

Guidance notes on part B6.5 – Discharging treated domestic sewage effluent (no trade) up to fifteen cubic metres (15 m³) a day into ground or up to twenty cubic metres (20 m³) a day to surface water



Please read these guidance notes carefully before you fill in the forms.

This guidance will help you complete part B6.5 of the application form pack.

Where you see the term ‘document reference’ on the form, give the document references and send the documents with the application form when you’ve completed it.

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What am I applying for?

You are applying for an environmental permit to discharge sewage effluent of 20 cubic metres a day or less to a surface water (water discharge activity) or 15 cubic metres a day to ground (groundwater activity).

NOTE: Before filling in this form you should check that you need an environmental permit for your activities rather than an exemption (that is, you can comply with the General Binding Rules for small sewage discharges for discharges to surface water see <https://www.gov.uk/guidance/general-binding-rules-small-sewage-discharge-to-a-surface-water> and for discharges to ground see www.gov.uk/guidance/general-binding-rules-small-sewage-discharge-to-the-ground).

If you want to discharge treated sewage effluent to a river, stream, estuary or the sea and the volume is 5 cubic metres per day or less you might be eligible for an exemption (General Binding Rules) rather than a permit.

If you want to discharge sewage effluent to groundwater via a drainage field or infiltration system and the volume is 2 cubic metres per day or less you might be eligible for an exemption (General Binding Rules) rather than a permit.

Whilst most householders with a ‘small’ sewage effluent discharge will be eligible for an exemption, you may not be able to comply with the General Binding Rules if the discharge is close to a nature conservation area. You will not be able to qualify for an exemption to discharge to ground/groundwater if it falls within a groundwater Source Protection Zone 1.

If you can’t comply with the General Binding Rules for any reason then you can apply for a permit using this form B6.5 or for existing discharges to ground of 2 cubic metres per day or less in an SPZ1 using form B6.6.

Which form(s) do I have to complete?

You only need to fill in one form for each discharge you are applying for.

Application checklist

This is what you will need to send in addition to your application form.

Question reference	Details of document
1a	Details of additional individuals if more than one person is going to be named on the permit
2a	Details of any pre-application discussions with us before your application
4	Site plan for your sewage treatment facility
5c	Explanation as to why you cannot discharge your effluent to a sewer if the boundary of any premises served

Question reference	Details of document
	by the sewage treatment facility is within 30m of a sewer. You must show the extra cost of connecting to a sewer compared to the treatment you propose, and the sewerage undertaker's formal response regarding connection
5d	Calculations to show the maximum volume of effluent you will discharge in a day (if there is not enough space on the form)
5e	Design details of 'other' treatment systems (if there is not enough space on the form)
6	Application fee
8	If applicable, a letter giving reasons why you wish to claim confidentiality
9	Additional declarations if more than one person is going to be named on the permit

Definition of domestic sewage effluent

Sewage must be solely domestic in origin and contain no trade effluent (as defined in Section 221 of the Water Resources Act 1991).

For the purpose of this guidance, 'domestic sewage' means sewage from residential settlements and services that originates predominantly from human metabolism and from household activities. This includes waste water from cooking, washing up and clothes washing at guest houses, hotels, pubs and restaurants where these relate solely to activities on those premises. For instance, sewage from a guest house preparing meals for its guests and washing its own bedding qualifies as 'domestic sewage'. Waste water from a site preparing food for consumption elsewhere, or washing bedding on behalf of another person does not qualify as 'domestic sewage'.

Definition of domestic household

A domestic household is a premises which is exempt from business rates under the relevant legislation.

For further guidance see <https://www.gov.uk/introduction-to-business-rates>.

Definition of charitable purposes

An organisation operating for charitable purposes is an organisation which has a charity registration number or a HMRC charity number.

1 About you

1a Who will be named on the permit?

Fill in the details of each applicant. We can only issue permits to named individuals. If more than one individual will be named on the permit, the details for each additional individual required by 1a and the address required by 1b must be provided on a separate sheet. Please tell us the document reference you have given this sheet in the space provided.

An organisation of individuals

Fill in the details of the type of organisation and any trading name.

We can only issue permits to named individuals. We cannot issue a permit to a partnership. We therefore need details of each person in the partnership.

An organisation of individuals includes a group of individuals that together hold a water discharge activity or groundwater activity environmental permit (previously known as a discharge consent).

Limited Liability Partnerships – do not fill in this section, you must fill in the company section instead.

A company

Give us the company registration number and date your company was registered.

Unregistered corporate bodies

If you are an unregistered corporate body, you will need to give us evidence that you are a legal body and we can issue a permit to you.

1b Your address

All applicants must give us this.

We can only issue permits to named individuals. We cannot issue a permit to a partnership. We therefore need details of each person in the partnership.

