided on determining the potential impact of the discharge on the receiving waters.

> The applicant is advised to read the entire application form plus these guidance notes before commencing to complete the form. The applicant should first complete **Part II** through to **Part IV** before providing the signatures of the Applicant and Agent in **Part I**.

## *4.1 Part I – Declaration & Signatures*

**PART I - Section 1**

This section of the application form requires that the signatures of the Applicant and, where applicable, the Agent making the application on behalf of the Applicant.

**The Applicant and, where appropriate the Agent must attach duly authorised signatures confirming their respective responsibilities for the preparation of the licence and in respect of the Applicant that they are aware of the legal obligations attaching to compliance with licence conditions.**

***Definitions***

| | |
|---|---|
| **Applicant** | The 'Applicant' can be an individual, group of individuals or corporate body whose activities are responsible for the discharge. The Applicant is legally responsible for ensuring compliance with the licence conditions where it is granted. |
| **Agent** | The 'Agent' is nominated by the Applicant to act on their behalf for the purposes of completing the application form. The Agent has no responsibility relating to the implementation of the licence where it is granted. |

**Where signatures of the Applicant are sought, they must be provided as follows:**

- **Where the Applicant is an individual – the signature of the individual is required;**
- **Where the Applicant is a group of individuals – the signature of one individual in the group is required;**
- **Where the Applicant is a Company – the signature of a duly authorised person within that Company is required e.g. Director of the Company.**

**Where a licence is granted, the legal responsibility for ensuring compliance with the licence will rest with the legal entity itself i.e. the individual, Group or Company as the case may be.**

***Class of Discharge***
Applicants are required to provide information as to the class of discharge to which the application relates, whether the discharge is a trade effluent, domestic effluent or a combination of both. (Refer to the Glossary of this guidance for definitions of each).

***Compliance with Terms of Licence***
The Applicant is required to declare that they are fully aware of the legal obligations under the Local Government (Water Pollution) Act, 1977 to abide by the conditions of the licence (where it is granted) and acknowledge that they may be subject to criminal liability whereby the terms of the licence are not complied with.

**PART I - Section 2**

Section 2 of the application form outlines the legal obligations imposed on the local authority (licensing authority) to make licence applications available for inspection by third parties.

***Disclosure of Information***
Under the Freedom of Information Act, 1997 (as amended) the local authority must make any records held by them available to the public. This includes licences granted under the Local Government (Water Pollution) 1977 and associated documentation which may include the completed application form.

There are further legislative obligations on the licensing authority under the Local Government (Water Pollution) Regulations, 1978, to make licence applications available for public inspection where it relates to a discharge to waters. The public may provide submissions or comments in relation to a licence application which the licensing authority must have regard to when making a determination as to whether or not to grant a licence.

If an application is for a discharge to waters, the licensing authority is also required to make a copy of it available to Department of the Marine and the Central Fisheries Board and the Inland Fisheries Ireland in accordance with Departmental Circular ENV 08/92. These Bodies have a period of four weeks from the date of receipt of a copy of an application to make submissions or comments in relation to a licence application which the licensing authority must have regard to when making a determination as to whether or not to grant a licence.

The Applicant, and where applicable, the Agent are asked to sign a declaration to confirm that they have made themselves aware of the provisions of the Freedom of Information Act and that they understand that there is a legal obligation on the licensing authority to make the discharge licence application available for inspection by third parties.

***Confidentiality***

When completing an application form, any information which is considered as confidential must be clearly identified. The grounds for which the information is considered confidential must also be clearly stated.

Circumstances under which confidentiality may apply include where the information is commercially sensitive or includes matters of National security for example:

- trade secrets of a person;
- financial, commercial, scientific or technical or other information whose disclosure could reasonably be expected to result in a material financial loss or gain to the person to whom the information relates, or could prejudice the competitive position of that person in the conduct of his or her profession or business or otherwise in his or her occupation;
- data whose disclosure could prejudice the conduct or outcome of contractual or other negotiations of the person to whom the information relates;
- data on State security or international relations;

Where information is deemed confidential, the licensing authority will remove the information from the application form and/or licence before making the documentation available for inspection by third parties. For this reason it is requested that where feasible, information that is considered to be confidential should be submitted in a manner that will allow it to be easily removed e.g. on an additional sheet. All such information should be clearly marked as 'Confidential'. The licensing authority will mark in the public file where confidential information has been removed.

**The Applicant and as appropriate the Agent acting on behalf of the Applicant are required to sign a declaration acknowledging the obligations of the Licensing Authority in respect of the disclosure of information and confidentiality.**

***False or Misleading Information***

Article 6 of the *Local Government (Water Pollution) Act, 1977* states that it is an offence to knowingly or deliberately provide false or misleading information in a licence application. The Applicant is liable, on summary conviction, to a fine. Any licence granted on the basis of such false information shall be revoked.

**The Applicant (and where applicable the Agent acting on behalf of the Applicant) is required to sign a declaration that the information is accurate and true to the best knowledge of the Applicant and the Agent.**

## *42 Part II – General Details*

**PART II - Section 1**

Part II, Section 1 of the application form requires contact details for the Applicant (whose activities are causing the discharge and where applicable the Agent (the person or persons who have prepared the application on behalf of the Applicant).

Both the applicant and (where applicable) the agent will be communicated with during the processing and determination of the licence application. When a licence is granted, further communications will be to the Applicant (who then becomes the licensee).

***A. Details of the Applicant***

Details **must be provided** of the Applicant including a named person to whom all correspondence subsequent to the issuance of the licence should be addressed. (Principal Contact).

If a licence is granted it will be granted in the name of the Applicant (which may be an individual, group of individuals or a Company).

**Note**: Were the Applicant is a group, such as a management group or residents association, and such group ceases to exist or the Principal Contact changes, details should be submitted to the Licensing Authority immediately. Where the Applicant is a Company, any changes in the structure of Company that would result in a change in the principal contact or any sale of the Company must be notified to the Licensing Authority immediately.

**Where the Applicant is a Company a Certificate of Incorporation must be included with the application listing the names of Directors.**

***B. Details of the Agent***
Where an Agent is making the application on behalf of the Applicant, details must be provided of the Agent including a named person to whom all correspondence concerning the licence application should be addressed (Principal Contact).

**PART II - Section 2**

Section 2 of Part II requires details about the premises from which the effluent is generated.

***A (i) Site Details***

Details must be provided concerning the address of the premises from which it is proposed to discharge effluent. A grid reference (Irish Transverse Mercator) for the site must also be provided. This shall comprise six–digit Easting and Northing coordinates. The grid reference should represent the centre point of the site.

| | |
|---|---|
| **Where do I get co-ordinates from?** | The OSI have developed an interactive mapping system which gives the Irish Transverse Mercator (ITM) co-ordinates i.e. the grid reference.<br><br>http://ims0.osiemaps.ie/website/publicviewer/main.aspx<br><br>Provide six digit easting and northing co-ordinates. |

***Existing Permissions/Licenses***
Information is to be provided of any existing planning permission and/or discharge licenses that are in place for the premises to which the licence application relates. Reference numbers must be provided.

***Site Maps/Drawings***
Applications must be accompanied by a site location map, site layout map and site drainage drawings. The following requirements apply:-

- All maps and drawings must be to scale and must indicate the scale on the map/drawing. The scale must be appropriate to the information presented in the map/drawing.
- All maps and drawings are to be printed on paper which is not below A3 size or above A0 size.
- All maps and drawings must be uniquely numbered and labelled. The map/drawing label must identify what is shown on the map/drawing.
- All maps and drawings must refer to the Part of the application form to which they relate e.g. in this case, the site location map relates to Part II – Section 2.
- All maps and drawings must have a north arrow.
- All maps must indicate the relevant Ordnance Survey Ireland licence number and sheet number.
- All maps/drawings must show the date of production.

The specific details to be provided in each map are outlined below:

1. Site Location Map
    - Show clearly, on a Discovery Series Map, the location of the premises from which it is proposed to discharge.
    - Clearly identify the Townland(s) in which the site is located.
    - Show clearly the boundaries of the site from which the discharge is generated.
    - Identify clearly the waters to which it is proposed to discharge indicating the point of discharge.
    - Identify any surface water or groundwater abstractions in the area.
    - Provide the map at a scale of not less than 1:10000.

