

[Home](#) > [River maintenance, flooding and coastal erosion](#)

Guidance

Flood risk assessments if you're applying for planning permission

Find out when you need to do a flood risk assessment as part of your planning application, how to complete one and how it's processed.

From:

[Department for Environment, Food & Rural Affairs](#)

[\(/government/organisations/department-for-environment-food-rural-affairs\)](/government/organisations/department-for-environment-food-rural-affairs) and
[Environment Agency](#) [\(/government/organisations/environment-agency\)](/government/organisations/environment-agency)

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Applies to England

Contents

- — [When you need an assessment](#)
- — [When you don't need an assessment](#)
- — [When to follow standing advice](#)
- — [How to do an assessment](#)
- — [Get information to complete an assessment](#)
- — [Contact the Environment Agency](#)

As a planning applicant, you may need to carry out a flood risk assessment for your proposed development site.

Guidance for local planning authorities can be found in the guide on [reviewing flood risk assessments \(https://www.gov.uk/guidance/flood-risk-assessment-local-planning-authorities\)](https://www.gov.uk/guidance/flood-risk-assessment-local-planning-authorities).

You'll usually need to pay a flood risk specialist to carry out the flood risk assessment for you, but you may be able to do it yourself if it's for a simple, low risk development, for example a house extension. If you're unsure, [contact the Environment Agency](#) for advice.

Your planning application may be refused by your [local planning authority \(http://www.planningportal.gov.uk/wps/portal/genpub_LocallInformation\)](http://www.planningportal.gov.uk/wps/portal/genpub_LocallInformation) if you don't include a flood risk assessment or if it isn't satisfactory.

When you need an assessment

You need to do a flood risk assessment for most developments within one of the [flood zones \(http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/flood-zone-and-flood-risk-tables/table-1-flood-zones/\)](http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/flood-zone-and-flood-risk-tables/table-1-flood-zones/).

This includes developments:

- in flood zone 2 or 3 including [minor development \(http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/what-is-meant-by-minor-development-in-relation-to-flood-risk/\)](http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/what-is-meant-by-minor-development-in-relation-to-flood-risk/) and [change of use \(http://www.planningportal.gov.uk/permission/commonprojects/changeofuse/\)](http://www.planningportal.gov.uk/permission/commonprojects/changeofuse/)
- more than 1 hectare (ha) in flood zone 1
- less than 1 ha in flood zone 1, including a change of use in development type to a more vulnerable class (for example from commercial to residential), where they could be affected by sources of flooding other than rivers and the sea (for example surface water drains, reservoirs)
- in an area within flood zone 1 which has critical drainage problems as notified by the Environment Agency

[Find out what flood zone you're in \(https://flood-map-for-planning.service.gov.uk/\)](https://flood-map-for-planning.service.gov.uk/)

Contact [your local planning authority \(http://www.planningportal.gov.uk/wps/portal/genpub_LocallInformation\)](http://www.planningportal.gov.uk/wps/portal/genpub_LocallInformation) to check if your development site is in an area identified as having critical drainage problems.

When you don't need an assessment

You don't need to do a flood risk assessment for a development that's less than 1 ha in flood zone 1 unless it could be affected by sources of flooding other than rivers and the sea, for example surface water drains.

When to follow standing advice

You should follow the Environment Agency's standing advice if you're carrying out a flood risk assessment of a development classed as:

- a minor extension (household extensions or non-domestic extensions less than 250 square metres) in flood zone 2 or 3
- ['more vulnerable'](http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/flood-zone-and-flood-risk-tables/table-2-flood-risk-vulnerability-classification/) (<http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/flood-zone-and-flood-risk-tables/table-2-flood-risk-vulnerability-classification/>) in flood zone 2 (except for landfill or waste facility sites, caravan or camping sites)
- ['less vulnerable'](http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/flood-zone-and-flood-risk-tables/table-2-flood-risk-vulnerability-classification/) (<http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/flood-zone-and-flood-risk-tables/table-2-flood-risk-vulnerability-classification/>) in flood zone 2 (except for agriculture and forestry, waste treatment, mineral processing, and water and sewage treatment)
- ['water compatible'](http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/flood-zone-and-flood-risk-tables/table-2-flood-risk-vulnerability-classification/) (<http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/flood-zone-and-flood-risk-tables/table-2-flood-risk-vulnerability-classification/>) in flood zone 2

You also need to follow standing advice for developments involving a [change of use](http://www.planningportal.gov.uk/permission/commonprojects/changeofuse/) (<http://www.planningportal.gov.uk/permission/commonprojects/changeofuse/>) into one of these vulnerable categories or into the water compatible category.