If necessary, use a separate sheet to give us the details of additional applicants and tell us the document reference number you have given it in the space provided on the form.

If you are applying as an individual, give the address where you live.

If you are applying as a limited company, give the address of the registered office.

If you are applying as a company, the email address given should be that of the company secretary as this is the one we will use to email a copy of the permit and any associated information or notices connected to the permit.

1c Agent or others acting on behalf of the applicant

It will help us if there is someone we can contact if we have any questions about your application. If you do not name anyone here we will contact whoever is named in answer to 1a. The person you name should have the authority to act on your behalf. They can be an agent rather than you but only the applicant or applicants named in 1a are able to sign the declaration in part 9.

You then need to go to section 2 on the form.

2 About this application

2a Have you spoken to us about this application?

If you have had discussions with us before your application was submitted give details on a separate sheet and tell us the reference number you have given it. We will then be able to refer back to the information you've already given us and discussions we have had with you, which will help us to determine your application.

If you wish to have a pre-application discussion call 03708 506 506.

2b You need to make sure that you have all the necessary permissions in addition to an Environmental Permit to discharge, for example the permission from landowners for pipework to cross their land or the Canal and Rivers Trust if you want to discharge into a canal that they manage, or the relevant highways authority if you want to discharge via a highway drain.

2c Where is the sewage treatment facility? (name, address, postcode and national grid reference)

What is a sewage treatment facility?

The sewage treatment facility is the water discharge activity or groundwater activity and includes all the equipment essential to undertake that activity. The facility is the footprint of that equipment, the discharge pipe and outlet. For discharges to ground, the area occupied by the drainage field will also be part of the facility.

In many cases, the discharge to water or ground will be made outside the physical boundary of the treatment site. We want you to provide the address of the sewage treatment plant or septic tank in answer to question 2b.

What is a sewage treatment plant?

Often called 'package' plants, these sewage treatment plants are like mini sewage works and produce much cleaner effluent than septic tanks. For this reason, effluent from package treatment plants can normally be discharged to surface waters such as rivers or streams.

Package treatment plants are more sophisticated than septic tanks and require a source of power as well as regular maintenance.

They also accumulate solid matter (sludge) that is settled out from the sewage and require desludging about once every year.

What is a septic tank?

A septic tank is a simple tank that is usually buried in the ground; it has an inflow of sewage from the house and an outflow from the tank. The septic tank allows solid matter to settle in the tank and liquids to flow out. The outflow from the septic tank requires further treatment and this is normally achieved by it soaking into the ground, where bacteria in the soil complete the treatment process.

Normal maintenance for a septic tank would be removal of the accumulated solid matter (sludge) from the bottom of the tank. This is known as desludging and is usually required about once every year.

If you have a septic tank that discharges directly to surface water, you will need to apply for a permit to make the discharge but if granted, this will almost certainly require you to upgrade to a treatment plant. We will usually allow up to 12 months to complete an upgrade, although this depends on individual circumstances.

2d National Grid Reference for the centre of your sewage treatment facility

We want you to provide the 12-digit national grid reference consisting of two letters followed by 10 numbers (for example AB 12345 67890) of the centre of the sewage treatment plant or septic tank in answer to question 2c. To find out the 12-digit national grid reference search on the UK grid reference website at <http://gridreferencefinder.com>.

2e What type of activity are you applying for?

Tell us what type of activity you are applying for by ticking one box. The Environmental Permitting Regulations 2016 talk about discharges of sewage effluent to surface waters (a water discharge activity) or to ground (a groundwater activity). This application is for either a water discharge activity permit or a groundwater activity permit.

You then need to go to section 3 on the form.

3 Your management system

Your permit requires you (as the operator) to ensure that you manage and operate your activities in accordance with a written management system.

You must have an effective, written management system in place that identifies and reduces the risk of pollution. A copy of the management system and the permit should be kept where it is easily accessible.

You can find guidance by searching for ‘Develop a management system: environmental permits’ at www.gov.uk/government/organisations/environment-agency.

The following is a summary of the main points you will find in the toolkits:

For all operators

- If your sewage treatment facility is operating normally or not and which routine checks you may have to make, for example, is the power on, is the motor running?
- Do you know how to restart the system if there is a power or other failure? The supplier of the system or maintenance contractor should be able to advise on checks specific to the plant in question. These checks should be made and recorded as necessary.
- Do you have a service and maintenance contract in place with a contractor who is trained and competent to maintain and service your particular treatment plant? Service frequency should be in accordance with the manufacturer’s instructions. Sewage treatment plants require periodic de-sludging and you should have a contract in place to undertake this when required.
- Keep a record of the checks you have completed that are set out in your checklist along with any additional checks you have made. This could be recorded in a diary or alternatively you could adapt the form provided in the toolkits referred to above to create a record sheet.
- If you have a maintenance contract with a contractor, keep a record of any work carried out on your treatment plant by them. If invoices state the work carried out these will be sufficient.
- You need to understand what your treatment plant is designed to do, what its limitations are and the restrictions on its use (for example, chemicals which may prevent it from working properly). Anyone who inspects, maintains or repairs the system must be adequately trained and competent to do so.
- You should be aware of accidents or emergencies that may adversely affect the performance of your treatment plant and be aware of how to deal with them, this may involve contacting your supplier or maintenance engineer depending on the extent of the problem.
- You will also need to record any complaints made to you in connection with the operation of your facility.

