Application for an environmental permit Part B6:
1. New bespoke water discharge activity
2. New bespoke groundwater activity (point source discharge)
3. Point source emission to water from an installation.

Environment Agency

You will need to use an Adobe reader product to complete this form. The form may not work properly if you use a different pdf reader, such as the one built-in to your internet browser.

This application is for a bespoke water discharge activity or groundwater point source discharge activity environmental permit. Check **https://www.gov.uk/guidance/discharges-to-surface-water-and-groundwater-environmental-permits** to ensure that you need a permit and the type of permit you need.

You should also complete this form if you are applying for a bespoke installation activity that includes a point source emission to water, groundwater or sewer.

Fill in this part of the form, together with parts A, B2 and F1, **https://www.gov.uk/government/collections/environmental-permit-application-forms-for-a-new-bespoke-permit** if you are applying for a new bespoke permit for a water discharge activity or a point source discharge groundwater activity. You need to fill in part B6, including any relevant appendices, once for each effluent you are applying for.

Fill in this part of the form, together with parts A, B2, B3 and F1, **https://www.gov.uk/government/collections/environmental-permit-application-forms-for-a-new-bespoke-permit** if you are applying for a new bespoke permit for an installation where a point source emission to water, groundwater or sewer forms part of the operation.

If you want to apply for a standalone discharge of treated domestic sewage effluent of up to fifteen cubic metres (15 m^3) a day to ground or up to twenty cubic metres (20 m^3) a day to surface water, please fill in form B6.5.

If you want to apply for an environmental permit for a ground source or surface water source heating and cooling scheme fill out forms A, B8 and F1. **https://www.gov.uk/government/publications/new-ground-source-heating-and-cooling-scheme-form-and-guidance-notes**

You may also need to complete this form if you have a point source emission to water from a waste operation. For further information see **https://www.gov.uk/guidance/discharges-to-surface-water-and-groundwater-environmental-permits**

Please check that this is the latest version of the form available from our website.

Grey boxes indicate the guidance notes to help you complete the form. The form can be:

1) saved onto a computer and then filled in.

2) printed off and filled in by hand. Please write clearly in the answer spaces.

We anticipate it will take less than three hours to fill in this part of the application form if you have all the necessary information available.

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1 About the effluent – details and type

From the list below, tick the box for the type of effluent you are applying for on this form and answer the questions shown in that row in Table 1. You must fill in a separate copy of this form and the appropriate section or sections for each effluent you plan to discharge. For mixed effluents which share treatment and have a common monitoring point, for example sewage treated with trade and/or non-sewage, choose the type of effluent which makes up the highest volume of the discharge.

Table 1 – About the effluent

Type of effluent	Charge band	Tick box	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11
Treated sewage effluent (non-water company)	1.3.3 Sewage effluent discharge with a volume up to and including 5m³ a day to surface water from domestic household or organisation operating for charitable purposes	☐	All	All	b	-	All	All	All	-	-	b, j, k	All
	1.3.4 Sewage effluent discharge with a volume up to and including 5m³/day to groundwater from domestic household or organisation operating for charitable purposes	☐	All	All	b	-	All	All	All	-	-	b, j, k	All
	1.3.5 Sewage effluent discharge with a volume up to and including 5m³ a day to surface water	☐	All	All	b	-	All	All	All	-	-	b, j, k	All
	1.3.6 Sewage effluent discharge with a volume up to and including 5m³/day to groundwater	☐	All	All	b	-	All	All	All	-	-	b, j, k	All
	1.3.7 Sewage effluent discharge with a volume greater than 5m³/day up to and including 15m³/day to groundwater	☐	All	All	b	-	All	All	All	b, c, d	-	b, j, k	All
	1.3.8 Sewage effluent discharge with a volume greater than 15m³/day to groundwater	☐	All	All	b	-	All	All	All	b, c, d	d, f	a, b, c, d, e, f, j, k	All

Type of effluent	Charge band	Tick box	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11
Treated sewage effluent (non-water company)	1.3.9 Sewage effluent discharge with a volume greater than 5m³/day up to and including 50m³/day to surface water	☐	All	All	b	-	All	All	All	b, c, d	a or b, f	b, j, k	All
	1.3.10 Sewage effluent discharge with a volume greater than 50m³/day to surface water	☐	All	All	b	-	All	All	All	b, c, d	a or b, f	a, b, c, d, e, f, j, k	All
Water company WwTW treated sewage effluent	1.3.5 Sewage effluent discharge with a volume up to and including 5m³/day to surface water	☐	All	a, b, e	a (b is optional)	-	-	All	All	a, b, c, d	c, f	a, b, c, f, j, k	All
	1.3.6 Sewage effluent discharge with a volume up to and including 5m³/day to groundwater	☐	All	a, b, e	a (b is optional)	-	-	All	All	a, b, c, d	c, f	a, b, c, f, j, k	All
	1.3.7 Sewage effluent discharge with a volume greater than 5m³/day up to and including 15m³/day to groundwater	☐	All	a, b, e	a (b is optional)	-	-	All	All	a, b, c, d	c, f	a, b, c, f, j, k	All
	1.3.8 Sewage effluent discharge with a volume greater than 15m³/day to groundwater	☐	All	a, b, e	a (b is optional)	-	-	All	All	a, b, c, d	c, d, f	a, b, c, d, e, f, j, k	All
	1.3.9 Sewage effluent discharge with a volume greater than 5m³/day up to and including 50m³/day to surface water	☐	All	a, b, e	a (b is optional)	-	-	All	All	a, b, c, d	b if relevant, c, f	a, b, c, f, j, k	All
	1.3.10 Sewage effluent discharge with a volume greater than 50m³/day to surface water	☐	All	a, b, e	a (b is optional)	-	-	All	All	a, b, c, d	b if relevant, c, f	a, b, c, d, e, f, j, k	All

Type of effluent	Charge band	Tick box	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11
Settled storm sewage	1.3.18 Sewerage network and sewage treatment works storm sewage	☐	All	a, b, e	-	a, b, c, d, f, g, h, i, j, k	-	-	All	-	c, f	b, g, h, l, j, k	All
Storm sewage	1.3.18 Sewerage network and sewage treatment works storm sewage	☐	All	a, b, e	-	a, b, c, e, f, g, h, i, j, k	-	-	All	-	c, f	b, g, j, k	All
Emergency overflow	1.3.19 Emergency overflows	☐	All	a, b, e	-	a, l, m, n, o	-	-	All	-	c, f	b, g, j, k	All
Trade and/or non-sewage – known volume	1.3.11 Trade and/or non-sewage effluent discharge to surface water or groundwater with a volume up to and including 5m³/day	☐	All	All	b, c	-	All	All	All	b, c, d	a, b or d, f	b, f, j, k	All
	1.3.12 Trade and/or non-sewage effluent discharge to surface water or groundwater with a volume greater than 5m³/day	☐	All	All	b, c	-	All	All	All	b, c, d	a, b or d, f	b, d, e, f, j, k	All
Trade and/or non-sewage –rainfall dependent	1.3.11 Trade and/or non-sewage effluent discharge to surface water or groundwater with a volume up to and including 5m³/day	☐	All	a, b, e	b, c, d, e	-	-	All	All	b, c, d	a, b or d, f	b, f, j, k	All
	1.3.12 Trade and/or non-sewage effluent discharge to surface water or groundwater with a volume greater than 5m³/day	☐	All	a, b, e	b, c, d, e	-	-	All	All	b, c, d	a, b or d, f	b, d, e, f, j, k	All

Type of effluent	Charge band	Tick box	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11
Cooling water or thermal discharge (includes heating and cooling systems)	1.3.13 Cooling water or thermal discharge to surface water	☐	All	All	b, c	-	-	All	All	b, c, d, e, f	a, b or d, f	a, b, d, e, f, j, k	All
	1.3.14 Cooling water or thermal discharge to groundwater	☐	All	All	b, c	-	-	All	All	b, c, d, e, f	a, b or d, f	a, b, d, e, f, j, k	All
Aquaculture	1.3.17 Aquaculture	☐	All	All	b, c	-	-	All	All	b, c, d	a, b or d, f	a, b, d, e, f, j, k	All
Effluent and/or contaminated surface water run-off arising from the operation of an installation	No additional charge, as already included as part of the installation permit application charge	☑	a, b, d	c	b, c, d	-	a, b2	All	a, b, g	b, c, d, e, f	e, f	a, b, d, e, f, j, k	All

1a Give a brief description of the discharge you want a permit for, for example, the nature of the trade carried on at the premises, or for a discharge of treated domestic sewage effluent, which premises are connected to the sewage treatment plant.

Domestic sewage is explained at: **https://www.gov.uk/government/publications/domestic-sewage-discharges-to-surface-water-and-groundwater/domestic-sewage-discharges-to-surface-water-and-groundwater**

Where the discharge is from a sewage treatment plant operated by a water company and serving an 'agglomeration' you must tell us the name of the agglomeration and the population equivalent served by the treatment plant. (An agglomeration is where a population is sufficiently concentrated for urban waste water to be collected and treated in an urban waste water treatment plant).

Surface water run - off from a yard used for storage of waste. Waste types include wood, garden waste, scrap metal, plastic, builders waste and fines. Surface water runs off the yard into an interceptor and then to foul sewer.

1b Give this effluent a unique name.

Sandbach yard water

You must use this reference to identify this effluent throughout this application and all associated documents. For example 'treated sewage effluent' or 'trade effluent'.

1c Is this a release from a dam, weir or sluice ('reservoir release') under Schedule 21 of the Environmental Permitting Regulations (EPR) meaning of water discharge activity?

☐ Yes

☐ No

1d Have you obtained all the necessary permissions to ensure that you can undertake the proposed discharge and comply with monitoring requirements?

For example, the permission from landowners for pipework to cross their land, or to have a sampling point on their land, or the Canal and Rivers Trust if you want to discharge into a canal that they manage. **Please note that this is not an exhaustive list.** Please be aware that if you do not have all the necessary permissions you will not be discharging lawfully. Explained at: **https://www.gov.uk/guidance/discharges-to-surface-water-and-groundwater-environmental-permits#apply-for-a-bespoke-permit**. Where permission has not been granted, you should also seek alternative options before applying.

☑ Yes

☐ No

☐ Does not apply

Explain which permissions you have not been able to get and why in the following box or on an extra sheet.

Document reference

2 About the effluent – how long will you need to discharge the effluent for?

2a What date do you want the permit for this effluent to start?

