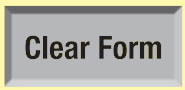
SITE CHARACTERISATION FORM
COMPLETING THE FORM

Note: This form requires the latest version of Adobe Acrobat Reader

and on PC's Windows 7 or later. Windows XP produces errors in calculations

Step 1:

Goto Menu Item **File, Save As** and save the file under a reference relating to the client or the planning application reference if available.



Use the **Clear Form** button to clear all information fields.

Notes:

All calculations in this form are automatic.

Where possible information is presented in the form of drop down selection lists to eliminate potential errors.

Variable elements are recorded by tick boxes. In all cases only one tick box should be activated.

All time record fields must be entered in twenty four hour format as follows: HH:MM

All date formats are DD-MM-YYYY.

All other data fields are in text entry format.

This form can be printed out fully populated for submission with related documents and for your files. It can also be submitted by email.

Section 3.2 In this section use an underline _____ across all six columns to indicate the depth at which changes in classification / characteristics occur.

Section 3.4 Lists supporting documentation required.

Section 4 Select the treatment systems suitable for this site and the discharge route.

Section 5 Indicate the system type that it is proposed to install.

Section 6 Provide details, as required, on the proposed treatment system.

APPENDIX A: SITE CHARACTERISATION FORM

File Reference: New application

1.0 GENERAL DETAILS (From planning application)

Prefix: First Name: Meath County Council Surname:

Address: Buvinda House, Dublin Road, Navan, County Meath

Site Location and Townland: Loganstown, Trim, County Meath

Number of Bedrooms: 4 Maximum Number of Residents: 6

Comments on population equivalent

It is assumed that the proposed cemetery will have one toilet block, witha wash-hand basin within. As the maximum number of patrons using the facility per day would be 180 people (assuming two funerals, with 90 attendees each). For a toilet block, the volume of discharge is 5 litres per person per day (EPA, 1999) meaning a maximum total discharge of 900 l/d.

Proposed Water Supply:

Mains ✔ Private Well/Borehole ☐ Group Well/Borehole ☐

2.0 GENERAL DETAILS (From planning application)

Soil Type, (Specify Type): Grey brown podzolics of the Rathowen Series (AFT Soils Map of Meath, Finch et al., 1983)

Subsoil, (Specify Type): Glaciofluvial sands and gravels derived chiefly from Lower Carboniferous limestones (GLs)

Bedrock Type: Namurian Undifferentiated

Aquifer Category: Regionally Important | Locally Important | Poor Pl

Vulnerability: Extreme ☐ High ✔ Moderate ☐ Low ☐

Groundwater Body: Trim Status Good

Name of Public/Group Scheme Water Supply within 1 km: None

Source Protection Area: ZOC ☐ SI ☐ SO ☐ Groundwater Protection Response: R1

Presence of Significant Sites (Archaeological, Natural & Historical): The River Boyne / River Blackwater SAC is approximately 180m south of the site.

Past experience in the area: Soils in this locality are generally well drained, with pockets of heavy CLAY soil only found in lowlying areas, and better drainage on the hillocks and ridges.
In the locality in general infiltration dominates over runoff on the hillocks, and runoff and ponding occurs in lower areas.

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).

The site, initially, seems suitable for discharge to ground.

As the soil type in the area is mapped as being dominated by well drained grey brown podzolic soils, surface water is not likely to be at risk around the site. Groundwater as a resource will be at risk if the minimum depths required are not achieved on the site, or if the percolation rate is too rapid. Older wells in the area may also be at risk, if the minimum separation distances are not adhered to. There are no immediate restrictions apparent on the site.

Groundwater and wells are therefore the main potential targets following the desk study, with surface water the least likely to be at risk (pending the trial hole assessment and percolation tests).

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:	Site rests on southern upper and mid-backslope of a low ridge, in a gently undulating landscape		
Slope:	Steep (>1:5) ☐	Shallow (1:5-1:20) ✔	Relatively Flat (<1:20) ✔
Slope Comment		on site itself	within proposed percolation area

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

Houses:

The proposed public toilet block on the site will be approx. 55m east of the proposed percolation area (and alongside of it), and the proposed crematorium will also be approx. 175m to the southeast (also alongside).

Houses to north and north-northeast will be approx. 53m, 73m, 115m, 117m and 122m from the proposed percolation area area (and all up-gradient).

