

This is a draft document and is subject to revision.



# Waste Water Discharge Certificate of Authorisation Application Form

## Puckane Agglomeration

EPA Ref. N<sup>o</sup>:  
(Office use only)

## North Tipperary County Council

**Environmental Protection Agency**  
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**Tracking Amendments to Draft Application Form**

<b>Version No.</b>	<b>Date</b>	<b>Amendment since previous version</b>	<b>Reason</b>
V. 1.	23/03/09	N/A	

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Environmental Protection Agency  
Application for a Waste Water Discharge Certificate of Authorisation  
Waste Water Discharge (Authorisation) Regulations, 2007.

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## ABOUT THIS APPLICATION FORM

This form is for the purpose of making an application for a Waste Water Discharge Certificate of Authorisation under the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) or for the review of an existing Waste Water Discharge Certificate of Authorisation.

The Application Form **must** be completed in accordance with the instructions and guidance provided in the *Waste Water Discharge Certificate of Authorisation Application Guidance Note*. The Guidance Note gives an overview of Waste Water Certificates of Authorisation, outlines the certification application process (including the number of copies required) and specifies the information to be submitted as part of the application. The Guidance Note and application form are available to download from the licensing page of the EPA's website at [www.epa.ie](http://www.epa.ie).

A valid application for a Waste Water Discharge Certificate of Authorisation must contain the information prescribed in the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007). Regulation 24 of the Regulations sets out the statutory requirements for information to accompany a Certificate of Authorisation application. The application form is designed in such a way as to set out these questions in a structured manner and not necessarily in the order presented in the Regulations. In order to ensure a legally valid application with respect to Regulation 24 requirements, please complete the Regulation 24 Checklist provided in the following web based tool:  
[http://78.137.160.73/epa\\_wwd\\_licensing/](http://78.137.160.73/epa_wwd_licensing/)

This Application Form does not purport to be and should not be considered a legal interpretation of the provisions and requirements of the Waste Water Discharge (Authorisation) Regulations, 2007. **While every effort has been made to ensure the accuracy of the material contained in the Application Form, the EPA assumes no responsibility and gives no guarantee, or warranty concerning the accuracy, completeness or up-to-date nature of the information provided herein and does not accept any liability whatsoever arising from any errors or omissions.**

Should there be any contradiction between the information requirements set out in the Application Form and any clarifying explanation contained in the accompanying Guidance Note, then the requirements in this Application Form shall take precedence.

## PROCEDURES

The procedure for making and processing of applications for waste water discharge Certificates of Authorisation, and for the processing of reviews of such Certificates, appears in the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007) and is summarised below. The application fees that shall accompany an application are listed in the Third Schedule to the Regulations.

An application for a Certificate of Authorisation must be submitted on the appropriate form (available from the Agency website – <http://www.epa.ie/whatwedo/licensing/wwda/>) with the correct fee, and should contain relevant supporting documentation as attachments. The application should be based on responses to the form and include supporting written text and the appropriate use of tables and drawings. Where point source emissions occur, a system of unique reference numbers should be used to denote each discharge point. These should be simple, logical, and traceable throughout the application.

The application form is divided into a number of sections of related information. The purpose of these divisions is to facilitate both the applicant and the Agency in the provision of the information and its assessment. **Please adhere to the format as set out in the application form and clearly number each section and associated attachment, if applicable, accordingly.** Attachments should be clearly numbered, titled and paginated and must contain the required information as set out in the application form. Additional attachments may be included to supply any further information supporting the application. Any references made should be supported by a bibliography.

**All questions should be answered. Where information is requested in the application form, which is not relevant to the particular application, the words "not applicable" should be clearly written on the form. The abbreviation "N/A" should not be used.**

Additional information may need to be submitted beyond that which is explicitly requested on this form. Any references made should be supported by a bibliography. The Agency may request further information (under notices provided for in the Regulations) if it considers that its provision is material to the assessment of the application. Advice should be sought from the Agency where there is doubt about the type of information required or the level of detail.

Information supplied in this application, including supporting documentation will be put on public display and be open to inspection by any person.

Applicants should be aware that a contravention of the conditions of a waste water discharge Certificate of Authorisation is an offence under the Waste Water Discharge (Authorisation) Regulations, 2007.

**The provision of information in an application for a waste water discharge Certificate of Authorisation which is false or misleading is an offence under Regulation 35 of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007).**

Note: Drawings. The following guidelines are included to assist applicants:

- All drawings submitted should be titled and dated.
- All drawings should have a unique reference number and should be signed by a clearly identifiable person.
- All drawings should indicate a scale and the direction of north.
- All drawings should, generally, be to a scale of between 1:20 to 1:500, depending upon the degree of detail needed to be shown and the size of the facility. Drawings delineating the boundary can be to a smaller scale of between 1:1000 to 1:10560, but must clearly and accurately present the required level of detail. Drawings showing the waste water treatment plant location, if such a plant exists, can be to a scale of between 1:50 000 to 1:126 720. All drawings should, however, be A3 or less and of an appropriate scale such that they are clearly legible. Provide legends on all drawings and maps as appropriate.
- In exceptional circumstances, where A3 is considered inadequate, a larger size may be requested by the Agency.

**It should be noted that it will not be possible to process or determine the application until the required documents have been provided in sufficient detail and to a satisfactory standard.**

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## SECTION A: NON-TECHNICAL SUMMARY

*Advice on completing this section is provided in the accompanying Guidance Note.*

A non-technical summary of the application is to be included here. The summary should identify all environmental impacts of significance associated with the discharge of waste water associated with the waste water works. This description should also indicate, where applicable, the hours during which the waste water works is supervised or manned and days per week of this supervision.

The following information must be included in the non-technical summary:

A description of:

- the waste water works and the activities carried out therein,
- the sources of emissions from the waste water works,
- the nature and quantities of foreseeable emissions from the waste water works into the receiving aqueous environment as well as identification of significant effects of the emissions on the environment,
- the proposed technology and other techniques for preventing or, where this is not possible, reducing emissions from the waste water works,
- further measures planned to comply with the general principle of the basic obligations of the operator, i.e., that no significant pollution is caused;
- measures planned to monitor emissions into the environment.

Supporting information should form **Attachment N° A.1**

**Puckane Agglomeration consists of Puckane Village and its immediate surrounding areas.**

**Puckane is a small picturesque North Tipperary Village located in the North of the County of North Tipperary. Puckane is located on the R493 approximately 8km north of Nenagh. Puckane has a rich agricultural hinterland and is located near Lough Derg. Tourism is important in the area. It contains no real industrial presence.**

**Puckane has primarily a residential catchment. The main expansion of Puckane Agglomeration has occurred along the main routes to the village centre. There are still areas of land available for development. There is no significant waste water contribution from agriculture.**

**The Agglomeration is approximately 25.23ha in size.**

**Puckane Agglomeration is served by North Tipperary County Council. Puckane has no Town Council.**

**North Tipperary County Council is the Planning and Water Services Authority for the Puckane Agglomeration.**

**North Tipperary County Council owns, controls and maintains the sewer network, associated pumping station and the WWTP of Puckane Agglomeration.**

The agglomeration has an existing combined gravity sewerage system assisted by 1 No. pumping station which drains to a Waste Water Treatment Plant (WWTP) situated at Killodiernan, Puckane, Nenagh.

The WWTP was designed and constructed in the 1980s. The current Puckane WWTP was originally built in the 1980s on a Greenfield site and consists of aeration tank, clarifier and sludge drying beds, which are now being used as sludge storage tanks. No major upgrading work has been carried out since its construction in the 1980s. The Treatment Plant currently occupies an area of 2578m<sup>2</sup> and has significant room for expansion.

The existing WWTP consists of

- Aeration tank
- Clarifier
- Sludge return pump sump. This pump is also used to send excess sludge to the sludge drying beds by diverting the flow using sluice valves.
- 2 No. Sludge drying beds. The supernatant from the beds is returned to the aeration tank.
- Outlet flume and flowmeter
- Control House containing tool store, control panels, toilet, washing facilities, desk, filing cabinets, etc.

The wastewater plant is in wastewater treatment technology terms, an extended aeration activated sludge plant.

The wastewater undergoes secondary treatment only, in an aeration basin with a vertical shaft surface aerator.

The wastewater does not undergo primary or preliminary treatment. The WWTP has no inlet screen or grit trap.

Its current final effluent satisfies the criteria of the Urban Waste Water Regulations.