For a group of domestic residential properties with a permit to discharge

- If the treatment plant is shared with others (for example multiple houses) you are all jointly responsible for the proper operation of the plant, but you only need one management system.
- You should designate at least one person to have the knowledge required to ensure that the plant is being effectively operated and maintained.
- If you have a contract with a manufacturer or service company to maintain your treatment plant then you need to record this.

For an establishment such as a hotel, pub or campsite

You and/or your staff will need to be able to have the necessary skills to ensure the sewage treatment facility is effectively operated and maintained. However you may employ a contractor to undertake some of these tasks.

Tick the box to confirm that your management system will meet our requirements.

You then need to go to section 4 on the form.

4 Your site plan

For water discharge activity permits the site plan must show the:

- sewage treatment plant
- sample point identified in answer to 5f
- point where the sewage is discharged to the receiving surface water

For groundwater activity permits the site plan must show the:

- septic tank or sewage treatment plant
- any sample point identified in answer to 5f
- area of the drainage field or borehole or well or other deep structure used to discharge the effluent to ground

The properties served by the facility are not part of the facility and do not have to be shown.

If you are sending us a paper copy of your site plan it must be either A3 or A4 size. Alternatively you can send us an electronic copy via email or on CD.

Copyright issue

Please note that some plans and maps will have copyright issues. Unless you are using your own maps or plans or have paid for the copyright (for example with Ordnance Survey) you may not have the right to reproduce the map or plan.

You then need to go to section 5 on the form.

5 About the discharge/effluent

5a Tell us what type of premises your sewage treatment facility serves. If it is more than one domestic property, the number of properties, for example, three houses or three flats.

5b This is the maximum volume that will be discharged in any day. You must ensure that you choose a volume you can always comply with.

You need to know whether your discharge is within the permitted maximum daily volume.

How to calculate the maximum daily discharge from a single domestic property – see Table in application form

You can also use an online calculator to help see <https://www.gov.uk/permits-you-need-for-septic-tanks/general-binding-rules>

How to calculate the maximum daily discharge volume from multiple domestic properties – summary from ‘Flows and Loads 4’

‘Flows and Loads 4 – Sizing Criteria, Treatment Capacity for Sewage Treatment Systems’ is published by British Water (ISBN: 978-1-903481-10-3) and is available from British Water at: www.britishwater.co.uk.

To calculate the maximum daily volume to be discharged from your sewage treatment facility you must first calculate the population (P) connected to the facility and then multiply this figure by 150 litres which is the standard residential daily flow. The volume you have calculated by this method will be in litres a day so you must then divide this figure by 1000 to show the volume in cubic metres a day.

The maximum daily discharge volume in cubic metres a day = $P \times 150/1000$.

A single house with up to and including 3 bedrooms will have a population (P) of 5 people (5 P).

For a single house with more than 3 bedrooms, add 1 P for each additional bedroom to the minimum single house value of 5 P, for example:

a house with 3 bedrooms $P = 5$

a house with 4 bedrooms $P = 6 (5+1)$

a house with 6 bedrooms $P = 8 (5+3)$

For groups of small 1 and 2 bedroom houses or flats:

a flat with 1 bedroom $P = 3$

a flat with 2 bedrooms $P = 4$

For sewage treatment facilities serving more than one house calculate the total P by adding together the P values for each individual house, for example:

for two houses (one 3 bedrooms and one 4 bedrooms) the total $P = 11 (5+6)$

If the calculated total P for a group of houses exceeds 12 P then some reduction may be made to allow for the balancing effects on daily flow of a group of houses (round up not down).

Where the total P is in the range 13–25 multiply the total by 0.9 to give an adjusted P value, for example:

if there are four four-bedroom houses the total P will be 24 (4×6) and the adjusted P will be 22 ($24 \times 0.9 = 21.6$)

Where the total P is in the range 26–50 multiply the total by 0.8 to give an adjusted P value, for example:

if there are four three-bedroom houses and three four-bedroom houses the total P will be 38 (4×5 and 3×6) and the adjusted P will be 31 ($38 \times 0.8 = 30.4$)

The above assessments of population (P) should be used for both existing and new properties.

Larger luxurious houses tend to have higher water consumption figures and holiday homes may have higher occupancy rates than residential properties.

5c Could your discharge be made to the foul sewer?

