

Creating a better place for people and wildlife

Pre-application guidance note

Kent and South London area

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This guidance has been produced to help you plan and prepare your development proposal. It sets out the key environmental issues and opportunities relating to:

- Managing and reducing flood risk
- Enhancing the water environment
- Using water wisely
- Preventing pollution and waste management

Please be aware that this guide is not exhaustive and further details may be requested at planning application stage to address site specific environmental issues and opportunities.

This guidance is for use in the Environment Agency's Kent and South London area and should be read alongside our detailed national guidance which can be found on gov.uk

It can be used by applicants, developers and consultants at the pre-planning stage.

We look forward to working with you and welcome any feedback on this guidance note

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A NATION RESILIENT
TO CLIMATE CHANGE



EA 2025
HEALTHY AIR,
LAND AND WATER



EA 2025
GREEN GROWTH AND
A SUSTAINABLE FUTURE

Further bespoke advice

The information provided contains general information and guidance which may or may not be applicable to your development. We can provide bespoke guidance or review technical information prior to the submission of a planning or discharge of planning conditions applications. This is offered as part of our charged planning advice service.

Further engagement at the pre-application stage can speed up our formal response to your planning application and provide you with certainty as to what our response to your planning application will be. It should also result in a better quality and more environmentally sensitive development. As part of our charged for service we will provide a dedicated project manager to act as a single point of contact to help resolve any problems.

We also provide advice on Nationally Significant Infrastructure Projects (NSIPs), applications for permission in principle and technical details consent, and strategic planning and engagement activities such local and neighbourhood plans and their associated supporting documents.

Find out more about this service at [Developers: get environmental advice on your planning proposals - GOV.UK](https://www.gov.uk/guidance/developers-get-environmental-advice-on-your-planning-proposals) or please email: kslplanning@environment-agency.gov.uk

We also recommend that you consult with the relevant Local Planning Authority (LPA) to ensure that your planning application meets their requirements.

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Protecting and improving the environment across Kent and South London

Clockwise:

- Greenwich Peninsula
- Thamesmead
- Kidbrooke

Section 1: Flood risk management

The National Planning Policy Framework (NPPF) requires development in areas at risk of flooding to be safe and not increase the risk of flooding elsewhere.

You can view a site's flood zone and request information to inform your flood risk assessment using the [Flood Map for Planning](#) service. It is important to note the Flood Map for Planning shows a combined flood zone 3. It does not separately distinguish flood zone 3b (functional floodplain) from flood zone 3a. Instead, areas of flood zone 3b have been identified by Local Planning Authorities (LPAs) within their Strategic Flood Risk Assessment (SFRA). To identify future flood risk and other sources of flooding including surface water and reservoir flood risk please visit our [long term flood risk map](#).

If your proposed development is located within a flood risk area from any source of flooding you should consult the [Flood Risk and Coastal Change](#) pages of the National Planning Practice Guidance (NPPG).

The guidance will help you determine whether the flood risk vulnerability of your proposed development and the flood zone are compatible. You can also establish if there are flood risk sequential test and exception test requirements for your proposed development. These are summarised in the table below, which is adapted from [Table 2](#) in the NPPG.

Flood Zones	Flood Risk Vulnerability Classification				
	Essential infrastructure	Highly vulnerable	More vulnerable	Less vulnerable	Water compatible
Zone 1	✓ Avoid flood risk from sources other than rivers & sea	✓ Avoid flood risk from sources other than rivers & sea	✓ Avoid flood risk from sources other than rivers & sea	✓ Avoid flood risk from sources other than rivers & sea	✓ Avoid flood risk from sources other than rivers & sea
Zone 2	? Sequential Test required	? Sequential and Exception Tests required	? Sequential Test required	? Sequential Test required	? Sequential Test required
Zone 3a	? and † Sequential and Exception Tests required	✗ Development should not be permitted	? Sequential and Exception Tests required	? Sequential Test required	? Sequential Test required
Zone 3b	? and * Sequential and Exception Tests required	✗ Development should not be permitted	✗ Development should not be permitted	✗ Development should not be permitted	? and * Sequential Test required

“†” In Flood Zone 3a essential infrastructure should be designed and constructed to remain operational and safe in times of flood.

“*” In Flood Zone 3b (functional floodplain) essential infrastructure that has passed the Exception Test, and water-compatible uses, should be designed and constructed to:

- remain operational and safe for users in times of flood;
- result in no net loss of floodplain storage;
- not impede water flows and not increase flood risk elsewhere.

1.1 Flood risk Sequential Test

The NPPF and associated NPPG ([Flood Risk and Coastal Change](#) chapter) requires the Sequential Test to be applied to planning applications where development is located within an area at current and/or future flood risk from any source. The sequential test does not need to be undertaken for [minor development](#). A change of use application is also exempt from the flood risk sequential test unless the change relates to caravan, camping, chalets, mobile or park home developments. Development on sites allocated in an adopted Local Plan are only exempt if:

- they have already been subject to the sequential test;
- development is consistent with the use for which the site was allocated;
- no subsequent changes to flood risk would have changed the outcome of that sequential test.