2. Site Layout Map
    - Show clearly the boundaries of the site from which the discharge is generated.
    - Where the discharge relates to an existing development, provide a footprint of all existing over-ground and underground buildings / structures located within the boundary of the site.
    - Where the discharge relates to a proposed development, provide a footprint of all proposed over-ground and underground buildings / structures located within the

boundary of the site. Identify also any existing structures located within the site boundary.

- Where effluent treatment is provided prior to discharge, clearly identify the footprint of the treatment system and all associated facilities e.g. storage tanks, soakaway areas, outfall pipe etc.
- Clearly identify the discharge point location(s) on the map i.e. the point(s) at which the discharge enters the receiving water.
- Clearly identify the location(s) of any effluent sampling chambers.
- Clearly identify the water sampling locations used for the purpose of the application and indicate where flow measurements may have been taken.
- Clearly identify areas on the site where raw materials, products and wastes are stored.
- Provide the map at a scale of not less than 1:2500.

3. Site Drainage System Drawings
    - Show clearly the boundaries of the site from which the discharge is generated.
    - Clearly identify and annotate the existing and proposed foul water and storm water drainage on the site. Indicate the location of any emergency overflows.
    - Show the location of any existing and proposed treatment facility on site and the location of all effluent outfalls.
    - Where the discharge is to surface water, indicate the direction of flow on the drawing.
    - Provide the map at a scale of not less than 1:500.

***Outfall Details***

Information is to be provided concerning the details of the outfall design and should include:

- Details of the outfall design criteria;
- Details of the pipe diameter and construction material;
- Details on the design of the outfall at the point of discharge e.g. is it open ended, is a flap-valve in place, is a diffuser included, etc.;
- Details on how the pipe will be constructed, will it be over-ground or underground etc.;
- Detail on whether the outfall is a new or existing structure;
- Detail on whether the discharge is the only flow through the outfall or are a number of discharges piped through the one outfall;

Scaled drawings of the outfall pipe are to be provided.

**A (ii) Type of Premises**

Information must be provided to identify the sector from which the discharge will be generated e.g. from an industrial activity, commercial activity etc. This information will provide the licensing authority with a general indication of the effluent characteristics likely to be encountered at the premises e.g. effluent generated from a facility involved in food preparation is likely to have a greater fats, oils and greases content than a domestic discharge.

**A (iii) Activities Carried Out on Site**

Details are to be provided of the activities carried out on site in order to provide the licensing authority with information on the potentially polluting material stored, produced and discharged from the site.

***Operational Information*:**
Where the effluent is generated from a commercial or industrial activity a brief overview of the primary processes / activities carried out on site is to be provided. This overview should include a schematic process flow diagram of each unit operation and a brief description detailing its purpose. Identify all elements of the process where aqueous emissions to the environment are generated. Identify any sources of contaminated wash water or contaminated drainage from the site.

***Process Materials, Products & Waste Disposal:***
Where effluent is generated from a commercial or industrial activity **Appendix A** and **Appendix B** of the application form are to be completed.

Appendix A requires that a list of raw materials used/stored on site be provided. This is also to include any cleaning products, any fuels and any thermal control products used/stored on site. Where known, the material's EC number and classification under the *European Communities (Classification, Packaging, Labelling and Notification of Dangerous Substances) Regulations, 1994* should be included. Material Safety Data Sheets should also to be provided.

Appendix B requires details of all wastes generated on site. Applicants are required to identify how these wastes are removed from site. Refer to the European Waste Catalogue and Hazardous Waste List published by the EPA for more information on the European Waste Catalogue Number.

## 4.3. Part III – Effluent Details

**PART III - Section 1**

Section 1 of Part III of the application form requires details of the effluent to be discharged.

Were an application refers to a new discharge information must be provided to show how the volume and characteristics of the discharge were determined. If the application refers to an existing discharge the volume and characteristics should be derived from monitoring data.

### *A. Effluent Details*

***Type of effluent***
The type of effluent must be defined as domestic, trade or a combination of both. Definitions of domestic and trade effluents are provided in the Glossary of Terms provided at the start of this guidance document.

***Population Equivalent***
The pollution loading should be characterised by measurements or estimates for the various physical and chemical parameters of the effluent.

The pollution loading from domestic effluents should be expressed in terms of the pollution loading generated by an equivalent domestic population, referred to as the population equivalent (p.e.). One population equivalent has a five day biochemical oxygen demand ($BOD_5$) of 60 grams of oxygen per day. Therefore, if the BOD component of the pollution loading is known (kg/day) the p.e. can be calculated by dividing by 60 and multiplying by

1000. Similarly, if the population responsible for a domestic effluent discharge is 500, the p.e is 500 and the pollution loading is 30kg/BOD/day (500x60/1000).

For a proposed new discharge, the BOD load in the effluent may be estimated using population data. For an existing discharge, the BOD load in the effluent should be measured based on flow proportional composite sampling.

***Dry Weather Flow***
Applicants must provide information on the rate and volume of the discharge. For domestic effluents flow is expressed in terms of dry weather flow (DWF). DWF is expressed as litres/person/day and can range typically from 110 litres to 180 litres/ person/day (typically taken as 150 l/h/d). Allowance needs to be made for infiltration.

For an existing discharge measured flow monitoring data should be provided.

> Applications must include information on the method used to determine the p.e. and the methodology used in establishing DWF.

*Note: Flow rates and organic pollution load of domestic effluent from commercial and institutional premises will vary from that of residential premises depending on the activities carried out on the premises. Information on typical flows and loads from different types of commercial premises may be sourced from the EPA Wastewater Treatment Manuals.*

***Trade Effluent – Flow Data:***
Trade effluent flows are often influenced by the process / activity from which the effluent is generated. Information on daily variations and seasonal variations must be provided.

> Where the effluent discharges from the premises consists of a combination of trade and domestic effluent, the contribution from both categories of effluent must be addressed separately in the sections provided in the application form.

***Effluent Characteristics***
Information must be provided on the characteristics of waste waters / effluents before treatment (where it is provided) and as discharged. The information is to be provided in **Appendix C** and **Appendix D** of the application Form.

***Appendix C:***
Details of the physical, chemical and bacteriological components of the effluent are to be identified in Appendix C.

For domestic type effluent, only Section A of Appendix C needs to be completed. Information on the typical characteristics of domestic effluent is provided in EPA Wastewater Treatment Manuals.

For trade effluents all sections must be completed. The characteristics of effluents will be largely determined by the raw materials and the processes that result in effluent discharges. Where treatment is provided prior to discharge the characteristics prior to treatment and as discharged must be provided. Where a parameter is not applicable to the effluent this must be indicated by insertion of **N/A** in the columns in Appendix C under 'As discharged'. Failure to indicate thus may result in a request for additional information.

It is the responsibility of the Applicant to provide complete information on the full characteristic of the effluent which are know to the Applicant and could be inferred for the raw materials and processes which result in the discharge.

For an existing discharge the characteristics of the effluent shall be determined from monitoring and sampling based on 24-hour composite flow proportional samples.

***Appendix D:***
Details of dangerous substances stored on the site or used in any industrial / commercial activity shall be provided in Appendix D. In addition, information should be provided concerning the recovery and disposal of dangerous substances, for example:-

- empty drums which contained dangerous substances are returned to the suppliers for disposal;
- washings of vessels or containers containing dangerous substances;
- stillings, sludges or residuals from processes.

***Effluent Variability:***
Variations in the volume or characteristics of the effluent should be described. Such variability may be related to *inter alia*:

- seasonal activities such as effluents from holiday homes and caravan parks, manufacture of milk products such as cheese making, discharge of ullage form brewing operations, etc.;
- batch manufacturing processes resulting in varying effluent types on different days/weeks/ months;
- changes in activities carried out within the boundary of the site to which the discharge relates;

***Fats, Oils & Greases:***
Food preparation activities tend to produce effluents with higher fats, oils and greases (FOG) content than would be expected in a domestic-type effluent discharge only. The typical concentration of FOG in domestic waste water is in the range of 50mg/l to 100mg/l. High FOG concentrations can cause problems in the receiving waters. If the effluent results either wholly or partially through food preparation activities or other such activities which produces an effluent with elevated FOG e.g. dairy process, information must be provided on proposals for recovery, treatment, removal and disposal of FOG prior to discharge.

