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Guidance

Flood risk and coastal change

Advises how to take account of and address the risks associated with flooding and coastal change in the planning process.

From:

[Department for Levelling Up, Housing and Communities](#)

[\(/government/organisations/department-for-levelling-up-housing-and-communities/\)](/government/organisations/department-for-levelling-up-housing-and-communities/)

and [Ministry of Housing, Communities & Local Government](#)

[\(/government/organisations/ministry-of-housing-communities-and-local-government/\)](/government/organisations/ministry-of-housing-communities-and-local-government/)

Published

6 March 2014

Last updated

25 August 2022 —

Applies to England

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This guidance has been updated – see [previous version](https://webarchive.nationalarchives.gov.uk/ukgwa/20220802221446/https://www.gov.uk/guidance/flood-risk-and-coastal-change) (<https://webarchive.nationalarchives.gov.uk/ukgwa/20220802221446/https://www.gov.uk/guidance/flood-risk-and-coastal-change>).

Planning and flood risk

What is “flood risk”?

“Flood risk” is a combination of the probability and the potential consequences of flooding. Areas at risk of flooding are those at risk of flooding from any source, now or in the future. Sources include rivers and the sea, direct rainfall on the ground surface, rising groundwater, overwhelmed sewers and drainage systems, reservoirs, canals and lakes and other artificial sources. Flood risk also accounts for the interactions between these different sources. This term is key to the application of the presumption in favour of sustainable development in [paragraph 11 of the National Planning Policy Framework](https://www.gov.uk/guidance/national-planning-policy-framework/2-achieving-sustainable-development) (<https://www.gov.uk/guidance/national-planning-policy-framework/2-achieving-sustainable-development>).

For areas at risk of river and sea flooding, this is principally land within Flood Zones 2 and 3 or where a Strategic Flood Risk Assessment shows it will be at risk of flooding in the future. It can also include an area within Flood Zone 1 which the Environment Agency has notified the local planning authority as having critical drainage problems.

[Table 1](#) provides definitions of the Flood Zones, from low to high probability of river and sea flooding. A map showing river and sea flooding is available from the Environment Agency’s [Flood Map for Planning](https://flood-map-for-planning.service.gov.uk/) (<https://flood-map-for-planning.service.gov.uk/>). The Environment Agency has also set out [who is responsible for flood and coastal erosion risk management](#)

(https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/917641/15482_Environment_agency_digital_AnnexA_PDFA.pdf) in its [National flood and coastal erosion risk management strategy](#) (https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/920944/023_15482_Environment_agency_digitalAW_Strategy.pdf). Government has also published a [Flood and coastal erosion risk management policy statement](#) (<https://www.gov.uk/government/publications/flood-and-coastal-erosion-risk-management-policy-statement>). Strategic flood risk assessments show all sources of flood risk, now and in the future.

Paragraph: 001 Reference ID: 7-001-20220825

Revision date: 25 08 2022

What is meant by a “design flood”?

This is a flood event of a given annual flood probability, which is generally taken as:

- river flooding likely to occur with a 1% annual probability (a 1 in 100 chance each year); or
- tidal flooding with a 0.5% annual probability (1 in 200 chance each year); or
- surface water flooding likely to occur with a 1% annual probability (a 1 in 100 chance each year),

plus an [appropriate allowance for climate change](#) (<https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>).

Paragraph: 002 Reference ID: 7-002-20220825

Revision date: 25 08 2022

What are the main steps in assessing flood risk?

The National Planning Policy Framework sets out strict tests to protect people and property from flooding which all local planning authorities are expected to follow. Where these tests are not met, new development should not be allowed. The main steps to be followed in addressing flood risk are set out below, starting with assessing and then avoiding flood risk. The steps are designed to ensure that if there are lower risk sites available, or a proposed development cannot be made safe throughout its lifetime without increasing flood risk elsewhere, it should not be permitted. Measures to avoid, control, manage and mitigate flood risk should also not increase flood risk elsewhere.

Assess flood risk

- Strategic policy-making authorities should undertake a [Strategic Flood Risk Assessment](#);
- Where appropriate, in areas at risk of flooding, developers undertake a [site-specific flood risk assessment](#) to accompany applications for planning

permission (or [prior approval for certain permitted development](#) rights, or Technical Details Consent);

- Assessments of flood risk identify sources of uncertainty and how these are accounted for in a mitigation strategy. Further information on how to do this can be found in [Flood risk assessment for planning applications](#) (<https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications>).

Paragraph: 003 Reference ID: 7-003-20220825

Revision date: 25 08 2022

What process is used in plan or decision-making where flood risk is a consideration?