Houses to northwest will be approx. 147m, 225m and 245m from the proposed percolation area (and either alongside or up-gradient of it).

There are no other houses within 250m of the proposed percolation area.

Existing Land Use:

Agricultural pasture occurs on-site and surrounds the site to the south, easst and north, with many residential gardens also present in the locality. Arable crops are grown to the west and northwest.

Vegetation Indicators:

The only wetland or other vegetation indicators within 250m of the proposed percolation area are some ragwort which occur in patches throughout the field hosting the site, and that to the south of it.

Groundwater Flow Direction: From north to south, down-gradient towards the River Boyne.

Ground Condition:

The area of the site and all of the ground around it is firm and even. Poaching and soft ground was not observed.

Site Boundaries:

A hedge and fence bounds the site at the roadside to the north, with a shallow drainage ditch along a portion of this boundary also. Hedges and fences occur at the east and south, and a hedge, fence and drainage ditch is present along the western boundary. The site is of sufficient size to install a septic tank and a percolation area.

3.0 ON-SITE ASSESSMENT

3.1 Visual Assessment (contd.)

Roads:

Third class road faces site to the north, approx. 88m from (and up-gradient of) the proposed percolation area.

Outcrops (Bedrock And/Or Subsoil):

There are no outcrops of bedrock and/or subsoil within 250m of the proposed percolation area.

Surface Water Ponding:

No standing water occurred within 250m of proposed percolation area at the time of assessment.

The majority of land on and around the site is on a slight gradient.

Lakes:

None within 250m of the site.

Beaches/Shellfish Areas:

None within 250m of proposed percolation area.

Wetlands:

None within 250m of proposed percolation area.

Karst Features:

None within 250m of proposed percolation area.

Watercourses/Streams:*

There are no streams or other watercourses within 250m of the proposed percolation area.

***Note and record** water level

3.0 ON-SITE ASSESSMENT

3.1 Visual Assessment (contd.)

Drainage Ditches:*

Drainage ditches which are 0.3m-0.6m deep flank both sides of the road along the northern boundary of the site.

As well as this, a 2.7m-3.3m deep drainage ditch has been cut along the western boundary of the site. This had patches of water in it's base, in places, at the time of assessment. This ditch will be at least 12m from all parts of the proposed percolation area.

These are the only ditches within 250m of the proposed percolation area.

Springs:*

There are no springs within 250m of the proposed percolation area.

Wells:*

The locality is serviced by public supply mains water, and the proposed facility will also connect to this service.

One well currently occurs within 250m of the proposed percolation area.

This well serves the house immediately to the north, and will be approx. 86m north-northeast of the proposed percolation area. This well is up-gradient with respect to groundwater flow, and therefore well outside the required minimum separation distances (15m for an up-gradient well, Groundwater Protection Responses of GSI/EPA/DoELG and the EPA Code of Practice (2021)).

As all the wells in the locality will therefore meet the required separation distances of the Groundwater Protection Responses of GSI/EPA/DoELG and the EPA Code of Practice (2021) from the proposed percolation area, once the proposed percolation area on the site is installed exactly where specified in this report, none are deemed to be at risk from its' installation.

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).

The site will only be suitable for discharge to ground if a pocket of acceptable soil of sufficient depth can be found in the area of the proposed percolation area.
Following the desk study surface water was not thought to potentially be at risk; during the visual assessment it was seen that the ridge hosting the site seems well drained. From this, the surface water around the site does not seem to be a potential target, unless the soil across the proposed percolation area is found to be saturated within 0.5m below ground.
Groundwater is still a target following the visual assessment, unless the minimum depths required are met on the site and there exists adequate percolation. Wells in the area are not considered to be at risk, as none will occur within the minimum separation distances of the Groundwater Protection Responses, GSI/EPA/DoELG and the EPA Code of Practice (2021), as long as the proposed percolation area is installed exactly where specified in this report.

Following from the visual assessment, it was decided to excavate the trial hole in the northwestern portion of the site. The land on this portion of the low ridge is firm and dry (Plate 1).

