

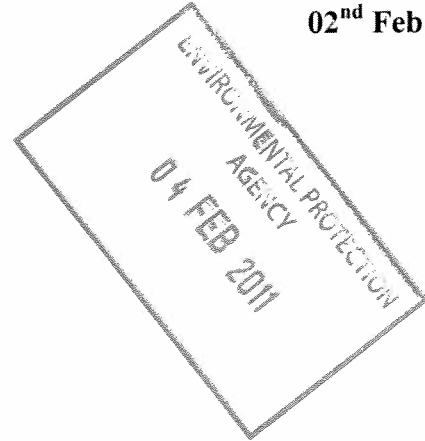
**Meath County Council**  
**Environment & Water Services,**  
**Units 41-42, Navan Enterprise Centre,**  
**Trim Road, Navan, Co. Meath**  
**Tel: 046 - 9067455**



**Meath County Council**  
**Environment & Water Services,**  
**Units 41-42, Navan Enterprise Centre,**  
**Trim Road, Navan, Co. Meath**  
**Fax: 046 - 9067454**

**Environment & Water Services**  
**Our ref:GC/JW**  
**02<sup>nd</sup> February 2011**

**Environmental Protection Agency – Headquarters,**  
**Administration, Environmental Licensing Programme,**  
**Office of Climate, Licensing & Resource Use,**  
**P.O. Box 3000,**  
**Johnstown Castle Estate,**  
**Co Wexford**



**Re: Waste Water Discharge (Authorisation) Regulations 2007**  
**Ardcath Agglomeration A0017-01**  
**Ballinabrackey Agglomeration A0062-01**  
**Carnaross Agglomeration A0043-01**  
**Dunderry Agglomeration A0019-01**  
**Skreen Agglomeration A0055-01**

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Dear Sir/ Madam,

Please find enclosed two copies (one original and one copy) of the response letters and non-technical summaries plus one CDs for each of the above agglomerations.

If you have any queries or comments, please do not hesitate to contact this office.

Yours sincerely,

**Geraldine A. Cusack**  
**Executive Engineer**  
**Encls**



4654/101/YMcM/002

25<sup>th</sup> January 2011

Ms. Kate Stafford,  
Environmental Protection Agency – Headquarters,  
Administration, Environmental Licensing Programme,  
Office of Climate, Licensing & Resource Use,  
P.O. Box 3000,  
Johnstown Castle Estate,  
**Co Wexford.**

Re: **Notice in accordance with Regulation 25(c)(ii) of the Waste Water Discharge (Authorisation) Regulations 2007**  
**Ardcath Agglomeration A0017-01**

Dear Ms. Stafford,

Please find below the clarification as requested under your previous correspondence of 28<sup>th</sup> October 2010.  
**REGULATION 24 COMPLIANCE REQUIREMENTS**

***Query No.1. Confirm the design capacity of the waste water treatment plant and the current population equivalent (p.e.) being treated at the plant. Please confirm that the current p.e. included the maximum average weekly loading for the agglomeration having taken account of local festivals, peak holiday seasons, etc.***

Ardcath A0017-01

	Design Population Equivalent	Current Population Equivalent
Ardcath Agglomeration	60	49

The Ardcath waste water treatment plant caters for domestic dwellings only therefore would not be subject to additional loads associated with local festivals and peak holiday seasons, however the population is based on maximum house capacity.

Please find attached the revised non-technical summary.

If you have any queries or comments, please do not hesitate to contact this office.

Yours sincerely,

A handwritten signature in black ink, reading "Yvonne McMonagle", is written over a horizontal line.

**Yvonne McMonagle**  
**For: Jennings O'Donovan & Partners**

**Encl. /**

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## SECTION A: NON-TECHNICAL SUMMARY

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*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**

### Background

Ardcath is located in County Meath, approximately 10km south of Drogheda. The village is accessed via the R152 linking Drogheda to the N2.

Ardcath has approximately 50 houses of which 18 are served by a short foul sewer network that discharges into a wastewater treatment system.

### Sewer Network

The sewer system is a separate system and sewerage is being collected at the back of the houses in the estate. The main foul sewer line is a 100mm diameter PVC pipe which is considered sufficient to convey foul flows to the treatment system.