Where an assessment shows that flood risk is a consideration for a plan or development proposal, the process is set out below:

Avoid

- In plan-making, a [sequential approach](#) should be employed. This involves applying the '[Sequential Test](#)' and, if needed, the '[Exception Test](#)'.
- In decision-making, where necessary, planning authorities also apply the [Sequential Test](#) and, if needed, the [Exception Test](#), to ensure that flood risk is minimised and appropriately addressed.
- Where the sequential and the exception tests have been applied as necessary and not met, development should not be allowed.
- Substitute lower vulnerability uses for higher vulnerability uses.
- Within sites, using site layout to locate the most vulnerable aspects of development in areas of lowest flood risk, unless there are overriding reasons to prefer a different location. In addition, measures to avoid flood risk vertically can then be taken, by locating the most vulnerable uses on upper storeys, and by raising finished floor and/or ground levels, where appropriate and that such techniques are [suitably designed](#) (<https://shop.bsigroup.com/ProductDetail/?pid=000000000030299686>). Such measures should also account for residual flood risks from flood risk management infrastructure.

Control

- Planning authorities and developers can investigate measures to control the risk of flooding affecting the site. Early discussions with relevant flood risk management authorities, reference to Strategic Flood Risk Assessments and [any programme of flood and coastal erosion risk management schemes](#) (<https://www.gov.uk/government/publications/programme-of-flood-and-coastal-erosion-risk-management-schemes>) will help to identify such opportunities.

Mitigate

- Use flood resistance and resilience measures to address any residual risks remaining after the use of the avoidance and control measures described above.

Passive measures should be prioritised over active measures as they are likely to be more effective and more reliable. See [What is flood resistance and resilience?](#)

Manage residual risk

- Consider further management measures to deal with any residual risk remaining after avoidance, control and mitigation have been utilised. Provide safe access and escape routes.
- Consider whether adequate flood warning would be available to people using the development. Residual risks will need to be safely managed to ensure people are not exposed to hazardous flooding. See '[What is needed to ensure safe evacuation and flood response procedures are in place?](#)'.

This approach should be considered early in the design process to ensure that any tensions between different requirements, such as the impact of raised floor levels on access, are designed out wherever possible. Avoidance measures can discourage or exclude certain sections of society, such as the elderly or those with less mobility. Innovative design can help ensure that communities are safe and sustainable without excluding these sections of society. Where historic buildings are involved, early consultation with Historic England should be undertaken and their [guide on flood resilience for historic properties](#) (<https://historicengland.org.uk/advice/technical-advice/flooding-and-historic-buildings/>) provides additional information. Tensions between flood risk mitigation measures and other planning matters, do not justify unsafe development.

See the [Secretary of States role in the call-in process](#).

Paragraph: 004 Reference ID: 7-004-20220825

Revision date: 25 08 2022

What to consider when determining whether a proposed development will be safe for its lifetime?

When assessing the safety implications of flood risk for development proposed in a site allocation or planning application, the following should be considered:

- the characteristics of a possible flood event, including residual risks from flood risk management infrastructure e.g. the type and source of flooding and frequency, depth, velocity, speed of onset and duration;
- the safety of people within a building if it floods and also the safety of people around a building and in adjacent areas, including people who are less mobile or who have a physical impairment. This includes the ability of residents and users to safely access and exit a building during a design flood and to evacuate before an extreme flood (0.1% annual probability of flooding with allowance for climate change);
- the structural safety of buildings: and

- the impact of a flood on the essential services provided to or from a development.

Further guidance on safety, including safe depth and velocity thresholds can be found in the [Flood Risk Assessment Guidance for New Development](http://sciencesearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=FJPPProjectView&Location=None&ProjectID=12015) (<http://sciencesearch.defra.gov.uk/Default.aspx?Menu=Menu&Module=FJPPProjectView&Location=None&ProjectID=12015>).

Where flood risk management infrastructure such as flood defences form part of the strategy for addressing flood risk, strategic and site-specific flood risk assessments should, where appropriate:

- identify how this infrastructure will be operated, funded and maintained;
- ensure there is space for future maintenance or new flood risk management infrastructure that is likely to be needed;
- consider the consequences of flood risk management infrastructure failing or its design standard being exceeded;
- consider the likelihood of defences keeping pace with climate change, e.g. is funding available and what are the funding options (e.g. Community Infrastructure Levy, planning obligations / S106 agreements, or [Partnership Funding](https://www.gov.uk/guidance/partnership-funding-for-fcerm-projects) (<https://www.gov.uk/guidance/partnership-funding-for-fcerm-projects>)). This should inform the nature of residual risk to be considered.

See also further advice on:

- [When are emergency plans needed?](#)
- [What emergency planning considerations are there in relation to reservoirs?](#)

Having regard to all the above considerations, the National Planning Policy Framework is clear that flood risk should not be increased elsewhere, including over the lifetime of the permission not just at the point of grant of permission.

