

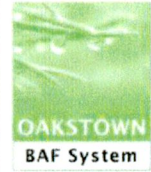
**Margaret Corrigan  
Hazelhatch Road  
Newcastle  
Co. Dublin**

O'Reilly **Oakstown** Environmental



Oakstown, Trim  
 Co. Meath  
 Tel: 046 - 943 - 1389  
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 V.A.T Reg. No.: IE 6401624D  
 Company Reg. No.: 381624



**Date:** 23<sup>rd</sup> October 2019

**Applicant Name:** Margaret Corrigan

**Site Address:** Hazelhatch Road, Newcastle, Co. Dublin

**Design Capacity:** Maximum number of residents: 06  
 No. of single bedrooms: 00  
 No. of double bedrooms: 04

A representative of *O'Reilly Oakstown Ltd* has assessed the Soil Test Report and confirms the suitability of their Oakstown BAF 6 PE Wastewater Treatment System to treat effluent being discharged from the above proposed dwelling based on the residential demands submitted to us above.

**1. Waste Water Treatment System Design Details:**

**- Maximum Capacity Design Loadings:**

Max No. of users	Flow Litres/day/person	Total Hydraulic Load	BOD5 (grams/day/person)	Total Organic Loading (grams/day)
6	150	900 litres	60	360

**- Maximum Daily Design Loadings as per client:**

Total Organic Loading	0.36kg BOD/day
Total Hydraulic loading	0.9m <sup>3</sup> /day

**- Average treated effluent standard** - see performance results on EN-12566-3 certification attached

BOD	8mg/litre
TSS	12mg/litre
Ammonia	13mg/litre

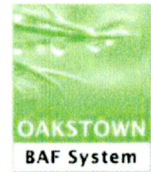
**- Proposed system details:** ► Oakstown BAF 6 P.E.

Volume of Total Plant	6.7m <sup>3</sup>
Volume of Primary Sedimentation Chambers	2.86m <sup>3</sup>
Volume of Secondary Aeration Chamber	1.2m <sup>3</sup>
Volume of Biomeia	0.8m <sup>3</sup>



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## 2. Wastewater Treatment system description:

The Oakstown BAF 6 PE is designed to provide proven, cost effective primary and secondary wastewater treatment in robust steel reinforced concrete tanks.

The primary sedimentation chamber has a 2.2m<sup>3</sup> capacity to allow anaerobic digestion to occur naturally while letting sludge settle on the tank floor.

Once primary treatment has taken place the effluent is further degraded in the aeration chamber where oxygen enriched wastewater provides ideal conditions for aerobic bacteria to thrive.

Before pumping to the percolation area the clear water is left to further settle in the clarifier chamber to eliminate any remaining settle able solids.

## 3. Guarantee and warranties:

O'Reilly Oakstown provide a 12 month maintenance service contract on all systems from date of first occupation. We provide a 24 month warranty on all parts.

## 4. Percolation:

The percolation area designed must conform to the requirements of Chapters 8 & 10, Table 8.2 and / or Table 10.4 of the EPA Code of Practice 2009 Wastewater Treatment and Disposal System serving single houses.

### The percolation area requirements are as follows:

Groundwater Protection Response: R1.

T-value: 23.64 as per Site Characterisation Form.

P-value: 25.06 as per Site Characterisation Form.

Depth from ground surface to water table: None Encountered BGL.

Depth from ground surface to bed rock: 0.9m

Depth from ground surface to mottling: None Encountered BGL.

*Tertiary Treatment is achieved through a sand polishing filter sized: 15m<sup>2</sup>.*

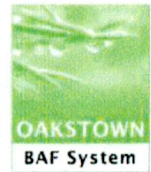
*Area recommended for disposal of treated wastewater from sand polishing filter: 50m<sup>2</sup>.*

► See Site Characterisation report for percolation area details.

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## 5. Client Responsibilities unless included in our quotation:

- Excavation and backfill.
- Construction of the percolation / polishing filter as recommended by the site engineer on the Site Characterisation report and/or drawing.
- Provision of access for delivery by hi-ab truck to within 3 metres of the excavation.
- Provision of a power ducting from the tanks to the house/garage.
- Mounting and connection of control panel to mains power in the house/garage.

## 6. Operation and Maintenance:

The client is responsible for the operation and maintenance of the wastewater treatment system in accordance with the owner's manual supplied by O'Reilly Oakstown.

Please do not hesitate to contact us if there are any further queries.