For the site to pass the Sequential Test it must be satisfactorily demonstrated that there are no appropriate alternative sites available for this development at a lower risk of flooding. It is for the LPA to determine if the Sequential Test has to be applied and whether or not there are other sites available at lower flood risk. Therefore, we recommend that you discuss the requirements of the Sequential Test with the LPA at the earliest opportunity.

The LPA's SFRA will normally form the basis for applying the sequential test. The SFRA may also include guidance on how to apply the sequential test, such as how to identify an appropriate area of search and how to compare relative flood risk using a ranking methodology.

1.2 Flood risk sequential approach

If the flood risk sequential test is passed then a flood risk sequential approach should be applied within the site to direct development to the areas of lowest flood risk in accordance with the hierarchy set out in planning guidance. If it is not possible to locate all of the development within low risk areas, then the most vulnerable elements of the development should be located in the lowest risk parts of the site.

1.3 Flood risk exception test

The Exception Test should only be applied in the circumstances shown in the table above following application of the sequential test. The Exception Test should not be used to justify the grant of planning permission in flood risk areas when the Sequential Test has not been satisfied.

The Exception Test is in two parts and both need to be met for the test to be satisfied. It is for the applicant to demonstrate this to the LPA, but we will provide advice on the second part of the test. The second part requires a site-specific flood risk assessment (FRA) to demonstrate that the new development will be safe over its lifetime (including access and escape routes), will not increase flood risk elsewhere and, where possible, will reduce flood risk overall. The NPPF states that both parts of this test should be satisfied for development to be permitted.

1.4 Inappropriate development in areas at risk of flooding

[Table 2](#) in the NPPG sets out the circumstances where development is incompatible and should not be permitted.

Flood Zone 3b is land classed as the 'functional floodplain' and is land defined by an LPA's Strategic Flood Risk Assessment (SFRA) as having the highest probability of flooding, and where water has to flow or be stored in times of flood. Only water compatible development

and essential infrastructure (subject to the Exception Test) can be acceptable within the functional floodplain provided they are designed and constructed to:

- remain operational and safe for users in times of flood;
- result in no net loss of floodplain storage;
- not impede water flows and not increase flood risk elsewhere.

We would object in principle to any development that falls under any other vulnerability classification within flood zone 3b. It is important to note that the functional floodplain is not separately distinguished from Zone 3a on the Flood Map for Planning. Instead, areas of functional floodplain have been identified by LPAs within their SFRA's.

Highly vulnerable development, which includes caravans, mobile homes and park homes intended for permanent residential use and basement dwellings, is also not compatible with Flood Zone 3a.

1.5 Flood Risk Assessment (FRA) requirements

A site-specific flood risk assessment should be provided for all development in Flood Zones 2 and 3 in accordance with paragraph 181, footnote 63 of the [National Planning Policy Framework](#) (NPPF, December 2024). In Flood Zone 1, an assessment should accompany all proposals involving: sites of 1 hectare or more; land which has been identified by the Environment Agency as having critical drainage problems; land identified in a strategic flood risk assessment as being at increased flood risk in future; or land that may be subject to other sources of flooding, where its development would introduce a more vulnerable use.

In accordance with the NPPF and associated NPPG, a site-specific FRA must clearly demonstrate how you intend to manage flood risk on site to ensure that the proposed development will be safe for its lifetime and that flood risk is not increased on site and elsewhere. The NPPG provides a helpful guide on what should be included in your FRA in the [FRA checklist](#).

The FRA should be appropriate to the scale, nature and location of the development. While it is possible for applicants to undertake their own assessment, most employ suitably experienced professionals. We are not able to recommend specific consultants, but details of competent individuals or companies can be found online.

We would expect your FRA to address (but not necessarily be limited to) the following issues:

- Consideration of the level of flood risk and whether the proposed use would be compatible in accordance with its vulnerability classification outlined within [Annex 3](#) of the NPPF (December 2024) and [Table 2](#) of the NPPG;
- Identification of the level of flood risk (with reference to likelihood, depth, velocity, hazard, speed-of-onset and duration) on the site and consideration of the impact a range of flood events would have on the proposed development, including an assessment of the impacts of climate change by selecting the appropriate climate change allowances.
- Confirmation of any flood defences and standard of protection provided, to confirm the level of residual risk in accordance with the Strategic Flood Risk Assessment (SFRA) for the local planning authority in which the development is located;
- Estimation of flood depths at the site for a range of flood events including in the event of a breach or failure of the flood defences where relevant;

- Details of how flood risk has been addressed through the location and design of the development in accordance with the hierarchy set out in the NPPG to ensure the development will be safe;
- Calculations of any loss of floodplain storage and proposals for providing compensatory floodplain storage where necessary. Reference should be made to [NPPG paragraph 49](#);
- Details of how the development will be made appropriately flood resistant and resilient with reference to the [CIRIA Code of Practice for Property Flood Resilience](#);
- Details of set back of the development from any riverbank / defence to ensure access is maintained for the operation, maintenance, repair and improvement of the watercourse and any defences;
- Confirmation that a safe route of access and escape has been provided to enable free and voluntary movement during the design flood and potential for evacuation before a more extreme flood.

