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**GUIDANCE NOTE FOR APPLICANTS**  
**LICENCE TO DISCHARGE TRADE AND/ OR SEWAGE EFFLUENT TO**  
**WATERS**

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1. WHEN IS A DISCHARGE LICENCE REQUIRED?

*1 (i) Discharges to Surface Waters*

Under the Local Government (Water Pollution) Act 1977, a Licence is required for the discharge of trade effluent and/or sewage effluent to waters. As of 1<sup>st</sup> of January 1979, it is an offence to discharge any trade effluent or other matter to waters except under and in accordance with a Licence.

*1 (ii) Discharges to Ground Waters*

Discharges of sewage effluent to an aquifer by means of a percolation area or polishing filter that exceed 5m<sup>3</sup> per day require a licence.

All discharges of trade effluent to an aquifer by means of a percolation area or polishing filter require a licence.

*1 (iii) Exempted Discharges*

Domestic sewage not exceeding in volume 5 cubic metres 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.

Trade effluent discharged by a sanitary authority in the course of the performance of its powers and duties, other than from a sewer

2. INFORMATION TO BE SUBMITTED WITH AN APPLICATION

2 (i) *Discharges to Surface Waters*

(Five copies of the application and supporting information must be submitted)

1. Application fee of €381.00
2. The completed application form
3. The site plan (to a scale of 1:500) detailing the premises, drainage systems and any works, apparatus or plant from which the effluent is to be discharged and identifying the waters to which the discharge is to be made.
4. 1:2500 Ordnance Survey Map on which the site location and the point of discharge are clearly marked
5. The Notice of Intention to Apply for a Licence (see Appendix 1)
6. A description of the chemical, biological and microbiological condition of the receiving water at the proposed point of discharge (See Appendix 2)
7. Flow data of receiving waters at the point of discharge detailing the 95 percentile flow and the dry weather flow rates (See Appendix 4)
8. An assessment of the associated impacts of the proposed discharge on the chemical, biological and microbial quality of the receiving waters having consideration for the relevant legislation (See appendix 3).
9. NOTE: An applicant for a Licence may be required to furnish such other particulars as the Council may reasonably require for consideration of the application.

2 (ii) *Discharges to Groundwaters*

(Five copies of the application and supporting information must be submitted)

1. Application fee of €381.00
2. The completed application form
3. The site plan (to a scale of 1:500) detailing the premises, drainage systems and any works, apparatus or plant from which the effluent is to be discharged and identifying the waters to which the discharge is to be made.
4. 1:2500 Ordnance Survey Map on which the site location and the point of discharge are clearly marked
5. The Notice of Intention to Apply for a Licence (see Appendix 1)
6. A description of the chemical and microbiological condition of the groundwater at the proposed discharge location. (See Appendix 2)
7. For discharges of trade effluent that do not exceed 5 m<sup>3</sup> per 24 hours a Site Characterisation Assessment (as detailed in the EPA Wastewater Treatment Manual for Single Houses, 2000 (or otherwise amended)),
8. For all other discharges to an aquifer by means of a percolation area etc an investigation as detailed by Part VI of the Local Government (Water Pollution) Regulations, 1992, as amended by the Local Government (Water Pollution) (Amendment) Regulations, 1999
9. An assessment of the associated impacts of the discharge on the chemical and microbial quality of the groundwater having consideration for the relevant legislation (See Appendix 5)
10. NOTE: An applicant for a Licence may be required to furnish such other particulars as the Council may reasonably require for consideration of the application.

3. WHO TO APPLY TO:

Applications should be made to the Director of Services for Physical Planning and Environment, South Tipperary County Council, County Hall, Clonmel, Co. Tipperary.