Paragraph: 005 Reference ID: 7-005-20220825

Revision date: 25 08 2022

What is considered to be the lifetime of development when applying policies on flood risk and coastal change?

Residential development can be assumed to have a lifetime of at least 100 years, unless there is specific justification for considering a different period. For example, the time in which flood risk or coastal change is anticipated to affect it, where a development is controlled by a time-limited planning condition. The lifetime of a non-residential development depends on the characteristics of that development but a period of at least 75 years is likely to form a starting point for assessment.

Where development has an anticipated lifetime significantly beyond 100 years such as some major infrastructure projects, or where it would create significant land-use change such as a new settlement or substantial urban extension, it may be appropriate to consider a longer period for the lifetime of development when

assessing the potential impacts of climate change on flood risk or coastal change and considering the future prospects for flood and coastal erosion risk management infrastructure. It may also be a consideration when identifying existing development that may not be sustainable in the long term, and seeking opportunities for relocation. These approaches could be particularly justified where long-term risks relate to sea level rise.

Paragraph: 006 Reference ID: 7-006-20220825

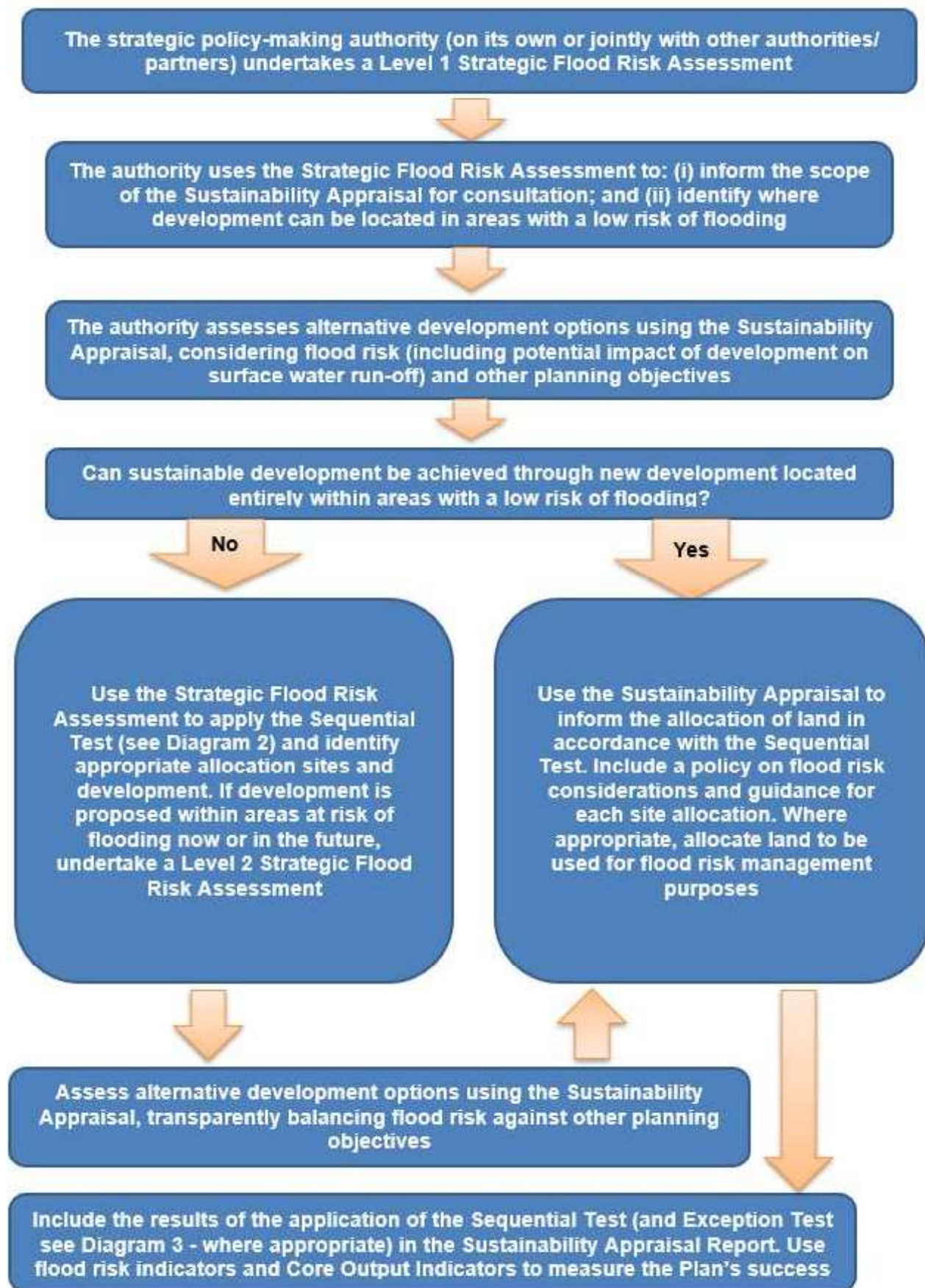
Revision date: 25 08 2022

Taking flood risk into account in preparing plans

What are the key steps involved when preparing strategic policies?