We will not grant a permit to discharge sewage effluent to surface water or to ground if we consider that you could have reasonably connected to a foul sewer provided by your sewerage undertaker (water company) or a private sewer connected to a foul sewer. You will need to check sewer records with your sewerage undertaker (usually your local water company) and also check to see if a connection is feasible to any private sewers if a foul sewer is not readily available.

Where you are proposing a discharge from a private sewage treatment system in an area where it appears reasonable to connect into the foul sewer, you must, as a minimum, send us evidence that you have approached the sewerage undertaker under the relevant section of the Water Industry Act 1991 (WIA), and send us their formal response regarding connection. You must send us this evidence with your application otherwise it will delay the determination process.

Where connection to the foul sewer is possible via a private sewer, you must submit written evidence to show that you have requested to connect to the private sewer. The written response(s) from the owner(s) of the private sewer must be provided.

If the sewerage undertaker has indicated that they would not allow connection due to lack of capacity you should contact us for a pre-application discussion by calling 03708 506 506.

If you are applying for an existing discharge where no part of the treatment system needs replacing or upgrading, you may give this as a reason for not connecting to a nearby sewer but you must provide the date the treatment system was installed as accurately as you can.

This question requires you to measure the shortest distance between any boundary of premises served by the sewage treatment facility and the nearest foul sewer and/or private sewer.

5d If you have answered yes to 5d, you need to show the difference in cost between connection to the foul sewer and cost of your proposed private sewage 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 because the size of the development will increase in the future or has increased since the system was installed. The costs should include, but not be limited to, details of:

Foul sewer connection costs:

- Cost of sewer pipe and infrastructure e.g. gravity sewer, manholes, or rising main and pumping
- Pumping equipment, pump and sump pump, if necessary. Maintenance/running costs of these if they are not adopted by the sewerage undertaker
- 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
- The sewerage undertaker will expect any pipe work connecting to their system to be constructed to adoptable standards. Refer to Sewers for Adoption 7th Edition - A Design & Construction Guide for Developers for more information

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

Your justification must also 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.

If you require additional guidance on connection to sewers please contact us for a pre-application discussion by calling 03708 506 506.

5e Tick one box to show what sewage treatment plant you will be using to treat your effluent. If you tick 'other' please give us more details about the system in the box provided or on a separate sheet. If you have a package sewage treatment plant, the plant manufacturer or supplier and/or documentation explaining the plant and its maintenance requirements should enable you to identify if it meets BS12566.

If you have a sewage treatment plant which is not to BS12566 or a septic tank, you must describe the treatment plant as best you can. For a new treatment plant, the supplier or manufacturer should be able to provide details. For existing systems you may only be able to say that the treatment plant is made up of a settlement tank followed by a filter bed followed by another settlement tank for example.

For discharges to surface water, you must confirm whether the treatment system will provide secondary treatment.

For new discharges to boreholes, wells or other deep structures, we would expect you to treat your effluent using a package treatment plant that meets British Standard BS 12566.

5f 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 your discharge passes 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, for example a discharge from another sewage treatment plant or a discharge of surface water drainage.

Note for smaller 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.

5g Sewage effluents are usually discharged to one location in one receiving environment.

However, in the unlikely event that your effluent can be discharged to more than one location within a single receiving environment, for example two different discharge points on a river, you should speak to us because you will need to complete the appropriate appendix 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 discharged.

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 circumstance), you will need to complete all relevant appendices for each discharge point and explain the different circumstances under which each is discharged.

Fill in the relevant appendix for **each** effluent discharged.

You need to make sure that you have all the necessary permissions in addition to an Environmental Permit to discharge, for example the permission from landowners for pipework to cross their land or 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.

5h Risk assessment requirements

A risk assessment must be undertaken in order to determine whether your proposed discharge is environmentally acceptable.

You will need to indicate on the application form whether your proposed discharge requires you to submit a quantitative risk assessment in line with our guidance 'Risk assessments for your environmental permit' and 'Groundwater risk assessment for your environmental permit' available at www.gov.uk/government/organisations/environment-agency. If so you must then submit your risk assessment with your completed application form.

Discharges where the Environment Agency will normally undertake the risk assessment for you

For most discharges applicable to this application form, we will undertake this risk assessment for you if you provide us with sufficient information as required by the application form. This is particularly important where you are applying to discharge to a borehole or other deep structure because significant amounts of technical information are required in order to carry out the risk assessment (see Appendix 4 on the main application form).

Discharges where you need to undertake the risk assessment

If you are proposing a new discharge between 2 to 15 cubic metres a day of treated domestic effluent to ground via a shallow sub-surface infiltration system in a groundwater source protection zone 1 (SPZ1) you must carry out a groundwater quantitative risk assessment.