For further information on our flood map products please [the flood risk assessments page on .gov.uk](#). You can access flood risk for your FRA such as predicted flood levels and historical flood data using the [Flood Map for Planning](#) service.

1.6 Flood modelling

In some instances a detailed hydraulic model or flood modelling work may be necessary, in particular if there is no available data for the area of your planning application or to take into account correct climate change allowances. Please be aware that if you are required to carry out flood modelling as part of your proposal you will need to submit the flood model files to the LPA as part of your planning application, which will then usually need to be reviewed by us.

Where modelling is required, we advise you to contact us ahead of submitting your planning application to discuss your modelling requirements and avoid delays when you submit your planning application.

Further information on [when to use hydrological and hydraulic modelling as part of a flood risk assessment for a planning application, and the expected standards](#) is available from the .gov.uk website.

1.7 Climate change allowances

In order to demonstrate the risks to the proposal over its lifetime, a site-specific FRA must also consider the impact of climate change on future flood risks. The latest guidance on how to apply the correct, up to date climate change allowance for FRAs is available at [gov.uk](#).

1.8 Finished floor levels

Raising floor levels above the design flood level is the most effective means of ensuring development will not be subject to internal flooding. The finished floor levels of new buildings in areas at a high risk of flooding should normally be at least 600 millimetres above the design flood level, including an allowance for climate change. Where this cannot be achieved due to other planning constraints, we request that floor levels are set as high as possible (for extensions to existing buildings, no lower than the existing floor levels) and that flood resilience/resistance measures are considered, where appropriate, up to the design flood level.

Where floor levels cannot be raised sufficiently, consideration should be given to the use of flood resilient construction practices and materials in the design and build phase. Choice of materials and simple design modifications can make the development more resistant to flooding and reduce rehabilitation time in the event of future inundation. We may object unless it can be demonstrated that the safety of occupants can be managed by including other flood resilience/resistance measures up to the design flood level.

Detailed information on flood resilience techniques can be found in [CIRIA Code of Practice for Property Flood Resilience](#)

1.9 Floodplain compensation

Your FRA will need to demonstrate that any increase in built footprint within the 1% annual exceedance probability (1 % AEP) scenario plus climate change flood extent can be directly compensated for, on a level-for-level basis and volume-for-volume to prevent a loss of floodplain storage. If it is not possible to provide level for level flood plain compensation, other forms of mitigation may be considered or alternatively there should be no increase in built footprint. It will also need to be demonstrated that the proposed development does not impact the flow and conveyance of water.

The use of voids, stilts or under-croft parking as mitigation for a loss in floodplain storage should be avoided, as they may become blocked over time by debris or domestic effects. We would not recommend these methods to the LPA as an acceptable means of compensation. Further guidance is provided in [NPPG paragraph 49](#).

1.10 Safe access and escape

Development will need to be designed so users can have free and voluntary movement during flooding via safe access and escape routes to safe, dry areas completely outside the 1% annual exceedance probability (1% AEP) plus climate change flood extent. Such routes should be designed to remain dry during flooding. If this is not possible a 'very low flood hazard' rating [in accordance with the guidance on .gov.uk – in particular FD2320: Flood Risk Assessment Guidance for New Developments](#) may be acceptable.

Where safe access cannot be achieved, an emergency flood plan that deals with matters of evacuation and refuge to demonstrate that people will not be exposed to hazardous flooding should be submitted to and agreed with the LPA. Further guidance is provided in [ADEPT/EA Flood Risk Emergency Plans for New Development guidance](#) and in [paragraphs 047 and 048 of the NPPG](#).

We recommend that you discuss safe access and escape routes with the local authority emergency planners, as they will be responsible for agreeing to any emergency plan submitted with your application.

1.11 Flood defences

Your FRA should identify the presence of any relevant flood walls/defences and include information on their standard of protection and condition. You should also include information on who is responsible for the flood defence along with information on any plans to improve those defences with references to relevant flood risk management strategies.

The FRA should assess the impacts of flood defence failure (for example, a breach scenario) on the proposed development and demonstrate that these residual risks can be safely managed without people being exposed to hazardous flooding.

Opportunities to reduce the causes and impacts of flood should also be explored including making space for the flow and storage of flood water and providing or making contributions to flood risk management infrastructure. Proposals could also include natural flood risk management techniques.