☐ As soon as possible

☐ Other date

Provide the date ⌊_____⌋ (DD/MM/YYYY)

Please note that this is the date that your annual subsistence charges will start, even if you have not started to discharge, unless you contact us to change or delay the start date. To change or delay the start date use the Administrative Variation application form C0.5. The start date cannot be before the permit is issued and cannot be changed or delayed after it has already passed.

2b Is the discharge temporary?

☐ No

☐ Yes

Provide the date you expect the discharge to end: ⌊_____⌋ (DD/MM/YYYY)

Please note that your permit will not end on that date, and you will still need to tell us to surrender the permit. This is explained at **https://www.gov.uk/guidance/change-transfer-or-cancel-your-environmental-permit#cancel-surrender-your-permit**.

2c Will the discharge take place all year?

☑ Yes

☐ No

Provide details of the dates when your discharge will start and end each year, for example, April 1st to October 31st.

⌊_____⌋

2d Will the discharge take place on more than six days in any year?

☐ Yes

☐ No

2e Is this application to permit an existing discharge?

Answer 'yes' if you are applying for an existing discharge that does not have a permit, and if no part of the treatment system needs replacing or upgrading. Please note for recent installations, a permit will not be granted if the site is considered to be within a reasonable distance to connect to a foul sewer, even if the system is already in place.

☐ Yes

☐ No

3 How much do you want to discharge?

3a What is the daily dry weather flow? 0 cubic metres

Read 'Calculating dry weather flow (DWF) at waste water treatment works' at **https://www.gov.uk/government/publications/calculating-dry-weather-flow-dwf-at-waste-water-treatment-works/calculating-dry-weather-flow-dwf-at-waste-water-treatment-works** on how dry weather flow is calculated.

3b What is the maximum volume of effluent you will discharge in a day? 937 cubic metres

You must ensure that you choose a volume you can always comply with. For some sewage effluent discharges and some trade effluent discharges you must use the industry 'Code of practice: flows and loads 4' to calculate your maximum daily flow. Flows and Loads – Sizing criteria, treatment capacity for sewage treatment systems at **https://www.britishwater.co.uk/page/Publications.**

Show how you calculated the figure given in the box below and continue on an extra sheet if necessary.

This is the Runoff Volume 1 in 30 Year Event FLOW CALCS = 937m3 for the whole of the site area which is 18,650 m2.

Document reference BEK/26056/260420/1

3c What is the maximum rate of discharge? 315.8 litres a second

This is the maximum instantaneous rate at which the effluent is discharged. It may be the maximum pumped rate (for example, in pumped discharges of quarry water) or the theoretical maximum flow from a gravity-fed pipe from lagoons used to balance rainfall-dependent discharges. For rainfall-dependent discharges this should typically be based on the 1-in-30-year storm event.

Show how you calculated the figure given in the box below and continue on an extra sheet if necessary.

FEH Rainfall Data for the 1 in 30 year 24 hour event = 61.8mm (See Annex A)
Runoff Volume 1 in 30 Year Event FLOW CALCS = 937m3 (See Annex B)
Summary with Modified Rational Method for the Discharge (2.74 x 1.865 x 61.8 = 315.8 l/s

Document reference BEK/26056/260420/1

3d What is the maximum volume of non-rainfall dependent effluent you will discharge in a day?

0 cubic metres

In a discharge containing rainfall dependent effluent, this will be the maximum total daily volume of any non-rainfall-dependent element.

Show how you calculated the figure given in the box below and continue on an extra sheet if necessary.

All of the discharge is rainfall dependant

Document reference BEK/26056/260420/1

3e What is the maximum rate of rainfall dependent discharge? 315.8 litres a second

In a discharge containing rainfall dependent effluent, this will typically be based on the 1-in-30-year storm event.

Show how you calculated the figure given in the box below and continue on an extra sheet if necessary.

All of the discharge is rainfall dependant

Document reference BEK/26056/260420/1

4 Intermittent sewage discharges

Further guidance can be found in 'Water companies: environmental permits for storm overflows and emergency overflows permits' at **https://www.gov.uk/government/publications/water-companies-environmental-permits-for-storm-overflows-and-emergency-overflows**.

4a For each answer to 4b to 4n below, show how you worked out all the figures on an extra sheet

Document reference 4b

Document reference 4c

Document reference 4d

Document reference 4e

Document reference 4g

Document reference 4h

Document reference 4i

Document reference 4j

Document reference 4k

Document reference 4l

Document reference 4m

Document reference 4n

4b What is the total volume of the off-line/storm tank storage? cubic metres

4c What is the total volume of on-line storage? cubic metres

4d What is the pass forward flow at the settled storm overflow setting?

litres a second

4e What is the pass forward flow at the storm overflow setting? litres a second

4f Is the discharge screened?

☐ Yes **Answer the relevant questions from 4g to 4j**

☐ No **Now go to 4k**

4g and 4i. If your effluent is screened answer 4g for a mesh screen, 4i for a bar screen, or 4g and 4i for a split screen.

4h and 4j. If your effluent is screened provide the maximum flow receiving screening. For split screens provide details of the maximum flow receiving the mesh screening as well as the maximum flow receiving bar screening. (The maximum flow receiving screening may also be described as the minimum screen capacity flow).

4g What is the mesh screen spacing? ⌊_____⌋ millimetres

4h What is the minimum screen capacity flow through the mesh screen?

⌊_____⌋ litres a second

4i What is the bar screen spacing? ⌊_____⌋ millimetres

4j What is the minimum screen capacity flow through the bar screen?

⌊_____⌋ litres a second

4k Is the overflow constructed to good engineering design?

☐ Yes

☐ No **On an extra sheet explain what standards the overflow has been constructed to**

4l What is the emergency storage capacity of the sewer and wet well?

⌊_____⌋ cubic metres

4m What is the storage time within the sewer and the wet well above the top water level at dry weather flow?

⌊_____⌋ hours and minutes

4n What is the pass forward flow at the pumping station? ⌊_____⌋ litres a second

4o For intermittent emergency overflows you must provide a document setting out the key protection measures you will provide.

Document reference for pumping station key protection measures.

⌊_____⌋

5 Should your discharge be made to the foul sewer?

Before answering these questions, you must read the guidance **https://www.gov.uk/guidance/discharges-to-surface-water-and-groundwater-environmental-permits#discharges-in-sewered-areas**

Foul sewer means public or private foul sewer. You will also need to contact your sewerage undertaker (usually your local water company) and you may need to check if it is possible to connect to a private foul sewer.

5a Provide the shortest distance between any boundary of premises served by the sewage treatment facility, or any boundary of the trade premises, and the nearest public foul sewer and/or private sewer.

10 metres

National grid reference (NGR) for the nearest sewer system.

NGR SJ 73676 61139

Use 2 letters and 10 digits, for example, ST 12345 67890. To find out the national grid reference search on **https://explore.osmaps.com**

5b1 Discharges from domestic properties

Provide the number of domestic properties served by the sewage treatment system.

Multiply the number of properties served by the sewage treatment system by 30 metres.

Number of domestic properties served by the sewage treatment system metres		× 30 metres =		metres

5b2 Discharges from all other premises including trade effluent

Divide the volume of the discharge (in cubic metres) by 0.75 and then multiply this figure by 30 metres.

Volume of the discharge (answer to question 3b)		cubic metres÷0.75 =		× 30 =		metres

5b3 Is your answer to question 5b1 or 5b2 above greater than the distance to the nearest foul sewer (answer to 5a)?

☐ No You do not need to explain why you cannot discharge your effluent into the foul sewer at this point. However, we may in some cases still request this information from you when we determine your application if this information is subsequently required. **Now go to question 6.**

☐ Yes Before you submit the application, you must explore the possibility of connecting to the foul sewer. Then, you must explain why you cannot discharge your effluent into the foul sewer in the following box or an extra sheet.

Document reference

We will only agree to the use of private treatment systems within sewered areas if you can demonstrate that:

- the additional cost of connecting to the foul sewer would be unreasonable
- connection is not practically feasible, or
- the proposed private treatment system can be shown to significantly benefit the environment.

5c Is the sewer nearby a public or private one?

You must provide details of the nearest sewer including evidence that you have approached the sewerage undertaker and their formal response regarding connection.

☐ Public Where you could connect to the foul sewer through a public foul sewer, you must send us evidence that you have approached the sewerage undertaker and their formal response regarding connection.

☐ Tick this box to confirm you have included this information with your application.

Document reference

If the sewerage undertaker has indicated that they would not allow connection due to lack of capacity you should contact us. We are unlikely to grant a permit for a discharge of treated domestic sewage in circumstances where a private sewerage system is being proposed due to a lack of capacity in the nearest public sewerage network. Before proceeding with your application, you can apply for our enhanced pre-application advice. This is a chargeable service. For more information see Get advice before you apply for an environmental permit: **https://www.gov.uk/guidance/get-advice-before-you-apply-for-an-environmental-permit**.

If you have already had enhanced pre-application for this proposal provide the reference number for your enhanced pre-application.

Pre-application reference number:

Document reference for enhanced pre-application advice:

☐ Private Where you could connect to the foul sewer through a private sewer, you must send us evidence to show that you have requested to connect to the private sewer. Written responses from the owners of the private sewer must be provided.

☐ Tick this box to confirm you have included this information with your application on an extra sheet.

Document reference

5d Is the existing system a factor in your justification for not connecting to the public foul sewer?

If you are applying for an existing discharge, that does not have a permit and no part of the treatment system needs replacing or upgrading, you may give this as a reason for not connecting to a nearby sewer. However, you must provide the date the treatment system was installed as accurately as you can. Please note that for new systems that have been recently installed or systems that have been recently replaced or upgraded a permit will not be granted if the site is considered to be within a reasonable distance to connect to a foul sewer (even if the system is already in place).

☐ No

☐ Yes What date was the system installed?

(DD/MM/YYYY)

5e Is cost a factor in your justification for not connection to public or private foul sewer?

If you have answered 'yes' to 5b3, you need to show the difference between the cost of connection to the foul sewer and that of your proposed private treatment system. This applies to new discharges, or existing discharges where you are proposing to replace or upgrade any part of your existing treatment system.

☐ No

☐ Yes

You must provide evidence of the extra cost of connecting to a sewer compared to the treatment system you propose.

Document reference

Please note that if we consider that you have not provided enough justification, we will return your application to you.