***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): 2.0m

Depth from ground surface to bedrock (m) (if present): >2.0m

Depth from ground surface to water table (m) (if present): >2.0m

Depth of water ingress: None met

Rock type (if present): None met

Date and time of excavation: 24-May-2021 08:00

Date and time of examination: 26-May-2021 08:40

Depth of Surface and Subsurface Percolation Tests		Soil/Subsoil Texture & Classification**	Plasticity and dilatancy***	Soil Structure	Density/ Compactness	Colour****	Preferential flowpaths
0.1 m		Sandy loam		Crumb	Compact	Dark brown (3/3, 10YR)	Abundant tree, shrub and grass roots and rootlets
0.2 m							
0.3 m			2, 3, 2 threads; 80mm, 100mm, 110mm ribbons; dilatant, very raspy	Subangular blocky	Variable soft to firm	Dark brown (3/3, 10YR)	Occasional tree, shrub and grass roots and rootlets
0.4 m	S1-S3	very sandy SILT with abundant gravels					
0.5 m							
0.6 m							
0.7 m							
0.8 m	SS1-2						
0.9 m	SS3						
1.0 m		gravelly very silty SAND with occasional cobbles	0, 0, 1 threads; 30mm, 30mm, 10mm ribbons; dilatant, very raspy, cohesive	Massive, yet fissile	Variable very soft to soft	Very dark greyish brown (3/2, 10YR)	Fissile partings
1.1 m							
1.2 m							
1.3 m							
1.4 m							
1.5 m							
1.6 m							
1.7 m							
1.8 m							
1.9 m							
2.0 m			BASE OF HOLE				
2.1 m							
2.2 m							
2.3 m							
2.4 m							
2.5 m							
2.6 m							
2.7 m							
2.8 m							
2.9 m							
3.0 m							
3.1 m							
3.2 m							
3.3 m							
3.4 m							
3.5 m							

Likely Subsurface Percolation Value: 5-10

Likely Surface Percolation Value: 5-15

Note: *Depth of percolation test holes should be indicated on log above. ('Enter Surface or Subsurface at depths 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.

3.2 Trial Hole (contd.) Evaluation:

The upper 0.16m-0.22m of the trial hole profile comprises dark brown, compact, crumb, sandy loam topsoil ('A' horizon). This is underlain by dark brown, subangular blocky, soft to firm, very sandy SILT with abundant gravels, to 0.47m-0.58m depth. The topsoil therefore comprises acid brown earth topsoil, draining vertically or sub-vertically to the subsoil.

The subsoil beneath this consists of the 'C' horizon which extends to the base of the hole at 2.0m depth, and is a very dark greyish brown, massive yet fissile, very soft to soft, gravelly very silty SAND with occasional cobbles. This unit is unmottled and therefore unsaturated. All soil and subsoil units seem permeable, and no mottling is seen.

There therefore exists 2.0m depth of permeable, unsaturated soil and subsoil to accept partially-treated wastewater on the site. This means that the site is potentially suitable for a conventional septic tank, which requires 1.2m depth of same, especially as the surface and subsurface percolation values are expected to be low.

3.3(a) Subsurface Percolation Test for Subsoil

Step 1: Test Hole Preparation

Percolation Test Hole	1	2	3
Depth from ground surface to top of hole (mm) (A)	400	400	450
Depth from ground surface to base of hole (mm) (B)	800	800	850
Depth of hole (mm) [B - A]	400	400	400
Dimensions of hole [length x breadth (mm)]	300 x 300	300 x 300	300 x 300

Step 2: Pre-Soaking Test Holes

		1	2	3
Pre-soak start	Date	25-May-2021	25-May-2021	25-May-2021
	Time	08:30	08:30	08:30
2nd pre-soak start	Date	25-May-2021	25-May-2021	25-May-2021
	Time	16:30	16:30	16:30

Each hole should be pre-soaked twice before the test is carried out.

Step 3: Measuring T_{100}

Percolation Test Hole No.	1	2	3
Date of test	26-05-2021	26-05-2021	26-05-2021
Time filled to 400 mm	06:08	06:12	06:14
Time water level at 300 mm	06:27	06:23	06:48
Time (min.) to drop 100 mm (T_{100})	19.00	11.00	34.00
Average T_{100}			21.33

If T_{100} > 480 minutes then Subsurface Percolation value >120 – site unsuitable for discharge to ground
If $T_{100} \leq 210$ minutes then go to Step 4;
If T_{100} > 210 minutes then go to Step 5;

Step 4: Standard Method (where $T_{100} \leq 210$ minutes)