***Food Waste Management:***
The Waste Management (Food Waste) Regulations, 2009 require that major generators of food waste make provisions for source segregation of food waste and to keep such material separate from non-biodegradable materials, other waste and contaminants for separate disposal. Schedule 1 of the regulations identify the classes of premises to which the Regulations apply (a copy of the Schedule is provided in Appendix D).

The regulations prescribe that where source segregation is to be provided, the producer must not use purpose built mechanical devices to shred or hydrate or otherwise alter the structure of food waste for the purposes of facilitating its discharge in waste water to a service connection, drain or sewer.

A licensing authority may require an applicant to provide evidence of food waste segregation in accordance with the provisions of the Regulations.

***Other Discharges:***
Information should be provided of any other discharges from the site which are already subject to a licence or don't require a licence and which are not the subject of the licence application. Such discharges include storm water. The locations and particulars of other discharges should be provided. Where there are none, this should be stated on the application form.

***Water Supply:***
The source of all water supplies to the site e.g. from a well, public mains, private scheme etc. must be provided including estimations or measurements of the volume of water used per day.

## PART III - Section 2

Section 2 of Part III refers to on-site treatment facilities. Where effluents are treated prior to discharge details are to be provided concerning the type of treatment and operational arrangements. Where the treatment system is operated and maintained by a third party contact details must be provided.

***Waste Water Treatment System Overview***
The particulars of the treatment system proposed must be provided. Details to be submitted should include but are not limited to the following:

- Level of treatment e.g. primary, secondary, tertiary etc.
- Type of treatment e.g. lamella type primary settlement, activated sludge secondary treatment, chemical addition for phosphorus removal, sludge thickening and dewatering, etc.
- Details of the treatment works such as the treatment works capacity, size of the various unit processes, facilities for expansion, etc.
- Schematic process flow diagram.
- Where the works are a package plant, the type and model are to be detailed and the manufacturer's technical information is to be submitted.
- Site drawing at an appropriate scale identifying points at which the licensing authority can have access for sampling purposes.
- Performance guarantees for the various treatment processes e.g. level of reduction of a parameter (% removal), treated effluent concentrations, limits (ph 6.5 -8.5), etc.

***Maintenance:***
Where the effluent is to undergo treatment prior to discharge, details must be provided concerning the arrangements that have been put in place for maintaining the treatment system. Such details should include:

- Arrangements for undertaking maintenance required in the manufacturer's technical documents;
- Details of the person/company responsible for the maintenance of the treatment system;
- Details of any proposed maintenance programme;
- Details of any spare parts to be held on site;

***Plant Failure:***
Information is to be provided concerning measures in place to detect any failure of the treatment system. Such measures may include:

The provision of an alarm call-out system or telemetry system;
- Arrangements for inspections and monitoring.

***Sludge:***
Where sludge is a by-product of the effluent treatment, information must be provided concerning sludge disposal. Such information may comprise:

- A copy of a sludge management plan where one has been developed;
- Details of the volumes of sludge that will be generated;
- Details of any sludge treatment proposed before removal from site e.g. dewatering;
- Details of volumes of sludge and where the sludge is to be sent e.g. to agricultural lands or to a waste recovery / disposal facility;
- Details the person / company authorised to collect such waste from the premises (waste collection permit holder);

**PART III - Section 3**

Section 3 of Part III seeks information on proposals for monitoring the discharge and proposals for controlling accidental discharges and details of emergency procedures.

***A. Effluent Monitoring***

Information should be provided concerning any proposals to carry out monitoring of effluent volumes and characteristics. Any proposals for providing access to the effluent for the purposes on monitoring must also be provided.

Such information may include the following:

- Type of flow equipment to be used;
- Location of flow monitoring equipment;
- Number of sampling events to be undertaken per year and frequency of same;
- Parameters to be analysed;
- Location of sampling point e.g. *sample to be taken from manhole located 1m upstream of the discharge point*;
- Details of sampling equipment to be used e.g. permanent / temporary, time or flow proportional, composite or grab, make and model of equipment (if any);
- Accreditation details (if any) of the laboratory undertaking the effluent analysis;

The licensing authority may require access to the site for the purposes of compliance monitoring. Information should be provided concerning arrangements in place to allow for monitoring by the licensing authority. Precise details should be provided including a description of the monitoring point with coordinates defining the location.

***B. Pollution Control***

Information is required on any arrangements that are in place to prevent accidental discharges and any arrangements to be put in place for emergency responses. Some examples of measures to prevent the accidental discharge of effluent are provided below:

- The control of the movement of material on site;

- Bunding of areas used for the storage of potentially polluting matter;
- Alarm system in the event of plant failure;
- Provision of storage tanks to hold the effluent where the effluent treatment plant fails;

Contact details are to be provided of the person to be contacted by the licensing authority in the event of an accidental discharge or other event for which the licensing authority may require urgent actions to be taken by the licensee.

## *44. Part IV – Discharges to Surface Water*

Part IV requires information on the body of water into which it is proposed to discharge effluent.

**PART IV - Section 1**

The application form asks for an explanation as to why it is not feasible to discharge to sewer. Reasons for such should be provided which may include:

- None available;
- Access to same not immediately available;
- No capacity in sewer;
- No capacity in downstream waste water treatment plant.

***Public Notice***

There is a legal requirement, under the *Local Government (Water Pollution) Regulations, 1978,* on applicants for a discharge to surface waters, to publish a Notice of their intention to apply for the licence in a newspaper circulating in the functional area of the local authority in which it is proposed to discharge to waters.

Section 1 of Part IV of the application form concerns information on the Notice published in accordance with the Regulations. Applicants are required to provide details of the publication together with the full page of the newspaper containing the Notice. The newspaper should be one that is circulated in the area of the discharge and has an adequate readership to make the community aware of the proposal. Applicants should contact the licensing authority to ensure that the newspaper intended to contain the Notice is acceptable to the licensing authority. The notice should clearly identify the applicant and the location of the discharge. Where applicable, any local descriptions for the receiving waters should be provided in addition to the recorded name where this would assist in identification.

**PART IV - Section 2**

Section 2 concerns details of the waters which are to receive the discharge. Separate sections are provided for discharges to inland surface waters and transitional/coastal waters.

- Inland Surface Waters – this includes streams, rivers, lakes, and manmade waterbodies e.g. canals

- Transitional / Coastal Water – transitional water refers to estuaries and bays where there is freshwater influence. Coastal water refers to marine waters.

### *A. Receiving Water Details- Inland Surface Waters*

***Name of Receiving Waters***
Information is required to accurately identify the receiving water body and the location within which the discharge is proposed. The name of the receiving water should be that recorded on OS maps. The coordinates of the discharge are also to be provided. Where an application refers to multiple discharges (which must firstly be discussed with the licensing authority) each discharge point must be given an individual identification code e.g. point 1, point 2 etc. and an associated grid reference.

***Existing Uses***
Information is required on the existing uses of the receiving water body. River uses may include potable water abstraction, angling, water sports etc. Information on local usage may be sourced from local angling groups, the local tourist office, the local authority, local fisheries personnel and local water sports clubs.

***Designation***
Applicants are required to provide information on the designation and status of the receiving water body. The waterbody to receive the discharge may be designated for a particular use or may be designated as needing protection due to its sensitivity to pollution or because it contains species or habitats of particular importance. Discharges to designated waters may be required to meet more stringent discharge standards.

Designations may include:

- Salmonid Water (European Communities (Quality of Salmonid Waters) Regulations, 1988)
- Inland Bathing Water (Bathing Water Quality Regulations 2008)
- Pearl Mussel Water (European Communities Environmental Objectives (Freshwater Pearl Mussel) Regulations 2009)
- Sensitive Water (Urban Waste Water Treatment Regulations, 2001 – as amended)
- Special Area of Conservation (SAC) (European Communities (Natural Habitats) Regulations, 1997)
- Special Protected Area (SPA) (European Communities (Natural Habitats) Regulations, 1997)

Details of designated areas are held by the EPA (www.epa.ie). Also, the National Parks and Wildlife Services (www.npws.ie) hold datasets on SACs and SPAs.