It currently has no phosphate removal facilities. It is the goal of North Tipperary County Council to install phosphate removal facilities at all its wastewater facilities in the medium to long term period.

Wastewater enters the WWTP without any screening and enters into the aeration tank which is aerated by a vertical shaft surface aerator. Mixed liquor from the aeration tank overflows from the aeration tank to the clarifiers via an overflow weir on the side of the aeration tank. The mixed liquor settles in the clarifier with the aid of a baffle, and the clear supernatant is pushed to the top of the clarifier and goes to the outlet works via overflow weirs. The final effluent then is discharged to the Killodiernan Stream. The Settled sludge at the bottom of the clarifiers flows by gravity to a sludge sump and is pumped back into the aeration tank. Any excess sludge can be diverted to the sludge drying beds via sluice gates.

The WWTP discharges to the Killodiernan Stream at the primary discharge point at Grid Reference E183553 N187280.

Any excess sludge is stored in the sludge drying beds and is regularly transported to Nenagh WWTP where the sludge is processed in the picket fence thickener. Waste sludge is thickened in a picket fence thickener to approximately 4% solids and dewatered by a sludge dewatering belt press to approximately 16% solids for off-site disposal.

Presently it is composted by McGill Environmental, near Clonmel, Co. Tipperary and the finished compost is landspread on nearby farmland, subject to appropriate Nutrient Management Plans for individual farms. A sludge register is maintained.

The Killodiernan Stream is not a designated Sensitive or Salmonid Rivers.

There are no specific parts of the Killodiernan Stream designated for the protection of economically significant aquatic species.

The Killodiernan Stream flows into Poulawee Lough (locals sometimes call this water body Johnstown Lake), which in turns flows into Lough Derg albeit after a long retention time.

Lough Derg is a designated Special Protection Area under the Birds Directive, and a designated NHA. Lough Derg SPA is of high ornithological importance as it supports nationally important breeding populations of Common Tern, Cormorant, Great Crested Grebe, and probably Tufted Duck and Black-headed Gull. In winter, it has nationally important populations of Tufted Duck and Goldeneye, as well as a range of other species including Whooper Swan. Lough Derg is of conservation interest for its fish and freshwater invertebrates, in particular Lampreys.

The Agglomeration has 1 pumping station which is located at the rear of Ballycraggan Housing Estate, Puckane. This pumping station is equipped with 2 No. Pumps which operate on a duty/standby basis. The pumping station is also equipped with an alarm call-out system which sends text messages to the caretakers mobile phone in the event of a pump trip or failure. The pumping station has an emergency overflow, which discharges to a large septic tank and percolation area. This septic tank was formerly used as a communal septic tank for Ballycraggan housing estate, before the installation of the pumping station.

The quantity of wastewater which is discharged from this overflow is difficult to quantify as there is no flowmeter on the overflow stream. This overflow only operates in emergency conditions. Due to the alarm system the pumping station rarely overflows.

The current WWTP is manned on a part-time basis by a caretaker, who also has various other water and wastewater responsibilities. A supervisor also devotes significant amount of time to Puckane WWTP. A Water Services Executive Engineer is involved in the management of this facility along with other wastewater facilities in the County. The Ultimate responsibility for Puckane WWTP is North Tipperary County Council's Senior Engineer for Water Services.

The maintenance of the sewer network is carried out by Local authority Staff and by private contractors where necessary.

There is no drinking water abstraction from the Killodiernan Stream or Poulawee Lough. The Killodiernan Stream flows into Poulawee Lough, which ultimately flows into Lough Derg albeit after a long retention time. There is water abstraction point from the River Shannon located at Clareville, Co. Limerick at Grid Reference E162389 N163685. This supplies Limerick Regional Water Supply Scheme with raw water which is then treated to Drinking Water Standards. This water abstraction point is unlikely to be affected by Puckane agglomeration due to the dilution factors of the Killodiernan Stream, Poulawee Lough, Lough Derg

and the River Shannon and the significant distance involved (over 20 miles).

There are currently no licensed discharges into the Puckane Agglomeration (under Section 16 Water Pollution Act).

The normal working hours are 08.00 – 16.30 Monday to Thursday and 8.00 – 15.30 on Friday. The caretaker conducts normal checks and routine tasks on weekends and is on call on in case of plant breakdowns or network issues.

Puckane has no stormwater/balance tank.

The WWTP has a small Control/Administration Building will includes control panels, chart recorders, small store, toilet, desk, filing cabinets, hand basin, etc.

The current plant has 4 monitoring points, one each at the inlet, final effluent sampling point, one upstream and one downstream of the primary discharge point.

All the monitoring points have suitable safe access for the collection and taking of samples. All staff will hold the Safe Pass Certificate.

The WWTP does not have a standby diesel generator to ensure that any breakdown of the main power supply will not affect the smooth operation of the Treatment Plant at any time.

Noise and odour nuisance from the sewer infrastructure, pumping stations and WWTP is minimal.

Puckane WWTP has a design population equivalent of 450 P.E. The current loading on the plant is estimated at 300 P.E.

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## SECTION B: GENERAL

Advice on completing this section is provided in the accompanying Guidance Note.

### B.1 Agglomeration Details

<b>Name of Agglomeration:</b> Puckane
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#### Applicant's Details

##### Name and Address for Correspondence

Only application documentation submitted by the applicant and by the nominated person will be deemed to have come from the applicant.

Provide a drawing detailing the agglomeration to which the Certificate of Authorisation application relates. It should have the boundary of the agglomeration to which the Certificate of Authorisation application relates clearly marked in red ink.

<b>Name*:</b>	<b>North Tipperary County Council</b>
<b>Address:</b>	<b>Civic Offices</b>
	<b>Limerick Road</b>
	<b>Nenagh</b>
	<b>Co. Tipperary.</b>
<b>Tel:</b>	<b>067 44500</b>
<b>Fax:</b>	<b>067 31773</b>
<b>e-mail:</b>	<b>North Tipperary County Council</b>

\*This should be the name of the Water Services Authority in whose ownership or control the waste water works is vested.

\*Where an application is being submitted on behalf of more than one Water Services Authority the details provided in Section B.1 shall be that of the lead Water Services Authority.

<b>Name*:</b>	<b>Mr. Jim McGuire, B.E.</b>
<b>Address:</b>	<b>Water Services Section, North Tipperary County Council,</b>
	<b>Civic Offices,</b>
	<b>Limerick Road,</b>
	<b>Nenagh, Co. Tipperary.</b>
<b>Tel:</b>	<b>067 44500</b>
<b>Fax:</b>	<b>067 31773</b>
<b>e-mail:</b>	<b>jmcguire@northtippcoco.ie</b>

\*This should be the name of person nominated by the Water Services Authority for the purposes of the application.

#### Co-Applicant's Details

<b>Name*:</b>	<b>NOT APPLICABLE</b>
<b>Address:</b>	<b>NOT APPLICABLE</b>
	<b>NOT APPLICABLE</b>
	<b>NOT APPLICABLE</b>
	<b>NOT APPLICABLE</b>
<b>Tel:</b>	<b>NOT APPLICABLE</b>
<b>Fax:</b>	<b>NOT APPLICABLE</b>
<b>e-mail:</b>	<b>NOT APPLICABLE</b>

\*This should be the name of a Water Services Authority, other than the lead authority, where multiple authorities are the subject of a waste water discharge Certificate of Authorisation application.

## Design, Build & Operate Contractor Details

<b>Name*:</b>	<b>NOT APPLICABLE</b>
<b>Address:</b>	<b>NOT APPLICABLE</b>
	<b>NOT APPLICABLE</b>
	<b>NOT APPLICABLE</b>
<b>Tel:</b>	<b>NOT APPLICABLE</b>
<b>Fax:</b>	<b>NOT APPLICABLE</b>
<b>e-mail:</b>	<b>NOT APPLICABLE</b>

\*Where a design, build & operate contract is in place for the waste water works, or any part thereof, the details of the contractor should be provided.

**Attachment B.1** should contain appropriately scaled drawings / maps ( $\leq A3$ ) of the agglomeration served by the waste water works showing the boundary clearly marked in red ink. These drawings / maps should also be provided as geo-referenced digital drawing files (e.g., ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. These drawings should be provided to the Agency on a separate CD-Rom containing sections B.2, B.3, B.4, B.5, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No
	✓	

## B.2 Location of Associated Waste Water Treatment Plant(s)

Give the location of the waste water treatment plant associated with the waste water works, if such a plant or plants exists.