Diagram 1: Taking flood risk into account in the preparation of strategic policies

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Accessible version

1. The strategic policy-making authority (on its own or jointly with other authorities/ partners) undertakes a Level 1 Strategic Flood Risk Assessment

2. The authority uses the Strategic Flood Risk Assessment to: (i) inform the scope of the Sustainability Appraisal for consultation; and (ii) identify where development can be located in areas with a low risk of flooding
3. The authority assesses alternative development options using the Sustainability Appraisal, considering flood risk (including potential impact of development on surface water run-off) and other planning objectives
4. Can sustainable development be achieved through new development located entirely within areas with a low risk of flooding?

If Yes:

5. Use the Sustainability Appraisal to inform the allocation of land in accordance with the Sequential Test. Include a policy on flood risk considerations and guidance for each site allocation. Where appropriate, allocate land to be used for flood risk management purposes
6. Include the results of the application of the Sequential Test (and Exception Test see Diagram 3 - where appropriate) in the Sustainability Appraisal Report. Use flood risk indicators and Core Output Indicators to measure the Plan's success (End).

Alternate process at step 4.

4. Can sustainable development be achieved through new development located entirely within areas with a low risk of flooding?

If No:

5. Use the Strategic Flood Risk Assessment to apply the Sequential Test (see Diagram 2) and identify appropriate allocation sites and development. If development is proposed within areas at risk of flooding now or in the future, undertake a Level 2 Strategic Flood Risk Assessment
6. Assess alternative development options using the Sustainability Appraisal, transparently balancing flood risk against other planning objectives
7. Use the Sustainability Appraisal to inform the allocation of land in accordance with the Sequential Test. Include a policy on flood risk considerations and guidance for each site allocation. Where appropriate, allocate land to be used for flood risk management purposes
8. Include the results of the application of the Sequential Test (and Exception Test see Diagram 3 - where appropriate) in the Sustainability Appraisal Report. Use flood risk indicators and Core Output Indicators to measure the Plan's success (End).

Notes to diagram 1:

- [Read more about Strategic Flood Risk Assessment](#)
- [View guidance on Sustainability Appraisal \(https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal\)](https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal)
- [View diagram 2: Application of the Sequential Test for plan preparation](#)
- [View diagram 3: Application of the Exception Test to plan preparation](#)
- [Read more about the Sequential Test](#)
- [Read more about the Exception Test](#)

See also:

- [Which flood risk management bodies should local planning authorities seek advice from when preparing plans?](#)
- [Is flood risk relevant to plan policies that change the use of land or buildings?](#)
- [Is flood risk relevant to waste and minerals plans?](#)

Paragraph: 008 Reference ID: 7-008-20220825

Revision date: 25 08 2022

What is a Strategic Flood Risk Assessment?

A Strategic Flood Risk Assessment is a study carried out by one or more local authorities or other strategic policy-making authorities to assess the risk to an area from flooding from all sources, now and in the future, taking account of the [impacts of climate change \(https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances\)](https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances), and to assess the cumulative impact that land use changes and development in the area will have on flood risk. It identifies opportunities to reduce the causes and impacts of flooding and gathers information on the land that is likely to be needed for flood risk management infrastructure. A Strategic Flood Risk Assessment should be used to:

- inform the [sustainability appraisal \(https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal\)](https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal) of the Local Plan, so that flood risk is fully taken into account when considering allocation options and in the preparation of plan policies;
- apply the [Sequential Test](#) and, where necessary, the [Exception Test](#) when determining land use allocations;
- inform the allocation of land to safeguard it for flood risk management infrastructure;
- inform policies for change of use and reducing the causes and impacts of flooding;
- identify the requirements for site-specific flood risk assessments in particular locations, including those at risk from sources other than river and sea flooding;
- determine the acceptability of flood risk in relation to emergency planning capability;

- help demonstrate how the [adaptation to climate change](https://www.legislation.gov.uk/ukpga/2004/5/section/19) (<https://www.legislation.gov.uk/ukpga/2004/5/section/19>) has been met.