Where a discharge is located within the boundary of an SAC or SPA (Natura 2000 site) or where a discharge is likely to impact on a nearby SAC / SPA, an **Appropriate Assessment** (Natura Impact Statement) must be submitted with the discharge licence application. This requirement is to comply with Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive) *[and the European Communities (Natural Habitats) Regulations, 1997]*. An Appropriate Assessment is an assessment of the implications of the discharge on the designated site in relation to the conservation objectives of the site. An Appropriate Assessment must be undertaken by a suitably qualified person, i.e. an ecologist.

***Status***
The implementation of the Water Framework Directive (2000/60/EC) has defined the status of all water bodies on a River Basin District basis. Applicants are required to state the River Basin District containing the receiving water body and its status. Information on the boundaries of River Basin Districts and on the status of water bodies can be obtained from the national website www.wfdireland.ie.

River Basin Management Plans have been put in place to achieve Good Status in all water bodies. These River Basin Management Plans contain measures to achieve this objective. Applicants are encouraged to refer to the appropriate River Basin Management Plan prior to submitting an application.

***Receiving Water Flow Data***
Applicants are required to provide information on the flow in the receiving water body (note that this is relevant for discharges to rivers and streams only, discharges to lakes will require dispersion modelling). Flow data may be obtained as follows:

**1. EPA Data**
Applicants for a discharge to inland surface waters should, in the first instance, refer to the EPA website www.epa.ie to consult the Register of Hydrometric Gauging Stations in Ireland.

The register provides the user with details of the hydrometric station locations (easting and northing) and with the names of the waterbody on which the stations are located. Station names, numbers and types are also provided along with the names of the bodies responsible for the stations. The user is provided with a link to the appropriate data source for each station which in the majority of cases will be to the EPA HydroNet site:
http://hydronet.epa.ie/introduction.htm
or to the OPW Hydro-Data site:
http://www.opw.ie

The EPA www.epa.ie also maintains a database of dry weather flows (DWF), 95%ile flow and 50%ile flows at selected hydrometric stations.

**(a) Can I use data from the nearest hydrometric?**

It may not be suitable in all cases to use flow data from a hydrometric station located close to the discharge. The flow monitoring data must have a good level of confidence associated with it and must be representative of the stretch of the river to which it is proposed to discharge i.e. the flow data at the station would not be representative of the flow in the river at the point of discharge where there is a significant water loss or water gain to the river between the hydrometric station and the proposed discharge.

The Applicant should only use data from a nearby hydrometric monitoring station where long term reliable data is available. If the catchment area of the location of the discharge is within 10% of the area to a nearby hydrometric station AND long term reliable flow data is available at the hydrometric station, the information from that station may be sufficient for inclusion in the application form. In all other cases, the EPA should be contacted for advice on the matter.

Applicants are advised to make contact with the hydrometric section of the EPA to confirm or obtain flow data for the receiving water body. The hydrometric section of the EPA can be contacted at:

McCumiskey House
Richview
Clonskeagh Road
Dublin 14
Ph. 01 268 0100

The EPA may be able to advise as to the confidence and quality of the data published on the EPA website in relation to the location of the proposed discharge. The EPA will also provide advice on the information recorded by the OPW. Applications to the EPA for information should clearly indicate the location of the discharge by providing the name of the water body and the Irish grid co-ordinates of the discharge point.

Where information is sourced from the EPA or the OPW the following data shall be provided with the application:

- the reference number and name of the hydrometric station;
- dry weather flow (DWF);
- 95%-ile flow;
- 50%-ile flow;
- catchment area between the hydrometric station and the proposed discharge point;
- the year(s) of data used to determine flow;
- state whether there are any tributaries to the receiving water between the hydrometric station and the proposed discharge (where these exist, flow data for the tributary must also be provided, where available);
- hard copies of background data sourced from the EPA or OPW should be included with the application.

**(b) What do I do if the flow data available is unreliable? - Use the Flow Estimation Procedure.**

Where a reliable source of flow data is not available, an alternative means of determining flow must be used.

The EPA, in conjunction with the Western River Basin District, has developed a "Flow Estimation Procedure". This Procedure can be used to provide estimates of flow in the range 5%ile to 95%ile flows for ungauged river catchments. This on-line facility allows the user to pick a site and estimate flows based on recorded flows from the nearest appropriate gauged site. The Flow Estimation Procedure is suitable to use for natural catchments. However, it is not appropriate for use in some circumstances where the flow would not be considered natural and estimation of flows in these catchments from similar catchments is not possible, for example, due to:

- impacts of abstractions upstream or regulation of the river flow;
- storage effects at or near lake outfalls;
- local conduit karst;
- lack of similar catchments with observed flows, ie where catchment descriptors lie outside the range of available gauging station catchments (e.g. the catchment area is under 5 $km^2$);

- any other special circumstances that may affect river flows

In the case of regulated flows (e.g. power stations, abstractions points), the minimum flow that is discharged from (a) the power station or (b) the compensation flow discharged from the abstraction point must be known. The user estimates the flow using the Flow Estimation procedure at (1) the power station/abstraction and (2) at a location downstream where the estimated flow information is being sought. Subtract the two flows so that you get the estimated flow duration ordinates from the area downstream of the power station/abstraction. Add the minimum flow discharged from the power station / compensation flow discharged to the river downstream of the abstraction to the resulting flow duration curve of the flow from the area downstream of the power station /abstraction point.

In the case of flows downstream of lakes, regulation of river flows and other special circumstances that may affect river flows, particular investigations may be required, depending on the availability of flow from the lake(s) and the particular circumstances in each case.

Because of the sensitive nature of karst areas, detailed hydrological studies may be required over a number of years and a hydrometric station should be erected at the proposed point of discharge and the data provided at the exact location where the discharge will take place.

***Where the EPA does not have the data or is not in a position to provide relevant data, applicants will be required to carry out on-site flow measurements.***

**2. Measure Flows**

Where flow data is not available from the EPA or OPW monitoring programmes or where the flow data from existing monitoring programmes is considered to be of poor quality, or where the flow in the catchment is regulated and flows cannot be readily transposed to another location (as indicated in the 5 conditions above), or of low confidence, applicants are required to carry out on-site flow measurements. Flow measurement is to be carried out by a suitably qualified person.

The purpose of on-site flow measurements is to provide information to allow an estimate to be made of the assimilative capacity of the receiving waters under low flow conditions. Such conditions generally occur in late summer and for this reason all on-site measurements must be taken during the summer months.

Flow measurements may be obtained using a current meter or other approved technique. Where a current meter is used its use shall be in accordance with ISO 748:2007: 'Hydrometry - Measurement of liquid flow in open channels using current-meters or floats' (note also ISO 1088:2007).

Ideally flow measurements should be taken after a prolonged dry period. However given the uncertainty of the Irish climate[1] the following methodology should be applied to flow measurements:

- Flow measurement(s) should be taken in late summer /early autumn i.e. July, August and September;

[1] Refer to the EPA publication "An Assessment of the 1995 Drought, including a comparison with other known drought years" which indicates the uncertainty of the Irish climate.

- Measurements may be taken at any time during July to September following a sustained dry period (10 days) with little or no rainfall (less than 5 mm and not on any two consecutive days);
- Flow measurements should be taken at (1) the point of interest and (2) at a nearby hydrometric station where long term flow data is available;
- A minimum of three daily measurements must be provided at the point of interest along with 3 flow measurements at the nearby hydrometric station;
- By comparing the 3 sets of flow measurements, a ratio can be obtained of the flow on the relevant dates.
- If the percentile flow at the hydrometric station is known, an approximation of the percentile flow at the ungauged location can be obtained.
- Flow measurement should only be carried out in low flow periods and are not to be carried out in flood conditions;
- Rainfall data from the closest rainfall station for the period preceding the flow measurements must be submitted. Rainfall data may be sourced from Met Éireann or recorded locally by a qualified person

***Background Characteristics***

Information on the background quality of the receiving waters must be submitted with an application for a licence to discharge to waters. The parameters to be reported are listed in the application form.