<b>Name*:</b>	<b>Mr. Edward Treacy B.E.</b>
<b>Address:</b>	<b>Puckane Waste Water Treatment Plant,</b>
	<b>Puckane,</b>
	<b>Nenagh,</b>
	<b>Co. Tipperary.</b>
<b>Grid ref (6E, 6N)</b>	<b>E183526 N187292 (Centre of plant)</b>
<b>Level of Treatment</b>	<b>Secondary Treatment only</b>
<b>Primary Telephone:</b>	<b>067 44830</b>
<b>Fax:</b>	<b>067 31773</b>
<b>e-mail:</b>	<b>edward.treacy@northtippcoco.ie</b>

\*This should be the name of the person responsible for the supervision of the waste water treatment plant.

**Attachment B.2** should contain appropriately scaled drawings / maps ( $\leq A3$ ) of the site boundary and overall site plan, including labelled discharge, monitoring and sampling points. These drawings / maps should also be provided as geo-referenced digital drawing files (e.g., ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. These drawings should be provided to the Agency on a separate CD-Rom containing sections B.1, B.3, B.4, B.5, C.1, D.2, E.3 and F.2.

Attachment included	Yes	No

	✓	
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### B.3 Location of Primary Discharge Point

Give the location of the primary discharge point, as defined in the Waste Water Discharge (Authorisation) Regulation, associated with the waste water works.

<b>Discharge to</b>	<b>Killodiernan Stream</b>
<b>Type of Discharge</b>	<b>150mm Open Concrete Pipe with no flap valve.</b>
<b>Unique Point Code</b>	<b>PKPDP1</b>
<b>Location</b>	<b>Riverbank of Killodiernan Stream</b>
<b>Grid ref (6E, 6N)</b>	<b>E183553 N187280</b>

**Attachment B.3** should contain appropriately scaled drawings / maps ( $\leq A3$ ) of the discharge point, including labelled monitoring and sampling points associated with the discharge point. These drawings / maps should also be provided as geo-referenced digital drawing files (e.g. ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. This data should be provided to the Agency on a separate CD-Rom containing the drawings and tabular data requested in sections B.1, B.2, B.4, B.5, C.1, D.2, E.3 and F.2.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	✓	

### B.4 Location of Secondary Discharge Point(s)

Give the location of **all** secondary discharge point(s) associated with the waste water works. Please refer to Guidance Note for information on Secondary discharge points.

<b>Discharge to</b>	<b>Not Applicable</b>
<b>Type of Discharge</b>	<b>Not Applicable</b>
<b>Unique Point Code</b>	<b>Not Applicable</b>
<b>Location</b>	<b>Not Applicable</b>
<b>Grid ref (6E, 6N)</b>	<b>Not Applicable</b>

**Attachment B.4** should contain appropriately scaled drawings / maps ( $\leq A3$ ) of the discharge point(s), including labelled monitoring and sampling points associated with the discharge point(s). These drawings / maps should also be provided as geo-referenced digital drawing files (e.g. ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. This data should be provided to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.5, C.1, D.2, E.3 and F.2.

**Puckane Agglomeration has no secondary discharge point.**

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
		✓

### B.5 Location of Storm Water Overflow Point(s)

Give the location of **all** storm water overflow point(s) associated with the waste water works.

<b>Type of Discharge</b>	<b>Emergency Overflow from Ballycraggan Pumping Station</b>
<b>Unique Point Code</b>	<b>PKBCE01</b>
<b>Location</b>	<b>Ballycraggan Pumping Station</b>
<b>Grid ref (6E, 6N)</b>	<b>The overflow occurs at Grid Reference E183481 N186598 and enters the septic tank at Grid Reference E183466 N186584</b>

**Puckane Agglomeration has no stormwater overflows. It has one emergency overflow.**

**Attachment B.5** should contain appropriately scaled drawings / maps ( $\leq A3$ ) of storm water overflow point(s) associated with the waste water works, including labelled monitoring and sampling points associated with the discharge point(s). These drawings / maps should also be provided as geo-referenced digital drawing files (e.g. ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. This data should be provided to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, C.1, D.2, E.3 and F.2.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
		✓

### B.6 Planning Authority

Give the name of the planning authority, or authorities, in whose functional area the discharge or discharges take place or are proposed to take place.

<b>Name:</b>	<b>North Tipperary County Council</b>
<b>Address:</b>	<b>Civic Offices</b>
	<b>Limerick Road,</b>
	<b>Nenagh,</b>
	<b>Co. Tipperary</b>
<b>Tel:</b>	<b>067 44500</b>
<b>Fax:</b>	<b>067 31773</b>
<b>e-mail:</b>	

Planning Permission relating to the waste water works which is the subject of this application:- (tick as appropriate)

<b><i>has been obtained</i></b>		<b><i>is being processed</i></b>	
<b><i>is not yet applied for</i></b>		<b><i>is not required</i></b>	✓

**When Puckane Agglomeration was constructed, Local Authorities were not obliged to seek planning permission for their own infrastructure projects.**

<b>Local Authority Planning File Reference N<sup>o</sup>:</b>	
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**Attachment B.6** should contain **the most recent** planning permission, including a copy of **all** conditions, and where an EIS was required, copies of any such EIS and any certification associated with the EIS, should also be enclosed. Where planning permission is not required for the development, provide reasons, relevant correspondence, etc.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
		✓

**B.7 Other Authorities**

B.7 (i) Shannon Free Airport Development Company (SFADCo.) area

The applicant should tick the appropriate box below to identify whether the discharge or discharges are located within the Shannon Free Airport Development Company (SFADCo.) area.

**Attachment B.7(i)** should contain details of any or all discharges located within the SFADCo. area.

<b>Within the SFADCo Area</b>	<b>Yes</b>	<b>No</b>
	✓	

B.7 (ii) Health Services Executive Region

The applicant should indicate the **Health Services Executive Region** where the discharge or discharges are or will be located.

<b>Name:</b>	<b>Mid-West Health Services Executive Region</b>
<b>Address:</b>	<b>31/33 Catherine Street,</b>
	<b>Limerick</b>
<b>Tel:</b>	<b>061 316655</b>
<b>Fax:</b>	
<b>e-mail:</b>	

**B. 8(i) Population Equivalent of Agglomeration**

**TABLE B.8.1 POPULATION EQUIVALENT OF AGGLOMERATION**

The population equivalent (p.e.) of the agglomeration to be, or being, served by the waste water works should be provided and the period in which the population equivalent data was compiled should be indicated.

<b>Population Equivalent</b>	<b>300</b>
<b>Data Compiled (Year)</b>	<b>2008</b>

Method	House Count
--------	-------------

**Design capacity 450 P.E.**

**B.8 (ii) Pending Development**

Where planning permission has been granted for development(s), but development has not been commenced or completed to date, within the boundary of the agglomeration and this development is being, or is to be, served by the waste water works provide the following information;

- information on the calculated population equivalent (p.e.) to be contributed to the waste water works as a result of those planning permissions granted,
- the percentage of the projected p.e. to be contributed by the non-domestic activities, and
- the ability of the waste water works to accommodate this extra hydraulic and organic loading without posing an environmental risk to the receiving waters.

**North Tipperary County Council has made an estimate of almost zero additional P.E. where planning permission has been granted for developments, but development has not been commenced or completed to date, within the boundary of the agglomeration and this development is being, or is to be, served by the waste water works.**

**B.8 (iii) FEES**

State the relevant Class of waste water discharge as per Regulation 5, and the appropriate fee as per Columns 2 or 3 of the Third Schedule of the Waste Water Discharges (Authorisation) Regulations 2007, S.I. No. 684 of 2007.

Class of waste water discharge	Fee (in €)
0-500	3000

Appropriate Fee Included	Yes	No
	√	

**B.9 Capital Investment Programme**

State whether a programme of works has been prioritised for the development of infrastructure to appropriately collect, convey, treat and discharge waste water from the relevant agglomeration. If a programme of works has been prioritised provide details on funding (local or national Water Services Investment Plans) allocated to the capital project. Provide details on the extent and type of work to be undertaken and the likely timeframes for this work to be completed.

**No programme of works has been prioritised for the development of infrastructure to appropriately collect, convey, treat and discharge waste water from Puckane agglomeration. Puckane WWTP is regarded as a well operated WWTP with a high quality effluent.**

**Attachment B.9** should contain the most recent development programme, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

Attachment included	Yes	No
		√

**B.10 Significant Correspondence**

Provide a summary of any correspondence resulting from a Section 63 notice issued by the Agency in relation to the waste water works under the Environmental Protection Agency Acts, 1992 and 2003, as amended by Section 13 of Protection of the Environment Act, 2003.