Foul sewer connection costs:

Cost of sewer pipe and infrastructure, for example, gravity sewer, pipework, manholes, or rising main and pumping.

£

Pumping equipment, pump and sump pump, if necessary. Maintenance or running costs of these if they are not adopted by the sewerage undertaker.

£

Installation: Digging up of roadside verges, roads or land on route to the sewer and making good.

£

Road closure costs, if necessary.

£

Legal easements to cross land, cost of land purchase, if necessary.

£

Initial connection charges from the sewerage undertaker.

£

Cost of maintenance and upkeep.

£

The sewerage undertaker will expect any pipe work connecting to their system to be constructed to adoptable standards or to the specification of the latest edition of 'Sewers for Adoption – A Design & Construction Guide for Developers'.

Other: Provide details on an extra sheet

£

Document reference

Total cost to foul sewer: £

Proposed treatment system costs

Cost of treatment system, pipe work and other materials.

£

Pumping equipment, if necessary.

£

Installation including excavation and digging up of roadside verges, roads or land on route to the treatment system, making good and commissioning.

£

Road closure costs, if necessary.

£

Legal easements to cross land, cost of land purchase, if necessary.

£

Maintenance and running costs.

£

Other – Provide details on an extra sheet.

£

Document reference

Total cost of proposed treatment system: £

5f Are you using physical or technical barriers as a factor in your justification for not connecting to public or private foul sewer?

☐ No

☐ Yes You must provide justification

Your justification should include details of any physical obstacles that may impede connection to the foul sewer, for example, topography, roads, railways, designated habitats sites, rivers or canals. Please be aware that we may require cost estimates to be provided to prove that it is not viable for these physical obstacles to be overcome. Provide justification on an extra sheet.

Document reference

5g Are you proposing that the private treatment system can be shown to significantly benefit the environment as the justification for not connecting to public or private foul sewer?

☐ No

☐ Yes

To prove significant environmental benefit, you must answer the following:

Have you provided evidence that the effluent will be treated to a higher standard than if connected to foul sewer? Provide a justification on an extra sheet.

☐ No

☐ Yes

Document reference

Have you shown that the additional environmental benefits from your proposed system would outweigh the potential environmental risks from a private system at the location proposed? Provide justification on an extra sheet.

☐ No

☐ Yes

Document reference

When assessing this, we consider the nature of the environmental risks that would be associated with non-compliance of your proposed system. Before proceeding with your application, you can apply for our enhanced pre-application advice. This is a chargeable service. For more information see Get advice before you apply for an environmental permit: **https://www.gov.uk/guidance/get-advice-before-you-apply-for-an-environmental-permit**.

6 Nutrient neutral

Check Natural England's page to find out if you are within a nutrient neutral catchment: **https://publications.naturalengland.org.uk/publication/4792131352002560**. To find a list of vulnerable sites download the records file on this page.

If your new discharge contributes to a net increase in nutrient loading (phosphorus and/or nitrogen) in a nutrient neutral catchment, request a GIS screening report from our pre-application service. If the screening confirms your discharge is within the relevant distance of a nutrient neutral designated site, you will be required to have appropriate mitigation in place.

6a Are you in a nutrient neutral catchment?

☑ No **Now go to question 7.**

☐ Yes

What is the name of the nutrient neutral catchment?

6b Is this permit for a new discharge?

☐ No **Now go to question 6c.**

☐ Yes

Will you be required to have appropriate mitigation in place? Contact your local planning authority (LPA) and/or Natural England to discuss appropriate mitigation in your area.

☐ No Provide justification of why you do not need to have appropriate mitigation in place in the following box or an extra sheet.

Reference for the extra sheet.

☐ Yes If you have your mitigation plan in place, provide this with your application

Document reference.

Now go to question 7

6c Is this permit for an existing discharge?

☐ Yes

Has the location of the discharge point or volume of the discharge changed?

☐ No **Now go to question 7.**

☐ Yes

Will you be required to have appropriate mitigation in place? Contact your local planning authority (LPA) and/or Natural England to discuss appropriate mitigation in your area.

☐ No Provide justification of why your discharge will not result in a net increase of nutrient loading (meaning phosphorus and/or nitrogen) in the following box or an extra sheet.

Reference for the extra sheet. ⌊_____⌋

☐ Yes If you have your mitigation plan in place, provide this with your application.

Document reference. ⌊_____⌋

If you have completed independent third-party testing that meets British Standard BS12566, provide your certificate.

Reference for this certificate. ⌊_____⌋

7 How will the effluent be treated?

7a Is your effluent treated?

☑ Yes

☐ No You must explain why the effluent will not be treated.

Document reference for where you have given this justification.

7b Fill in Table 2 for each stage of the treatments carried out on your effluent in the order in which they are carried out.

For installations and waste applications with point source emission to water or sewer **complete all relevant parts of question 8**, there is no need to duplicate information already provided in part B3 or Part B4 forms. Where this information is already provided, give the document reference.

Document reference

Table 2 – Treatments carried out on your effluent

Description	Order of treatment (for example first, second, third, fourth)	
package treatment plant		Now go to 7d
septic tank		Now go to 7d
septic tank with internal septic tank retrofit kit		Now go to 7d
septic tank and sequential batch reactor		Now go to 7d
septic tank and rotating biological contactor		Now go to 7d
septic tank and reedbed		Now go to 7d
trench arch system		Now go to 7d
biological filtration		Now go to 7g
high rate biological		Now go to 7g
tertiary biological		Now go to 7g
chemical		Now go to 7g
activated carbon		Now go to 7g

Description	Order of treatment (for example first, second, third, fourth)	
sand filtration		Now go to 7g
activated sludge		Now go to 7g
oxidation ditch		Now go to 7g
dosing using aluminium for phosphate removal		Now go to 7g
dosing using iron for phosphate removal		Now go to 7g
dosing using iron and aluminium for phosphate removal		Now go to 7g
dosing using polyelectrolytes		Now go to 7g
primary settlement	second	Now go to 7g
screening		Now go to 7g
maceration		Now go to 7g
no treatment required – good engineering design		Now go to 7g
lagoon settlement		Now go to 7g
oil interceptor	first	Now go to 7g
chlorination		Now go to 7g
dechlorination		Now go to 7g
ph correction		Now go to 7g
UV disinfection		Now go to 7g
membrane filtration		Now go to 7g
sterilisation		Now go to 7g
land irrigation		Now go to 7g

Description	Order of treatment (for example first, second, third, fourth)	
reedbed		Now go to 7g
constructed wetland		Now go to 7g
Other		Now go to 7c

7c Provide design details of this other system including the stages of treatment carried out on your effluent, in the following box or an extra sheet. Now go to 7g.

The yard run off goes through a three stage interceptor before entering the sewer. This removes sediment and traps any oil.

Document reference

7d For existing sewage treatment systems, did the treatment system meet the relevant British Standards at the time of installation?

☐ Yes **Now go to 7g.**

☐ No **Now go to 7e.**

How to check if your treatment system meets the British Standard is explained at **https://www.gov.uk/guidance/general-binding-rules-small-sewage-discharge-to-a-surface-water**.

Your septic tank or treatment plant met the British Standard in place at the time of installation if:

- it has a CE mark – **https://www.gov.uk/guidance/ce-marking**
- the manual or other documentation that came with your tank or treatment plant has a certificate of compliance with a British Standard
- it's on British Water's list of approved equipment – **https://www.britishwater.co.uk/page/Accreditation-Certificationcertified-small-wastewater-treatment-systems-for-up-to-50-pt**

You can also ask the company that installed your equipment to confirm that it met the British Standard in place at the time of installation.

7e Provide justification as to why you are not using a British Standard system in the following box or an extra sheet.

Document reference

7f Will the secondary treatment system you are applying for be designed, maintained and operated to deliver the required final effluent quality?

For discharges to surface water, you must confirm whether the treatment system will provide secondary treatment. As a minimum this requires a final effluent quality of 40 mg/l BOD (Biochemical Oxygen Demand) and 60mg/l suspended solids (or better) as maximum concentrations.

☐ Yes

☐ No What is the secondary treatment system you are applying for designed to deliver for BOD as a maximum concentration?

mg/l

What is the secondary treatment system you are applying for designed to deliver for suspended solids as a maximum concentration?

mg/l

7g You must provide details on an extra sheet of the final effluent discharge quality that the overall treatment system is designed to achieve.

Document reference

8 What will be in the effluent?

For all applications, whether to surface water, or onto or into ground, you should still check to see if your discharge is likely to contain any of the specific substances listed in the guidance documents on 'Risk assessment for treated sewage or trade effluent discharges to surface water or groundwater'

(see **https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit**).

If you answer 'yes' to any of 8a to 8c, the discharge contains, or potentially contains, specific substances, you must answer question 9 and send us the screening or modelling and data.

Specific substances means:

For a groundwater activity:

- hazardous substances (as defined by paragraph 4 of Schedule 22 to the Regulations)
- non-hazardous pollutants (as defined by paragraph 5 of Schedule 22 to the Regulations)

This does not include discharges that only contain, or are only likely to contain as their primary pollutants, ammoniacal nitrogen or ammonium and suspended solids.

You can find a list of these substances at **https://www.wfduk.org/resources/groundwater-hazardous-substances-standards**

For a surface water discharge activity:

- priority hazardous substances
- priority substances or other pollutants as defined by the Environmental Quality Standards Directive (EQSD) (2008/105/EC, as amended by 2013/39/EU)
- specific pollutants as defined by Annex 8 of the Water Framework Directive (2000/60/EC) and transposed into UK legislation through the Water Framework Directive (Standards and Classification) Directions (England and Wales) 2015
- or any other substances which the Agency requires assessment because of their bioaccumulative, toxic or ecotoxicological properties
- or any other properties which the Agency considers to present a risk to the aquatic environment

You can find a list of these substances at: **https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit**

Answer all relevant questions for your discharge below.

8a Are any of the specific substances, as defined in the above guidance, entering your upstream sewerage network through any authorised trade consents or known inputs?

☐ Yes Complete this question and ensure you complete the relevant parts of question 9. You will need to complete a risk assessment.

☐ No Provide details on an extra sheet of how you have established that the effluent is not likely to contain specific substances.

Document reference

☑ Does not apply I am not a commercial site treating effluent and do not provide treatment for other effluent streams.

8b Are any of the specific substances, as defined in the above guidance, added to or present in the effluent as a result of the activities on site?

