TREATMENT SYSTEMS
FOR
SINGLE HOUSES

SITE CHARACTERISATION FORM

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Fingal County Council

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FINGAL COUNTY COUNCIL SITE CHARACTERISATION FORM

1.0 GENERAL DETAILS (From planning application)

Name & Address of Applicant:					
Site Location and Townland: (Give grid co-ordinates if know)					
Phone no:		**Fax no:**		**Email:**	
No. of Double Bedrooms:		**No. of Single Bedrooms:**		**Maximum no of residents:**	
Proposed water supply (tick as appropriate)	Public Supply	Group Scheme	Private Well/Borehole		

2.0 DESK STUDY

Soil type:				**Size of Site (Min size 0.2 of hectare). _____m2**			
Aquifer Category	**Regionally Important**	**Locally Important**	**Poor**	**Distance from public/group scheme well to site:**			
Names of any public or group scheme water sources within 1km?				**Specify if site is in the inner or outer protection zone of any public or group scheme well.**	**SI**	**SO**	
Groundwater Protection Response.				**Presence of significant sites (archaeological, natural & historical):**			
Past experience in the area:							
Vulnerability	**Extreme**	**High**	**Moderate**	**Low**	**High to Low**	**Unknown**	

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).*

3.0 ON-SITE ASSESSMENT (Photographs of site must be included)

3.1 Visual Assessment

LANDSCAPE POSITION:		**SLOPE (Tick as appropriate):**	Steep (>1:5)	Shallow (1:5-1:20)	Relatively flat (<1:20)
SURFACE FEATURES					
HOUSES:					
SITE BOUNDARIES:					
ROADS:					
EXISTING LAND USE:					
OUTCROPS (ROCK AND/OR SUBSOIL):					
SURFACE WATER PONDING:					
LAKES:					
BEACHES/SHELLFISH AREAS/WETLANDS:					
KARST FEATURES:					
WATERCOURSE/STREAM [Note 1]**:**					
DRAINAGE DITCHES [Note 1]**:**					
WELLS[Note 1]**:**					
SPRINGS [Note 1]**:**					
TYPE OF VEGETATION:					
GROUND CONDITION:					

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).*

Note 1: Note and record water level

3.2 Trial Hole [Note 2]

Trial Holes should be a minimum of 2.1m deep (3m for regionally important aquifers).

Depth of trial hole (m) [Note 3]:		**Date and time of excavation:**		**Date and time of examination:**	
Depth from ground surface to bedrock (m) (if present):		**Depth from ground surface to water table (m) (if present):**			

Depth below ground surface (m) to the nearest 0.1m	Soil/Subsoil Structure & Classification	Results of Thread, Ribbon and Dilatancy tests**	Density/ Compactness	Colour ***	Preferential flowpaths
0.1m					
0.2m					
0.3m					
0.4m					
0.5m					
0.6m					
0.7m					
0.8m					
0.9m					
1.0m					
1.1m					
1.2m					
1.3m					
1.4m					
1.5m					
1.6m					
1.7m					
1.8m					
1.9m					
2.0m					
2.1m					
2.2m					
2.3m					
2.4m					
2.5m					
2.6m					
2.7m					
2.8m					
2.9m					
3.0m					

** See BS 5930 Classification

*** All signs of mottling should be recorded

3.2 Trial Hole Continued

Other information (where relevant)		
Depth of water ingress:	**Rock Type if present**	**Likely T value**
EVALUATION:		

Note 2: 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 sites etc.), without prior advice from the Heritage Service or other relevant bodies.

Note 3: The Trial Hole should be a minimum of 2.1 m deep on flat sites. On sloping sites or areas where a higher degree of groundwater protection is required it will be necessary to adjust the depth of the trail hole to demonstrate that there would be the required minimum depth of soil (in accordance with GSI Groundwater Reponse Matrix) beneath the invert of the percolation trenches. A longitudinal section through the site should be included to demonstrate the adequacy of the trial hole depth.

Note : The Trial Hole and Percolation test holes should be located adjacent to, but not within, the proposed percolation area.

Photographs of Trial Hole must be included.

3.3 Site Layout Drawing

Sketch of site showing measurements to trial hole location and percolation test hole locations, wells and direction of groundwater flow (if known), proposed house (including distances from boundaries) adjacent houses (including any well/septic tank), watercourses, significant sites and other features. North point should always be included. The Trial Hole and Percolation test holes should be located adjacent to, but not within, the proposed percolation area.

[A copy of the site layout drawing should be used if available.]

3.4 Longitudinal Section

Longitudinal section through the foul drainage system, showing existing and proposed ground levels and invert levels of pipe work including percolation pipes.

3.5(a) Percolation ("T") Test for Deep Subsoils and/or Water Table.