### **Appendix 1 – Notice of Intention to Apply for a Licence**

Prior to making a licence application, the applicant shall publish in a newspaper circulating in the functional area of the Local Authority (not more than 2 weeks prior to the application date) notice of intention to make such application and shall contain as a heading the words “**Discharge of Effluent to Waters**”, and shall:

- (i) State the name of the applicant<sup>1</sup> and the name of the Local Authority<sup>2</sup> to which the application is made.
- (ii) Give a general description of the effluent<sup>3</sup>
- (iii) In the case of trade effluent, state the nature of the trade or industry<sup>4</sup>
- (iv) State the name<sup>4</sup> and location<sup>5</sup> of the premises from which the effluent is to be discharged and
- (v) Indicate the waters to which the effluent is to be discharged<sup>7</sup>.

#### ***Sample Notices***

##### ***Discharge of Effluent to Waters***

*ABC Development Company<sup>1</sup> hereby give notice of their intention to apply to South Tipperary County Council<sup>2</sup> for a licence to discharge treated sewage effluent<sup>3</sup> to groundwater via sand polishing filter<sup>7</sup> from a nursing home<sup>4</sup> (known as Green Fields Retirement Village<sup>5</sup>) at Ballycashel, Clonmel, Co. Tipperary<sup>6</sup>*

##### ***Discharge of Effluent to Waters***

*PharmaTipp Ltd<sup>1</sup> hereby give notice of their intention to apply to South Tipperary County Council<sup>2</sup> for a licence to discharge treated trade effluent<sup>3</sup> to the River Suir<sup>7</sup> from a pharmaceutical manufacturing facility<sup>4</sup> (known as PharmaTipp<sup>5</sup>) at Ballycashel, Clonmel, Co. Tipperary<sup>6</sup>*

### Appendix 2 – Monitoring of Receiving Waters

The receiving waters shall be sampled and analysed for the following parameters:

	Surface Waters	Groundwaters
Chemical analysis	<ul style="list-style-type: none"> <li>▪ BOD<sub>5</sub> mg/l</li> <li>▪ Suspended Solids mg/l</li> <li>▪ Conductivity uS/cm</li> <li>▪ pH</li> <li>▪ Temperature °C</li> <li>▪ Ammonia as mg/l N</li> <li>▪ Ortho phosphate as mg/l P</li> <li>▪ Total phosphorus as mg/l P</li> <li>▪ Nitrite as mg/l N</li> <li>▪ Nitrate as mg/l N</li> <li>▪ Total Nitrogen mg/l N</li> <li>▪ Chlorides mg/l, Sulphate mg/l</li> </ul>	<ul style="list-style-type: none"> <li>▪ BOD<sub>5</sub> mg/l</li> <li>▪ Suspended Solids mg/l</li> <li>▪ Conductivity uS/cm</li> <li>▪ pH</li> <li>▪ Temperature °C</li> <li>▪ Ammonia as mg/l N</li> <li>▪ Ortho phosphate as mg/l P</li> <li>▪ Total phosphorus as mg/l P</li> <li>▪ Nitrite as mg/l N</li> <li>▪ Nitrate as mg/l N</li> <li>▪ Total Nitrogen mg/l N</li> <li>▪ Chlorides mg/l, Sulphate mg/l</li> <li>▪ Sodium mg/l Na</li> <li>▪ Potassium mg/l K</li> </ul>
Biological/Ecological analysis	<ul style="list-style-type: none"> <li>▪ A biological Q rating of the proposed receiving waters</li> </ul>	
Microbiological Analysis		<ul style="list-style-type: none"> <li>▪ Total Coliforms</li> <li>▪ Faecal Coliforms</li> </ul>
Other Analysis	Toxicity, bioaccumulation or biodegradation testing of industrial effluent impacts on the receiving water may be required for industrial type effluents	
	An applicant for a Licence may be required to furnish such other particulars as the Council may reasonably require for consideration of the application	

<b>Surface waters – No. of samples required</b>	<ul style="list-style-type: none"> <li>▪ Min 6 chemical samples sampled at least at monthly intervals in period April to September</li> <li>▪ 1 biological Q rating</li> </ul>
<b>Groundwater – No. of samples required</b>	<ul style="list-style-type: none"> <li>▪ Minimum of 2 chemical samples</li> <li>▪ Minimum of 2 microbiological samples</li> </ul>