**No Section 63 Notice has been issued by the Agency in relation to Puckane Agglomeration or its Waste Water Treatment Plant under the Environmental Protection Agency Acts, 1992 and 2003, as amended by Section 13 of Protection of the Environment Act, 2003. Attachment B.10 is therefore not applicable.**

**Attachment B.10** should contain a summary of any relevant correspondence issued in relation to a Section 63 notice.

Attachment included	Yes	No
		√

**B.11 Foreshore Act Licences.**

Provide a copy of the most recent Foreshore Act licence issued in relation to discharges from the waste water works issued under the Foreshore Act 1933.

**Attachment B.11** should contain the most recent licence issued under the Foreshore Act 1933, including a copy of **all** conditions attached to the licence and any monitoring returns for the previous 12-month period, if applicable.

**Not Applicable to Puckane Agglomeration. Puckane Agglomeration does not discharge to a foreshore.**

Attachment included	Yes	No
		√

## SECTION C: INFRASTRUCTURE & OPERATION

Advice on completing this section is provided in the accompanying Guidance Note.

### C.1 Operational Information Requirements

Provide a description of the plant, process and design capacity for the areas of the waste water works where discharges occur, to include a copy of such plans, drawings or maps (site plans and location maps, process flow diagrams) and such other particulars, reports and supporting documentation as are necessary to describe all aspects of the area of the waste water works discharging to the aquatic environment. Maps and drawings must be no larger than A3 size.

#### C.1.1 Storm Water Overflows

For each storm water overflow within the waste water works the following information shall be submitted:

- An assessment to determine compliance with the criteria for storm water overflows, as set out in the DoEHLG 'Procedures and Criteria in Relation to Storm Water Overflows', 1995 and any other guidance as may be specified by the Agency, and
- Identify whether any of the storm water overflows are to be decommissioned, and identify a date by which these overflows will cease, if applicable.

**Puckane Agglomeration has no stormwater overflows.**

#### C.1.2 Pumping Stations

For each pump station operating within the waste water works, provide details of the following:

- Number of duty and standby pumps at each pump station;
- The measures taken in the event of power failure;
- Details of storage capacity at each pump station;
- Frequency and duration of activation of emergency overflow to receiving waters. Clarify the location where such discharges enter the receiving waters.

**Puckane Agglomeration has 1 No. pumping station. This is located at the rear of Ballycraggan Housing Estate, Puckane at Grid Reference E183481 N186598. This pumping station is equipped with 2 No. submersible pumps which operate on a duty/standby basis. The pumping station is also equipped with an alarm system which sends out text messages to the caretaker's mobile phone in the event of a pump blockage or pump failure. As a result of the alarm system, emergency overflows are rare. The pumping station is equipped with an emergency overflow. This overflow enters an old, but large septic tank which originally served Ballycraggan Housing Estate at Grid Reference E183466 N186584. Any emergency overflow would enter the septic tank and the treated effluent from the septic tank would then enter the adjoining percolation area.**

**Attachment C.1** should contain supporting documentation with regard to the plant and process capacity, systems, storm water overflows, emergency overflows, etc.,

including flow diagrams of each with any relevant additional information. These drawings / maps should also be provided as geo-referenced digital drawing files (e.g. ESRI Shapefile, MapInfo Tab, AutoCAD or other upon agreement) in Irish National Grid Projection. This data should be provided to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, D.2, E.3 and F.2.

Attachment included	Yes	No
	√	



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## SECTION D: DISCHARGES TO THE AQUATIC ENVIRONMENT

*Advice on completing this section is provided in the accompanying Guidance Note.*

**Give particulars of the source, location, nature, composition, quantity, level and rate of discharges arising from the agglomeration and, where relevant, the period or periods during which such discharges are made or are to be made.**

**Details of all discharges of waste water from the agglomeration should be submitted via the following web based link: [http://78.137.160.73/epa\\_wwd\\_licensing/](http://78.137.160.73/epa_wwd_licensing/). The applicant should address in particular all discharge points where the substances outlined in Tables 'Emissions to Surface/Groundwaters and 'Dangerous Substances Emissions' are emitted**

**Where it is considered that any of the substances listed in Annex X of the Water Framework Directive (2000/60/EC) or any of the Relevant Pollutants listed in Annex VIII of the Water Framework Directive (2000/60/EC) are being discharged from the waste water works or are seen to be present in the receiving water environment downstream of a discharge from the works (as a result of any monitoring programme, e.g., under the Water Framework Directive Programme of Measures) the applicant shall screen the discharge for the relevant substance.**

### **D.1(i) Discharges to Surface Waters**

Details of all discharges of waste water from the agglomeration should be supplied via the following web based link: [http://78.137.160.73/epa\\_wwd\\_licensing/](http://78.137.160.73/epa_wwd_licensing/). Tables 'Discharge Point Details', 'Emissions to Surface/Groundwaters and 'Dangerous Substances Emissions', should be completed for the primary discharge point from the agglomeration and for **each** secondary discharge point, where relevant. Table 'Discharge Point Details' should be completed for **each** storm water overflow. Individual Tables must be completed for each discharge point.

**Puckane Agglomeration has only one discharge to surface waters. This is the Primary Discharge Point. The PDP discharges to surface water, the Killodiernan River at Grid Reference E183553 N187280.**

**Monitoring of the characteristics of the primary discharge point emission has been completed and the results are in Table D.1 (a), (b) and(c). No significant levels of Dangerous Substances were found.**

**Puckane Agglomeration has no secondary discharge point or stormwater overflow.**

**Please find an Excel Spreadsheet for influent plant data in Attachment D.1**

**Under the Urban Waste Water Treatment Regulations, regular testing of the influent wastewater of wastewater plants of the P.E. range of Puckane is not required, due to its small size. There was no monitoring for Puckane plant influent in 2008 or 2009, however samples were taken in 2005 and previous years.**

Where monitoring information is available for the influent to the waste water treatment plant this data should also be provided in response to Section D.1(i).

Supporting information should form **Attachment D.1(i)**

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	√	

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## D.1(ii) Discharges to Groundwater

Details of all discharges of waste water from the agglomeration should be supplied via the following web based link: [http://78.137.160.73/epa\\_wwd\\_licensing/](http://78.137.160.73/epa_wwd_licensing/). Tables 'Discharge Point Details', 'Emissions to Surface/Groundwaters and 'Dangerous Substances Emissions', should be completed for the primary discharge point from the agglomeration and for **each** secondary discharge point, where relevant. Table 'Discharge Point Details' should be completed for **each** storm water overflow. Individual Tables must be completed for each discharge point.

Where monitoring information is available for the influent to the waste water treatment plant this data should also be provided in response to Section D.1(ii).

**The emergency overflow from Ballycraggan pumping station discharges to groundwater via a septic tank and percolation system. The emergency overflow is not equipped with a flowmeter. Due to the alarm system in place at Ballycraggan, emergency overflows are rare. The large septic tank together with its large percolation area is capable of treating and dispersing any emergency overflows.**

Supporting information should form **Attachment D.1(ii)**

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	✓	

## D.2 Tabular Data on Discharge Points

Applicants should submit the following information for each discharge point:

**Table D.2:**

PT_CD	PT_TYPE	LA_NAME	RWB_TYPE	RWB_NAME	DESIGNATION	EASTING	NORTHING
Point Code Provide label ID's	Point Type (e.g., Primary/ Secondary/ Storm Water Overflow)	Local Authority Name (e.g., Donegal County Council)	Receiving Water Body Type (e.g., River, Lake, Groundwater, Transitional, Coastal)	Receiving Water Body Name (e.g., River Suir)	Protected Area Type (e.g., SAC, candidate SAC, NHA, SPA etc.)	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference
<b>PKPDP 1</b>	<b>Primary Discharge Point</b>	<b>North Tipperary County Council</b>	<b>River</b>	<b>Killodierna n Stream</b>	<b>None</b>	<b>183553</b>	<b>187285</b>
<b>PKBCE O1</b>	<b>Emergency Overflow</b>	<b>North Tipperary County Council</b>	<b>Groundwater</b>	<b>None</b>	<b>None</b>	<b>183466</b>	<b>186584</b>

An individual record (i.e. row) is required for each discharge point. Acceptable file formats include Excel, Access or other upon agreement with the Agency. A standard Excel template can be downloaded from the EPA website at [www.epa.ie](http://www.epa.ie). This data should be submitted to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, C.1, E.3 and F.2.