Information on background characteristics of water bodies is record by the EPA as part of national monitoring programmes and published in annual reports. Details can be obtained from the EPA website: www.epa.ie

The results of surface water quality monitoring, carried out by the EPA under the Water Framework Directive (WFD), is available for download from http://gis.epa.ie/. Pre-WFD monitoring is also available to download. Applicants should determine if a monitoring station is located in the receiving water body close to the location of the proposed discharge and provide the monitoring data for that station with the application. If a monitoring station does not exist in close proximity to the discharge point this must be stated on the application form.

Applicants are advised to consult with the licensing authority on whether it is appropriate to use data from an upstream monitoring station. The further upstream that the monitoring station is located, the greater the probability that it is less representative of the actual background conditions in the vicinity of the discharge. Also where another discharge or a surface water tributary is located between the monitoring station and the proposed discharge point then the data at the monitoring point may not be representative of the background conditions in the vicinity of the discharge.

Where water quality data is sourced from the EPA the following information is to be provided:

- the reference number of the monitoring station
- the distance upstream of the monitoring station from the proposed discharge point;

- a copy of the background monitoring results and the year the monitoring data was gathered.

Where published data is used, monitoring results to be reported in the application form are to be mean values.

### *B. Discharge to Coastal / Transitional Waters*

#### *Designation*

Information is to be provided on the designation of the receiving waterbody. The waterbody to receive the discharge may be designated for a particular use such as a commercial activity or amenity requiring specific water quality standards. The designation may result from the need to protection species or habitats of particular importance. Discharges to designated waters may be required to meet more stringent discharge standards.

Designations may include:

- Shellfish Water (European Communities (Quality of Shellfish Waters) Regulations 2006)
- Bathing Water (Bathing Water Quality Regulations 2008)
- Sensitive Water (Urban Waste Water Treatment Regulations, 2001)
- Special Area of Conservation (SAC) (European Communities (Natural Habitats) Regulations, 1997)
- Special Protected Area (SPA) (European Communities (Natural Habitats) Regulations, 1997)

Information on designated areas is available from the EPA (www.epa.ie). Also, the National Parks and Wildlife Service (www.npws.ie) holds datasets on SACs and SPAs.

It should be noted that where a discharge is located within the boundary of or is within 3km of an SAC or SPA (Natura 2000 site) or where the discharge is likely to impact on a nearby SAC / SPA, an **Appropriate Assessment** must be submitted with the discharge licence application as required by Council Directive 92/43/EEC on the Conservation of Natural Habitats and of Wild Fauna and Flora (Habitats Directive) *[and the European Communities (Natural Habitats) Regulations, 1997]*. An Appropriate Assessment is an assessment of the implications of the discharge on the designated site in relation to the conservation objectives of the site. An Appropriate Assessment must be undertaken by a suitably qualified person.

#### *Status*

The implementation of the Water Framework Directive (2000/60/EC) has defined the status of all water bodies on a River Basin District basis. Applicants are required to state the River Basin District containing the receiving water body and its status.
Information on the boundaries of River Basin Districts and on the status of water bodies can be obtained from the national website www.wfdireland.ie.

River Basin Management Plans have been put in place to achieve Good Status in all water bodies. These River Basin Management Plans contain measures to achieve this objective. Applicants are encouraged to refer to the appropriate River Basin Management Plan prior to submitting an application.

***Position of Outfall***
Applicants must provide details of the outfall position (at point of discharge) with regard to the tidal reaches of the receiving waters.

***Bathymetric Survey***
A bathymetric survey is the measurement and description of the physical features offshore and adjoining coastal areas. A bathymetric survey may be required to support the licence application. Applicants are encouraged to contact the Licensing Authority to determine the requirement for a bathymetric survey.

***Foreshore Licence***
The Foreshore Acts require that a licence must be obtained from the Minister for Agriculture, Fisheries and Food for undertaking any works or placing structures or material on, or for the occupation of or removal of material from, the foreshore. Details must be provided of any application made for a foreshore licence and details of any foreshore licence granted in respect of the proposed discharge.

***Background Characteristics***
Information is required on the existing background quality of the receiving waters. The parameters to be reported are listed in the application form. Information on background quality can be sourced from the following:

1. **EPA/ Central Fisheries Board**
   The Environmental Protection Agency, in collaboration with the Marine Institute, Inland Fisheries Ireland and National Parks and Wildlife Service has established a network of transitional and coastal water quality monitoring in Ireland as part of the EU Water Framework Directive (Directive 2000/60EC). Details of the EPA monitoring programme may be found at: www.epa.ie

   Where water quality data compiled by the EPA is appropriate for the location of the receiving water body the following shall be submitted with the application form:

   - the reference number of the monitoring station;
   - a copy of the background monitoring results and the year the monitoring data was gathered.

   The monitoring results to be reported in the application form are to be mean values.

   The EPA carries out water quality monitoring to comply with the requirements of the Water Framework Directive. The results of the monitoring have been used for the classification of waterbody status. As it is not possible to monitor all waterbodies nationally, the monitoring programme has been designed to be representative i.e. certain water bodies are considered to be representative of others with similar physical characteristics, and with similar pressures located in the catchment. These representative (donor) water bodies are monitored and their status is extrapolated to the unmonitored

(recipient) water bodies. Nationally, monitoring is carried out at 1,840 out of 4,585 river water bodies. It may therefore arise that data is not available on background concentrations for the water body into which it is proposed to discharge. In such cases background concentrations from the donor water body should be used in mass balance calculations to determine the impact of the discharge on the receiving water (recipient). The EPA holds a database of corresponding donor and recipient water bodies and should be contacted for information on background concentrations.

**PART IV - Section 3**

***A. Impact of Discharge - Discharge to Inland Surface Waters***

The impact of an effluent discharge on a receiving water body will depend upon the characteristics and magnitude of the pollution loading and on the sensitivity of the receiving water body. A licensing authority may request additional information on the proposed discharge to allow an assessment of the impacts on the receiving water body. The requirement for additional information will be influenced by the information submitted by the applicant concerning the characteristics of the effluent and information on the status of the receiving water body.

Such additional information may include toxicity testing, ecological surveys, dispersion modelling etc. Applicants are therefore encouraged to carry out their own assessment of the impacts of the proposed discharge on the receiving water with regard to water quality objectives and standards. Where assessments have been carried out the results should be submitted as part of the application.

When considering an application for a licence to discharge to waters, a licensing authority must have regard to statutory environmental quality standards (EQS). Where a licensing authority determines that a discharge will have a significant impact on the receiving water quality in the vicinity of the point of discharge, the licensing authority may instruct the applicant for a licence to discharge the effluent to carry out mixing zone modelling. Such an assessment must be carried out in accordance with the Common Implementation Strategy (CIS) technical guidance document on the delineation of mixing. This is available for download from:

http://www.fwr.org/WQreg/Appendices/Technical_Background_Document_on_the_Identification_of_Mixing_Zones.pdf

Objectives and standards are set out in various EU Directives and national Regulations and in River Basin District Management Plans. The licensing authority will assess licence applications in the context of the requirements of existing legislation and plans.

As general guidance, discharges will not be allowed to compromise the ability of a water body to achieve Good Status (as defined under the Water Framework Directive and associated Regulations e.g. European Communities Environmental Objectives (Surface Waters) Regulations, 2009) nor cause any deterioration in existing status.

The ability of a water body to receive an effluent discharge will depend on the assimilative capacity of the water body. Applicants should assess the assimilative capacity of the water body to ensure that water quality objectives will not be compromised. Where it is determined

that there is insufficient assimilative capacity, applicants will have to demonstrate that best available technology has been applied to reduce the pollution loading from a discharge. Notwithstanding the use of best available technology the grant of a license is not guaranteed. The grant or refusal of a licence will be subject to a decision of the licensing authority.Guidance on a methodology for the determination of assimilative capacity is provided in Appendix C of this guidance note. Details of assimilative capacity calculations should be submitted with the licence application. The details should include the source of all data used in the calculations.