Yours sincerely,

*Paula Murphy*

# SITE CHARACTERISATION FORM

File Reference:

## 1.0 GENERAL DETAILS (From planning application)

Prefix:  First Name:  Surname:

Address:

Site Location and Townland:

Telephone No:  Fax No:

E-Mail:

Maximum no. of Residents:  No. of Double Bedrooms:  No. of Single Bedrooms:

Proposed Water Supply: Mains  Private Well/Borehole  Group Well/Borehole

## 2.0 GENERAL DETAILS (From planning application)

Soil Type, (Specify Type):

Aquifer Category: Regionally Important  Locally Important  Poor

Vulnerability: Extreme  High  Moderate  Low  High to Low  Unknown

Bedrock Type:

Name of Public/Group Scheme Water Supply within 1 km:

Groundwater Protection Scheme (Y/N):  Source Protection Area: SI  SO

Groundwater Protection Response:

Presence of Significant Sites (Archaeological, Natural & Historical):

Past experience in the area:

Comments:

(Integrate the information above in order to comment on: the potential suitability of the site, potential targets at risk, and/or any potential site restrictions).

Note: Only information available at the desk study stage should be used in this section.

### 3.0 ON-SITE ASSESSMENT

#### 3.1 Visual Assessment

Landscape Position:

Slope: Steep (>1:5)  Shallow (1:5-1:20)  Relatively Flat (<1:20)

Surface Features within a minimum of 250m (Distance To Features Should Be Noted In Metres)

Houses:

Existing Land Use:

Vegetation Indicators:

Groundwater Flow Direction:

Ground Condition:

Site Boundaries:  Roads:

Outcrops (Bedrock And/Or Subsoil):

Surface Water Ponding:  Lakes:

Beaches/Shellfish:  Areas/Wetlands:

Karst Features:  Watercourse/Stream\*:

Drainage Ditches\*:  Springs / Wells\*:

#### Comments:

(Integrate the information above in order to comment on: the potential suitability of the site, potential targets at risk, the suitability of the site to treat the wastewater and the location of the proposed system within the site).

Ground conditions are dry despite very heavy rainfall in previous days.  
There is an existing septic tank tha is operating from a visual inspection suggesting there is good soakage

\*Note and record water level

**3.2 Trial Hole** (should be a minimum of 2.1m deep (3m for regionally important aquifers))

To avoid any accidental damage, a trial hole assessment or percolation tests should not be undertaken in areas, which are at or adjacent to significant sites (e.g. NHAs, SACs, SPAs, and/or Archaeological etc.), without prior advice from National Parks and Wildlife Service or the Heritage Service.

Depth of trial hole (m):

Depth from ground surface to bedrock (m) (if present):

Depth from ground surface to water table (m) (if present):

Depth of water ingress:

Rock type (if present):

Date and time of excavation:

Date and time of examination:

Depth of P/T Test*	Soil/Subsoil Texture & Classification**	Plasticity and dilatancy***	Soil Structure	Density/ Compactness	Colour****	Preferential flowpaths
0.1 m	<input type="text" value="P"/> Top soil - loam	dilatant	Crumb	Firm	Black	Rootlets Roots of trees
0.2 m	<input type="text" value="P"/>					
0.3 m	<input type="text" value="P,"/> CLAY	Poorly Dilatant	Blocky	Firm	Brown	
0.4 m	<input type="text" value="P,T1,3"/>	Trds = 11,9,11				None
0.5 m	<input type="text" value="T1-3"/>	Ribs = 110,110,110				
0.6 m	<input type="text" value="T1-3"/>					
0.7 m	<input type="text" value="T1-3"/>					
0.8 m	<input type="text" value="T2"/>					
0.9 m	<input type="text"/>					
1.0 m	<input type="text"/> Rock and Base of trench					
1.1 m	<input type="text"/>					
1.2 m	<input type="text"/>					
1.3 m	<input type="text"/>					
1.4 m	<input type="text"/>					
1.5 m	<input type="text"/>					
1.6 m	<input type="text"/>					
1.7 m	<input type="text"/>					
1.8 m	<input type="text"/>					
1.9 m	<input type="text"/>					
2.0 m	<input type="text"/>					
2.1 m	<input type="text"/>					
2.2 m	<input type="text"/>					
2.3 m	<input type="text"/>					
2.4 m	<input type="text"/>					
2.5 m	<input type="text"/>					
2.6 m	<input type="text"/>					
2.7 m	<input type="text"/>					
2.8 m	<input type="text"/>					
2.9 m	<input type="text"/>					
3.0 m	<input type="text"/>					

Evaluation:

Topsoil is likely to have good soakage. Subsoil is a clay that is hallow but has open structure.

Likely T value:

**Note:** \*Depth of percolation test holes should be indicated on log above. (Enter P or T at depts as appropriate).  
 \*\* See Appendix E for BS 5930 classification.  
 \*\*\* 3 samples to be tested for each horizon and results should be entered above for each horizon.  
 \*\*\*\* All signs of mottling should be recorded.