To do this you need to follow the guidance in 'Groundwater risk assessment for your environmental permit' at www.gov.uk/government/organisations/environment-agency 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 'Infiltration systems:

groundwater risk assessments' at www.gov.uk/government/organisations/environment-agency. This includes advice on how to carry out some of the calculations.

If you intend to discharge to a borehole, well or other deep structure, refer to Appendix 4 in addition to the information above.

We ask you to do this because SPZs are used to identify areas close to drinking water sources, and where the groundwater is used for food production purposes, where the risk associated with groundwater pollution is greatest. SPZ1 is the inner protection zone nearest to the abstraction source, and is defined as the 50-day travel time from any point below the water table to the abstraction source (with a minimum radius of 50 metres). All private water supplies used for human consumption or food production purposes are also designated as SPZ1s with a default radius of 50 metres.

You can find out if your proposed discharge is in a SPZ1 by using our groundwater interactive maps on our website (www.gov.uk/check-local-environmental-data). If you do not have internet access please call our customer service line 03708 506 506. You must also check that there are no private wells, springs, or boreholes that are used to supply water for human consumption or food production purposes within 50 metres of your proposed discharge.

Before undertaking the risk assessment you may wish to contact us for a pre-application discussion by calling 03708 506 506.

You then need to go to section 6 on the form.

6 Payment

6a This is the figure you have given in question 5b.

If you have ticked yes, a reduced application charge applies. If you have ticked no, please see 'Environment Agency charging scheme and guidance: environmental permits, licence and registration costs and fees' at <https://www.gov.uk/government/publications/environmental-permitting-ep-charges-scheme> or contact us using one of the options in section 10 for details of the current application fees. Please note that the charges are revised on 1 April each year.

You then need to answer questions 6b to 6g.

6c Give a date when you want the permit for this effluent to start.

You cannot discharge your effluent prior to the start date on your permit unless you contact us and ask us to change (bring forward) your start date. Charges will start on this date, even if you have not started to discharge, unless you contact us to change (delay) the start date. Please use the Administrative Variation application form (part C0.5) for this, for which there is no fee.

6g Select the method you will be using to pay for your application:

Cheques and postal orders: These should be made payable to Environment Agency as appropriate and crossed 'A/c Payee'. Send it to us with your completed application form and any relevant supporting documents.

Post-dated cheques will not be accepted.

Note: cheques will be processed once the application is confirmed as duly made, this will normally be within 10 working days unless information is missing.

'Duly make'

'Duly making' is the process of checking an application under the Environmental Permitting Regulations to make sure that it contains all the relevant documents and that the fundamental requirements have been addressed to allow the determination to begin. This includes the following:

- All relevant parts of the application form have been submitted and completed
- Where relevant, assessments of any environmental impact have been included to a level of detail consistent with the predicted level of environmental impact and in line with the relevant guidance. This includes the provision of both modelling data and associated information and data files as indicated by the relevant guidance
- The correct application charge has been paid
- Details of the type of effluent you propose to discharge, what will be in the effluent and how it will be treated
- How much effluent you propose to discharge, including calculations to show how this has been worked out
- Site plan showing the discharge point, monitoring points and an indication of the land where treatment is provided. Also show the following, where relevant:
 - For point source groundwater activities, show the location and extent of any infiltration systems
 - For rainfall-dependent trade discharges, give an indication of the extent of the land from which the site drainage is derived
 - For storm discharges on networks, or at WwTW and where mitigation is provided at a sewage pumping station, show the location of the overflow, screens and storage
- For discharges in a sewered area, an explanation of why you cannot connect to the foul sewer, including costs, any physical obstacles and evidence that you have approached the sewerage undertaker.

We do not recommend sending cash through the post. If you cannot avoid this, please use a recorded-delivery postal service and enclose details of the name of your company and a reference number (this can be the customer reference, permit reference or an application reference generated at pre-application stage) or your name, address and postcode.

Payment by credit or debit card: We can accept payments by Visa, MasterCard or Maestro cards only.

Payment by electronic transfer: Make sure you use the right payment information.

Failure to quote your reference number (this can be the customer reference, permit reference or an application reference generated at pre-application stage) or to forward to us your payment details, including applicant name, payment amount and full payment reference number, may result in a delay in processing your payment and therefore your application.

Information on charges

We consult widely on changes to our charging schemes and tariffs. These require government approval before being implemented.

You can get further information about the bases of our charges, our consultation processes and any current or recent consultations from our website at www.gov.uk/government/organisations/environment-agency.

You then need to read section 7 on the form.

7 Privacy notice

Make sure you understand how we will use the information you provide to us.

You then need to read section 8 on the form.

8 Confidentiality and national security

Confidentiality

Only tick this box if you are very certain that you wish information to be confidential. This is likely to delay your application.

Confidential information is information that is **commercially or industrially confidential** in relation to any person. Information may only be withheld from the public registers where the regulator judges that it may be commercially or industrially confidential. When this occurs a statement must be placed on the register indicating the existence of that information.