## SECTION E: MONITORING

*Advice on completing this section is provided in the accompanying Guidance Note.*

### **E.1 Waste Water Discharge Frequency and Quantities – Existing & Proposed**

Provide an estimation of the quantity of waste water likely to be emitted in relation to all primary and secondary discharge points applied for. This information should be included in Table 'Discharge Point Details' via the following web based link: [http://78.137.160.73/epa\\_wwd\\_licensing/](http://78.137.160.73/epa_wwd_licensing/).

#### **Puckane agglomeration has no secondary discharge points.**

Provide an estimation of the quantity of waste water likely to be emitted in relation to all storm water overflows within the agglomeration applied for. This information should be included in Table 'Discharge Point Details' via the following web based link: [http://78.137.160.73/epa\\_wwd\\_licensing/](http://78.137.160.73/epa_wwd_licensing/).

#### **Puckane Agglomeration has no stormwater overflows. It has one emergency overflow from Ballycraggan Pumping Station.**

**North Tipperary County Council has no clear estimation of the quantity of waste water likely to be emitted from this overflow as the overflow is not equipped with a flowmeter. The quantity involved is likely to be quite small as the emergency overflow rarely operates.**

#### **Puckane Agglomeration's Primary Discharge discharges into surface water (the Killodiernan Stream).**

#### **Puckane Agglomeration has no secondary discharge point.**

Indicate if composite sampling or continuous flow monitoring is in place on the primary or any other discharge points. Detail any plans and timescales for the provision of composite sampling and continuous flow monitoring.

**There is a continuous flow monitoring in place on the outlet works. This meter measures the volume of treated water discharged from the clarifier and subsequently to the Killodiernan Stream. Composite sampling is currently not in place. All samples taken are grab samples. Continuous flow monitoring is not in place on the Ballycraggan Pumping Station Emergency Overflow.**

**Composite sampling is not in place on the primary discharge point or the Ballycraggan Pumping Station Emergency Overflow. Any samples taken are grab samples. Under the Urban Waste Water Treatment Regulations, composite sampling of the final effluent of wastewater plants of the P.E. range of Puckane is not required, due to its small size.**

**It is the goal of North Tipperary County Council to install composite sampling at all its wastewater facilities in the medium to long term period.**

## **E.2. Monitoring and Sampling Points**

Programmes for environmental monitoring should be submitted as part of the application. These programmes should be provided as Attachment E.2.

**All the wastewater plants in North Tipperary including Puckane WWTP are monitored regularly in accordance with the Urban Waste Water Treatment Regulations. Regular testing of the influent wastewater of wastewater plants of the P.E. range of Puckane is not required, due to its small size.**

**In 2008 and 2009, final effluent samples were taken approximately every 3 months. Influent, upstream and downstream samples are not regularly monitored.**

**In 2008, 5 grab samples were taken of the final effluent; no grab samples were taken upstream or downstream of the primary discharge point. 3 No. grab samples were taken of the plant influent.**

**In 2009, 4 grab samples were taken of the final effluent to date, 1 grab samples were taken upstream of the primary discharge point and 1 grab samples were taken downstream.**

Reference should be made to, provision of sampling points and safe means of access, sampling methods, analytical and quality control procedures, including equipment calibration, equipment maintenance and data recording/reporting procedures to be carried out in order to ensure accurate and reliable monitoring.

**Four sampling points currently exist in the Puckane Agglomeration. They are:**

- **1 No. plant influent sampling point (located in the WWTP) Grid reference E183537 N187276.**
- **1 No. plant effluent sampling point (located in the WWTP). Grid Reference E183549 N187285.**
- **1 No. Upstream grab sample point located just upstream of the PDP at Grid Reference E183553 N187280.**
- **1 No. Downstream grab sample point is located about 50m downstream of the PDP at Grid Reference E183525 N187265.**

**These sample points are safe, with easy ease of access. These are grab sampling points only and a telescopic grab sampler is used to collect samples.**

**Portable composite samplers are not used for upstream & downstream sample points as the area is located in a rural area and there is a risk of theft or damage by wild or domestic animals.**

**The influent and effluent points are located in the plant and are safe with easy ease of access.**

**These sampling points are part of North Tipperary County Council's Annual Wastewater Monitoring Plan.**

**At present access to the Wastewater Treatment Plant is normally given only to Council Staff or Contractors employed by the Council. The EPA, Fisheries Board or any official agencies are also allowed access in order to fulfil their duties.**

**At present there have been no samples taken from the emergency overflow, the overflow is expected to have the same characteristics as the WWTP influent.**

**All sampling staff and the WWTP plant staff hold the Safe Pass Certificate.**

In determining the sampling programme to be carried out, the variability of the discharge and its effect on the receiving environment should be considered.

**Presently samples at Puckane Wastewater Plant are routinely taken once every 3 months. Samples are taken more often if plant staff require it, if there is an issue with plant effluent quality or for research purposes. The emergency overflow at the WWTP inlet works is expected to be very similar in content to the plant influent. The WWTP discharges final effluent 365 days a year.**

Details of any accreditation or certification of analysis should be included.

**Attachment E.2** should contain any supporting information.

**North Tipperary County Council's Water Laboratory successfully participates in:**

- **The EPA's Annual Inter-laboratory Calibration Programme for a total of 14 chemical parameters. It has done so for many years.**
- **The Aqua-Check Microbiological Test Programme for 5 microbiological parameters.**

**A sub-contracted Laboratory, ELS Ltd, which was used to carry out the dangerous substances testing, is INAB accredited to ISO17025.**

**The analysis of samples by North Tipperary County Council's Water Laboratory is carried out in accordance with the most up to date edition of "Standard Methods for the Examination of Water and Wastewater" produced by the American Public Health Association (APHA); the American Water Works Association (AWWA) and the Water Environment Federation (WEF).**

**North Tipperary County Council's Water Laboratory has an annual maintenance and calibration plan in place for laboratory test instruments. Test instruments undergo quality control checks before samples are analysed. This includes testing the equipment against known standards and the use of control charts.**

**All sampling and analytical staff at North Tipperary County Council's Water Laboratory are suitably qualified laboratory technicians.**

**North Tipperary County Council's Central Water Laboratory, Coolbawn, Nenagh, Co. Tipperary determines if the Puckane Wastewater Treatment Plant's final effluent is complying with the Urban Waste Water Treatment Regulations. Results of said sampling are available to Water Services staff through the "LabInfo" Database Software System provided by the Local Government Computer Services Board.**

**In the future this information will be available on the PMS Database Software System. This data will ultimately be available to the public and other stakeholders via an internet website.**

**When any effluent samples fail any Urban Waste Water Treatment Regulations criteria, the Engineer and Caretaker responsible for the plant are notified normally by telephone and/or e-mail.**

**An investigation into the non-conformance will take place and corrective action taken if needed.**

Attachment included	Yes	No
	√	

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### E.3. Tabular data on Monitoring and Sampling Points

Applicants should submit the following information for each monitoring and sampling point:

PT_CD	PT_TYPE	MON_TYPE	EASTING	NORTHING	VERIFIED
Point Code Provide label ID's assigned in section E of application	Point Type (e.g., Primary, Secondary, Storm Water Overflow)	Monitoring Type M = Monitoring S = Sampling	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference	Y = GPS used N = GPS not used
<b>SW1</b>	<b>Sampling Point for Primary Discharge Point</b>	<b>S</b>	<b>183553</b>	<b>187280</b>	<b>Y</b>
<b>PKESP1</b>	<b>Sampling Point for Final Effluent</b>	<b>M&amp;S</b>	<b>183549</b>	<b>187285</b>	<b>Y</b>
<b>PKIWSP</b>	<b>Sampling Point for plant influent</b>	<b>S</b>	<b>183537</b>	<b>187276</b>	<b>Y</b>
<b>aSW1u</b>	<b>Upstream sampling point</b>	<b>S</b>	<b>183560</b>	<b>187285</b>	<b>Y</b>
<b>aSW1d</b>	<b>Downstream Sampling Point</b>	<b>S</b>	<b>183525</b>	<b>187265</b>	<b>Y</b>

An individual record (i.e., row) is required for each monitoring and sampling point. Acceptable file formats include Excel, Access or other upon agreement with the Agency. A standard Excel template can be downloaded from the EPA website at [www.epa.ie](http://www.epa.ie). This data should be submitted to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, C.1, D.2 and F.2.