Percolation Test Hole	1			2			3		
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)	Start Time (at 300 mm)	Finish Time (at 200 mm)	Δt (min)
1	06:27	06:59	32.00	06:23	06:41	18.00	06:48	07:33	45.00
2	06:59	07:43	44.00	06:41	07:06	25.00	07:33	08:36	63.00
3	07:43	08:50	67.00	07:06	07:43	37.00	08:36	09:58	82.00
Average Δt Value			47.67			26.67			63.33
	Average Δt/4 = [Hole No.1]		11.92 (t_1)	Average Δt/4 = [Hole No.2]		6.67 (t_2)	Average Δt/4 = [Hole No.3]		15.83 (t_3)

Result of Test: Subsurface Percolation Value = 11.47 (min/25 mm)

Comments:

SS1, SS2 and SS3 confirm the classification of the subsoil as a very sandy SILT with abundant gravels, over a gravelly very silty SAND with occasional cobbles, All holes were empty on the morning of the tests following two presoaks the previous day. The subsurface test rates support the observations made on the trial hole and the visual assessment with respect to the textural and drainage class of the subsoil.

Step 5: Modified Method (where $T_{100} > 210$ minutes)

Percolation Test Hole No. 1

Fall of water in hole (mm)	Time Factor = T_f	Start Time hh:mm	Finish Time hh:mm	Time of fall (mins) = T_m	$K_{fs} = T_f / T_m$	T – Value = 4.45 / K_{fs}
300 - 250	8.1			0.00		
250 - 200	9.7			0.00		
200 - 150	11.9			0.00		
150 - 100	14.1			0.00		
Average	T- Value		T- Value Hole 1 = (T_1)			0.00

Percolation Test Hole No. 2

Fall of water in hole (mm)	Time Factor = T_f	Start Time hh:mm	Finish Time hh:mm	Time of fall (mins) = T_m	$K_{fs} = T_f / T_m$	T – Value = 4.45 / K_{fs}
300 - 250	8.1			0.00		
250 - 200	9.7			0.00		
200 - 150	11.9			0.00		
150 - 100	14.1			0.00		
Average	T- Value		T- Value Hole 2 = (T_2)			0.00

Percolation Test Hole No. 3

Fall of water in hole (mm)	Time Factor = T_f	Start Time hh:mm	Finish Tim§e hh:mm	Time of fall (mins) = T_m	$K_{fs} = T_f / T_m$	T – Value = 4.45 / K_{fs}
300 - 250	8.1			0.00		
250 - 200	9.7			0.00		
200 - 150	11.9			0.00		
150 - 100	14.1			0.00		
Average	T- Value		T- Value Hole 3 = (T_2)			0.00

Result of Test: Subsurface Percolation Value =

0.00 (min/25 mm)

Comments:

3.3(b) Surface Percolation Test for Soil

Step 1: Test Hole Preparation

Percolation Test Hole	1	2	3
Depth from ground surface to top of hole (mm)	0	0	0
Depth from ground surface to base of hole (mm)	400	400	400
Depth of hole (mm)	400	400	400
Dimensions of hole [length x breadth (mm)]	300 x 300	310 x 300	300 x 300

Step 2: Pre-Soaking Test Holes

		1	2	3
Pre-soak start	Date	25-May-2021	25-May-2021	25-May-2021
	Time	08:30	08:30	08:30
2nd pre-soak start	Date	25-May-2021	25-May-2021	25-May-2021
	Time	16:30	16:30	16:30

Each hole should be pre-soaked twice before the test is carried out.

Step 3: Measuring T_{100}

Percolation Test Hole No.	1	2	3
Date of test	26-May-21	26-May-21	26-May-2021
Time filled to 400 mm	06:10	06:16	06:18
Time water level at 300 mm	06:51	07:03	06:56
Time to drop 100 mm (T_{100})	41.00	47.00	38.00
Average T_{100}			42.00

If T_{100} > 480 minutes then Surface Percolation value >90 – site unsuitable for discharge to ground
If $T_{100} \leq 210$ minutes then go to Step 4;
If T_{100} > 210 minutes then go to Step 5;

Step 4: Standard Method (where $T_{100} \leq 210$ minutes)