☐ Yes Complete all remaining relevant parts of questions 8 and ensure you complete the relevant parts of question 9. You will need to complete a risk assessment.

☑ No Provide details on a separate sheet of how you have established that the effluent is not likely to contain specific substances.

Document reference Report No 161/1A Section 3.7

8c Have any of the specific substances, as defined in the above guidance, been detected in samples of effluent?

☐ Yes Complete all remaining relevant questions in section 8 and ensure you complete the relevant parts of question 9. You will need to complete a risk assessment.

☑ No Provide details on an extra sheet of how you have established that the effluent is not likely to contain specific substances.

Document reference Report No 161/1A Section 3.7

8d If you have answered 'No' to any of questions 8a to 8c provide details of the evidence you have submitted, include data of all substances assessed, whether or not they require to be taken forward to question 9.

Please note that if you discharge directly into a designated conservation site, we will consult with Natural England which may result in the requirement for further modelling which you may be required to carry out.

Tick all relevant boxes to indicate the evidence you have provided

☐ Sampling data

☑ Monitoring data

☐ Literature review

☐ Process review

☐ Other

Document reference Report No 161/1A Section 3.7 and Appendix F

Complete 8e and 8f if the temperature of the discharge will change compared to an incoming water supply. Then, if you have answered yes to any of questions 8a-8c, you must answer at least one of the questions in 9.

8e What is the maximum temperature of your discharge?

_____ degrees Celsius

8f What is the maximum expected temperature change of the incoming water supply?

increase in degrees Celsius _____

decrease in degrees Celsius _____

9 Environmental risk assessments and modelling

You will need to carry out an environmental risk assessment or modelling to support your application. In some cases we will carry out your risk assessment: **https://www.gov.uk/guidance/risk-assessments-for-your-environmental-permit**. Answer all the questions that are relevant to your discharge. If an environmental risk assessment or modelling is required, you must send it to us with your application. We recommend you contact us for pre-application advice. You can apply for our enhanced pre-application advice. This is a chargeable service. For more information see Get advice before you apply for an environmental permit: **https://www.gov.uk/guidance/get-advice-before-you-apply-for-an-environmental-permit.**

Further guidance can be found in 'Surface water pollution risk assessment for your environmental permit' at **https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit** and 'Groundwater risk assessment for your environmental permit' at **https://www.gov.uk/guidance/groundwater-risk-assessment-for-your-environmental-permit**.

Send us the completed H1 risk assessment tool along with the raw data used to create the summary statistics.

The following information is required to allow the assessment to be undertaken:

- Which substances may be present in the discharge? Substances may be present if:
  i. They're allowed to be added to the discharge (for example water company trade effluent consent or discharges from installations).
  ii. You have added them to the discharge (for example iron or aluminium to remove phosphorus). Read the Environment Agency's guidance on dosed substances for the rules on this.
  iii. You have detected them using chemical analysis.
- For existing discharges, the discharge effluent will need to be analysed for all the substances that may be present in the effluent. Baseline (upstream) river quality data may also be beneficial, as it will provide more accurate information for the assessment to be undertaken.
- For new discharges, estimated or proxy site data will be necessary.
- For each substance, please provide the information set out in the table below.

Substance	The chemical name of the substance being analysed
Unit	The units of measurement. These will usually be micrograms per litre (µg/l), but may also be mg/l or ng/l
Maximum concentration	The maximum recorded concentration of the substance in the effluent
Minimum concentration	The minimum recorded concentration of the substance in the effluent
Mean concentration	The average recorded concentration of the substance in the effluent
Maximum flow	The maximum recorded effluent flow
Mean flow	The average recorded effluent flow
Number of samples	The minimum number of samples required for screening and modelling is 12; the ideal number is 36 (or, for new discharges, assumed means and standard deviations can be accepted if effluent data are not available).

Inputting metals into the H1 risk assessment tool	For metals with bioavailable EQSs for a more accurate assessment, we recommend running the dissolved data through the H1 risk assessment tool rather than total data. For all other metals use total data.
If the H1 risk assessment tool shows modelling is required	For metals with bioavailable EQS's you only need to provide dissolved data. Total data can be used but this will lead to a more precautionary assessment. For metals without bioavailable EQS's you need to provide dissolved and total data.
Required minimum reporting value	'Surface water pollution risk assessment for your environmental permit' at **https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit** or 'Groundwater pollution risk assessment for your environment permit' at **https://www.gov.uk/guidance/groundwater-risk-assessment-for-your-environmental-permit** and **https://www.gov.uk/government/publications/protect-groundwater-and-prevent-groundwater-pollution**, should be checked to determine the minimum reporting value for the analysis of each substance. If the detection limit used is not low enough, the analysis may need to be repeated.
EQS	The relevant environmental quality standard for the substance. This can be found in 'Surface water pollution risk assessment for your environmental permit' at **https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit**

For discharges to a freshwater (non-tidal) river, in general you do not need to carry out modelling for sanitary parameters such as biochemical oxygen demand or ammonia. Most of the information we will need to do this can be provided on part B6, but you may need to add other relevant details. If our assessment concludes that we are not able to accept the proposed activity, we may ask you to provide further evidence by carrying out a higher level of assessment yourself, or we may advise you that the proposed discharge is unacceptable. Where you plan to do the assessment yourself you may need to contact us for information or advice first.

9a Discharges to surface water (except canal, lake, or reservoir).

For discharges to a freshwater (non-tidal) river, if you have answered 'yes' to any of 8a to 8c, the discharge contains, or potentially contains, specific substances.

You must carry out a specific substances screen of sample data using the H1 risk assessment tool in 'Surface water pollution risk assessment for your environmental permit' at **https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit**. Send us the completed H1 risk assessment tool along with the raw data used to create the summary statistics.

Document reference for the H1 risk assessment tool and raw data

Note: if you do not submit the H1 risk assessment tool and raw data we will return your application to you.

9b Discharges to canals, lakes, reservoirs, estuaries, coastal waters or bathing waters.

For discharges to canals, lakes, estuaries, coastal waters or bathing waters you must submit a risk assessment.

Document reference for the risk assessment

In addition, if you have answered 'yes' to any of 8a to 8c, the discharge contains, or potentially contains, specific substances. You must carry out another modelling report following the guidance 'Surface water pollution risk assessment for your environmental permit' (see **https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit**). Send us details of how the modelling was carried out and the outcome.

We cannot undertake assessments on your behalf, but we can offer advice as to what needs to be done. If you do not have the skills to do this yourself, then you will need to engage a consultant to advise you and to undertake the assessment.

Document reference for the modelling report

Note: if you do not submit the risk assessment and the modelling report we will return your application to you.

9c Sewer modelling report (for discharges of final effluent from a water company WwTW or intermittent sewage discharges).

For discharges of final effluent from a water company WwTW or intermittent sewage discharges, you must submit a sewer modelling report. Send us details of how the modelling was carried out and the outcome.

Document reference for the H1 risk assessment tool and raw data

Have you answered yes to any of 8a to 8c?

☐ No

☐ Yes Send us the completed H1 risk assessment tool, along with the raw data used to create the summary statistics

Document reference for the H1 risk assessment tool and raw data

Note: if you do not submit the H1 risk assessment tool and modelling report, we will return your application to you.

9d Discharges to ground.

You must carry out a groundwater quantitative risk assessment following the guidance in 'Groundwater risk assessment for your environmental permit' (see **https://www.gov.uk/guidance/groundwater-risk-assessment-for-your-environmental-permit**). For discharges to ground, we will usually be able to carry out a risk assessment for you where the discharge is less than 15 cubic metres per day of treated domestic sewage and in a non-sensitive area, (see **https://www.gov.uk/guidance/groundwater-risk-assessment-for-your-environmental-permit** for further information).

We will expect you to do the risk assessment in other situations and we can offer advice as to what needs to be done. If you do not have the skills to do this yourself, then you will need to engage a suitably qualified consultant to advise you and to undertake the assessment. For further guidance see 'Groundwater risk assessment for your environmental permit' at **https://www.gov.uk/guidance/groundwater-risk-assessment-for-your-environmental-permit**

For groundwater remediation schemes you must send us send a site-specific remediation strategy that has been agreed with the local Environment Agency groundwater and contaminated land team. This should include:

- conceptual model
- quantitative site-specific risk assessment
- site-specific remedial targets
- details of the contaminant concentrations contained within the proposed discharge

Send us details of how the modelling was carried out and the outcome.

Document reference

Note: if you do not submit the risk assessment and modelling report we will return your application to you.

9e Discharges to freshwater (non-tidal) rivers from an installation, including discharges via sewer

If the discharge contains, or potentially contains, any specific substances, you must carry out screening following the guidance (see **https://www.gov.uk/guidance/surface-water-pollution-risk-assessment-for-your-environmental-permit**).

Have you answered yes to any of 8a to 8c?

☑ No

☐ Yes Send us the completed H1 risk assessment tool, along with the raw data used to create the summary statistics. Where the discharge is via sewer, include sewage treatment reduction factors in the calculations.

Document reference for the H1 risk assessment tool and raw data

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Note: if you do not submit the H1 risk assessment tool, we will return your application to you.

9f Environmental impact assessment.

Have you carried out an environmental impact assessment?

☑ No

☐ Yes Send us details of how the assessment was carried out and the outcome.

Document reference for the environmental impact assessment

10 Monitoring arrangements

10a What is the national grid reference of the inlet sampling point? (for example, SJ 12345 67890)

This is the sample point that will be used for discharges which are made up of returned abstracted water; for example, fish farms and cooling water. In these cases we will set a comparative limit to assess compliance against. It is also required for larger sewage treatment sites that meet the requirements of the Urban Waste Water Treatment Regulations (UWWTR). It allows a composite sample of the influent to the sewage treatment works to be obtained. You must provide a permanent means of access to monitoring points.

NGR: not applicable

10b What is the national grid reference of the effluent sample point?

This is the sample point used to assess compliance with any water quality emission limits on your permit. You must ensure that it allows a representative sample of the discharge to be obtained. You must also ensure that all constituents of the discharge pass through the sampling point at all times. The sample point can be where the effluent meets the receiving environment only in cases where no other effluent is added before this point. You must provide a permanent means of access to monitoring points.

Note for small existing discharges to ground only:

If you are applying for a permit for an existing discharge of treated sewage effluent of not more than 5 cubic metres a day to ground (for example, using a drainage field) which does not already have a sample point we will not expect you to provide one.