Local Planning Authorities should take an integrated approach to flood risk management when preparing plans, as per National Planning Policy Framework paragraph 161(c). This is a collaborative, catchment-based approach delivering coordinated management of water storage, supply, demand, wastewater, flood risk, quality of water and the wider environment. It can help to identify the most effective and efficient approaches to addressing too much or too little water, enabling sustainable and climate resilient development in a way which reduces flood risk whilst delivering multiple wider benefits.

For guidance on how to prepare a strategic flood risk assessment, refer to [How to prepare a strategic flood risk assessment](https://www.gov.uk/guidance/local-planning-authorities-strategic-flood-risk-assessment) (<https://www.gov.uk/guidance/local-planning-authorities-strategic-flood-risk-assessment>).

Paragraph: 009 Reference ID: 7-009-20220825

Revision date: 25 08 2022

Who needs to be consulted when preparing plan policies?

Advice should be sought from the early stages of evidence base collation through to policy preparation, as part of an integrated approach to flood risk management. Consider how Plans can support the actions set out in: strategic flood risk documents ([flood risk management plans](https://www.gov.uk/government/collections/flood-risk-management-plans-frmps-2015-to-2021) (<https://www.gov.uk/government/collections/flood-risk-management-plans-frmps-2015-to-2021>), [shoreline management plans](https://www.gov.uk/government/publications/shoreline-management-plans-smmps) (<https://www.gov.uk/government/publications/shoreline-management-plans-smmps>), surface water management plans, and local flood risk management strategies prepared by [Lead Local Flood Authorities](https://www.gov.uk/government/collections/flood-and-coastal-erosion-risk-management-authorities#lead-local-flood-authorities) (<https://www.gov.uk/government/collections/flood-and-coastal-erosion-risk-management-authorities#lead-local-flood-authorities>)); water cycle studies, drainage and wastewater management plans and green infrastructure strategies where they exist; [river basin management plans](https://www.gov.uk/government/collections/river-basin-management-plans-2015) (<https://www.gov.uk/government/collections/river-basin-management-plans-2015>); as well as [planned capital investment in flood risk management infrastructure](https://www.gov.uk/government/publications/programme-of-flood-and-coastal-erosion-risk-management-schemes) (<https://www.gov.uk/government/publications/programme-of-flood-and-coastal-erosion-risk-management-schemes>).

All plans also need to be informed by flood risk advice where relevant, from:

- The Environment Agency
- Lead local flood authorities
- Internal drainage boards where they exist to identify the scope of their interests
- Water and sewerage companies
- Reservoir owners and operators: to understand the impact on them and on reservoir safety and operation
- Emergency planners, emergency services, [local resilience forums](https://www.gov.uk/guidance/local-resilience-forums-contact-details) (<https://www.gov.uk/guidance/local-resilience-forums-contact-details>) and other flood

incident responders

- Navigation authorities: navigation authorities need to be consulted by the local planning authority in relation to sites adjacent to, or which discharge into, canals – especially where these are impounded above natural ground levels

Paragraph: 010 Reference ID: 7-010-20220825

Revision date: 25 08 2022

How should land for future flood risk management infrastructure be safeguarded?

During the preparation of strategic policies, it is useful to identify any land which is likely to be needed for flood and coastal erosion risk management infrastructure. Consideration can also be given to any necessary access to that land, and any additional land which may be needed temporarily during construction.

Strategic policy-making authorities need to consult with other [Risk Management Authorities \(https://www.gov.uk/government/collections/flood-and-coastal-erosion-risk-management-authorities\)](https://www.gov.uk/government/collections/flood-and-coastal-erosion-risk-management-authorities) and refer to strategic flood risk documentation (such as [flood risk management plans \(https://www.gov.uk/government/collections/flood-risk-management-plans-frmps-2015-to-2021\)](https://www.gov.uk/government/collections/flood-risk-management-plans-frmps-2015-to-2021), [shoreline management plans \(https://www.gov.uk/government/publications/shoreline-management-plans-smmps\)](https://www.gov.uk/government/publications/shoreline-management-plans-smmps), adaptation plans, surface water management plans, and local flood risk management strategies prepared by [Lead Local Flood Authorities \(https://www.gov.uk/government/collections/flood-and-coastal-erosion-risk-management-authorities#lead-local-flood-authorities\)](https://www.gov.uk/government/collections/flood-and-coastal-erosion-risk-management-authorities#lead-local-flood-authorities)) and the Environment Agency's [Programme of flood and coastal erosion risk management schemes \(https://www.gov.uk/government/publications/programme-of-flood-and-coastal-erosion-risk-management-schemes\)](https://www.gov.uk/government/publications/programme-of-flood-and-coastal-erosion-risk-management-schemes), to identify the land that is likely to be needed. Local Planning Authorities may then consider allocating these sites or including policies in their plan to discourage development that could prevent or hinder the delivery of planned flood risk management associated infrastructure. Land could also be safeguarded for natural flood management approaches that help [to reduce the causes and impacts of flooding](#), particularly where development has the potential to prevent, hinder or help to enable their delivery.

