

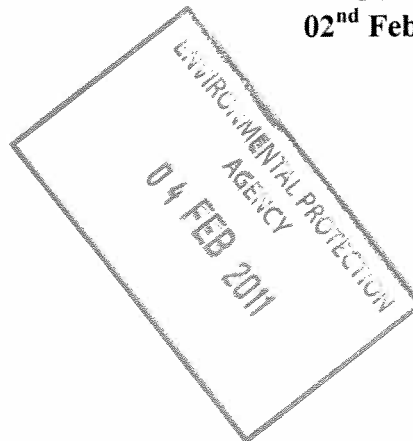
**Meath County Council**  
**Environment & Water Services,**  
**Units 41-42, Navan Enterprise Centre,**  
**Trim Road, Navan, Co. Meath**  
**Tel: 046 - 9067455**



**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**  
**Ballinabrackey Agglomeration A0062-01**

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 holidays seasons, etc.***

Ballinabrackey A0062-01

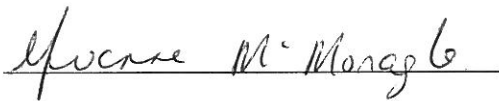
	Design Population Equivalent	Current Population Equivalent
Ballinabrackey Agglomeration	60	27

The Ballinabrackey 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 summaries.

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", 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**

Ballinabrackey is located in County Meath, approximately 5km south of Kinnegad. The village is accessed from Kinnegad via a local road crossing over the M4 and M6 motorways.

Ballinabrackey has less than 50 houses of which 10 are served by a short foul sewer network that discharges into a wastewater treatment system.

### **Sewer Network**

The sewer system is separated and sewerage is being collected at the back of the houses. Two separate sewers discharge into a single inlet manhole. The first section serves 8 houses and the second section serves the remaining two houses. The two main foul sewer lines are 100mm in diameter (apart for the last section on the longest line which is 150mm in diameter). This is considered sufficient to convey foul flows to the treatment system.

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

### **Existing Waste Water Treatment Works**

The existing treatment system (PURAFLU built in 1990) 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	27
Total BOD5	3.6 kg/d	1.62kg/d
Total Suspended Solids	4.2 kg/d	1.9kg/d
Total Dry Weather Flow	13.5 m3/day	6m3/d
Total peak design flow to be treated (3DWF)	1.57 m3/h	0.75m3/h

The findings of the house count which results in population equivalent of 27. The treatment plant was designed to cater for 60 p.e. which equated to a spare capacity of 33 p.e.

A search using Meath County Council planning web site for 2008 and 2009 indicated that there is no approved planning applications proposing to connect to the treatment plant. Therefore no figure is allocated to pending development.

For the purpose of this application Meath County Council included a population equivalent of 6 for projected p.e.

Meath County Council carried out a flow and load survey for a 14 day period. The results of this flow and load indicate an average flow of 13.4m<sup>3</sup>/day. This equates to a population equivalent of 60 (225 l/h/day). It is envisaged that the additional flow relates to storm water flow and infiltration.

Based on the findings of the house count survey the Ballinabrackey waste water treatment plant is currently operating under capacity. The WWTP can cater for additional hydraulic and organic load within the design capacity without posing an environmental risk to receiving water – a tributary of the Castlejordan River.

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 Local Government (Water Pollution) Act, 1977 (Water Quality Phosphorus) regulations, 1998 (S.I 258/1998) implements in part **EU Directive 76/464/EEC on pollution caused by substances discharged into the aquatic environment.** The regulations require that water quality has to be maintained or improved by reference to the Biological Quality (Q) Rating assigned by the EPA in 1997.

Sampling carried out by Meath County Council at the downstream monitoring point between 2007-2009 indicate the levels of BOD, Dissolved Oxygen and MPR are within the recommended limits for Q4 value.

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 area serving the housing estate in Ballinabrackey is approximately 9m<sup>2</sup>. Its estimated depth is 2.5 meters 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 75m<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 sand and the crushed stone and then reaches the sub soil. Part of the treated water does not infiltrate into the sub soil and discharges into a tributary of the Castle Jordan River located along the eastern boundary of the site.

### **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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