NGR: SJ 73696 61204 (interceptor)

10c Do you have an Urban Waste Water Treatment Directive final effluent sampling point?

This is a requirement for larger sewage treatment sites that meet the requirements of the UWWTR. It allows a composite sample of the final effluent from the sewage treatment works to be obtained. Further guidance on the UWWTR can be found **https://www.gov.uk/government/publications/waste-water-treatment-works-treatment-monitoring-and-compliance-limits/waste-water-treatment-works-treatment-monitoring-and-compliance-limits#Population-equivalent-thresholds-for-analytical-parameters**. You must provide a permanent means of access to monitoring points.

☐ Yes Please provide the national grid reference

☐ No

10d What is the national grid reference of the flow monitoring point?

If your effluent has a maximum volume of 50 cubic metres a day or less you do not need to complete questions 10d or 10e. See **https://www.gov.uk/government/publications/minimum-requirements-for-self-monitoring-of-flow-mcerts-performance-standard**

NGR: n/a

10e Does the flow monitor have an MCERTS certificate?

☐ Yes Please give the certificate number

☐ No

10f Do you have a UV disinfection efficacy monitoring point?

This type of monitoring point is only required for discharges that undergo some form of disinfection. For example, ozone or ultraviolet disinfection, membrane filtration and so on.

☐ Yes Please provide the national grid reference

☐ No

10g Do you have an event duration monitoring or a discharge operation monitoring point?

☐ Yes Please provide the national grid reference

☐ No

10h Do you have an overflow operation (into storm tank) monitoring point?

☐ Yes Provide the national grid reference

☐ No

10i Do you have a flow passed forward monitoring point?

☐ Yes Provide the national grid reference

☐ No

If you have answered yes to 10i, where is the flow passed forward monitor installed?

☐ Inlet

☐ Post treatment process

10j You should clearly mark on the plan the locations of any of the above that apply to this effluent.

You must send us a map or plan that:

- is A4 or larger
- is at a scale of 1:10,000 (approximately 6 inches to 1 mile)
- shows clearly which direction north is

The plan should show:

- the boundary of the site including the full extent of the land ownership relating to the permit application
- the premises discharging effluent
- the site in relation to the local area
- any watercourses, wells, springs or boreholes on the site (or within 50 metres of it).

You must also mark on the map points to show where:

- effluent is discharged into the controlled waters
- samples of effluent and influent can be taken automatically or manually (if required)

- flow or quality will be measured (if required)

You may submit more than one plan if necessary.

Document reference for the plan Drawing No 161/03A Drainage Plan

10k Do you intend to do your own effluent monitoring?

☐ Yes

☑ No

11 Where will the effluent discharge to?

11a Mark in Table 3 where this effluent discharges to and fill in the relevant section or sections.

You must use the name you gave to this effluent in answer to question 1b of this form when filling in your relevant appendix or appendices.

Table 3 – Where the effluent discharges to

Receiving environment		Relevant section
Tidal river, tidal stream, estuary or coastal waters	☐	1
Non-tidal river, stream or canal	☑	2
Lake or pond	☐	3
Discharges to a British Standard drainage field or drainage mound	☐	4 and 5
Discharges into ground not using a British Standard drainage field or drainage mound	☐	4 and 6
Discharges onto land via grass plot	☐	4 and 7

Effluents are usually discharged to one location in one receiving environment. However, if your effluent can be discharged to more than one location within a single receiving environment, for example, two different discharge points on a non-tidal river, you should complete the appropriate section and ensure you give all relevant details of every discharge point that the effluent can be discharged through. To do this you will need to complete a relevant appendix for each separate discharge point for an effluent and explain any different circumstances under which each is used.

If your effluent discharges to more than one location in a different receiving environment, for example, to a borehole or to a non-tidal river (under different circumstances), you will need to complete all relevant appendices for each discharge point and explain the different circumstances under which each is used.

Note: You need to make sure that you have all the necessary permissions to discharge from landowners, for example The Canal and Rivers Trust, if you want to discharge into a canal that they manage, or the local highways authority if you want to discharge via a highway drain.

11b Is this effluent discharged through more than one outlet?

☑ No

☐ Yes Give details, on an extra sheet, of the circumstances under which each outlet would be used by this effluent

Document reference

11c If you answered yes to question 11b above make sure you show clearly on your discharge point section or sections and site plan that this one effluent can discharge to more than one discharge point.

You must give us all the details we need for each of the discharge points used by this effluent.

12 How to contact us

If you need help filling in this form, please contact the person who sent it to you or contact.

General enquiries: 03708 506 506 (Monday to Friday, 8am to 6pm) Textphone: 03702 422549 (Monday to Friday, 8am to 6pm)

Email: **enquiries@environment-agency.gov.uk**

Website: **https://www.gov.uk/government/organisations/environment-agency**

If you are happy with our service, please tell us. It helps us to identify good practice and encourages our staff. If you're not happy with our service, please tell us how we can improve it.

Please tell us if you need information in a different language or format (for example, in large print) so we can keep in touch with you more easily.

Feedback

(You don't have to answer this part of the form, but it will help us improve our forms if you do.)

We want to make our forms easy to fill in and our guidance notes easy to understand. Please use the space below to give us any comments you may have about this form or the guidance notes that came with it.

How long did it take you to fill in this form?

We will use your feedback to improve our forms and guidance notes, and to tell the Government how regulations could be made simpler.

Would you like a reply to your feedback?

☐ Yes please

☐ No thank you

For Environment Agency use only

Date received (DD/MM/YYYY)

Our reference number

Payment received?

☐ No

☐ Yes

Amount received (£)

Section 1: Discharges to tidal river, tidal stream, estuary or coastal waters

Answer all the questions below. Use a separate line for each effluent if more than one effluent discharges using this discharge point. Remember, when linking your effluent to a discharge point you must use the name you gave to your effluent in answer to question 1b in the effluent form.

1.1 Give the discharge point a unique name.

For example, 'Outlet 1' (you must use this name to identify the discharge point on the plan)

1.2 Give the national grid reference of the discharge point.

NGR:

1.3 Give the name of the tidal river, tidal stream, estuary or area of coastal water.

1.4 Is the discharge into a:

- ☐ Tidal river
- ☐ Tidal stream
- ☐ An estuary
- ☐ Coastal water

1.5 Does the discharge reach the watercourse by flowing through a surface water sewer?

Most effluents pass along a dedicated pipe and are discharged via an outlet to a receiving water. In some cases effluents may be discharged into a surface water sewer owned by someone else before they discharge into a receiving water. If this is the case you must give the national grid reference where your discharge enters the surface water sewer

☐ Yes, give the national grid reference where the discharge enters the surface water sewer.

NGR:

Give the national grid reference where the surface water sewer meets the final watercourse, for example, river or lake.

NGR:

☐ No

1.6 Does the discharge reach the final surface watercourse or canal by flowing through highway drains?

Highway drains: "Highway drain" means a drain which a highway authority or other person is entitled to keep open by virtue of section 100 of the 1980 Act.

☐ No

☐ Yes Give the national grid reference where the discharge enters the highway drain.

NGR: ⌊_____⌋

Note: Give the national grid reference where the highway drain meets the final surface water course, for example, river or lake.

NGR: ⌊_____⌋

Have you obtained written permission from the relevant highways authority?

☐ Yes You need to get a written permission from the relevant highways authority and submit it with your application.

If yes, it is your responsibility to ascertain whether the relevant highways authority is responsible for the roadside drain or ditch. If it is, you need to secure the appropriate permissions before submitting an application for an environmental permit to the Environment Agency. A copy of the written permission from the relevant highways authority must be submitted with the environmental permit application.

Document reference for the written permission ⌊_____⌋

Note: Your application will be returned if you do not get written permission from the relevant highways authority before you submit this permit application.

1.7 Is the discharge point above the mean low water spring tide mark?

☐ No

☐ Yes Please explain, on an extra sheet, why the discharge cannot be made below this point

Document reference ⌊_____⌋

1.8 How is the effluent dispersed?

⌊_____⌋

For example, open pipe or diffuser system. Choose 'open pipe' if the effluent enters the tidal river, estuary or coastal water from a pipe. We will have told you if a diffuser is needed during pre-application discussions.

If diffuser system go to question 1.9

1.9 Give details, on an extra sheet, of the design of the diffuser system.

Document reference ⌊_____⌋

Section 2: Discharges to non-tidal river, stream, ditch or canal

Answer all the questions below. Use a separate line for each effluent if more than one effluent discharges using this discharge point. Remember, when linking your effluent to a discharge point you must use the name you gave to your effluent in answer to question 1b in the effluent form.

2.1 Give the discharge point a unique name.

For example, 'Outlet 1' (you must use this name to identify the discharge point on the plan)

Sandbach yard water

2.2 Give the national grid reference of the discharge point:

NGR: SJ 74299 59281 on River Wheelock

2.3 Give the name of the watercourse, canal or the main watercourse if it is a tributary:

River Wheelock via Sandbach WWTW

2.4 Is the discharge into a

- [x] Non-tidal river
- [ ] Stream or ditch
- [ ] Canal

2.5 Does the discharge reach the watercourse or canal by flowing through a surface water sewer?

Most effluents pass along a dedicated pipe and are discharged via an outlet to receiving water. In some cases effluents may be discharged into a surface water sewer owned by someone else before they discharge into a receiving water. If this is the case you must give the national grid reference where your discharge enters the surface water sewer.

- [ ] Yes Give the national grid reference where the discharge enters the surface water sewer.

NGR:

Give the national grid reference where the surface water sewer meets the final watercourse, for example, river or lake.

NGR:

- [x] No

2.6 Does the discharge reach the final surface watercourse or canal by flowing through highway drains?

Highway drains: "Highway drain" means a drain which a highway authority or other person is entitled to keep open by virtue of section 100 of the 1980 Act.

- [x] No
- [ ] Yes Give the national grid reference where the discharge enters the highway drain.

NGR:

Give the national grid reference where the highway drain meets the final surface water course, for example, river or lake.

NGR:

Note: If yes, it is your responsibility to ascertain whether the relevant highways authority is responsible for the roadside drain or ditch. If it is, you need to secure the appropriate permissions before submitting an application for an environmental permit to the Environment Agency. A copy of the written permission from the relevant highways authority must be submitted with the environmental permit application.

Have you obtained written permission from the relevant highways authority?

☐ Yes

Document reference for the written permission from the relevant highways authority.

Note: Your application will be returned if you do not get written permission from the relevant highways authority before you submit this permit application.