How to do an assessment

Read the guidance for:

- [flood zone 1 and critical drainage areas](https://www.gov.uk/guidance/flood-risk-assessment-in-flood-zone-1-and-critical-drainage-areas) (<https://www.gov.uk/guidance/flood-risk-assessment-in-flood-zone-1-and-critical-drainage-areas>)
- [flood zones 2 and 3](https://www.gov.uk/guidance/flood-risk-assessment-in-flood-zones-2-and-3) (<https://www.gov.uk/guidance/flood-risk-assessment-in-flood-zones-2-and-3>)
- [flood zones 2 and 3: minor extensions and vulnerable developments \(standing advice\)](https://www.gov.uk/guidance/flood-risk-assessment-standing-advice) (<https://www.gov.uk/guidance/flood-risk-assessment-standing-advice>)

Get information to complete an assessment

Use these products or packages of information to help you complete your flood risk assessment. The products are:

- product 1: Flood Map, including flood zones, defences and storage areas and areas benefiting from flood defences
- product 3: Basic Flood Risk Assessment Map, including flood zones, defences and storage areas, areas benefiting from defences, statutory main river designations and some key modelled flood levels
- product 4: Detailed Flood Risk Assessment Map, including flood zones, defences and storage areas, areas benefiting from defences, statutory main river designations, historic flood event outlines and more detailed information from our computer river models (including model extent, information on one or more specific points, flood levels, flood flows)

- product 5: reports, including flood modelling and hydrology reports and modelling guidelines
- product 6: Model Output Data, including product 5
- product 7: Calibrated and Verified Model Input Data (CaVMID), including product 5
- product 8: Flood Defence Breach Hazard Map including, maximum flood depth, maximum flood velocity, maximum flood hazard

How to choose the correct product

You need to know the size of your development and the [flood zone](http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/flood-zone-and-flood-risk-tables/table-1-flood-zones/) (<http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/flood-zone-and-flood-risk-tables/table-1-flood-zones/>) it is in to help you choose the right product.

Non-domestic extensions with a footprint of less than 250 square metres and all domestic extensions

For:

- flood zones 2 and 3 use product 3
- flood zone 3 in an area behind raised flood defences use product 8
- flood zone 1 use product 1

Applications with a site area less than 1 hectare

For:

- flood zone 3 choose from products 4, 5, 6, or 7
- flood zone 3 in an area behind raised flood defences use product 8
- flood zones 1 and 2 use product 3

Applications with a site area greater than 1 hectare

For:

- flood zones 2 and 3 choose from products 4, 5, 6 or 7
- flood zone 3 in an area behind raised flood defences use product 8
- flood zone 1 use product 3

How to order products

[Contact the Environment Agency](#) to find out the contact details of the local team that will deal with your request.

To ensure the correct data is provided include one of these:

- a map showing the site boundary, with either a grid reference or postcode
- an aerial photo with a grid reference
- a GIS (Geographical Information System) polygon file of the boundary

The Planning Practice Guidance has a [checklist](http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/site-specific-flood-risk-assessment-checklist/) (<http://planningguidance.planningportal.gov.uk/blog/guidance/flood-risk-and-coastal-change/site-specific-flood-risk-assessment-checklist/>) that you may find useful when preparing your flood risk assessment.

Contact the Environment Agency

Environment Agency

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Yorkshire
S60 1BY

Email enquiries@environment-agency.gov.uk

Monday to Friday, 8am to 6pm 0370 8506 506

From outside the UK +44 1709 389 201

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Related content

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[Flood risk maps 2019 \(/government/publications/flood-risk-maps-2019\)](/government/publications/flood-risk-maps-2019)

[Flood risk maps for surface water: how to use the map \(/government/publications/flood-risk-maps-for-surface-water-how-to-use-the-map\)](/government/publications/flood-risk-maps-for-surface-water-how-to-use-the-map)

[Flood risk and coastal change \(/guidance/flood-risk-and-coastal-change\)](/guidance/flood-risk-and-coastal-change)

[Flood risk assessment in flood zone 1 and critical drainage areas \(/guidance/flood-risk-assessment-in-flood-zone-1-and-critical-drainage-areas\)](/guidance/flood-risk-assessment-in-flood-zone-1-and-critical-drainage-areas)

Explore the topic

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