### E.4 Sampling Data

Regulation 24(i) of the Waste Water Discharge (Authorisation) Regulations 2007 requires all applicants in the case of an existing discharge to specify the sampling data pertaining to the discharge based on the samples taken in the 12 months preceding the making of the application.

**North Tipperary County Council has included all sampling data carried out for the 2008 and 2009.**

**North Tipperary County Council's Water Laboratory monitors, collects and analyses samples from Puckane WWTP as part of this Annual Wastewater Sampling Plan. It records all of the aforementioned analyses on Database Software Programme called "LabInfo". An Excel Spreadsheet for Puckane Upstream (aSW1u), Downstream (aSW1d), Influent (PKISP1) and Effluent (SW1) has been extracted from LabInfo and is included in Attachment E.4.**

**The routine sampling of the above sampling points usually analyses and records for the following parameters:**

**Influent and effluent**

<b><u>Parameter</u></b>	<b><u>Units</u></b>
Ammonia (N)	mg/L
Ammonium (NH <sub>4</sub> )	mg/L
Biological Oxygen Demand (BOD)	mg/L O <sub>2</sub>
Chemical Oxygen Demand (COD)	mg/L O <sub>2</sub>
Chloride	mg/L
Conductivity	µS/cm
Nitrates (NO <sub>3</sub> -N)	mg/L
Nitrites (NO <sub>2</sub> -N)	mg/L
Orthophosphate	mg/L
Orthophosphate as P	mg/L
pH	pH Units
Sulphate	mg/L
Suspended Solids	mg/L
Temperature	°C
Total Oxidised Nitrogen	mg/L
Total Phosphorus	mg/L

The same routine parameters are performed for upstream and downstream on the Killodiernan Stream.

In the LabInfo format, all samples are numbered (for traceability purposes) and the following information is included in each sample to identify it.

- Entity Name
- Station Name
- Station Local Code
- Sample Purpose
- Sample lab code
- Sample date
- Completion date
- Easting
- Northing

In 2009, additional parameters were performed on the effluent, upstream and downstream samples for the purpose of this Certificate Application together with normal routine parameter sampling. These parameters included:

<b><u>Parameter</u></b>	<b><u>Units</u></b>
Arsenic	µg/L
Atrazine	µg/L
Barium	µg/L
Boron	mg/L
Cadmium	µg/L
Chromium	µg/L
Conductivity	µS/cm
Copper	µg/L
Cyanide	µg/L
Dichloromethane	µg/L
Dissolved oxygen (Measurement)	mg/L
Fluoride	µg/L
Lead	µg/L
Mercury	µg/L
Nickel	µg/L

<b>Polycyclic Aromatic Hydrocarbons</b>	<b>µg/L</b>
<b>Phenols</b>	<b>µg/L</b>
<b>Selenium</b>	<b>µg/L</b>
<b>Simazine</b>	<b>µg/L</b>
<b>Toluene</b>	<b>µg/L</b>
<b>Total Nitrogen</b>	<b>mg/L</b>
<b>Tributyltin</b>	<b>µg/L</b>
<b>Xylenes</b>	<b>µg/L</b>
<b>Zinc.</b>	<b>µg/L</b>

**The results for the above sampling show no significant amounts of Dangerous Substances.**

**See Attachment E.4 for test result details.**

Regulation 24(m) requires applicants to give details of compliance with any applicable monitoring requirements and treatment standards.

**The final effluent quality parameters comply with the standards set out under the Urban Waste Water Treatment Directive Regulations.**

**A spreadsheet containing all effluent, upstream and downstream results for 2008 and 2009 is part of Attachment E.4**

**No influent samples have been taken since 2005. Results for 2008, 2005 and previous years are contained in an Excel Spreadsheet as part of Attachment E.4.**

**Attachment E.4** should contain any supporting information.

<b>Attachment included</b>	<b>Yes</b>	<b>No</b>
	√	

## **SECTION F: EXISTING ENVIRONMENT & IMPACT OF THE DISCHARGE(S)**

*Advice on completing this section is provided in the accompanying Guidance Note.*

Clear and concise information is required to enable the Agency to assess the existing receiving environment. This section requires the provision of information on the ambient environmental conditions within the receiving water(s) upstream and downstream of any discharge(s) and/or the ambient environmental conditions of the groundwater upgradient and downgradient of any discharges.

Where development is proposed to be carried out, being development which is of a class for the time being specified under Article 24 (First Schedule) of the Environmental Impact Assessment Regulations, the information on the state of the existing environment should be addressed in the EIS. **In such cases, it will suffice for the purposes of this section to provide adequate cross-references to the relevant sections in the EIS.**

**When Puckane WWTP was built in the 1980s, EIS regulations were not part of the planning procedure for wastewater treatment plants of the P.E. range of Puckane. Therefore no cross reference will be made to any relevant EIS.**

### **F.1. Impact on Receiving Surface water or Groundwater**

- Details of monitoring of the receiving surface water should be supplied via the following web based link: [http://78.137.160.73/epa\\_wwd\\_licensing/](http://78.137.160.73/epa_wwd_licensing/). Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details' should be completed for the primary discharge point. Surface water monitoring locations upstream and downstream of the discharge point shall be screened for those substances listed in Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details'. Monitoring of surface water shall be carried out at not less than two points, one upstream from the discharge location and one downstream.

**Currently one upstream monitoring point and one downstream monitoring point from the primary discharge point are used by North Tipperary County Council. The upstream monitoring point is located just above the PDP at Grid Reference E183560 N187285. The downstream monitoring point is located at Grid Reference E183525 N187265 about 50m downstream of the Primary Discharge Point. They are safe and easy to access.**

- Details of monitoring of the receiving ground water should be supplied via the following web based link: [http://78.137.160.73/epa\\_wwd\\_licensing/](http://78.137.160.73/epa_wwd_licensing/). Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details' should be completed for the primary discharge point. Ground water monitoring locations upgradient and down gradient of the discharge point shall be screened for those substances listed in Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details'. Monitoring of

ground water shall be carried out at not less than two points, one upgradient from the discharge location and one downgradient.

**The emergency overflow from Ballycraggan Pumping Station which is located at Grid Reference E183481 N186598 is discharged to a large now disused communal septic tank and large associated percolation area located at Grid Reference E183466 N186584. Through the percolation area, Puckane Agglomeration would discharge to groundwater. The volumes of wastewater involved would be very small.**

- For discharges from secondary discharge points Tables 'Monitoring Details', 'Monitoring Test Details', 'Dangerous Substances Monitoring Details' and 'Dangerous Substances Monitoring Test Details' should be completed.

**Puckane Agglomeration has no secondary discharge points.**

- Describe the existing environment in terms of water quality with particular reference to environmental quality standards or other legislative standards. Submit a copy of the most recent water quality management plan or catchment management plan in place for the receiving water body. Give details of any designation under any Council Directive or Regulations that apply in relation to the receiving surface or groundwater.

**The Killodiernan Stream is not designated as a Sensitive or Salmonid river.**

**Puckane WWTP discharges into the Killodiernan Stream. The final effluent quality of Puckane WWTP satisfies the standards set out under the Urban Waste Water Treatment Regulations.**

**The existing WWTP does not include phosphate reduction facilities.**

**It is the goal of North Tipperary County Council to install phosphate removal facilities at all its wastewater facilities in the medium to long term period.**

**Noise and odour emissions are regarded as being very minor.**

**Puckane Agglomeration does not impinge on any bathing areas on the Killodiernan Stream as the stream does not have any designated bathing, marina, slipway or pier facilities on its course to Lough Derg. Some angling takes place on Poulawee Lough.**

**Unfortunately there is no biological monitoring data or flow data for the Killodiernan Stream.**

**The Killodiernan Stream is not designated as a Nutrient Sensitive or Salmonid river.**

**The Killodiernan Stream ultimately flows into Lough Derg, which is regarded as being nutrient sensitive especially in regard to Phosphorus and Orthophosphate Levels. Lough Derg is also a European site.**

**The lake is important for fishing, boating, bathing and other water pastimes.**

**There are 5 Main Bathing/Marina/Pier/Slipway/Recreation areas in North Tipperary County Council's side of Lough Derg, downstream of the confluence of the Killodiernan Stream and Lough Derg. They are:**

- Dromineer
- Youghal Quay
- Garrykennedy

- Castlelough
- Ballina

All designated bathing areas in Lough Derg and the Lower Shannon Region are regularly monitored by the HSE to ensure the above areas are not contaminated by pathogenic bacteria (e.g. E.Coli) or protozoa in order to safeguard the public's health. During warm and sunny weather, North Tipperary County Council's Environment Section monitor these locations for the appearance of cyanobacteria in the form of "Blue-Green" Algal Blooms. These blooms may have an adverse effect on animal and human health if ingested and "No Swim" Notices are put in place if these blooms reach near the shoreline.