2.7 Does the watercourse dry up for part of the year?

If a watercourse is dry other than at times of rainfall, this means it does not have a year-round flow. We would expect for a watercourse to have flow all year round regardless of rainfall events unless an event such as extreme drought or an unusually long period of dry weather.

☑ No, it always has flowing water in it.

☐ Yes, it is dry for part of the year: indicate the months when the watercourse is dry:

- ☐ January
- ☐ February
- ☐ March
- ☐ April
- ☐ May
- ☐ June
- ☐ July
- ☐ August
- ☐ September
- ☐ October
- ☐ November
- ☐ December

☐ Yes, it is dry all year-round.

If you apply to discharge to a watercourse that never has flowing water, you must provide justification why a discharge into ground via a British Standard drainage field is not possible. You must prove this justification by completing **section 4: Preliminary questions for discharges to ground.**

☐ Tick to confirm you have completed **section 4: Preliminary questions for discharges to ground.**

2.8 If the watercourse does dry up for part of the year, how many metres downstream of the discharge is it before the discharged effluent soaks into the ground?

You must install an appropriate length of perforated pipe before the discharge point that does not extend more than 10 metres from the bank of any watercourse. Any section of that pipe which lies within 10 metres of the bank of any watercourse must be perforated. The length of perforated pipe installed should be designed appropriately to ensure that when the watercourse is dry, the discharge must be made indirectly to the watercourse via the soil surrounding the perforated pipe. You must make sure to design your system to ensure an appropriate length of perforated piping is installed.

☐ Tick the box to confirm you will install a section of perforated pipe as per the above guidance.

Section 3: Discharges to a lake or pond

You do not need a permit to discharge to an enclosed lake or pond. This means a lake or pond in which all of the following apply:

- it contains water throughout the year, other than in extreme weather conditions
- it does not have an outfall that connects it to a watercourse, or has an outfall that only discharges in extreme weather conditions
- It is sealed or lined to prevent water draining into the ground or soaking into the surrounding soil.

You must use appropriate pollution prevention measures to make sure your discharge does not cause pollution.

Answer all the questions below. Use a separate line for each effluent if more than one effluent discharges using this discharge point. Remember, when linking your effluent to a discharge point you must use the name you gave to your effluent in answer to question 1b in the effluent form.

3.1 Give the discharge point a unique name.

For example, 'Outlet 1' (you must use this name to identify the discharge point on the plan)

3.2 Give the national grid reference of the discharge point.

NGR:

3.3 Give the name of the lake or pond.

3.4 Select from the following list the type of lake or pond you will be discharging to and answer the relevant questions

Type of lake or pond

☐ A lake or pond that does not discharge into a river or a watercourse or another pond that then discharges into a river or a watercourse. **Permit not required.**

☐ A lake or pond that does not discharge into a river or watercourse or another pond that then discharges into a river or watercourse, where you have had a notice served under paragraph 5 of Schedule 21 of the Environmental Permitting (England and Wales) Regulations 2016.

☐ A lake or pond that discharges into a river or watercourse.

3.5 What is the surface area of the lake or pond?

square metres

3.6 What is the maximum depth of the lake or pond?

metres

3.7 What is the average depth of the lake or pond?

metres

Section 4: Preliminary questions for discharges to ground

If you are applying to continue to discharge sewage effluent to ground using an infiltration system which was installed before 1 January 2015 provide, the information in question 4.4 onwards, but if you have it, also provide the information in questions 4.1, 4.2 and 4.3.

For all proposed discharges to ground and for systems which started discharging to ground on, or after, 1 January 2015 start at question 4.1.

Percolation testing

An infiltration system is a restricted and well-defined area of ground designed to allow effluent to enter the ground. We expect any new infiltration system to be built to British Standard BS6297:2007 +A1:2008 Code of practice for the design and installation of drainage fields for use in wastewater treatment (or latest version).

Drainage fields are an important component of the treatment of your sewage. If you are proposing to use an alternative infiltration system, we require you to first demonstrate whether a shallow drainage field, designed in accordance with the BS6297, could be achieved based on ground conditions, the percolation rate and available space.

BS6297 sets out the percolation test procedure. You need to carry out percolation tests following this procedure which is summarised at **https://www.gov.uk/guidance/infiltration-systems-groundwater-risk-assessments#percolation-tests**. Use of alternative test methods, for example, test methods for surface water soakaways, will not be accepted.

4.1a Were each of the percolation test holes 300mm square and 300mm deep below the proposed invert level (bottom) of the infiltration pipe?

☐ Yes

☐ No Provide justification why you have not used the above measurement. Use of an alternative test method, for example, test methods for surface water soakaways, will not be accepted. Provide the details in the following box or an extra sheet.

Reference for the extra sheet. ⌊_____⌋

4.1b Did you fill each hole with water to a depth of at least 300mm and allow it to seep away overnight before starting your measured percolation testing?

☐ Yes

☐ No Tell us why, in the following box or an extra sheet.

Reference for the extra sheet.

4.1c What were the weather conditions when you carried out the percolation testing?

Describe the conditions in the following box.

4.1d Did your percolation tests achieve a drop in water level of 150mm from the moment the holes were 75% full to when they were only 25% full?

☐ Yes Complete Table 1: **For percolation test results where a drop of 150mm was achieved.**

☐ No Complete Table 2: **For percolation test results where a drop of 150mm was not achieved.**

☐ No Infiltration system installed before 1 January 2015 and no information available on percolation tests. **Now go to question 4.4.**

To meet the British Standard requirements, you must complete at least three tests in two holes which are spaced evenly along the proposed line of the subsurface drainage field.

Information for more than two test holes can be supplied – especially if a large area has been investigated or initial tests show unsatisfactory results.

Table 1: For percolation test results where a drop of 150mm was achieved

Worked example

Percolation test hole number:	**1**	**Your unique reference for this hole (as used on your site plan)**	**TP – 01**

				Elapsed time for water to drain from 75% full to 25% full (a depth of 150 mm)			
Test date (DD/MM/YYYY)	**Test no.**	**Start time (24-hour clock)**	**Finish time (24-hour clock)**	**As hours and minutes**	**As minutes**	**As seconds**	**Percolation value (Vp) – Seconds divided by 150mm (s/mm)**
01/04/2023	1	09:50	11:00	1h 10mins	70	4,200	28
01/04/2023	2	11:15	12:15	1hr	60	3,600	24
01/04/2023	3	13:30	14:50	1hr 20mins	80	4,800	32

Your reference number should match the reference number used to show the location of each test hole on your site plan requested in question 4.7. Each test hole should have a unique reference number.

To calculate the average Vp you will need to add the Vp for each test you have completed and divide by the number of tests.

Test 1 Vp	**Test 2 Vp**	**Test 3 Vp**	**Total**	**Divided by the number of tests completed (3 tests in this scenario)**	**(Test 1 Vp + Test 2 Vp + Test 3 Vp) ÷ 3**		**Average Vp**
28	24	32	84		(28 + 24 + 32 = 84) ÷ 3 =	28	= Average Vp for worked example

Table 1a: For percolation test results where a drop of 150mm was achieved

Percolation test hole number:	**1**	**Your unique reference for this hole (as used on your site plan)**	

Elapsed time for water to drain from
75% full to 25% full (a depth of 150 mm)

Test date DD/MM/YYYY	**Test no.**	**Start time (24-hour clock)**	**Finish time (24-hour clock)**	**As hours and minutes**	**As minutes**	**As seconds**	**Percolation value (Vp) – Seconds divided by 150mm (s/mm)**
	1						
	2						
	3						

Average Vp for Hole 1

Table 1b: For percolation test results where a drop of 150mm was achieved

Percolation test hole number:	**2**	**Your unique reference for this hole (as used on your site plan)**	

Elapsed time for water to drain from
75% full to 25% full (a depth of 150 mm)

Test date DD/MM/YYYY	**Test no.**	**Start time (24-hour clock)**	**Finish time (24-hour clock)**	**As hours and minutes**	**As minutes**	**As seconds**	**Percolation value (Vp) – Seconds divided by 150mm (s/mm)**
	1						
	2						
	3						

Average Vp for Hole 2

Table 1c: For percolation test results where a drop of 150mm was achieved

Percolation test hole number:	**3**	**Your unique reference for this hole (as used on your site plan)**	

Elapsed time for water to drain from 75% full to 25% full (a depth of 150 mm)

Test date DD/MM/YYYY	**Test no.**	**Start time (24-hour clock)**	**Finish time (24-hour clock)**	**As hours and minutes**	**As minutes**	**As seconds**	**Percolation value (Vp) – Seconds divided by 150mm (s/mm)**
	1						
	2						
	3						

Average Vp for Hole 3

If you complete tests in more than three holes provide the results on an extra sheet, and ensure you include this data in the calculation of average Vp.

Reference for the extra sheet.

Table 1d: Average Vp of all test holes

Average Vp for Hole 1 (table 1.a) + Average Vp for Hole 1 (table 1.b) + Average Vp for Hole 1 (table 1.c), if completed =

Total , divide the total by the number of test holes completed = Overall average Vp of all your test holes.

Table 2: For percolation test results where a drop of 150mm was not achieved

Percolation test hole number	Your reference number (if alternative numbering used on site plan)	Test date (DD/MM/YYYY)	Test No.	Start time (24-hour clock)	Finish time (24-hour clock)	Change in water level during test (mm)

British Standard BS6297 trial holes

British Standard BS6297 requires a trial hole to be excavated to characterise the soil and subsoil and show whether shallow groundwater is present. The trial hole should be excavated adjacent to the area where the drainage field will be installed. If soil conditions are variable further trial holes should be dug. Trial holes differ to test holes which are used to establish soil percolation rates.

4.2a What were the characteristics of the soil and subsoil that you observed in the trial holes and test holes on site?

Only describe what was observed in your trial holes and test holes, do not include information from other sources. Use the following box or an extra sheet.

Reference for the extra sheet.

Provide at least one photograph per trial and test hole, and written observations made on site.

References for these photograph attachments and observations.

4.2b Was groundwater present in the trial hole?

☐ No

☐ Yes At what depth?

metres below ground level

Infiltration system area

4.3a Calculate the trench area required for a British Standard BS6297 drainage field based on your percolation value (Vp): If the infiltration rate was so slow a drop of 150mm was not achieved and you have filled out Table 2, you are not able to calculate a Vp value. Now go to question 4.3b.