Safeguarding land in this way is particularly important for infrastructure that reduces the risk of flooding to large amounts of existing development, or where options for managing risk in other ways are limited.

Paragraph: 011 Reference ID: 7-011-20220825

Revision date: 25 08 2022

What approach should be taken to making provision for the relocation of development and infrastructure?

Ongoing coastal erosion or change and increasing flood risk due to climate change may mean that some existing development and infrastructure may not be sustainable in the long term. Plans can address this by:

- Identifying locations where existing development and infrastructure may not be sustainable in the long term. Such locations could include those which are, or are expected to be in future, subject to coastal erosion (e.g. Coastal Change Management Areas), frequent (e.g. areas likely to be permanently inundated by the sea or tidal estuaries/rivers or with sufficient frequency as to become intertidal, Flood Zone 3b or areas likely to be in 3b in future), disruptive or hazardous flooding, combined with little or no prospect of these risks being adequately mitigated by new or improved flood and coastal erosion risk management infrastructure, or property level resilience measures.
- Including policies setting out the types of development that will and will not be appropriate in these locations, including by limiting the planned lifetime of the development and preventing increases in vulnerability and development footprint. Local authorities could also consider whether it would be appropriate to make use of their powers under [Article 4 of the Town and Country Planning \(General Permitted Development\) \(England\) Order 2015](https://www.legislation.gov.uk/ukxi/2015/596/article/4/made) (<https://www.legislation.gov.uk/ukxi/2015/596/article/4/made>) to remove a permitted development right and require planning permission to be sought in each case.
- Formally allocating additional land in plans for relocation or roll-back of existing development (particularly development completed prior to Shoreline Management Plans) and habitat affected by coastal change or increasing flood risk due to climate change. Including policies in plans and conditions on permissions to ensure identified land is used for this purpose.

An approach that considers the exceptional circumstances of having to replace existing development at risk of flooding or coastal change by granting planning permissions where normally they would be refused may be more suitable for some local planning authorities. This could involve for example granting planning permission in open countryside allowing caravan parks to be moved back from the coast when the site is affected by coastal erosion or tidal inundation.

Paragraph: 012 Reference ID: 7-012-20220825

Revision date: 25 08 2022

Is flood risk relevant to minerals and waste plans?

Minerals and waste planning authorities need to take account of flood risk when allocating land for development. They should prepare their plan policies with regard to any available Strategic Flood Risk Assessments. The location of Mineral Safeguarding Areas and site allocations, in particular in relation to sand and gravel workings which are often located in functional floodplains, need to be identified and assessed in Strategic Flood Risk Assessments. Minerals and waste planning authorities could explore possible benefits, such as restoring mineral working located in flood risk areas to increase flood water storage, which can also enhance

the natural environment. Partnership working on joint Strategic Flood Risk Assessments offers the best opportunity to identify and realise these opportunities.

Paragraph: 013 Reference ID: 7-013-20220825

Revision date: 25 08 2022

Is flood risk relevant to local policies that change the use of land or buildings?

A change in use may involve an increase in flood risk if the vulnerability of the development is changed – [see National Planning Policy Framework Annex 3 \(https://www.gov.uk/guidance/national-planning-policy-framework/annex-3-flood-risk-vulnerability-classification\)](https://www.gov.uk/guidance/national-planning-policy-framework/annex-3-flood-risk-vulnerability-classification). For example, changing from industrial use to residential use will increase the vulnerability classification from ‘less’ to ‘more’ vulnerable. Change of use within the same vulnerability classification can also increase the vulnerability of the development, for example the sub-division of a home into a series of flats may introduce more people or confine dwellings to the ground floor. Even if a development’s vulnerability is not increasing, change of use can often present an opportunity to improve the flood resilience of existing development, the design of which may not have been informed by a site-specific flood risk assessment when it was first constructed.

As changes of use are not normally subject to the [Sequential](#) or [Exception](#) tests, when formulating policy, the local planning authority will need to consider what changes of use will be acceptable, taking into account the Strategic Flood Risk Assessment. This is likely to depend on whether developments can be designed to be safe and that there is adequate emergency planning provision.

Paragraph: 014 Reference ID: 7-014-20220825

Revision date: 25 08 2022

How can neighbourhood planning take account of flood risk?

The overall approach in [paragraph 161 of the National Planning Policy Framework \(https://www.gov.uk/guidance/national-planning-policy-framework/14-meeting-the-challenge-of-climate-change-flooding-and-coastal-change\)](https://www.gov.uk/guidance/national-planning-policy-framework/14-meeting-the-challenge-of-climate-change-flooding-and-coastal-change) applies to [neighbourhood planning \(https://www.gov.uk/guidance/neighbourhood-planning--2\)](https://www.gov.uk/guidance/neighbourhood-planning--2).