1.12 Flood Risk Standing Advice for lower risk development

We have produced a series of standard comments for LPAs and applicants to refer to for lower risk development proposals. These comments replace direct consultation with us. These standard comments are known as Flood Risk Standing Advice (FRSA), and can be found on [gov.uk](https://www.gov.uk). In some locations, Local Flood Risk Standing Advice may also apply. We recommend that you view our standing advice in full before submitting the required information as part of a planning application. The LPA will then determine whether flood risk has been considered in line with FRSA recommendations.

1.13 Thames Estuary 2100 Plan delivery

Applies to Richmond, Wandsworth, Lambeth, Southwark, Lewisham, Greenwich, Bexley, Dartford, Gravesham and Medway tidal LPA areas

In line with requirements set out in the [Thames Estuary 2100 \(TE2100\) plan](#), any development which borders the Thames tidal flood defences will need to demonstrate how the development is informed by the TE2100 plan and how any flood defences can be raised now or in the future. Check the [policy unit map](#) for actions required in [each policy unit](#).



- Development adjacent to tidal flood defences will need to demonstrate that it will not have a detrimental impact on the integrity of existing flood defences.
- Development should be set back with increased space for management, maintenance and any upgrading in accordance with both the TE2100 plan and Local and national planning policies.
- Development should be informed by the latest good practice and guidance such as the [Estuary Edges Guidance](#), Strategic Flood Risk Assessments and Riverside Strategy Local plan policies and guidance. Examples of an improved riverside and set back tidal flood defences at Royal Arsenal Riverside (left) and Greenwich Peninsula (right)



Section 2: Main rivers and ecology

2.1 Flood Risk Activity Permit (FRAP)

The Environmental Permitting (England and Wales) Regulations 2016 require a permit to be obtained for any activities which will take place:

- in, over or under a main river
- on or within 8 metres of the bank of a main river, or 16 metres if it is a tidal main river
- on or within 8 metres of any flood defence structure or culvert on a main river, or 16m for a tidal main river or sea defence
- involving quarrying or excavation within 16 metres of any main river, flood defence (including a remote defence) or culvert
- in a main river floodplain more than 8 metres from the riverbank, culvert or flood defence structure (16 metres if it is a tidal main river) which could divert or obstruct floodwater, damage any river control works or affect drainage. For example, land raising and other potential impacts that are not controlled by planning permission.

Flood risk activities can be classified as: Exclusions, Exemptions, Standard Rules or Bespoke. These are associated with the level of risk your proposed works may pose to people, property and the environment. Further guidance on applying for flood risk activity permits can be found [online](#).

To identify any Main Rivers in proximity to your proposed development please check our Flood Map for Planning.

Where a Flood Risk Activity Permit (FRAP) is required, it is unlikely that our consent will be granted for works that do not allow access for maintenance or repair purpose or that have an unacceptable impact on flood risk or the natural environment. The permanent retention of a continuous unobstructed area is an essential requirement for emergency access to the river for repairs to the bank and for future maintenance and/or improvement works.

Where development or works are proposed that would require a FRAP, it is recommended that detailed planning advice is obtained from us prior to the submission of a planning application. We may object to a planning application if we do not consider that we can issue a FRAP for a development as proposed. The determination of a planning application could be delayed until our concerns are resolved.

FRAPs are required irrespective of any planning permission and are not guaranteed. You should not assume that a permit will automatically be forthcoming once planning permission has been granted, and we advise you to consult with us at the earliest opportunity.

2.2 Ecological enhancements and Biodiversity Net Gain (BNG)

Paragraphs 187 and 193 of the National Planning Policy Framework (NPPF, December 2024) recognise that the planning system should conserve and enhance the environment by minimising impacts on and providing net gains for biodiversity. If significant harm resulting from a development cannot be avoided, adequately mitigated, or as a last resort compensated for, planning permission should be refused.

We recommend that development proposals protect and enhance the local environment and seek opportunities to enhance ecology and provide Biodiversity Net Gains (BNG). The enhancement of biodiversity in and around development should be led by a local understanding of ecological networks, and should seek to include:

- habitat restoration, re-creation and expansion;
- improved links between existing sites;
- buffering of existing important sites;
- new biodiversity features within development; and
- securing management for long term enhancement

2.3 River naturalisation and culverted watercourses

Development on sites with existing culverts present opportunities for de-culverting as part of the proposal. Deculverting and river restoration will provide environmental improvements and contribute to the delivery of BNG, will help deliver [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#) (WFD) improvements and will also reduce the risk of flooding. We strongly recommend you consider all options to remove any culverted sections of watercourses as part of your development proposals, restoring the river to its natural state. If deculverting is not possible on the site we would expect to see adequate evidence for this. Constructing new development on top of existing culverts is unlikely to be acceptable in terms of flood risk, culvert maintenance and safety.