There is no storm overflow within the sewerage infrastructures in Ardcath.

### Existing Waste Water Treatment Works

The existing treatment system built in 1980 is located adjacent to the housing estate. It is closed off by a 1.8m high palisade fence.

It is estimated that the treatment system is designed on the basis of a population equivalent of approximately 60 p.e with the design parameters detailed as follows:

	Design	Current
Population Equivalent (p.e.)	60	49
Total BOD5	3.6 kg/d	2.9kg/d
Total Suspended Solids	4.2 kg/d	3.4kg/d



Total Dry Weather Flow	13.5 m <sup>3</sup> /day	11m <sup>3</sup> /d
Total peak design flow to be treated (3DWF)	1.57 m <sup>3</sup> /h	1.4m <sup>3</sup> /h

A search of planning applications for the 2008 and 2009 revealed that there is no approved planning application proposing to connect to this sewerage scheme. Therefore there is no figure allocated for pending development.

For the purpose of this application Meath County Council estimate an increase in population be 6 p.e. therefore the figure allocated for projected development is 6 p.e.

The findings of the house count and short survey carried out as part of this application results in domestic population equivalent of 49 and there is no non-domestic users connecting to the treatment plant.

Meath County Council carried out a flow and load survey for a 14 day period. The results of this survey indicate an average flow of 16.97m<sup>3</sup>/day. This equates to a population equivalent of 75 (225 l/h/day). It is envisaged that the additional flow relates to storm water flow and infiltration.

As mentioned above the design capacity of the Ardcath waste water treatment plant is 60. The findings of the house count survey indicate the waste water treatment plant is currently operation under capacity with a spare capacity 11 p.e.

The Ardcath wastewater treatment plant is capable of treating additional hydraulic or organic load within the design capacity without posing an environmental risk to the receiving water the Duleek Groundwater body.

The treated effluent standards have to comply with the current Urban Wastewater Treatment Regulations, 2001 (S.I. No. 254 of 2001) which gives further effect to EU Council Directives 91/271/EEC, 200/60/EC and 98/15/EC.

The Regulations require agglomerations with a P.E. of less than 2,000 p.e, which discharge to freshwater or estuaries to have "appropriate treatment". Appropriate treatment is defined in the Regulations as "treatment of urban wastewater by any process and/or disposal system which after discharge allows the receiving waters to meet the relevant quality objectives and relevant provisions of the Directive and of other Community Directives".

The Duleek ground water body is in the **Eastern River Basin District** and has an Overall Risk Category under the Water Frame Work Directive of **2a, Water Body probably not at significant risk.**

The overall status of the Duleek groundwater body is "Good Status" and the overall objective is to "protect" the water body.

A detailed description of the treatment plant is summarised below :

### **Preliminary Treatment**

Preliminary treatment is achieved via a conventional septic tank system. The septic tank functions as a primary sedimentation tank, removing most of the suspended solids, fat and grease from the wastewater; this removal is accompanied by a limited amount of anaerobic digestion (reduction in BOD and NH<sub>4</sub>).

The septic tank serving the housing estate in Ardcath is approximately 17m<sup>2</sup> in area. Its estimated depth is 2.5 metres approx.

### **Pump Station**

Pre-treated water then flows to a small pump sump equipped with a single submersible pump.

### **Percolation area / Secondary Treatment**

The pump discharges into a roofed percolation system using peat as filtering media. It is in the percolation area that the wastewater undergoes secondary treatment and is purified. The pumped wastewater is distributed to the percolation area, which acts as a bio-filter. As the wastewater flows into and through the media (peat in this case), it undergoes surface filtration, straining, physico-chemical interactions and microbial breakdown.

The percolation system is 170m<sup>2</sup> and its estimated depth is 1 metre. Below the main filtering media, there is a layer of sand on a bed of crushed stone.

### **Treated Effluent**

The treated effluent percolates into the filtering media, the underlying sand and crushed stone and then reaches the sub soil. There is no discharge to freshwater.

### **Control system**

The plant is equipped with a control kiosk for the pumping system. In case of pump failure, a radio signal is sent directly to the caretaker.

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