***Impact of Discharge - Discharge to Transitional / Coastal Waters***

Were an application refers to a discharge to transitional or coastal water it may be necessary to provide information on the dispersion of the effluent from the point of discharge. This is particularly relevant were the discharge is within or in close proximity to a designated area. Information should be provided of any dispersion studies carried out or systems in place to mitigate impacts. Such may include long outfalls, diffusers, tidal holding tanks or advance treatment technologies.

**PART IV - Section 4**

The application checklist is provided for the convenience of the applicant. It should be used to ensure all information required of the application form and guidance has been provided.

# 5. Next Steps

## 5.1 Licence Application Validation by Licensing Authority

The Local Government (Water Pollution) Regulations, 1978 sets out the steps to be taken by the applicant when submitting a licence application. As part of an initial licence application validation, the licensing authority must, as a first measure, confirm or otherwise that an application has been submitted in accordance with the Regulations e.g. a Notice has been published, the application has been accompanied by the appropriate fee, the required information has been submitted, etc.

On completion of the validation of the licence application the licensing authority will confirm in writing receipt of the application. Where a licence application is considered not to be a valid application the licensing authority will advise the applicant as to the corrective actions that are required. Circumstances under which a licence will be deemed invalid are:

- Where an appropriate fee does not accompany the application.
- Where the Applicant and/or Responsible Body has failed to sign and date the appropriate sections of the application form.
- Where an appropriate newspaper notice has not been provided.
- Where the application has not been submitted within the appropriate timescale (two weeks) following the publication of a notice of the intention to apply for a licence.

If the application is valid the licensing authority will proceed to determine the application. During this process a request for additional information may be made by the licensing authority. Circumstances where the licensing authority may request additional information may include where adequate information has not been provided by the applicant to allow the licensing authority to determine impact, insufficient data is available regarding the toxicity of a parameter in the effluent etc.

If requested information is not submitted within three months the licensing authority may carry out the investigation necessary to attain the information the cost of which may be charged to the applicant.

## 5.2 Public Inspection of the Application

Where an application is for a discharge to waters, the licensing authority must make the application available for public inspection and must send a copy Department of the Marine and the Central Fisheries Board and the Inland Fisheries Ireland for comment.

The application must also be made available upon request under the Freedom of Information Act.

## 5.3. Notice of Grant or Refusal

The licensing authority must take account of all submissions received from the public and from the Department of the Marine and Inland Fisheries Ireland in relation to an application when making a determination on whether to grant or refuse an application. Article 10A of the Local Government (Water Pollution) Regulations 1978 as inserted by the 1992 regulations, requires that a determination to grant or refuse a licence must be made by the licensing authority within two months from the date of all necessary information being provided to the licensing authority.

The licensing authority may attach conditions to a licence (where it is granted) which may relate to, *inter alia*, emission limit values for the discharge, monitoring requirements, annual charges, management of the site etc.

## 5.4. Right to Appeal a Decision

The Local Government (Water Pollution) Regulations, 1992 states that:

- Any person may appeal a decision by the licensing authority to grant or refuse a licence to discharge to waters to An Bord Pleanála within one month of the licensing authority making their decision.

Procedural matters relating to the making of an appeal are given under Part IV of the Local Government (Water Pollution) Regulations, 1992.

# Appendix A - First Schedule of Environmental Protection Agency Act

## First Schedule of Environmental Protection Agency Act, 1992 (As Amended)

| List sorted by Class of Activity Class | Type of Activity |
|---|---|
| **1.** | **Minerals and Other Materials** |
| 1.1.1 | The production of asbestos. |
| 1.1.2 | The extraction, production and processing of raw asbestos, not included in paragraph 1.1.1. |
| 1.2 | The extraction of aluminium oxide from an ore, not included in paragraph 5.13. |
| 1.3 | The extraction and processing (including size reduction, grading and heating) of minerals within the meaning of the Minerals Development Acts 1940 to 1999, where an activity involves-<br>*(a)* a metalliferous operation, or<br>*(b)* any other operation where either the level of extracted or processed minerals is greater than 200,000 tonnes per annum or the total operational yield is greater than 1,000,000 tonnes,<br>and storage of related mineral waste. |
| 1.4 | The extraction of peat in the course of business which involves an area exceeding 50 hectares |
| **2.** | **Energy** |
| 2.1 | The operation of combustion installations with a rated thermal input equal to or greater than 50 MW. |
| **3.** | **Metals** |
| 3.1.1 | The production of pig iron or steel (primary or secondary fusion) including continuous casting, with a capacity exceeding 2.5 tonnes per hour. |
| 3.1.2 | The initial melting or production of iron or steel, not included in paragraph 3.1.1. |
| 3.2.1 | The processing of ferrous metals:<br>*(a)* hot-rolling mills with a capacity exceeding 20 tones of crude steel per hour,<br>*(b)* smitheries with hammers the energy of which exceeds 50 kilojoule per hammer, where the calorific power used exceeds 20 |

| List sorted by Class of Activity Class | Type of Activity |
|---|---|
| | MW,<br>(c) application of protective fused metal coats with an input exceeding 2 tonnes of crude steel per hour. |
| 3.2.2 | The processing of iron and steel in forges, drawing plants and rolling mills where the production area exceeds 500 square metres, not included in paragraph 3.2.1 |
| 3.3.1 | The operation of ferrous metal foundries with a production capacity exceeding 20 tonnes per day. |
| 3.3.2 | The production, recovery, processing or use of ferrous metals in foundries having melting installations with a total capacity exceeding 5 tonnes, not included in paragraph 3.3.1. |
| 3.4.1 | The-<br>*(a)* production of non-ferrous crude metals from ore, concentrates or secondary raw materials by metallurgical, chemical or electrolytic processes,<br>*(b)* smelting, including the alloyage, of non-ferrous metals, including recovered products, (refining, foundry casting, etc.) with a melting capacity exceeding 4 tonnes per day for lead and cadmium or 20 tonnes per day for all other metals. |
| 3.4.2 | The production, recovery or processing of non-ferrous metals, their compounds or other alloys including antimony, arsenic, beryllium, chromium, lead, magnesium, manganese, phosphorus, selenium, cadmium or mercury, by thermal, chemical or electrolytic means in installations with a batch capacity exceeding 0.5 tonnes, not included in paragraph 3.4.1. |
| 3.5 | The reaction of aluminium or its alloys with chlorine or its compounds, not included in paragraph 5.13. |
| 3.6.1 | The roasting or sintering of metal ore (including sulphide ore). |
| 3.6.2 | The calcining of metallic ores in plants with a capacity exceeding 1,000 tonnes per year. |
| 3.7 | Swaging by explosives where the production area exceeds 100 square metres. |
| 3.8 | The pressing, drawing and stamping of large castings where the production area exceeds 500 square metres. |
| 3.9 | Boiler making and the manufacture of reservoirs, tanks and other sheet metal containers where the production area exceeds 500 square metres. |
| **4** | **Mineral Fibres and Glass** |
| 4.1 | The processing of asbestos, and the manufacture and processing of asbestos-based products. |
| 4.2.1 | The melting of mineral substances including the production of |