Note: T test to be excavated to a depth at least below the invert of the proposed percolation pipe.

Photographs of Percolation ("T") test must be included.

Percolation Test Hole	1	2
Depth from ground surface to top of hole (mm) (A)		
Depth from ground surface to base of hole (mm) (B)		
Depth of hole (mm) [B - A]		
Dimensions of hole [length x breadth (mm)]		
Each hole must be pre-soaked twice before the test is carried out (from 10.00 am to 5.00 pm and from 5.00 pm to next morning)		
Date of test		
Date pre-soaking started		
Time filled to 400 mm		
Time water level at 300 mm		

Percolation Test Hole No.	1			2		
Fill no.	Start Time (at 300 mm)	Finish Time (at 200 mm)	Δt (min)	Start Time (at 300 mm)	Finish Time (at 200 mm)	Δt (min)
1						
2						
3						
Average Δt				Average Δt		

Average Δt/4 = [Hole No.1] _____(t_1)	Average Δt/4 = [Hole No.2] _____(t_2)

T value [Note 4] **= (t_1 + t_2)/2 =_____(min/25 mm)**

Result of Test : T =

COMMENTS:

Note 4: If two very different T test results are obtained and if one of these values is outside the 1-50 range, then a third test should be carried out.

Note A "T" test is used to test the suitability of the subsoil at depths greater than 400mm below the ground level**.**

3.5(b) Percolation ("P")Test for Shallow Soil/Subsoils and/or Water Table.

Photographs of Percolation ("P") test must be included.

Percolation Test Hole	1	2
Depth of hole from ground surface (mm)		
Dimensions of hole [length x breadth (mm)]		
Each hole must be pre-soaked twice before the test is carried out (from 10.00 am to 5.00 pm and from 5.00 pm to next morning)		
Date of test		
Date pre-soaking started		
Time filled to 400 mm		
Time water level at 300 mm		

Percolation Test Hole No.	1			2		
Fill no.	Start Time (at 300 mm)	Finish Time (at 200 mm)	Δp (min)	Start Time (at 300 mm)	Finish Time (at 200 mm)	Δp (min)
1						
2						
3						
Average Δp				Average Δp		
Average Δp/4 = [Hole No.1] _____(p_1)				Average Δp/4 = [Hole No.2] _____(p_2)		

P value [Note 5] **= (p_1 + p_2)/2 =_____(min/25 mm)**

Result of Test : P =

COMMENTS:

Note 5: If two very different P test results are obtained and if one of these values is outside the 1-50 range, then a third test should be carried out.

4.0 CONCLUSION OF SITE CHARACTERISATION:

(*Integrate the information from the desk study and on-site assessment (i.e. visual assessment, trial hole and percolation tests) above and conclude the type of system(s), if any, that is (are) appropriate. This information is also used to choose the optimum final disposal route of the treated wastewater).*

Suitable for (tick as appropriate)[Note 6]

Septic tank and soil percolation area discharging to groundwaters [Note 7]		Septic tank and intermittent filter system and polishing filter [Note 8] discharging to groundwater [Note 7]	
Mechanical aeration system and polishing filter [Note 8] discharging to groundwater [note 7]		Not suitable for development.	
Other (Give Details):			

Note 6: More than one option may be suitable for a site and this should be recorded.
Note 7: Council's onerous obligations under the 1998 Phosphorus Regulations, the option of discharging to surface waters under licence is not considered a viable alternative.
Note 8: Where it is proposed to treat effluent in a polishing filter in the upper soil layers, a drawing must be included clearly detailing the proposed method of effluent distribution.
Note 9: The calculated percolation area or polishing filter area should be shown on site plan.
Note: Both T and P Tests must be carried out and submitted.

5.0 RECOMMENDATION:

Propose to install:					
Size of Primary Settlement/Septic Tank (m^3):		**Secondary treatment system capacity (P.E.):**		**Percolation area/ polishing filter (linear m of trench or m^2)[Note 9]:**	

Conditions, if any (e.g Special works, invert level of trench etc.

_____
_____
_____
_____
_____

Assessor Name: _____ Address: _____

_____

Qualifications/Experience: _____

_____

_____ Fas Approved:_____

Indemnity Insurance Number: _____Date of Report:_____

Phone: _____ Fax: _____ email: _____

Signed:_____

6.0 REVIEW (by Local Authority)

OFFICIAL USE ONLY

Planning application reference no: _____

Desk study reviewed	☐	Date:
Site visit	☐	Date:
Inspection of Trial Hole	☐	Date:
Inspection of Percolation Test Holes	☐	Date:
Refer for full re-assessment	☐	

COMMENTS

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Signed:_____**Date:**_____