You can find guidance on confidentiality in 'Environmental permitting guidance: core guidance' published by Defra and available at www.gov.uk/government/organisations/environment-agency.

Please ensure that you include a copy of your supporting statement detailing why you are requesting confidentiality and what information you believe should be kept confidential. We advise you to have a pre-application discussion with area staff before deciding if anything is confidential information.

We will have to assess your statement and therefore your application will take longer to determine.

National security

Ensure you enclose with the application a letter stating that you have written to the Secretary of State to claim national security for your application.

You can find guidance on national security in 'Environmental permitting guidance: core guidance' published by Defra and available at gov.uk.

You cannot apply for national security via this application.

We will not be able to progress your application until we receive the decision from the Secretary of State and therefore it is highly likely to delay your application. We will not include the information in the public register unless the Secretary of State decides that it should be included.

You then need to go to section 9 on the form.

9 Declaration

Ensure a relevant person makes the declaration.

Relevant people means each applicant (individual), and in the case of a company, a director, manager, company secretary or any similar officer/employee listed on current appointments in Companies House. In the case of a Limited Liability Partnership (LLP), it includes any partner.

NOTE: Each individual (or individual trustee) who is applying for their name to appear on the permit must complete this declaration.

You will have to print a separate copy of the page for each additional individual to complete.

To simplify and speed up the application process we recommend that the declaration in the application form is filled in by an officer of a Company or one of the partners in a Limited Liability Partnership (LLP).

If you wish a manager or other employee to tick the declaration on behalf of the Company or LLP we will need a letter signed by a relevant person, that is an officer of the Company or a partner in the LLP confirming that the person has the authority to fill in the declaration. Where the Operator is the subject of any insolvency procedure it will be necessary for the declaration to be filled in by the Official Receiver/appointed insolvency practitioner.

You do not have to sign the application with your handwritten signature. By ticking the box in section 8 and providing your details below it you are confirming that you are an applicant and that the information in the application is true to the best of your knowledge and belief. Also that you understand that the application may be refused or approval withdrawn if you give false or incomplete information.

If you deliberately make a statement that is false or misleading in order to get approval you may be prosecuted.

10 How to contact us

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

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: 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, or you would like us to review a decision we have made, please let us know. More information on how to do this is available at: <https://www.gov.uk/government/organisations/environment-agency/about/complaints-procedure>.

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.

11 Where to send your application

Please send your filled-in application form to:

Email: PSC-WaterQuality@environment-agency.gov.uk

Or

Permitting Support, NPS Sheffield
Quadrant 2
99 Parkway Avenue
Parkway Business Park
Sheffield
S9 4WF

The following table tells you how many copies of the application form and supporting documents you need to send to us.

Type of application	Number of copies of the application form and supporting documents
All types of application	One paper copy OR one CD

We may occasionally ask you for additional copies of lengthy supporting documents, preferably on disc. If this is the case we will contact you directly to discuss what is needed.

Appendices 1 to 6

Appendix 1 – Discharges to a river, stream, ditch or canal

If you are discharging to a river, stream, ditch or canal, you must answer questions A1.1 to A1.6

1.1 This is the location where the discharge is made from the outlet pipe to the river, stream, ditch or canal. On some occasions discharges are made via surface water sewers owned by someone else before they discharge into a receiving water. Where this is the case the outlet will be the point where the surface water sewer meets the river, stream, ditch or canal.

1.2 The name will usually be shown on an Ordnance Survey map. If the receiving water is unnamed, please indicate the named watercourse into which it flows, for example 'a tributary of the River Thames'.

1.3 Tick the appropriate box.

1.4 We prefer effluent to discharge to watercourses which flow all year. Discharging to a dry watercourse may cause the effluent to pond which can cause odour and other local problems.

The discharge must be made via a perforated pipe. Any section of that pipe which lies within 10 metres of the bank of any watercourse shall be perforated, but this perforated section shall not extend more than 10 metres from the bank of any watercourse.

1.4.1 By providing an indication of the typical periods that the water course runs dry each year – start and finish (in months) and also when the watercourse was dry how many metres downstream of the discharge is it before discharged effluent soaks in, will help us in decided whether a groundwater risk assessment is also required as part of your permit application.

1.5 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.

1.6 If you have ticked yes in answer to question 1.5 you must give the grid reference where your discharge enters the surface water sewer.

Appendix 2 – Discharges into land (drainage field)

2.1 This is the location where the effluent from the treatment system enters the infiltration system.

2.2 An infiltration system is a restricted and well-defined area of ground designed to allow liquid to drain into the surrounding soil.

It typically includes a system of sub-surface perforated pipe. We would expect any new infiltration system to be built to BS 6297:2007 + A1:2008. If your infiltration system was existing then you must answer question 2.3. If you are applying for a newly installed or proposed infiltration system you must answer question 2.4.