| List sorted by Class of Activity Class | Type of Activity |
|---|---|
| | mineral fibres with a melting capacity exceeding 20 tonnes per day. |
| 4.2.2 | The manufacture of glass fibre or mineral fibre, not included in paragraph 4.2.1 or 4.3. |
| 4.3 | The manufacture of glass including glass fibre with a melting capacity exceeding 20 tonnes per day or 5,000 tonnes per year. |
| 4.4 | The production of industrial diamonds. |
| **5** | **Chemicals** |
| Production, for the purposes of the activities mentioned in paragraph 5.12 to 5.17, means the production on an industrial scale by chemical processing of substances or groups of substances mentioned in any of those paragraphs. | |
| 5.1 | The manufacture of chemicals in an integrated chemical installation, not included in paragraphs 5.12 to 5.17. |
| 5.2 | The manufacture of olefins and their derivatives or of monomers and polymers including styrene and vinyl chloride, not included in paragraphs 5.12 to 5.17 |
| 5.3 | The manufacture, by way of chemical reaction processes, of organic or organo-metallic chemical products other than those specified in paragraph 5.2 and not included in paragraphs 5.12 to 5.17. |
| 5.4 | The manufacture of inorganic chemicals, not included in paragraphs 5.12 to 5.17. |
| 5.5 | The manufacture of artificial fertilisers, not included in paragraphs 5.12 to 5.17. |
| 5.6 | The manufacture of pesticides, pharmaceutical or veterinary products and their intermediates, not included in paragraphs 5.12 to 5.17. |
| 5.7 | The manufacture of paints, varnishes, resins, inks, dyes, pigments or elastomers where the production capacity exceeds 1,000 litres per week, not included in paragraphs 5.12 to 5.17. |
| 5.8 | The formulation of pesticides, not included in paragraphs 5.12 to 5.17. |
| 5.9 | The chemical manufacture of glues, bonding agents and adhesives, not included in paragraphs 5.12 to 5.17. |
| 5.10 | The manufacture of vitamins involving the use of heavy metals, not included in paragraphs 5.12 to 5.17. |
| 5.11 | The storage, in quantities exceeding the values shown, of any one or more of the following chemicals (others than as part of any other activity) not included in paragraphs 5.12 to 5.17 -<br>methyl acrylate (20 tonnes); acrylonitrile (20 tonnes); toluene di-isocyanate (20 tonnes); anhydrous ammonia (100 tonnes); anhydrous hydrogen flouride (1 tonne). |

| List sorted by Class of Activity Class | Type of Activity |
|---|---|
| 5.12 | The production of basic organic chemicals, such as:<br>*(a)* simple hydrocarbons (linear or cyclic, saturated or unsaturated, aliphatic or aromatic),<br>*(b)* oxygen-containing hydrocarbons such as alcohols, aldehydes, ketones, carboxylic acids, esters, acetates, ethers, peroxides, epoxy resins,<br>*(c)* sulphurous hydrocarbons,<br>*(d)* nitrogenous hydrocarbons such as amines, amides, nitrous compounds, nitro compounds or nitrate compounds, nitriles, cyanates, isocyanates,<br>*(e)* phosphorus-containing hydrocarbons,<br>*(f)* halogenic hydrocarbons,<br>*(g)* organometallic compounds,<br>*(h)* basic plastic materials (polymers, synthetic fibres and cellulose-based fibres),<br>*(i)* synthetic rubbers,<br>*(J)* dyes and pigments,<br>*(k)* surface-active agents and surfactants. |
| 5.13 | The production of basic inorganic chemicals, such as:<br>*(a)* gases, such as ammonia, chlorine or hydrogen chloride, fluorine or hydrogen fluoride, carbon oxides, sulphur compounds, nitrogen oxides, hydrogen, sulphur dioxide, carbonyl chloride,<br>*(b)* acids, such as chromic acid, hydrofluoric acid, phosphoric acid, nitric acid, hydrochloric acid, sulphuric acid, oleum, sulphurous acids,<br>*(c)* bases, such as ammonium hydroxide, potassium hydroxide, sodium hydroxide,<br>*(d)* salts, such as ammonium chloride, potassium chlorate, potassium carbonate, sodium carbonate, perborate, silver nitrate,<br>(e) non-metals, metal oxides or other inorganic compounds such as calcium carbide, silicon, silicon carbide. |
| 5.14 | The production of phosphorous-based, nitrogen-based or potassium-based fertilisers (simple or compound fertilisers). |
| 5.15 | The production of basic plant health products and of biocides. |
| 5.16 | The use of a chemical or biological process for the production of basic pharmaceutical products. |
| 5.17 | The production of explosives. |

| List sorted by Class of Activity Class | Type of Activity |
|---|---|
| **6.** | **Intensive Agriculture** |
| 6.1 | The rearing of poultry in installations, whether within the same complex or within 100 metres of the same complex, where the capacity exceeds 40,000 places. |
| 6.2 | The rearing of pigs in installations, whether within the same complex or within 100 metres of the same complex, where the capacity exceeds-<br>750 places for sows in a breeding unit, or<br>285 places for sows in an integrated unit, or<br>2,000 places for production pigs.<br>In this paragraph-<br>'breeding unit' means a piggery in which pigs are bred and reared up to 30kg in weight;<br>'integrated unit' means a piggery in which pigs are bred and reared for slaughter;<br>'production pig' means any pig over 30kg in weight which is being fattened for slaughter;<br>'sow' means a female pig after its first farrowing. |
| **7** | **Food and Drink** |
| 7.1 | The manufacture of vegetable and animal oils and fats where the capacity for processing raw materials exceeds 40 tonnes per day, not included in paragraph 7.8. |
| 7.2.1 | The treatment and processing of milk, the quantity of milk received being greater than 200 tonnes per day (average value on a yearly basis). |
| 7.2.2 | The manufacture of dairy products where the processing capacity exceeds 50 million gallons of milk equivalent per year, not included in paragraph 7.2.1 |
| 7.3.1 | Brewing (including cider and perry production) in installations where the production capacity exceeds 25 million litres per year, not included in paragraph 7.8. |
| 7.3.2 | Distilling in installations where the production capacity exceeds the equivalent of 1,500 tonnes per year measured as pure alcohol, not included in paragraph 7.8. |
| 7.3.3 | Malting in installations where the production capacity exceeds 100,000 tonnes per year, not included in paragraph 7.8. |
| 7.4.1 | The operation of slaughterhouses with a carcass production capacity greater than 50 tones per day. |

| List sorted by Class of Activity Class | Type of Activity |
|---|---|
| 7.4.2 | The slaughter of animals in installations where the daily capacity exceeds 1,500 units and where units have the following equivalents-<br>1 sheep = 1 unit<br>1 pig = 2 units<br>1 head of cattle = 5 units<br>and not included in paragraph 7.4.1. |
| 7.5 | The manufacture of fish-meal and fish-oil, not included in paragraph 7.8. |
| 7.6 | The manufacture of sugar, not included in paragraph 7.8 |
| 7.7.1 | The disposal or recycling of animal carcasses and animal waste with a treatment capacity exceeding 10 tonnes per day. |
| 7.7.2 | The processing (including rendering) of animal carcasses and by-products, not included in paragraph 7.7.1. |
| 7.8 | Treatments or processes for the purposes of the production of food products from-<br>*(a)* animal raw materials (other than milk) with a finished product production capacity greater than 75 tonnes per day,<br>*(b)* vegetable raw materials with a finished product production capacity greater than 300 tonnes per day (average value on a quarterly basis). |
| **8** | **Wood, Paper, Textiles and Leather** |
| 8.1 | The production of paper pulp, paper or board (including fibre-board, particle board and plywood) with a production capacity exceeding 20 tonnes per day. |
| 8.2 | The production of pulp from timber or other fibrous materials. |
| 8.3 | The treatment or protection of wood, involving the use of preservatives, with a capacity exceeding 10 tonnes of wood per day. |
| 8.4 | The manufacture of synthetic fibres, not included in paragraph 5.12 |
| 8.5.1 | The pre-treatment (operations such as washing, bleaching, mercerization) or dyeing of fibres or textiles where the treatment capacity exceeds 10 tonnes per day. |
| 8.5.2 | The dyeing, treatment or finishing (including moth-proofing and fireproofing) of fibres or textiles (including carpet) where the capacity exceeds 1 tonne per day of fibre, yarn or textile material, not included in paragraph 8.5.1. |
| 8.6.1 | The tanning of hides and skins where the treatment capacity exceeds 12 tonnes of finished products per day. |
| 8.6.2 | The fell-mongering of hides and tanning of leather in installations where the capacity exceeds 100 skins per day, not included in paragraph 8.6.1. |
| **9** | **Fossils Fuels** |