**Appendix 3 – Guideline River Water Quality and Assimilative Capacity Assessment**

Parameter	Value	Water Quality
BOD	<3 mg/l O <sub>2</sub>	Unpolluted
	3 – 5 mg/l O <sub>2</sub>	Doubtful
	>5 mg/l O <sub>2</sub>	Poor
Ortho P	< 30 ug/l P	Unpolluted
	30 – 70 ug/l P	Moderately polluted
	>70 ug/l P	Seriously polluted
Total Ammonia	>0.2 mg/l N	Doubtful
Unionised Ammonia	>0.02 mg/l NH <sub>3</sub>	Doubtful
Nitrate	>5.65 mg/l N	Doubtful
Nitrite	>0.05 mg/l N	Doubtful
Chloride	>40 mg/l Cl	Doubtful
Biological Rating	Q5, Q4-5, Q4	Unpolluted
	Q3-4	Slightly polluted
	Q3, Q2-3	Moderately polluted
	Q2, Q1-2, Q1	Seriously polluted

**An Assimilative Capacity report should consist of:**

1. Estimation of rate of dilution including estimation of flow rate & justification of method used to determine flow rate,
2. Details of Assimilative Capacity available for each parameter (BOD, Ortho-P, NO<sub>3</sub>, NH<sub>3</sub>)
3. Description of the significance of the increase relative to background & water quality standards
4. A description of the impact of increase, if any, on sensitive receiving waters (SACs, potential drinking water abstraction etc),

**Assimilative Capacity Calculation:**

$$AC = (C_{max} - C_{back}) \times 86.4 \times F_{95}$$

where

AC = Assimilative capacity (kg/d)

C<sub>max</sub> = Maximum allowable concentration of relevant parameter (mg/l)

C<sub>back</sub> = Background concentration of relevant parameter (mg/l)

86.4 = conversion factor

F<sub>95</sub> = 95%tile flow (m<sup>3</sup>/s)

#### **Appendix 4 – Flow Monitoring**

To estimate the impact of the proposed discharge on receiving water quality the low flow rates (95 percentile flow and dry weather flow) at the point of discharge are required.

##### *Existing Hydrometric Data*

Historical data is available from the Environmental Protection Agency, see [www.epa.ie/PublicAuthorityServices/HydrometricProgrammeandSurfaceWaters/](http://www.epa.ie/PublicAuthorityServices/HydrometricProgrammeandSurfaceWaters/)

##### *No Historical Hydrometric Data*

Where no historical data exists for the receiving waters in reasonable proximity of the proposed point of discharge the following guidelines are recommended to estimate low flow rates:

- Set up a temporary hydrometric station to ISO 1070/BS 3680 standards
- Measure flow in the catchment at the point of interest
- This flow should then be correlated to a nearby rated station whose catchment area is similar in size, geology, unaffected by large abstractions/springs and with estimates of the DWF/ 95%ile flow

Measurements should preferably be undertaken towards the end of a dry Summer (Aug, Sept, Oct).

### **Appendix 5 – Groundwater Investigations**

A prior investigation will be required where the proposed discharge contains harmful substances listed in the First and Second Schedule of the Protection of Groundwater Regulations SI 41 of 1999 (List I & II Substances). This investigation should include:

- The hydrogeological conditions of the area in which the aquifer is located.
- Nature, slope, thickness, particle size distribution, vulnerability, variations with depth and permeability of any overlying soil and subsoil and its effectiveness in preventing or reducing the entry of the harmful substance to water in the aquifer
- Permeability of bedrock
- Depth to Groundwater, recharge estimates and hydraulic gradient
- Existing Water Quality- see appendix 2
- The risk of deterioration in the quality of the water therein due to the entry of harmful substance
- The risk to human health or water supplies, harm living resources and the aquatic ecosystem or interfere with the use of the water for agriculture, commercial, domestic, fisheries, industrial or recreational purposes.

Geotechnical investigations to determine the hydraulic suitability of the site for the disposal and attenuation of contaminants should be carried out by a suitably qualified hydrogeologist.

Investigations should be carried out in accordance with BS5930 Code of Practice for Site Investigations.