Clare Co. Council operate similar functions for its portion of Lough Derg to protect human health.

In the recent past Lough Derg suffered from the over-enrichment of its waters by nutrients especially Phosphorus, which resulted in accelerated growth of planktonic algae, cyanobacteria and higher forms of life such as pondweeds. This situation has improved in the last few years due to a number of factors such as Phosphorus removal at WWTPs, the presence of Zebra mussels, Agricultural Bye-Laws, pump-out facilities for boats cruising on the lake and Public Awareness.

There are no specific parts of Lough Derg designated for the protection of economically significant aquatic species. Lough Derg or the River Shannon is not designated a Salmonid River.

In July 2005, The EPA's Regional Water Laboratory, Kilkenny published a Report – "Water Quality in Lough Derg June 2005". This report examined

- The trophic status of the lake
- The identification of the main algal species present-including examinations for the presence of cyanobacteria
- A chemical and biological assessment of the general water quality of the lake.

Overall, the results of the survey indicate that in terms of trophic status, Lough Derg is at the higher end of the mesotrophic scale-bordering on moderately eutrophic-i.e. the Lake is of intermediate water clarity with slightly elevated levels of algal growth. The overall average Total P was 28µg/L.

4 representative samples were taken the lake for Volatile Organic Substances (VOCs). These were analysed for 51 VOCs. These parameters are listed below. All of the parameters were below the level of 0.5µg/L in Lough Derg.

- T-1,2- Dichloroethene
- 1,1- Dichloroethane
- c-1,2- Dichloroethene
- 2,2-Dichloropropane
- Bromochloromethane
- Chloroform
- 1,1,1-Trichloroethane
- 1,2-Dichloroethane
- 1,1-Dichloropropene
- Benzene
- Carbon Tetrachloride
- Trichloroethane
- 1,2-Dichloropropane
- Dibromomethane

- Bromodichloromethane
- c-1,3-Dichloropropene
- Toluene
- t-1,3-Dichloropropene
- 1,1,2-Trichloroethane
- 1,3-Dichloropropane
- Dibromochloromethane
- Tetrachloroethene
- 1,2-Dibromoethene
- Chlorobenzene
- 1,1,1,2-Tetrachloroethane
- Ethylbenzene
- M,p-Xylene
- Styrene
- O-xylene
- Bromoform
- 1,1,2,2-Tetrachloroethane
- Isopropylbenzene
- 1,2,3-Trichloropropane
- Bromobenzene
- 2-Chlorotoluene
- n-Propylbenzene
- 4-Chlorotoluene
- 1,3,5-Trimethylbenzene
- tert-Butylbenzene
- 1,2,4-Trimethylbenzene
- 1,2-Dichlorobenzene
- 1,4-Dichlorobenzene
- sec-Butylbenzene
- 4-Isopropyltoluene
- 1,3-Dichlorobenzene
- n-Butylbenzene
- 1,2-Dibromo-3-Chloropropane
- 1,2,4-Trichlorobenzene
- Naphthalene
- Hexachlorobutadiene
- 1,2,3-Trichlorobenzene

**Biological Quality Ratings (Q Status) were not available from the EPA for the Lower Shannon Region, however an estimate of Q3-4 would be a reasonable assumption.**

- Provide a statement as to whether or not emissions of main polluting substances (as defined in the *Dangerous Substances Regulations S.I. No. 12 of 2001*) to water are likely to impair the environment.

**The main polluting substances from Puckane Waste Water Treatment Plant are the normal Ammonia, Nitrates, Phosphates, Suspended Solids, Biological Oxygen Demand and Chemical Oxygen Demand that one would expect from a residential village like Puckane which has no heavy or chemical industries. Test results from samples taken at the primary discharge point have shown no significant levels of Dangerous Substances as defined in the Regulations.**

- In circumstances where drinking water abstraction points exist downstream/down gradient of any discharge describe measures to be undertaken to ensure that discharges from the waste water works will not have a significant effect on faecal coliform, salmonella and protozoan pathogen numbers, e.g., Cryptosporidium and Giardia, in the receiving water environment.

**Puckane WWTP discharges to the Killodiernan Stream which travels through Poulawee Lough on its journey to Lough Derg.**

**Limerick City Council abstracts water from the River Shannon at Clareville, Co. Limerick for the purposes of treating and supplying drinking water to Limerick City and its hinterland. The Water Supply Plant at Clareville, Co. Limerick uses advanced water treatment facilities to treat water to the standards set out under the Drinking Water Directive. This water treatment plant is located over 20 km downstream of the confluence of the Killodiernan Stream with Lough Derg.**

**This plant has never had an issue with significant numbers of pathogenic microorganism such as faecal coliforms, salmonella or protozoan pathogens such as Cryptosporidium and Giardia in the raw water abstracted from the River Shannon.**

**It is extremely unlikely that Puckane Agglomeration has or will have a significant effect on faecal coliform, salmonella or cryptosporidium in the receiving water environment due to the dilution factors of The Killodiernan Stream, Poulawee Lough and Lough Derg.**

**At present Puckane WWTP does not have facilities such as chlorination, UV Disinfection or membrane filtration of the final effluent to reduce or kill coliforms, salmonella or protozoan pathogens. However the general good performance of the WWTP and sewer network is likely to reduce the number of pathogenic microorganisms entering the receiving water environment.**

- Indicate whether or not emissions from the agglomeration or any plant, methods, processes, operating procedures or other factors which affect such emissions are likely to have a significant effect on –
  - (a) a site (until the adoption, in respect of the site, of a decision by the European Commission under Article 21 of Council Directive 92/43/EEC for the purposes of the third paragraph of Article 4(2) of that Directive) –
    - (i) notified for the purposes of Regulation 4 of the Natural Habitats Regulations, subject to any amendments made to it by virtue of Regulation 5 of those Regulations,
    - (ii) details of which have been transmitted to the Commission in accordance with Regulation 5(4) of the Natural Habitats Regulations, or
    - (iii) added by virtue of Regulation 6 of the Natural Habitats Regulations to the list transmitted to the Commission in accordance with Regulation 5(4) of those Regulations,
  - (b) a site adopted by the European Commission as a site of Community importance for the purposes of Article 4(2) of Council Directive

92/43/EEC<sup>1</sup> in accordance with the procedures laid down in Article 21 of that Directive,

- (c) a special area of conservation within the meaning of the Natural Habitats Regulations, or
- (d) an area classified pursuant to Article 4(1) or 4(2) of Council Directive 79/409/EEC<sup>2</sup>;

<sup>1</sup>Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora (OJ No. L 206, 22.07.1992)

<sup>2</sup>Council Directive 79/409/EEC of 2 April 1979 on the conservation of wild birds (OJ No. L 103, 25.4.1979)

**The Killodiernan Stream at Puckane is not designated as a Nutrient Sensitive River. It is not designated as a Salmonid river. It is not designated as a SAC or any other European Site.**

**North Tipperary County Council operates Puckane Agglomeration in a way that does not contravene the above regulations and directives.**

- o This section should also contain details of any modelling of discharges from the agglomeration. Any other relevant information on the receiving environment should be submitted as **Attachment F.1.**

**There has been no modelling of discharges from the agglomeration.**

Attachment included	Yes	No

## F.2 Tabular Data on Drinking Water Abstraction Point(s)

Applicants should submit the following information for each downstream or downgradient drinking water abstraction point. The zone of contribution for the abstraction point should be delineated and any potential risks from the waste water discharge to the water quality at that abstraction point identified.

ABS_CD	AGG_SERVED	ABS_VOL	PT_CD	DIS_DS	EASTING	NORTHING	VERIFIED
Abstraction Code	Agglomeration served	Abstraction Volume in m <sup>3</sup> /day	Point Code Provide label ID's	Distance Downstream in meters from Emission Point to Abstraction Point	6E-digit GPS Irish National Grid Reference	6N-digit GPS Irish National Grid Reference	Y = GPS used N = GPS not used

**Note:** Attach any risk assessment that may have been carried out in relation to the abstraction point(s) listed.

An individual record (i.e. row) is required for each abstraction point. Acceptable file formats include Excel, Access or other upon agreement with the Agency. A standard Excel template can be downloaded from the EPA website at [www.epa.ie](http://www.epa.ie). This data should be submitted to the Agency on a separate CD-Rom containing sections B.1, B.2, B.3, B.4, B.5, C.1, D.2 and E.3.