Where they make provision for development, the qualifying bodies involved in neighbourhood planning will need to:

- ensure that neighbourhood plans (and any neighbourhood development/community right to build orders) are informed by suitable assessment of flood risk from all sources, both now and in the future;
- steer development to areas of lower flood risk as far as possible;
- ensure that any [development in an area at risk of flooding would be safe, for its lifetime](#) taking account of [climate change impacts](#)

(<https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances>);

- be able to demonstrate how flood risk to and from the plan area/ development site(s) will be managed, so that flood risk will not be increased overall, and that [opportunities to reduce flood risk](#), for example, through the use of sustainable drainage systems where appropriate, are included in the plan/order.

Local planning authorities will need to have these aims in mind in providing advice or assistance to qualifying bodies involved in neighbourhood planning. Refer to:

- [What to consider if there is a risk of flooding in the neighbourhood plan area?](#)
- [What to consider if bringing forward a Neighbourhood Development Order/Community Right to Build Order in an area at risk of flooding?](#)

Paragraph: 015 Reference ID: 7-015-20220825

Revision date: 25 08 2022

What advice and information on flood risk is available for neighbourhood planning?

Locality, in conjunction with the Environment Agency and other statutory agencies, have created a toolkit which provides advice on [how to consider the environment when producing neighbourhood plans](#) (<https://neighbourhoodplanning.org/toolkits-and-guidance/consider-environment-neighbourhood-plans/>). Anyone preparing a neighbourhood plan or order may also find it helpful to [consult the lead local flood authority](#) for the area.

[Strategic Flood Risk Assessments](#) are the primary source of flood risk information in considering which areas covered by a neighbourhood plan may be appropriate for development. If, however, the strategic flood risk assessment is out-of-date or lacks an appropriate detail in this area, it may be necessary for neighbourhood planning bodies to undertake additional work to assess the risk of flooding to development being promoted in a neighbourhood plan or order. Other important sources include the Environment Agency's [Flood Map for Planning](#) (<https://flood-map-for-planning.service.gov.uk/>). Local planning authorities can make available to qualifying bodies any reports or information relating to the Strategic Flood Risk Assessment, and share any other information relevant to flood risk (such as the application of the [Sequential](#) and [Exception Tests](#) to the Local Plan).

Paragraph: 016 Reference ID: 7-016-20220825

Revision date: 25 08 2022

What needs to be considered if there is a risk of flooding in the neighbourhood area?

Where the Strategic Flood Risk Assessment, or other available flood risk maps or information, indicates that part or parts of a neighbourhood plan area may be at risk of flooding, the qualifying body should have regard to the National Planning

Policy Framework's policies on flood risk. Where they are considering proposing development, they will need to show that this would be consistent with the local planning authority's application of the [Sequential Test](#) and if necessary, the [Exception Test](#) for the plan. If not, these tests will need to be re-visited on a local authority-wide basis.

Where areas under consideration for development are inconsistent with the spatial strategy set out in the relevant plan, it is likely that the qualifying body will need to provide further information to demonstrate that any development proposed by the neighbourhood plan passes the Sequential Test, and if necessary, the Exception Test.

There is further [guidance on the approach to individual development proposals](#), or where a Neighbourhood Development or Community Right to Build Order is proposed, in an area at risk of flooding.

Paragraph: 017 Reference ID: 7-017-20220825

Revision date: 25 08 2022

What should be considered if bringing forward a Neighbourhood Development Order/Community Right to Build Order/Local Development Order in an area at risk of flooding?

Orders for development in an area at risk of flooding, should, prior to adoption, be subject to:

- the sequential test and, where appropriate, the exception test; and
- a site-specific flood risk assessment

Where the relevant area is identified as being at risk of flooding now or in the future, or is in an area with critical drainage problems, advice on the scope of the flood risk assessment required needs to be sought from the Environment Agency. Where the area may be subject to other sources of flooding, it may be helpful to consult other bodies involved in flood risk management, as appropriate.

Local development orders should not be adopted where:

- they fail to satisfy the sequential test and, where relevant, the exception test; or
- the flood risk assessment fails to demonstrate that the development approved will be safe throughout its lifetime, without increasing flood risk elsewhere and meets the other requirements of National Planning Policy Framework paragraph 167

The [flood risk assessment checklist](#) may be helpful in this respect.

Paragraph: 018 Reference ID: 7-018-20220825

Revision date: 25 08 2022

What should be considered for the preparation of local design codes?