We will object to any proposal to culvert main river watercourses. Development that involves culverting for land gain purposes is not sustainable. It works against the natural processes of watercourses and can exacerbate the risk of flooding and increase maintenance costs and complexity. It can also destroy wildlife habitats, hinder fish passage, reduce amenity value, interrupt the continuity of the linear corridor of a watercourse and affect channel stability. It can also significantly reduce resilience to the effects of drought, floods and pollution. Culverting an ordinary watercourse requires the prior consent of the Lead Local Flood Authority.



Improved riverside environment and new riverside buffer zones in Lewisham (Ravensbourne River) *left* and Greenwich Peninsula (River Thames) *right*



2.4 Riverside buffer zones

Development adjacent to main rivers should be designed with a naturalised buffer zone of at least 8 metres from the bank top or retaining wall to protect and enhance the conservation value of the watercourse and ensure access for flood defence maintenance. This increases to 16 metres for a tidal main river, and the requirement for a buffer zone also applies to culverted watercourses. Where such a buffer strip does not currently exist, we normally seek to ensure that it is established. In urban areas in particular, rivers have often been degraded by past development, and we expect that any new development should go some way to redress the balance.

The buffer zone should be designed and managed for the benefit of biodiversity and should be undisturbed by development with no fencing, footpaths or other structures. It should not include formal landscaping, and should include the planting of locally appropriate native species. Mowing regimes should be low intensity, allowing plants to flower. Light spill within the buffer zone from external artificial lights should be kept at an absolute minimum and be

located and directed so that light levels of 0-2 lux are maintained. The buffer zone will help provide more space for flood waters, provide improved habitat for local biodiversity and allows access for any maintenance requirements. We may also ask you to leave space to allow flood defences to be upgraded in the future. We recommend that you submit a suitably scaled plan showing the distance of the new development from the watercourse and any associated flood defences.

2.5 Nature conservation and ecology surveys

The presence of a main river on or within 8 metres of your proposed development site means an ecological survey should accompany your planning application to establish whether development is likely to have a detrimental impact on the biodiversity of the watercourse. We would not support development proposals if there was shown to be a likely detrimental impact on the water environment. In accordance with the NPPF, any development proposal should avoid significant harm to biodiversity and seek to provide a net gain in biodiversity. Opportunities to incorporate biodiversity in and around the development will be encouraged where appropriate, see examples in our [Estuary Edges Guidance](#). If there is the potential for protected species or habitats to be present on or adjacent to the site, as part of your planning application you will need to undertake the necessary ecological surveys and assessments to determine if they are present. Where protected species and/or habitats are present, detailed assessments and mitigation measures may be necessary. We may offer advice in relation to water-based species and/or habitats that are within our remit.

Where protected species or habitats are present, works may also require licensing from Natural England and therefore we recommend you contact Natural England for their advice.

You can find a full list of protected sites, species and the precautions required for planning on the [GOV.UK](#) website.

2.6 The Water Environment (Water Framework Directive) (England and Wales) Regulations 2017

With any development alongside watercourses, consideration should be given to the requirements of the [The Water Environment \(Water Framework Directive\) \(England and Wales\) Regulations 2017](#) (WFD) which includes causing no overall deterioration in water quality or the ecological status of any waterbody.

Proposed development in close proximity to watercourses may require a WFD compliance assessment. This must assess any potential impacts on the watercourses and demonstrate that the required enhancements will be delivered. Any development that has the potential to cause deterioration in classification under WFD or that precludes the recommended actions from being delivered in the future is likely to be considered unacceptable to us. You will find actions associated with the WFD by searching for your watercourse on the [EA Catchment Data Explorer](#).

For further guidance on undertaking a WFD compliance assessment, please refer to [gov.uk](#).

2.7 Non-native species

Development and construction activities may increase the risk of spreading invasive species present within a proposed development site. Where the presence of invasive species is known or suspected, prior to the commencement of development (including ground clearance) we would expect a detailed method statement for the removal or long-term management /eradication of the invasive species on the site to be submitted to and approved in writing by the LPA. This will help prevent the spread while work is being carried out and consider the longer-term management. When visiting any site, work methods must

include appropriate biosecurity measures (considered for all potential spread pathways) to prevent the spread and introduction of invasive non-native species in order to avoid contravention of the Wildlife and Countryside Act 1981. Without this, avoidable damage could be caused to the nature conservation value of a site.

Section 3: Groundwater quality and contaminated land

3.1 Land affected by contamination

The NPPF takes a precautionary approach to land contamination. Before the principle of development can be determined, land contamination should be investigated to see whether it could preclude certain development due to environmental risk or cost of remediation.

Where contamination is known or suspected, a desk study, site investigation, remediation and other works may be required to enable safe development (paragraph 196 of the NPPF, December 2024). The minimum requirements for submission with a planning application are a preliminary risk assessment, such as a site walkover or desk top study.

Site Investigation and Remediation Strategy reports may be required for submission with a planning application for sensitive land use types or where significant contamination or uncertainty is found. Where these reports are missing or where they do not demonstrate no adverse impact on the environment, we are likely to raise an objection to the planning application.