2.3 Give the date your infiltration system was installed as accurately as you can.

2.4 We would expect new infiltration systems to be built to BS 6297:2007 + A1:2008. If yours is not constructed to this standard, you must submit the following details:

- location of the infiltration system
- surface area
- depth
- construction materials used
- the bottom invert level in relation to the water table

2.6 It is important that we know what your percolation value (Vp) is. BS 6297:2007 +A1:2008 states that 'a drainage field for disposal should only be used when percolation tests indicate average values of Vp between 15 and 100'. The minimum value of 15 ensures that effluent cannot percolate too rapidly into the ground, potentially resulting in the pollution of groundwater. If your Vp is below this figure you may be required to add an additional 700 mm deep layer of medium or coarse, washed sand, laid on a permeable geotextile membrane, below the standard granular fill distribution layer. You will have to agree to design your drainage field on the basis of this recommendation.

Use the following information to help you carry out a percolation test (applies to new infiltration systems only):

Avoid carrying out this test in extreme weather conditions such as drought, frost and heavy rain.

- Excavate at least two holes 300 mm square to a depth 300 mm below the proposed invert level (bottom of pipe) of the infiltration pipe and space them evenly along the proposed line of the subsurface irrigation system.
- Fill each hole with water to a depth of at least 300 mm and allow to seep away overnight.

- c) Next day, refill each hole with water to a depth of at least 300 mm and observe the time in seconds for the water to seep away from 75% full to 25% full (i.e. a depth of 150 mm).
 - d) Divide this time by 150. This answer gives the average time in seconds (Vp) required for the water to drop 1mm.
 - e) The test should be carried out at least three times with at least two trial holes. The average figure from the tests should be taken.
- This is the percolation value Vp (in seconds).**
- f) The average figure for the percolation value (Vp) is obtained by summing all the values and dividing by the number of values used.
 - g) Drainage field disposals should only be used when percolation tests indicate average values of Vp between 15 and 100 and the preliminary assessment of the trial hole tests has been favourable.
 - h) The minimum value of 15 ensures that untreated effluent cannot percolate too rapidly into groundwater.
 - i) Where Vp is above the limit of 100, effective treatment is unlikely to take place in a drainage field as there will be inefficient soakage in this location which may lead to sewage ponding on the surface.
 - j) For domestic premises, the floor area of the drainage field (A in square metres) required may be calculated from:

$$A = p \times Vp \times 0.25 \text{ for septic tanks}$$

$$A = p \times Vp \times 0.20 \text{ for package sewage treatment plants}$$

where

p is the number of people served by the tank (this should be the maximum number of people that could live in the house).

Vp is the percolation value described above.

If in doubt, consult your professional advisor or local authority building control officer for advice.

2.7 Use the following calculations:

For sewage treatment plant:

$$Vp \text{ (percolation value)} \times P \text{ (number of inhabitants)} \times 0.2 = \text{surface area}$$

For septic tank:

$$Vp \text{ (percolation value)} \times P \text{ (number of inhabitants)} \times 0.25 = \text{surface area}$$

Appendix 3 – Discharges onto land

Use this appendix where you are using a constructed disposal area to discharge your effluent onto land.

3.1 This is the location where effluent from the treatment system enters the disposal area.

3.3 This is the total area covered by the reed bed/grass plot/pond/wetland.

Appendix 4 – Discharges to a borehole or well (or other deep structure)

Drainage fields are considered to be an important component of a non-mains wastewater treatment system. The most common design of drainage field is the shallow linear infiltration trench. These receive treated effluent from septic tanks and waste water treatment plants and use the biologically active soil beneath the system to provide additional treatment of the effluent in the ground.

The British Standard BS6297 provides guidance for those designing and installing shallow drainage fields and infiltration systems. The British Standard states that deep pit based systems should not be used as they do not provide sufficient treatment. Deep infiltration systems such as boreholes, wells, shafts, concrete ring soakaways or natural features such as swallow holes pose a higher risk of groundwater pollution by concentrating the discharge in one place and bypassing the soil layers limiting the potential for attenuation of contaminants. Therefore we are more likely to refuse an environmental permit for such discharges. It is unlikely that we will permit discharges which we believe are direct to groundwater. Direct discharges of pollutants to groundwater cannot be permitted and consideration should be given to how to make any such direct discharges indirect. Discharging effluents into deep infiltration systems is generally only acceptable in cases where:

1. it has been robustly demonstrated that there is no other alternative (e.g. discharge to a shallow infiltration system or surface water) and then
2. there is adequate evidence to inform a risk assessment which shows there will not be an unacceptable risk to environmental receptors including groundwater
3. robust evidence is provided to demonstrate that the borehole will be no deeper than required to obtain sufficient infiltration
4. evidence is provided to demonstrate how the discharge will not be direct to groundwater
5. where a new discharge is proposed then the effluent will first be treated by a package treatment plant