150 litres (equivalent to 0.15 cubic metres) is the standard residential volume of sewage generated per person per day. We use this to calculate the population for both domestic and non-domestic premises.

	use your answer to 1.3			
Max volume of effluent (m^3/day)		÷ 0.15	=	**p**

Now you need to calculate the trench area in accordance with British Standard BS6297 using the population (p) and your percolation value (Vp).

If your Vp result indicates fast infiltration (less than 15 s/mm) you need to use a sand layer or drainage mound. The area of your system should meet or exceed the area calculated based on a Vp of 15 s/mm.

If your Vp is greater than 100 s/mm, it is outside the British Standard BS6297 acceptable range and indicates slow infiltration rates which are not suitable for the installation of a drainage field.

For septic tanks:

p [ ] × Vp [ ] × 0.25 for septic tanks **=Trench area** [ ] m^2

For sewage treatment plants:

p [ ] × Vp [ ] × 0.20 for sewage treatment plants **=Trench area** [ ] m^2

4.3b What is the actual total area of your existing or proposed infiltration system?

For British Standard BS6297 drainage fields this will include an allowance for natural ground between trenches and around the outer trenches. For a square or rectangular shaped infiltration system this is the length (in metres) multiplied by the width (in metres).

[ ] Total Area (square metres)

How have you calculated the area of your infiltration system?

Provide the details in the following box or an extra sheet.

Reference for the extra sheet. [ ]

Site setting

You need a permit if you are discharging to ground in a source protection zone 1 (SPZ1). Source protection zones are explained at **https://www.gov.uk/guidance/groundwater-source-protection-zones-spzs**. A groundwater SPZ1 is also any area within 50 metres of a private water supply used for human consumption or food production.

You must check if there are any private wells, springs, or boreholes used to supply water for human consumption or food production purposes within 50 metres of your proposed discharge. You can contact your local authority for details on private water supplies. These supplies are not required to hold a permit from the Environment Agency if they pump less than 20 cubic metres (20 m^3) per day, so we do not have the relevant information.

This information may belong to your neighbours. How you should manage this is explained at **https://www.gov.uk/guidance/environmental-permits-privacy-notice#your-responsibility-with-other-peoples-personal-data**.

4.4a Are there any wells, springs or boreholes within 50 metres of your infiltration system?

Tick to confirm you have checked with:

- ☐ Local property and landowners
- ☐ Neighbours
- ☐ Local authority

☐ No **Now go to 4.4d.**

☐ Yes

4.4b Is the well, spring or borehole you have identified used to supply drinking water or for food production purposes?

☐ No **Now go to question 4.4d.**

☐ Yes You must describe what the water supplied is used for, in the following box or an extra sheet. Identify the location of the well, spring or borehole on the plan required in question 4.7.

Reference for the extra sheet. ⌊_____⌋

4.4c Where available provide the following information:

- The depth to groundwater from ground level.
- Construction details for boreholes and wells.
- The depth of the pumping equipment from ground level.
- Results of any water quality testing.
- Details of treatment of the water prior to consumption.
- Details of any known pollution incidents that impacted the water.

Provide these details in the following box or an extra sheet.

Reference for the extra sheet.

4.4d What is the distance to the nearest watercourse (for example, surface water, river or stream)?

metres

If the watercourse is within 10 metres of your infiltration system identify it on the site plan required by question 4.7.

Feasibility of a British Standard drainage field

Our preferred system for treated sewage effluent to be discharged to ground is an engineered, shallow drainage field designed in accordance with British Standard BS6297.

4.5a Is the average percolation test result within the acceptable range (15 to 100 s/mm) required by British Standard BS6297?

Check your answer to question 4.1, Table 1d Average Vp

- ☐ Yes **Now go to question 4.5b.**
- ☐ No The average Vp is less than 15 s/mm. **Now go to question 4.5b.**
- ☐ No The average Vp is greater than 100 s/mm. **Now go to 4.5e.**
- ☐ Not sure I will be using an infiltration system installed before 1983 and do not have any percolation test results. **Now go to question 4.5d.**
- ☐ Not sure I will be using an infiltration system installed between 1983 and 2014 and do not have percolation test results. **Now go to question 4.5d.**
- ☐ Not sure Other. Explain why in the following box or an extra sheet.

Reference for the extra sheet.

4.5b Is there space for a British Standard BS6297 drainage field?

Use the area you have calculated in question 4.3a and 4.3b, the dimensions of the land available and presence of any buildings to explain your response.

☐ Yes

☐ No Explain why in the following box or an extra sheet.

Reference for the extra sheet. ⌊_____⌋

4.5c Are there any other restrictions to installing a British Standard BS6297 drainage field?

☐ No

☐ Yes Explain what these are in the following box or an extra sheet.

Reference for the extra sheet. ⌊_____⌋

4.5d Will your discharge be to a new or existing drainage field which complies with the British Standard BS6297?

☐ Yes, a British Standard drainage field or drainage mound (or sand layer) will be used. **Complete questions 4.6 to 4.8, then go to Section 5.**

☐ Unsure, I will be using an existing system installed before 1 January 2015 and do not know if it complies with BS6297.

Tick to confirm which of the following best describes your existing system:

- ☐ Drainage field. **Complete questions 4.6 to 4.8, then go to Section 5.**
- ☐ Pit or soakaway. **Complete questions 4.6 to 4.8, then go to Section 6**.
- ☐ Well or borehole. **Complete questions 4.6 to 4.8, then go to Section 6**.
- ☐ Concrete ring. **Complete questions 4.6 to 4.8, then go to Section 6**.

☐ No, I will be using a non-British Standard infiltration system.

If your answers to questions 4.5a, 4.5b, and 4.5c indicate a British Standard drainage field could be installed but you are choosing not to use one when there are no restrictions, explain why. Provide your answer in the following box or an extra sheet.

Reference for the extra sheet.

If **ground conditions** and **space** would allow the installation of a British Standard drainage field, but you are choosing not to install one **we are more likely to refuse an environmental permit** for such discharges.

4.5e Where would your non-British Standard infiltration system discharge the effluent?

- ☐ Into land **Complete questions 4.6 and 4.7, then Section 6.**
- ☐ Onto land via a grass plot **Complete questions 4.6 and 4.7, then Section 7.**
- ☐ Other

Before proceeding with your application, you can apply for our enhanced pre-application advice. This is a chargeable service. For more information see: **https://www.gov.uk/guidance/get-advice-before-you-apply-for-an-environmental-permit**.

If you have already had enhanced pre-application advice for this proposal provide the reference number for your enhanced pre-application.

Reference for the enhanced pre-application advice.

4.6 Are you proposing a new discharge of treated domestic effluent to ground via a shallow sub-surface infiltration system in a groundwater source protection zone 1 (SPZ1) with a discharge volume between 2 to 15 cubic metres a day?

- ☐ No Your proposed discharge does not require you to submit a separate quantitative risk assessment, but you must provide sufficient information as required by this application form to allow the risk assessment to be completed on your behalf by the Environment Agency.
- ☐ Yes Your proposed discharge requires you to submit a quantitative risk assessment.

Reference for the risk assessment.

To do this you need to follow the guidance at **https://www.gov.uk/guidance/groundwater-risk-assessment-for-your-environmental-permit** and send us details of how the risk assessment was carried out and the outcome. If the discharge is, or will be, made to a subsurface infiltration system then we recommend you read **https://www.gov.uk/guidance/infiltration-systems-groundwater-risk-assessments**. This includes advice and a worksheet on how to carry out the risk assessment for shallow infiltration systems. This methodology is not appropriate for deep infiltration systems such as boreholes and wells or systems which cover a relatively small area, for example, concrete rings.

Site plan

4.7 Provide a site plan that contains the following information with your application.

The requirements detailed below must match the national grid references for the relevant locations provided in this application, or the processing of your application may be delayed, or returned. If you are applying for a permit for an existing discharge to ground using an infiltration system installed before 1983, please provide as much detail as possible on your site plan but we understand you may not possess detailed records.

Reference for your site plan. ⌊_____⌋

Required for all cases: Tick the boxes to confirm you have added these requirements to the site plan

- ☐ The boundary of the site including the full extent of the land ownership relating to the permit application.
- ☐ Location of the treatment system.
- ☐ Location of the sampling point or points.
- ☐ Location of the discharge point or points.

  If you are discharging to ground, this is the location where the effluent from the treatment system enters the infiltration system.
- ☐ A north arrow.

The properties served by the treatment system do not have to be shown.

Where a percolation test has been carried out, mark the test hole locations. Each test hole should be given a unique reference number to match the reference used in the percolation results in Table 1 or Table 2. We need to understand which percolation result relates to which hole.

- ☐ Unique percolation test hole reference.
- ☐ The extent of the infiltration system with the length and width of each side annotated in metres.
- ☐ Any restrictions in installing a British Standard BS6297 drainage field? For example, the boundary of the property, or proximity to any other buildings. Please also provide distances in metres.
- ☐ The area covered by any infiltration system which is being replaced and will no longer be used.
- ☐ Any well, spring or borehole within 50 metres of the discharge point.
- ☐ Any watercourse within 10 metres of your infiltration system.

4.8 If your application is for a sewage treatment plant which you are already using or you have selected the plant you propose to use, provide details:

Make and model:

⌊_____⌋

The final effluent quality achieved for:

Ammoniacal nitrogen

⌊_____⌋ (mg/l as nitrogen (N)).

Any other chemical parameters quoted by the manufacturer

	parameter		mg/l
	parameter		mg/l
	parameter		mg/l
	parameter		mg/l

For new discharges to a non-British Standard infiltration system, we expect you to treat your effluent using a sewage treatment plant that meets British Standard BS12566 or BS12255.

Section 5: Discharges to a British Standard drainage field or drainage mound

Ensure you have fully completed **Section 4** before completing this section.

5.1 Tick to confirm which type of British Standard system you are applying for:

☐ Drainage field.

☐ Drainage field with additional sand layer due to fast infiltration (less than 15 s/mm).

☐ Drainage mound.

☐ A drainage field installed before 1983. For systems installed before 1983 **complete questions 5.2 and 5.3**. You only need to answer questions 5.4 to 5.7 if you have the information.

☐ A drainage field installed between 1983 and 2014 and you do not have percolation test results. **Complete questions 5.2 and 5.3**. You only need to answer questions 5.4 to 5.7 if you have the information.

5.2 Tick the appropriate box to describe the drainage field or mound.

☐ Not built yet.