If during site works contaminated material is suspected, you are advised to stop works and seek further guidance. Remediation of contaminated land may require a permit under Environmental Permitting Regulations.

When dealing with land affected by contamination, developers should follow the risk management framework provided in 'Model procedures for the management of land contamination' ([CLR11](#)).

Please also note that any surface water drainage system must not pose a risk to groundwater quality and must not be constructed in ground affected by contamination.

Further guidance can be found at:

- What is [contaminated land](#)?
- [NPPG: Land affected by contamination](#)
- [Environment Agency Land contamination: technical guidance](#)
- [Land contamination risk assessment](#)

We recommend you contact your Local Authority's Environmental Health team who may hold records on known/potential land contamination. Please note our primary concern is with regards to water quality. Your Local Authority's Environmental Health team will advise you on issues related to human health.

3.2 Groundwater protection

[The Environmental Permitting \(England and Wales\) \(Amendment\) \(England\) Regulations 2023](#) were implemented on 2 October 2023. We are reviewing the Environment Agency's approach to groundwater protection and updating it where applicable. Therefore, our [previous groundwater protection position statements](#) noting our position on groundwater protection for both planning and permitting regimes are **under review** (correct as of February 2025). We will hold an appropriate consultation on any changes to the guidance before we republish it. However, the following information may still be helpful.

We have defined Source Protection Zones (SPZs) for 2000 groundwater sources such as wells, boreholes and springs used across the country for public drinking water supply. These

zones are more vulnerable to contamination from activities that might cause pollution in the area. The closer the activity to groundwater, the greater the risk.

To see if your proposed development is located within a Source Protection Zone, please use [MagicMap](#).

It is likely that we will object to the following developments within SPZ1:

- large-scale above or below ground storage of hazardous substances (as may occur at a chemical works or at a petrol filling station)
- new development of non-landfill waste operations where the operation poses an intrinsic hazard to groundwater, for example deposit of waste for recovery activities.
- land spreading of sludge or liquid waste containing significant concentrations of pollutants.
- the locating of any new cemetery or the extension of any existing cemetery, within SPZ1, or 250 metres from a well, borehole or spring used to supply water that is used for human consumption, whichever is the greater distance.

3.3 Cemeteries

Development proposals for cemeteries should be avoided in areas where they present a high risk to the water environment. A [groundwater risk assessment](#) should be undertaken to accompany any planning application for a proposed burial site. This should show that there are minimal risks to the environment either at the time of burial, or in the future.

From 1 April 2022, cemeteries with the highest environmental risk are also controlled through the permitting system under the Environmental Permitting (England and Wales) Regulations 2016. If you need to apply for an environmental permit, you must also provide a risk assessment as part of your application.

More information and guidance can be found on the [protecting groundwater from human burials](#) gov.uk webpage. Although our [previous groundwater protection position statements](#) are under review (correct as of February 2025) you may still find Section L: Cemetery developments of 'The Environment Agency's approach to groundwater protection' useful.

3.4 Surface water drainage

We recommend the use of Sustainable Drainage Systems (SuDS). These techniques can provide a method for reducing runoff that could otherwise lead to flooding. They can also minimise pollution impacts, improve biodiversity and provide amenity areas.

Where infiltration drainage is proposed, it must be demonstrated that it will not pose a risk to groundwater quality. Infiltration should not be focused in areas where ground contamination has been identified. Surface water infiltrating through contaminated ground can mobilise contaminants and result in pollution of the groundwater. Where necessary, we will seek to control the depths of soakaway systems by recommending maximum penetration depths and a requirement that the water table should not be intersected. In general, groups of shallow soakaways are preferable to one or two deep boreholes.

Where infiltration SuDS are to be used for surface run-off from roads, car parking and public or amenity areas, they should have a suitable series of treatment steps to prevent the pollution of groundwater. For the immediate drainage catchment areas used for handling and storage of chemicals and fuel, handling and storage of waste and lorry, bus and coach parking or turning areas, infiltration SuDS are not permitted without an environmental permit.

Please note that we cannot issue an environmental permit for the direct discharge of hazardous substances into groundwater.

Further guidance can be found in the updated [CIRIA SUDs manual](#), and the pollution prevention advice for businesses at [gov.uk](#). Although currently under review (correct as of February 2025) you may still find some of the information in our [previous groundwater protection position statements](#) helpful.

Sustainable Drainage Systems (SuDs) should always be carefully considered in discussions with the Lead Local Flood Authority, who are responsible for providing advice on the management of surface water drainage. You should consult them for their comments on your proposal.

Section 4: Foul water drainage and water resources

4.1 Foul water drainage

Government guidance contained within the [NPPG](#) (Water supply, wastewater and water quality – considerations for planning applications, paragraph 020) sets out a hierarchy of drainage options that must be considered and discounted in the following order:

1. Connection to the public sewer
2. Package sewage treatment plant (adopted in due course by the sewerage company or owned and operated under a new appointment or variation)
3. Septic tank

The first presumption must be to provide a system of foul drainage discharging into a public sewer to be treated at a public sewage treatment works. Only where an applicant can demonstrate to the satisfaction of the LPA that connection to a public sewer is not feasible due to the cost and/or practicability should a non-mains foul sewage disposal solution be considered.