In order to answer the points 1 – 4 above, you must read the following documents which provide further information on our position and how they can be assessed:

- Groundwater protection: Principles and practice (GP3) available at www.gov.uk/government/organisations/environment-agency – refer to position statement G9 on the use of deep infiltration systems for surface water and effluent disposal
- ‘Groundwater risk assessment for your environmental permit’ available at www.gov.uk/government/organisations/environment-agency

For discharges of up to 15 m³/day of sewage effluent to a borehole, well or other deep infiltration systems the Environment Agency will usually undertake the required risk assessment using input parameters supplied by the applicant. If the discharge is very complex or larger than 15 m³/day then we may ask the applicant to undertake this risk assessment.

Please provide as much information as possible to help us assess your application. In addition to specific questions asked on the application form we also need you to supply us with sufficient site-specific information to run a risk assessment on your behalf.

Table 1 in Appendix 4 summarises the information required.

4.1 This is the location where the effluent pipe enters the well or borehole.

4.5 This is the distance from ground level (or other reference level you specify) to the bottom of the borehole or well or other structure. If you are intending to discharge into a natural feature such as a swallow hole, you may not have precise depths but please give as much information as you can.

4.6 Tell us if the borehole extends into the water table. If you cannot answer this question we will assume that it does, which is likely to affect your application. If it does, then it is important that you tell us the distance from ground or other reference level (such as the top of the borehole or well casing) to the highest level that the surface of the water reaches in the well or borehole or structure. This information constitutes an important part of our assessment process and we will expect that deep structures are no deeper than required to achieve sufficient soakage in order to maximise percolation through the sub surface before entering groundwater. We need to understand how you will avoid discharging treated effluent directly into groundwater. For applications for new discharges we may ask you to provide drilling logs to help in this regard.

4.14 In order to determine whether your application to discharge to a borehole or other deep structure is acceptable, we will undertake a groundwater quantitative risk assessment on your behalf in line with the guidance in ‘Groundwater risk assessment for your environmental permit’ available at www.gov.uk/government/organisations/environment-agency. Further information as set out in this section of the application form is required in order for us to complete the risk assessment, and you must provide this information in order for your application to proceed. To meet this requirement information specific to the site should be provided where it is already available. For example you should see if there are any existing wells or boreholes in the locality which could be used to provide some of the information required. However, if this is not possible then relevant literature values can be submitted quoting the reference source and justification of the values you have selected. We do not expect you to drill a new borehole specifically to provide the information requested in the table A4 of Appendix 4.

Appendix 5 – Discharges to tidal river, tidal stream, estuary or coastal waters

5.1 This is the location where the discharge is made from the outlet pipe to the tidal river, estuary or coastal water. On some occasions discharges are made via surface water sewers owned by someone else before they discharge into a receiving water. Where this is the case the outlet will be the point where the surface water sewer meets the tidal river, estuary or coastal water.

5.2 Usually the name will be shown on an Ordnance Survey map. If the receiving water is unnamed, please indicate the named watercourse into which it flows, for example ‘a tributary of the Humber’.

5.3 Tick the appropriate box.

5.4 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.

5.5 If you have ticked yes in answer to question 1.5 you must give the grid reference where your discharge enters the surface water sewer.

5.6 The mean low water spring tide mark for coastal waters and tidal estuaries can usually be found on Ordnance Survey maps. Where reasonably possible, we prefer that discharges are made below this point to prevent effluent flowing across beaches, exposed river beds or mud flats and so on.

Appendix 6 – Discharges to a lake or pond

Use this appendix if you will be discharging your effluent into an existing lake or pond.

A discharge to a lake or pond which has no outlet (does not discharge into a river or watercourse or another pond which discharges into a river or watercourse) does not require a permit unless a Notice has been served under paragraph 5 of Schedule 21 of the Environmental Permitting (England and Wales) Regulations 2016. If you are unsure whether or not you will require a permit for a discharge to a pond or lake you should contact us on 03708 506 506.

6.1 This is the location where the effluent pipe reaches the lake or pond.

6.2 The name will be usually shown on an Ordnance Survey map.

6.3 Put a tick in the box to confirm which type of lake or pond you are applying to discharge to. If your pond has an outfall to a watercourse (river or stream or ditch) or to another pond which has an outfall to a watercourse (river or stream or ditch) then tick the bottom option and answer the questions below it as best as you can.

If your discharge goes to a pond which does not have an outlet then you should speak to us to see if your sewage treatment facility requires a permit.

6.4 If you do not know the answer to this question, put 'Unknown'.

6.5 If you do not know the answer to this question, put 'Unknown'.

6.6 If you do not know the answer to this question, put 'Unknown'.