☐ Built but not yet in use.

When was it built? ⌊_____⌋ (DD/MM/YYYY)

☐ Already being used to discharge effluent.

When was it built? ⌊_____⌋ (DD/MM/YYYY)

When was it operational? ⌊_____⌋ (DD/MM/YYYY)

5.3 What are the maximum dimensions of your drainage field?

Tick to show whether this is measured, proposed or estimated:

Length ⌊_____⌋ metres:

- ☐ Measured
- ☐ Proposed
- ☐ Estimated

Width ⌊_____⌋ metres:

- ☐ Measured
- ☐ Proposed
- ☐ Estimated

Depth ⌊_____⌋ metres:

- ☐ Measured
- ☐ Proposed
- ☐ Estimated

Drainage field details

5.4 What is the thickness of your distribution layer beneath the infiltration pipes?

_____ metres

The British Standard BS6297:2007 + A1:2008 requires the distribution layer to be 0.2 to 0.3 metres thick.

If your answer to question 5.4 is less than 0.2 metres you will also need to complete Section 6 as you have not met the minimum thickness required by the British Standard.

5.5 Is there a minimum of 1.2 metres of unsaturated soil between the seasonally highest groundwater level and the base of the trench that the perforated pipes are laid in?

☐ Yes

☐ No

Tell us how you know this and if you have any additional information on the local depth to groundwater.

Provide you answer in the following box or an extra sheet.

Reference for the extra sheet. _____

5.6 Drainage mounds and drainage fields with additional sand layers.

Tell us why you need a drainage mound or additional sand layer in the following box or an extra sheet.

Reference for the extra sheet. _____

5.7 If the average percolation test value (Vp) is less than 15 s/mm, tick both to confirm:

☐ A minimum 0.7 metres thick layer of medium or coarse washed sand is laid on a geotextile membrane below the granular fill distribution layer.

☐ The minimum floor area must be calculated using a Vp equal to 15 s/mm. **Refer to question 4.3a.**

Section 6: Discharges to ground NOT using a British Standard drainage field or drainage mound

Our preferred infiltration systems are drainage fields designed in accordance with British Standard BS6297. Drainage fields are an important component of a non-mains wastewater treatment system and provide additional treatment of the effluent. When the risk to groundwater, or other environmental receptors is assessed, we allow for this additional treatment.

If your infiltration system is not sized or designed in accordance with guidance in the British Standard it is likely to concentrate the discharge over a smaller area and/or discharge at a greater depth. This will pose a higher risk of groundwater pollution because it reduces the potential for further treatment of the effluent compared to a drainage field meeting the British Standard. Therefore, we are more likely to refuse an environmental permit for such discharges.

To evaluate this additional risk requires a more complex assessment. We require information on the design, dimensions, and local conditions to be able to complete this risk assessment on your behalf.

Before we complete this assessment, we need you to robustly demonstrate all of the following:

1. there is no other alternative (for example, discharge to a BS6297 drainage field or surface water) and then;
2. there is adequate evidence to inform a risk assessment;
3. the system will be no deeper than required to achieve sufficient infiltration;
4. evidence is provided to demonstrate how the discharge will not be direct to groundwater. Direct discharges of pollutants to groundwater cannot be permitted and any existing direct discharges will need to be made indirect;
5. where a new discharge is proposed then the effluent will first be treated by a package treatment plant.

Ensure you have fully completed **Section 4** before completing this section.

Depth to groundwater in the local area

The depth to groundwater is an important parameter in our risk assessments. Provide any relevant existing information on local groundwater levels, for example, from borehole records (BGS GeoIndex Onshore at **https://www.bgs.ac.uk/map-viewers/geoindex-onshore**) or knowledge of local wells, boreholes or springs.

6.1a What is the depth to groundwater at, or near, your chosen discharge location?

⌊_____⌋ metres below ground level.

6.1b How far away from your discharge location is the information on groundwater level provided in question 6.1a?

Distance: ⌊_____⌋

Units: ⌊_____⌋ metres, kilometres or miles

6.1c What is the source of your information on the depth to groundwater?

Reference for the source of information. ⌊_____⌋

Additional hydrogeological information

In addition to the depth to groundwater, our risk assessment uses information on the hydrogeological properties of the unsaturated and saturated zones beneath your discharge. When we assess your application, we will check if we already hold appropriate information. If we do not, we will ask you to supply this information at a later stage and this will lengthen the time to determine your application.

If you wish to know if we hold relevant information before submitting your permit application, you can apply for our enhanced level of pre-application advice. This is a chargeable service. For more information see **https://www.gov.uk/guidance/get-advice-before-you-apply-for-an-environmental-permit.**

6.2a What type of infiltration system are you proposing to use to discharge the effluent to the ground?

Provide details in the following box or an extra sheet.

Reference for the extra sheet. ⌊_____⌋

6.2b Tick the appropriate box to describe the infiltration system.

☐ Not built yet.

☐ Built but not yet in use.

When was it built? ⌊_____⌋ (DD/MM/YYYY)

☐ Already being used to discharge effluent.

When was it built? ⌊_____⌋ (DD/MM/YYYY)

When was it operational? ⌊_____⌋ (DD/MM/YYYY)

6.2c What are the maximum dimensions of your infiltration system?

For a square or rectangular system.

Tick to show whether this is measured, proposed or estimated:

Length ⌊_____⌋ metres:

☐ Measured
☐ Proposed
☐ Estimated

Width ⌊_____⌋ metres:

☐ Measured
☐ Proposed
☐ Estimated

Depth ⌊_____⌋ metres:

- ☐ Measured
- ☐ Proposed
- ☐ Estimated

For circular systems, for example, boreholes, wells or concrete rings:

Depth ⌊_____⌋ metres:

- ☐ Measured
- ☐ Proposed
- ☐ Estimated

Diameter ⌊_____⌋ metres:

- ☐ Measured
- ☐ Proposed
- ☐ Estimated

If you have estimated any of the dimensions of an existing system, explain what evidence the dimensions have been based on.

Provide details in the following box or an extra sheet.

Reference for the extra sheet. ⌊_____⌋

Existing infiltration systems – including those that have been built but not yet operational.

6.3a Does your infiltration system contain standing groundwater?

- ☐ Yes – always contains groundwater. **Now go to question 6.3b.**
- ☐ Sometimes – groundwater is present occasionally. **Now go to question 6.3b.**
- ☐ No – never contains groundwater. **Now go to question 6.3d.**

6.3b If groundwater is always, or sometimes present, tell us the highest level it reaches?

⌊_____⌋ metres below ground level.

Is this:

- ☐ Measured
- ☐ Estimated

6.3c Tell us how you will ensure that your discharge will not be directly into groundwater, including when groundwater levels are at a seasonal high. Provide details in the following box or an extra sheet.

Discharges must not be direct to groundwater. This is outlined in position statements G1 and G9 in the Environment Agency's "Groundwater protection position statements", **https://www.gov.uk/government/publications/groundwater-protection-position-statements**.

Provide details in the following box or an extra sheet.

Reference for the extra sheet.

6.3d Provide a document reference for any records, diagrams or borehole logs you have that can help us understand the design and construction of the system. For boreholes tell us about the casing design.

Document reference.

Provide photocopies where possible. If this is not possible (for example, if the documents are large or bulky) summarise any extra information you have on an extra sheet.

Reference for the extra sheet.

6.3e For an existing system being used to discharge effluent: Has maintenance been carried out on your non-British Standard infiltration system (for example, to aid effective drainage)?

☐ No

☐ Yes Provide details in the following box or an extra sheet.

Reference for the extra sheet.

6.4a Is sufficient infiltration provided by the existing or proposed system to avoid surcharging, flooding or overland run off?

If you are using a non-British Standard infiltration system, it is your responsibility to ensure the system will provide adequate infiltration and we need you to show us you have assessed this.

☐ No

☐ Yes

Provide details on how you have assessed this in the following box or an extra sheet.

Reference for the extra sheet. ⌊_____⌋

If the proposed or existing system does not, or will not, allow sufficient infiltration for the volume of treated domestic effluent to avoid surcharging, flooding or overland run-off we are likely to refuse the environmental permit. Before proceeding with your application, you can apply for our enhanced pre-application advice. This is a chargeable service. For more information see: **https://www.gov.uk/guidance/get-advice-before-you-apply-for-an-environmental-permit**.

6.4b Tell us how your non-British Standard infiltration system is no deeper than needed to allow appropriate infiltration for the discharge. For the depth given in question 6.2c, provide details on how you have addressed this requirement.

It is important that non-British Standard infiltration systems should be no deeper than is needed to allow appropriate infiltration for the discharge.

Provide details in the following box or an extra sheet.

Reference for the extra sheet. ⌊_____⌋

Section 7: Discharges onto land via grass plot

Ensure you have fully completed **Section 4** before completing this section.

Site setting

7.1 Is your unlined grass plot liable to flooding?

☐ No

☐ Yes Tell us about when flooding occurs, the area it covers and how long it typically lasts in the following box or an extra sheet.

Reference for the extra sheet.

7.2 What is the slope of your grass plot?

It should be no more than 12 degrees. If the slope of your grass plot is greater than 12 degrees, we are more likely to refuse an environmental permit for such discharges.

Tell us how you have calculated or measured the slope in the following box or an extra sheet.

Reference for the extra sheet.

7.3 Is the grass plot severely compacted?

☐ No

☐ Yes What part of the grass plot is compacted? How will this affect the ability of the land to allow the effluent to infiltrate to ground? What has caused the compaction? Provide these details in the following box or an extra sheet.

Reference for the extra sheet.

Operating Technique Document

7.4 We require your application to be accompanied by an operating technique document we can include in the permit:

☐ Tick to confirm you are providing this as a standalone document in Word or PDF format.

Provide the number of each section in your operating technique document which contains the following compulsory information:

A site plan showing the extent, location and design of the grass plot.

Section No. ⌊_____⌋

The design, operation, and maintenance of the grass plot.

Section No. ⌊_____⌋

How the operator will ensure:

there is no ponding of effluent on the grass plot

Section No. ⌊_____⌋

no run-off containing effluent can leave the plot boundary or cause a nuisance

Section No. ⌊_____⌋

the requirements for no ponding and no effluent leaving the plot will still be met in the event the ground is:

frozen hard or snow-covered

Section No. ⌊_____⌋

waterlogged due to prolonged rainfall

Section No. ⌊_____⌋