| List sorted by Class of Activity Class | Type of Activity |
|---|---|
| 9.1 | The extraction, other than offshore extraction, of petroleum, natural gas, coal or bituminous shale. |
| 9.2 | The handling or storage of crude petroleum, not included in paragraph 9.3.1 or 9.3.2. |
| 9.3.1 | The operation of mineral oil and gas refineries. |
| 9.3.2 | The refining of petroleum or gas, not included in paragraph 9.3.1. |
| 9.4.1 | The operation of coke ovens. |
| 9.4.2 | The operation of coal gasification and liquefaction plants. |
| 9.4.3 | The production of carbon (hard-burnt coal) or electrographite by means of incineration or graphitization. |
| 9.4 | The pyrolysis, carbonisation, gasification, liquefaction, dry distillation, partial oxidation or heat treatment of coal, lignite, oil or bituminous shale, other carbonaceous materials or mixtures of any of these in installations with a processing capacity exceeding 500 tonnes per day, not included in paragraph 9.4.1 or 9.4.3. |
| **10** | **Cement** |
| 10.1 | The production of cement. |
| **11** | **Waste** |
| 11.1 | The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required. |
| **12** | **Surface Coatings** |
| 12.1 | Operations involving coating with organo-tin compounds, not included in paragraph 12.2.1 or 12.2.2. |
| 12.2.1 | The surface treatment of substances, objects or products using organic solvents, in particular for dressing, printing, coating, degreasing, waterproofing, sizing, painting, cleaning or impregnating, with a consumption capacity of more than 150 kg per hour or more than 200 tonnes per year. |
| 12.2.2 | The manufacture or use of coating materials in processes with a capacity to make or use at least 10 tonnes per year of organic solvents, and powder coating manufacture with a capacity to produce at least 50 tonnes per year, not included in paragraph 12.2.1. |
| 12.3 | The surface treatment of metals and plastic materials using an electrolytic or chemical process where the volume of the treatment vats exceeds 30 $m^3$. |
| **13** | **Other Activities** |
| 13.1 | The testing of engines, turbines or reactors where the floor area exceeds 500 square metres. |
| 13.2 | The manufacture of integrated circuits and printed circuit boards. |

| List sorted by Class of Activity Class | Type of Activity |
|---|---|
| 13.3 | The production of lime in a kiln |
| 13.4.1 | The manufacture of ceramic products by firing, in particular roofing tiles, bricks, refractory bricks, tiles, stoneware or porcelain, with a production capacity exceeding 4 $m^3$ and a setting density per kiln exceeding 300 $kg/m^3$. |
| 13.4.2 | The manufacture of coarse ceramics including refractory bricks, stoneware pipes, facing and floor bricks and roof tiles, not included in paragraph 13.4.1." |

# Appendix B - Template for Additional Sheets

## Template for Additional Sheets

**Name of Applicant:_____.**

**Name of Premises to which Discharge Relates:_____.**

**Additional Sheets Relate to Part_____, Section_____of the Application Form.**

**Total Number of Additional Sheets:_____.**
*(Sequential page Numbering Must be Included).*

**Where Additional Sheets are Maps / Drawings:**
**Map/Drawing Number_____, Map/Drawing Title_____.**
**Map/Drawing Number_____, Map/Drawing Title_____.**
**Map/Drawing Number_____, Map/Drawing Title_____.**
**Map/Drawing Number_____, Map/Drawing Title_____.**
*(Add Additional Rows as Necessary)*

# Appendix C – Assimilative Capacity and Mass Balance Calculations

## Assimilative Capacity & Mass Balance Calculations

**Calculation 1 – Assimilative Capacity**

This calculation is used to determine the capacity of the receiving waters to assimilate the effluent discharge in kg/day.

Formula 1 below may be used to determine assimilative capacity for the majority of chemical parameters e.g. BOD, suspended solids etc. with the exception of toxic substances e.g. heavy metals in which case Formula 2 must be used.

***Formula 1***

**Assimilative capacity = (Cmax – Cback) x F95 x 86.4 kg/day**

Where:
$C_{max}$ = maximum permissible concentration (EQS – 95%ile value) (mg/l)
$C_{back}$ = background upstream concentration (mg/l mean value)
F95 = the 95%ile flow in the river ($m^3/s$)

**Note**: (60x60x24)/1000 = 86.4

***Formula 2***

**Assimilative capacity = (Cmax – Cback) x DWF x 86.4 kg/day**

where:
$C_{max}$ = maximum permissible concentration (EQS - 95%ile value) (mg/l)
$C_{back}$ = background upstream concentration (mg/l mean value)
DWF = dry weather flow in the river ($m^3/s$)

**Note**: (60x60x24)/1000 = 86.4

Once the assimilative capacity of the receiving water has been established, the percentage of the assimilative capacity that will be used by the discharge may be calculated using the effluent load information.

The effluent load may be determined using the flowing formula:

Effluent flow x effluent concentration / 1000 = effluent load (kg/day)

**Calculation 2 – Mass Balance**

This formula is used to calculate the concentration of a parameter in the receiving water downstream of the discharge. This downstream concentration may then be compared directly with the water quality standard (EQS) to determine whether the discharge will cause an exceedance of the EQS value.

**Mass balance Equation:**

$$T = \frac{FC + fc}{F + f}$$

where:

- F is the river flow upstream of the discharge (95%ile flow $m^3$/sec);
- C is the concentration of pollutant in the river upstream of the discharge (mean concentration in mg/l);
- f is the flow of the discharge (maximum flow in flow $m^3$/sec);
- c is the maximum concentration of pollutant in the discharge (mg/l);
- T is the concentration of pollutant downstream of the discharge.

# Appendix D - Waste Management (Food Waste) Regulations

## Schedule 1 of the Waste Management (Food Waste) Regulations 2009

SCHEDULE 1 CLASSES OF PREMISES WHERE PRODUCERS OF FOOD WASTE ARE SUBJECT TO REGULATIONS 6 TO 14

**Class 1** Premises used for the supply of hot food for consumption both on and off the premises, including premises where the supply of such food is subsidiary to any other commercial or retail activity, (including events prescribed under section 230 of the Act of 2000 but excluding other premises located at any fair, funfair, bazaar, circus or any local event of a religious, cultural, educational, political, social, recreational or sporting character where the use for such purposes does not exceed, as the case may be, a period of 10 days continuously or an aggregate of 20 days in any one year). Mobile food outlets, such as vans and caravans, located outside the curtilege of premises so obligated shall be exempted from the requirements of these Regulations.

**Class 2** A public house where food is supplied, which has been prepared in a kitchen or catering facility engaged in the preparation of food for the purposes of supply.

**Class 3** Premises where food is supplied to employees or prepared on the premises for the purposes of supply to employees, including premises which are used for carrying on any industrial, commercial or trade activities as well as office buildings and mixed-use premises.

**Class 4** A guest house, hostel or hotel providing overnight guest accommodation, excluding premises comprising not more than four bedrooms which are used for the purposes of overnight guest accommodation.

**Class 5** A shop or supermarket involved in the sale of food to the public, including premises for the sale of sandwiches or hot food where the sale of such food is subsidiary to the main retail use.

**Class 6** A restaurant, café, bistro, wine bar or other similar premises where food is prepared on the premises.

**Class 7** A hospital, nursing home or other premises for the long term residential accommodation of people in need of care where food is prepared on the premises.

**Class 8** An institution providing adult, continuing or further education, a school, college or training centre, or a university or any other third-level or higher-level institution, whether or not supported by public funds, where food is prepared on the premises.

**Class 9** State buildings where food is prepared on the premises, including:— (*a*) Garda stations and other buildings; (*b*) Prisons and other places of detention; (*c*) Barracks, other buildings and other installations (including airfields and naval yards) used for the purposes of, or in connection with, the operation of the Defence Forces; (*d*) Office buildings or other premises used for the purposes of, or in connection with, the business of Uachtarán na h-Éireann, Dáil Éireann, Seanad Éireann, the Department of the Taoiseach, the Office of the Tánaiste, the Department of Defence and other Government Departments;(*e*) Office premises and other buildings used by local authorities.

**Class 10** Canteen services where food is supplied to employees or prepared on the premises for the purposes of supply to employees, which—(*a*) is situated on the site of construction, development or refurbishment works, and (*b*) where the duration of such works exceeds a period of 9 months.

**Class 11** Stations, Airports, Ports, Harbours and Marinas where trains, planes, and boats which engage in the supply of food to the public (other than food waste originating from means of transport operating internationally) unload food waste from the transportation medium.

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