The NPPG states that ‘applications for developments relying on anything other than connection to a public sewage treatment plant should be supported by sufficient information to understand the potential implications for the water environment’. Any planning application which includes a non-mains system should therefore be accompanied by a [foul drainage assessment form](#) (FDA) which provides sufficient information for an assessment to be made of the risks of pollution to the water environment. For the proposal to be acceptable the FDA will need to demonstrate that the proposed system will be viable and will not be detrimental to the water environment.

Where the proposed development involves the connection of foul drainage to an existing non-mains drainage system, the applicant should ensure that it is in a good state of repair, regularly de-sludged and of sufficient capacity to deal with any potential increase in flow and loading which may occur as a result of the development. We have provided [guidance](#) to LPAs on non-mains drainage from non-major development to help them determine these planning applications.

Further information on septic tanks and treatment plants can be found [here](#).

4.2 Trade effluent

Effluent discharged from any premises operating as a trade or industry, and effluent generated by a commercial enterprise where the effluent is different to that which would arise from domestic activities in a normal home, is described as trade effluent.

If you wish to discharge a trade effluent to groundwater or surface water via a non-mains system, you will require a permit under the Environmental Permitting Regulations.

If you wish to discharge a trade effluent to the public sewer, or a private sewer that connects to a public foul sewer, a trade effluent consent or a trade effluent agreement with your water and sewerage company must be obtained before you do so.

If you are not able to discharge effluent it will be classed as waste and you must then comply with your duty of care responsibilities.

4.3 Environmental Permitting Regulations (Foul Drainage and Trade Effluent)

Environmental Permitting Regulations require any discharge of sewage or trade effluent made to either surface water or groundwater to be registered as an exempt discharge activity or hold a permit issued by the Environment Agency, additional to planning permission. This applies to any discharge to inland freshwaters, coastal waters or relevant territorial waters.

The granting of planning permission does not guarantee the granting of an Environmental Permit. Upon receipt of a correctly filled in application form we will carry out an assessment. It can take up to 4 months before we are able to decide whether to grant a permit or not.

Where a pre-existing non-mains drainage system is covered by a permit to discharge then an application to vary the permit will need to be made to reflect the increase in volume being discharged. It can take up to 13 weeks before we decide whether to vary a permit.

4.4 Water resources

All new homes are required to meet the mandatory national water efficiency standard for consumption as set out in the [Building Regulations](#) of 125 litres/person/day. In some water-stressed areas such as Kent and South London area some councils have adopted policies in their Local Plans that require developers to apply the tighter Building Regulations optional requirement. We recommend developers always aim to ensure their schemes minimise their impact on the environment as much as possible by reducing demand for water. For sites in London boroughs you should also refer to the [London Plan](#) and Local Plans for the latest environmental standards and policies where standards are currently 105 litres per day.

We suggest you submit a [water efficiency calculator](#) report, or equivalent information, at the planning stage to demonstrate compliance with this standard. Achieving these targets can be done with existing technology by installing efficient showerheads, spray taps and low flush toilets. Complex greywater recycling and rainwater harvesting schemes are not typically required to adhere to this water efficiency standard.

We also recommend that new non-residential commercial buildings are required to achieve a BREEAM 'excellent' rating for water efficiency (or an equivalent rating with any successors).

Older buildings are often the least efficient in resource use. We strongly recommend the retrofitting of existing buildings where opportunities arise through refurbishments and changes of use. There are a number of [BREEAM Technical Standards](#) documents to support retrofitting for commercial and residential buildings.

Section 5: Waste management

5.1 Development close to an existing permitted site

New development in close proximity to an existing waste management infrastructure may not be an appropriate land use neighbour as it could result in the community at the proposed development being exposed to odour, noise, dust and pest impacts.

The severity of these impacts will depend on the size of the facility, the nature of the waste it takes and prevailing weather conditions. If the site operator can demonstrate that they have taken all reasonable precautions to mitigate these impacts, the facility and community may co-exist, with some residual impacts. In some cases, these residual impacts may cause local residents concern, and there are limits to the mitigation the operator can apply. Only in very exceptional circumstances would we revoke the operators permit.

Generally, sensitive development (e.g. occupied buildings) within 50 metres of such a facility is unacceptable because of the potential impacts to residents that may not be able to be mitigated. If any development is proposed within 50m of such a site at the planning application stage, we may object to the application on this basis.

You can check for Waste Permits or Registered exemptions near your proposed development site by searching our online Public Register.