**At present there is a drinking water abstraction point from the River Shannon downstream of Puckane Agglomeration. This abstraction point is located at Clareville, Co. Limerick. This scheme abstracts water from the Shannon and treats the water to drinking water standards. The Water Supply Plant at Clareville supplies water to Limerick city and surrounding areas. Puckane Agglomeration, due to its small size and excellent quality effluent, and the dilution factor of the Killodiernan Stream, Johnstown Lake and Lough Derg, and the distance from Puckane to the abstraction point (over 20km) is not expected to adversely affect the River Shannon in terms of water abstraction for drinking water purposes.**

**Attachment F.2** should contain any supporting information.

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## SECTION G: PROGRAMMES OF IMPROVEMENTS

*Advice on completing this section is provided in the accompanying Guidance Note.*

### G.1 Compliance with Council Directives

Provide details on a programme of improvements to ensure that emissions from the agglomeration or any premises, plant, methods, processes, operating procedures or other factors which affect such emissions will comply with, or will not result in the contravention of the;

- Dangerous Substances Directive 2006/11/EC,
- Water Framework Directive 2000/60/EC,
- Birds Directive 79/409/EEC,
- Groundwater Directives 80/68/EEC & 2006/118/EC,
- Drinking Water Directives 80/778/EEC,
- Urban Waste Water Treatment Directive 91/271/EEC,
- Habitats Directive 92/43/EEC,
- Environmental Liabilities Directive 2004/35/EC,
- Bathing Water Directive 76/160/EEC, and
- Shellfish Waters Directive (2006/113/EC).

**North Tipperary County Council complies with all of the above Council Directives.**

**Attachment G.1** should contain the most recent programme of improvements, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

Attachment included	Yes	No
		✓

### G.2 Compliance with Water Quality Standards for Phosphorus Regulations (S.I. No. 258 of 1998)

Provide details on a programme of improvements, including any water quality management plans or catchment management plans in place, to ensure that improvements of water quality required under the Water Quality Standards for Phosphorous Regulations (S.I. No. 258 of 1998) are being achieved. Provide details of any specific measures adopted for waste water works specified in Phosphorus Measures Implementation reports and the progress to date of those measures. Provide details highlighting any waste water works that have been identified as the principal sources of pollution under the P regulations.

**Under the Phosphorus Fourth implementation Report 2006 produced by North Tipperary County Council – Under Measure 1, North Tipperary County Council has undertaken to establish chemical Phosphate Removal Facilities in all new wastewater or significantly upgraded wastewater plants. Another recommendation was that all new or upgraded plants would have the appropriate composite samplers and flowmeters.**

**It is the policy of North Tipperary County Council to install phosphorus removal facilities and appropriate flowmeters and composite samplers in the medium to long term in all its wastewater treatment plants.**

**Under Measure 4 – Catchment Management Groups.**

**North Tipperary County Council is currently involved on the operational Management committee of the Shannon International River Basin District and the South Eastern River Basin District. These two catchments cover the entire county. Puckane is located in the Shannon International River Basin District.**

**The establishment of local river management/stakeholder teams for each river in the Agricultural Bye-law area is under consideration. The success of achieving good water quality in the Agricultural Bye-law area of North Tipperary relies on close co-operation and coherent action at local level.**

***Future plans/new directions under Measure 4:***

- 1. The council will continue to work closely with other authorities and RBD management committees to achieve good water quality.**
- 2. The recommendations of the catchment projects in regard to all municipal, agricultural and industrial discharges will be implemented in accordance with the final report received.**
- 3. A rationalisation of river monitoring stations is to be carried out.**

**Under Measure 7 – Environmental Awareness.**

**North Tipperary County Council appointed an Environmental Awareness Officer in May 2000. The Environment awareness officer informs and advises the public and local authority staff on issues relating to protection of the Environment including water quality and promoting the use of phosphate-free detergent.**

**The Councils Environment Section prepares a quarterly report for presentation to the Council. The Council's Planning Environment and Corporate Affairs SPC considers current environmental issues at its meetings.**

**The River Basin Districts have provided public information on the Water Framework Directive which is being disseminated by the Council**

**Future plans/new directions under Measure 7:**

**North Tipperary County Council will fully cooperate with the publicity campaigns of the River Basin District Management Systems.**

**The Environmental Awareness Officer will also actively promote water quality as part of the education programmes for schools.**

**North Tipperary County Council will continue to sponsor water quality awareness projects through the Environmental Partnership Fund, and also continue assisting with REPS courses for farmers.**

**The Killodiernan Stream is not a designated Salmonid River under the EU Freshwater Fish Directive.**

**Puckane Agglomeration discharges to the Killodiernan Stream. The Killodiernan and its tributaries are part of the Shannon International River Basin District (SIRBD). The SIRBD has established a management structure with the objective of achieving "Good Status" for waters in the catchment by 2015. North Tipperary County Council is an active participant in the Shannon Working Group. The SIRBD is based in Annacotty, Co. Limerick.**

**Attachment G.2** should contain the most recent programme of improvements and any associated documentation requested under Section G.3 of the application.

Attachment included	Yes	No
		√

### **G.3 Impact Mitigation**

Provide details on a programme of improvements to ensure that discharges from the agglomeration will not result in significant environmental pollution.

**Attachment G.3** should contain the most recent programme of improvements, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

Attachment included	Yes	No
		√

### **G.4 Storm Water Overflows**

Provide details on a programme of improvements to ensure that discharges other than the primary and secondary discharges comply with the definition of 'storm water overflow' as per Regulation 3 of the Waste Water Discharge (Authorisation) Regulations, 2007.

**Puckane Agglomeration has no stormwater overflow. It has one emergency overflow attached to the Ballycraggan Pumping Station. This overflow only operates during emergency events.**

**Attachment G.4** should contain the most recent programme of improvements, including a copy of any approved funding for the project and a timeframe for the completion of the necessary works to take place.

Attachment included	Yes	No
		√

## SECTION H: DECLARATION

### Declaration

I hereby make application for a waste water discharge Certificate of Authorisation/revised Certificate of Authorisation, pursuant to the provisions of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007).

I certify that the information given in this application is truthful, accurate and complete.

I give consent to the EPA to copy this application for its own use and to make it available for inspection and copying by the public, both in the form of paper files available for inspection at EPA and local authority offices, and via the EPA's website.

This consent relates to this application itself and to any further information or submission, whether provided by me as Applicant, any person acting on the Applicant's behalf, or any other person.

**Signed by :** \_\_\_\_\_ **Date :** \_\_\_\_\_  
(on behalf of the organisation)

**Print signature name:** Marcus O'Connor, B.E.

**Position in organisation:** Director of Services

**SECTION I: JOINT DECLARATION**

**Joint Declaration** Note1

I hereby make application for a waste water discharge Certificate of Authorisation /revised Certificate of Authorisation, pursuant to the provisions of the Waste Water Discharge (Authorisation) Regulations, 2007 (S.I. No. 684 of 2007).

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I give consent to the EPA to copy this application for its own use and to make it available for inspection and copying by the public, both in the form of paper files available for inspection at EPA and local authority offices, and via the EPA's website.

This consent relates to this application itself and to any further information or submission whether provided by me as Applicant, any person acting on the Applicant's behalf, or any other person.

**This Section is Not Applicable to Puckane Agglomeration.  
North Tipperary County Council is the sole Water Services Authority for Puckane Agglomeration.**

**Lead Authority**

**Signed by :** \_\_\_\_\_ **Date :** \_\_\_\_\_  
*(on behalf of the organisation)*

**Print signature name:** \_\_\_\_\_

**Position in organisation:** \_\_\_\_\_

**Co-Applicants**

**Signed by :** \_\_\_\_\_ **Date :** \_\_\_\_\_  
*(on behalf of the organisation)*

**Print signature name:** \_\_\_\_\_

**Position in organisation:** \_\_\_\_\_

**Signed by :** \_\_\_\_\_ **Date :** \_\_\_\_\_  
*(on behalf of the organisation)*

**Print signature name:** \_\_\_\_\_

**Position in organisation:** \_\_\_\_\_

**Note 1:** In the case of an application being lodged on behalf of more than a single Water Services Authority the following declaration must be signed by all applicants.