Percolation Test Hole	1			2			3		
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)	Start Time (at 300 mm)	Finish Time (at 200 mm)	ΔT (min)
1	06:51	08:23	92.00	07:03	08:16	73.00	06:56	08:07	71.00
2	08:23	10:27	124.00	08:16	09:42	86.00	08:07	09:26	79.00
3	10:27	12:58	151.00	09:42	11:48	126.00	09:26	10:54	88.00
Average ΔT Value			122.33			95.00			79.33

Average ΔT/4 = [Hole No.1] 30.58 (T_1)

Average ΔT/4 = [Hole No.2] 23.75 (T_2)

Average ΔT/4 = [Hole No.3] 19.83 (T_3)

Result of Test: Surface Percolation Value = 24.72 (min/25 mm)

Comments:

S1, S2 and S3 confirm the classification of the soil as a sandy loam underlain by a very sandy SILT with abundant gravels. All holes were empty on the morning of the test following two presoaks the previous day. The surface percolation test rates support the observations made on the trial hole and the visual assessment on the drainage and textural characteristics of the topsoil and the upper portion of the subsoil.

Step 5: Modified Method (where $T_{100} > 210$ minutes)

Percolation Test Hole No. 1

Fall of water in hole (mm)	Time Factor = T_f	Start Time hh:mm	Finish Time hh:mm	Time of fall (mins) = T_m	$K_{fs} = T_f / T_m$	T – Value = 4.45 / K_{fs}
300 - 250	8.1			0.00		
250 - 200	9.7			0.00		
200 - 150	11.9			0.00		
150 - 100	14.1			0.00		
Average	T- Value		T- Value Hole 1 = (T_1)			0.00

Percolation Test Hole No. 2

Fall of water in hole (mm)	Time Factor = T_f	Start Time hh:mm	Finish Time hh:mm	Time of fall (mins) = T_m	$K_{fs} = T_f / T_m$	T – Value = 4.45 / K_{fs}
300 - 250	8.1			0.00		
250 - 200	9.7			0.00		
200 - 150	11.9			0.00		
150 - 100	14.1			0.00		
Average	T- Value		T- Value Hole 2 = (T_2)			0.00

Result of Test: Surface Percolation Value = 0.00 (min/25 mm)

Percolation Test Hole No. 3

Fall of water in hole (mm)	Time Factor = T_f	Start Time hh:mm	Finish Time hh:mm	Time of fall (mins) = T_m	$K_{fs} = T_f / T_m$	T – Value = 4.45 / K_{fs}
300 - 250	8.1			0.00		
250 - 200	9.7			0.00		
200 - 150	11.9			0.00		
150 - 100	14.1			0.00		
Average	T- Value		T- Value Hole 3 = (T_2)			0.00

Comments:

3.4 The following associated Maps, Drawings and Photographs should be appended to this site characterisation form.

1. Discovery Series 1:50,000 Map indicating overall drainage, groundwater flow direction and housing density in the area.
2. Supporting maps for vulnerability, aquifer classification, soil, subsoil, bedrock.
3. North point should always be included.
4. (a) Scaled sketch of site showing measurements to Trial Hole location and
   (b) Percolation Test Hole locations,
   (c) wells and
   (d) direction of groundwater flow (if known),
   (e) proposed house (incl. distances from boundaries)
   (f) adjacent houses,
   (g) watercourses,
   (h) significant sites
   (i) and other relevant features.
5. Site specific cross sectional drawing of the site and the proposed layout[1] should be submitted.
6. Photographs of the trial hole, test holes and site including landmarks (date and time referenced).
7. Pumped design must be designed by a suitably qualified person.

[1] The calculated percolation area or polishing filter area should be set out accurately on the site layout drawing in accordance with the code of practice's requirements.

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) that is (are) appropriate. This information is also used to choose the optimum final disposal route of the treated wastewater.

Slope of proposed infiltration / treatment area: 2%

Are all minimum separation distances met? ✔

Depth of unsaturated soil and/or subsoil beneath invert of gravel (or drip tubing in the case of drip dispersal system) 1.20

Percolation test result: Surface: 24.72 Sub-surface: 11.47

Not Suitable for Development ☐ **Suitable for Development** ✔

Identify all suitable options

1. Septic tank system (septic tank and percolation area) **(Chapter 7)** — Yes
2. Secondary Treatment System **(Chapters 8 and 9)** and soil polishing filter **(Section 10.1)** — Yes
3. Tertiary Treatment System and Infiltration / treatment area **(Section 10.2)** — Yes

Discharge Route [1]

Groundwater, via percolation area

5.0 SELECTED DWWTS

Propose to install: Septic tank system (septic tank and percolation area)

and discharge to: Ground Water

Invert level of the trench/bed gravel or drip tubing (m) 0.55

Site Specific Conditions (e.g. special works, site improvement works testing etc.