[Access the public register for environmental information - GOV.UK](#)

5.2 Waste management

The CL:AIRE Definition of Waste: Development Industry Code of Practice (version 2) provides operators with a framework for determining whether or not excavated material arising from site during remediation and/ or land development works are waste or have ceased to be waste. Under the Code of Practice:

- excavated materials that are recovered via a treatment operation can be re-used on-site providing they are treated to a standard such that they fit for purpose and unlikely to cause pollution
- treated materials can be transferred between sites as part of a hub and cluster project
- some naturally occurring clean material can be transferred directly between sites

Developers should ensure that all contaminated materials are adequately characterised both chemically and physically, and that the permitting status of any proposed on-site operations are clear. If in doubt, the Environment Agency should be contacted for advice at an early stage to avoid any delays.

We recommend that developers refer to:

- the position statement on the Definition of Waste: Development Industry Code of Practice
- The waste management page on GOV.UK

5.3 Waste to be taken off site

Contaminated soil that is (or must be) disposed of is waste. Therefore, its handling, transport, treatment and disposal are subject to waste management legislation, which includes:

- Duty of Care Regulations 1991
- Hazardous Waste (England and Wales) Regulations 2005

- Environmental Permitting (England and Wales) Regulations 2016
- The Waste (England and Wales) Regulations 2011

Developers should ensure that all contaminated materials are adequately characterised both chemically and physically in line with British Standard BS EN 14899:2005 'Characterization of Waste - Sampling of Waste Materials - Framework for the Preparation and Application of a Sampling Plan' and that the permitting status of any proposed treatment or disposal activity is clear. If in doubt, the Environment Agency should be contacted for advice at an early stage to avoid any delays.

5.4 Environmental Permitting Regulations (Waste)

To see if your proposed development requires an Environmental Permit under the Environment Permitting Regulations please refer to [gov.uk](https://www.gov.uk).

As planning and permitting decisions are often closely linked, we have issued [detailed guidance for developments requiring planning permission and environmental permits](#). This guidance explains how, when responding to planning consultations that require environmental permits, we will advise of three possible positions:

- No major permitting concerns
- More detailed consideration is required and parallel tracking is recommended
- Don't proceed – unlikely to grant a permit

We advise joint discussions with the applicant, planning authority and ourselves, as well as parallel tracking of the planning and permit applications where possible. Parallel tracking planning and environmental permit applications offers the best option for ensuring that all issues can be identified and resolved, where possible, at the earliest possible stages. This will avoid the potential need for amendments to the planning application post-permission.

Section 6: Agricultural development

6.1 Agricultural buildings

If the buildings are to be used for livestock housing, the operator must ensure that they comply with the relevant regulations regarding the [storage of slurry and silage](#). Any increase in the numbers of livestock may require the construction or expansion of slurry and silage storage facilities.

The operator should ensure that they comply with the requirements of The Water Resources (Control of Pollution) (Silage, Slurry and Agricultural Fuel Oil) (England) Regulations 2010, commonly known as the 'SSAFO regs', the [storage requirements](#) of The Nitrate Pollution Prevention Regulations 2015, commonly known as the 'NVZ regs' and have regard to guidance on protecting our water, soil and air at gov.uk.

6.2 Slurry storage

If your livestock produces slurry, you must be able to store the slurry produced in accordance with the regulations on capacity, construction, and the associated calculations and records.

Depending on the relevant regulations, slurry stores must have the capacity to store:

- 4, 5 or 6 months of slurry;
- rainfall expected to enter the store during the storage period including yards and roofs; and
- any wash water or other liquids that enter the store during that period.

If you have poultry manure or other types of solid manure you must store them:

- in a vessel;
- on an impermeable base, with appropriate collection and containment of runoff;
- in a roofed building; or
- in an appropriately located temporary field heap.

If you build a new facility for storing organic manure (i.e. slurry stores or impermeable bases for solid manure) and/or if you substantially reconstruct or enlarge your existing facilities, you must:

- comply with standards set down in the SSAFO Regulations, and
- notify the Environment Agency in writing about your intention to build a new store, or substantially enlarge or reconstruct an existing store at least 14 days before you start construction or reconstruction works.

6.3 Silage storage

All parts of a silo must be resistant to attack. Your silo must have:

- an impermeable base extending beyond any walls
- impermeable drainage collection channels around the outside, flowing into an appropriately sized effluent tank

Further guidance is available at gov.uk.

Disclaimer

Please note that this document is a response to a pre-application or post-application enquiry and does not represent our final view in relation to any future planning application or discharge of planning condition application made in relation to any site. We reserve the right to change our position in relation to any such application. This response is based on current planning policy, associated legislation, and environmental data/information. If any of these elements change in the future then we may need to reconsider our position.

As part of this preliminary response we have not technically reviewed any documents. You should seek your own expert advice in relation to technical matters relevant to any planning application before submission.

If you have any questions or feedback on this guidance please contact the Kent and South London Sustainable Places team by emailing: kslplanning@environment-agency.gov.uk