A precast concrete, twin chamber septic tank, certified to EN 12566, Part 1, of at least 3.4 cubic metres capacity, must be installed on the site, followed by a percolation area. A pump may be required to pump intermittently to the percolation area (a Domo VX-75, or equivalent, should be used).
The percolation area should consists of 6 trenches, each 18m long. This should consist of 550mm depth of pea gravel installed at 0.8m below current ground level on the site, with the pipes 300mm above the base of the trenches. This should be covered with 300mm topsoil, thus raising the ground level in the percolation area by 0.05m. This can be graded at a slope of no more than 1/2 with the rest of the surrounding ground level.
The trenches should be installed 14m from the centre of the northern hedge boundary of the site with the adjacent house, and 12m east of the edge of the western drainage ditch boundary of the field hosting the site (adjacent to where the test holes were dug, see Figure 4).
The installation of the septic tank and percolation area should be certified as being in compliance with the EPA (2021) guidelines and the recommendations here by the engineer/architect/competent person certifying the fitting of the treatment system on the site.

[1] A discharge of sewage effluent to "waters" (definition includes any or any part of any river, stream, lake, canal, reservoir, aquifer, pond, watercourse or other inland waters, whether natural or artificial) will require a licence under the Water Pollution Acts 1977-90. Refer to Section 2.4.

6.0 TREATMENT SYSTEM DETAILS

SYSTEM TYPE: Septic Tank Systems (Chapter 7)

Tank Capacity (m^3)	3.40	Percolation Area		Mounded Percolation Area	
		No. of Trenches		No. of Trenches	6.00
		Length of Trenches (m)		Length of Trenches (m)	18.00
		Invert Level (m)		Invert Level (m)	0.80

SYSTEM TYPE: Secondary Treatment System (Chapters 8 and 9) and polishing filter (Section 10.1)

Secondary Treatment Systems receiving septic tank effluent (Chapter 8)

Media Type	Area (m^2)*	Depth of Filter	Invert Level
Sand/Soil			
Soil			
Constructed Wetland			
Other			

Packaged Secondary Treatment Systems receiving raw wastewater (Chapter 9)

Type

Capacity PE

Sizing of Primary Compartment

m^3

Polishing Filter*: (Section 10.1)

Surface Area (m^2)*

Option 1 - Direct Discharge
Surface area (m^2)

Option 2 - Pumped Discharge
Surface area (m^2)

Option 3 - Gravity Discharge
Trench length (m)

Option 4 - Low Pressure
Pipe Distribution
Trench length (m)

Option 5 - Drip Dispersal
Surface area (m^2)

SYSTEM TYPE: Tertiary Treatment System and infiltration / treatment area (Section 10.2)

Identify purpose of tertiary treatment	Provide performance information demonstrating system will provide required treatment levels	Provide design information

DISCHARGE ROUTE:

Groundwater	✔	Hydraulic Loading Rate * ($l/m^2.d$)		Surface area (m^2)	
Surface Water **		Discharge Rate (m^3/hr)			

* Hydraulic loading rate is determined by the percolation rate of subsoil

** Water Pollution Act discharge licence required

6.0 TREATMENT SYSTEM DETAILS

QUALITY ASSURANCE:

Installation & Commissioning

Installation to be supervised by a competent individual with professional indemnity insurance.

On-going Maintenance

De-sludging of the tank should be as per Table 12.2 in the EPA Code of Practice (2021), or when scum in observed in the second chamber of the tank, or when the depth of sludge in the second compartment is greater than 400mm.

7.0 SITE ASSESSOR DETAILS

Company: Not applicable

Prefix: Dr First Name: Robert Surname: Meehan

Address: 86 Athlumney Castle,
Navan,
County Meath,
C15 DPW8

Qualifications/Experience: B.A, PhD, PGeo., EurGeol, FETAC/FAS Course Certified, Professional Indemnity Insurance Hol

Date of Report: 06-Jul-2021

Phone: 087-6875558 E-mail antalamhireland@gmail.com

Indemnity Insurance Number: JX16-2194(3)

Signature: _____