Those preparing local design codes need to consider how flood risk from all sources, now or in the future, could affect or be affected by design considerations. Local design codes will need to accord with the National Model Design Code (parts 1 and 2) requirements on water and drainage and follow the approach set out in [paragraph 003](#) and [paragraph 004](#), ensuring all development will be appropriately flood resistant and resilient, with reference to the [CIRIA Property Flood Resilience Code of Practice \(https://www.ciria.org/ItemDetail?iProductCode=C790F&Category=FREEPUBS\)](https://www.ciria.org/ItemDetail?iProductCode=C790F&Category=FREEPUBS).

Local design codes should encourage and support the use of sustainable drainage systems as this can lead to better integration, multi-functional benefits and reduced land-take. They should where possible also use opportunities presented by development to [reduce the causes and impacts of flooding](#), making as much use of natural flood management as possible to increase [flood resistance and flood resilience](#).

Local design codes do not justify unsafe development or development which increases flood risk elsewhere.

Paragraph: 019 Reference ID: 7-019-20220825

Revision date: 25 08 2022

Site-specific flood risk assessment

What is a site-specific flood risk assessment?

A site-specific flood risk assessment is carried out by (or on behalf of) a developer to assess the flood risk to and from a development site and should accompany a planning application where prescribed in [footnote 55 of the National Planning Policy Framework \(https://www.gov.uk/guidance/national-planning-policy-framework/14-meeting-the-challenge-of-climate-change-flooding-and-coastal-change\)](https://www.gov.uk/guidance/national-planning-policy-framework/14-meeting-the-challenge-of-climate-change-flooding-and-coastal-change). The assessment should demonstrate to the decision-maker how flood risk will be managed now and over the development's lifetime, [taking climate change into account \(https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances\)](https://www.gov.uk/guidance/flood-risk-assessments-climate-change-allowances), and with regard to the vulnerability of its users (see [National Planning Policy Framework Annex 3 – Flood Risk Vulnerability \(https://www.gov.uk/guidance/national-planning-policy-framework/annex-3-flood-risk-vulnerability-classification\)](https://www.gov.uk/guidance/national-planning-policy-framework/annex-3-flood-risk-vulnerability-classification)).

Developers can use the Environment Agency [guidance on flood risk assessments \(https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications\)](https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications) when considering the scope of the assessment.

The objectives of a site-specific flood risk assessment are to establish:

- whether a proposed development is likely to be affected by current or future flooding from any source;

- whether it will increase flood risk elsewhere;
- whether the measures proposed to deal with these effects and risks are appropriate;
- the evidence for the local planning authority to apply (if necessary) the Sequential Test, and;
- whether the development will be safe and pass the Exception Test, if applicable.

See further information on the detail needed in a [flood risk assessment](https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications) (<https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications>).

Paragraph: 020 Reference ID: 7-020-20220825

Revision date: 25 08 2022

What level of detail is needed in a site-specific flood risk assessment?

The information provided in the flood risk assessment needs to be credible and fit for purpose. Site-specific flood risk assessments need to be proportionate to the anticipated degree of flood risk and make optimum use of information already available, including information in a Strategic Flood Risk Assessment for the area, and the Environment Agency's [Flood Map](https://flood-map-for-planning.service.gov.uk/) (<https://flood-map-for-planning.service.gov.uk/>) and surface water flood risk information on [Check the long term flood risk for an area in England](https://www.gov.uk/check-long-term-flood-risk) (<https://www.gov.uk/check-long-term-flood-risk>). Flood risk assessments need to include the information set out in the flood risk assessment checklist.

A flood risk assessment needs to be appropriate to the scale, nature and location of the development. For example, where the development is an extension to an existing house (for which an application for planning permission is required) which would not significantly increase the number of people present in an area at risk of flooding, the local planning authority would generally need a less detailed assessment to be able to reach an informed decision on the planning application. For a new development comprising a greater number of houses in a similar location, or one where the flood risk is greater, the local planning authority would need a more detailed assessment.

See further advice on [flood risk assessment](https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications). (<https://www.gov.uk/guidance/flood-risk-assessment-for-planning-applications>)

Paragraph: 021 Reference ID: 7-021-20220825

Revision date: 25 08 2022

What further advice is available on the preparation of a site-specific flood risk assessment?

For large or vulnerable developments in areas of high risk, developers should consider consultation with the Environment Agency and/or any other relevant flood risk management bodies for more detailed advice in advance of submitting their

planning application. For advice on how to get environmental advice from the Environment Agency, consult this [joint guidance](https://www.gov.uk/guidance/developers-get-environmental-advice-on-your-planning-proposals) (<https://www.gov.uk/guidance/developers-get-environmental-advice-on-your-planning-proposals>) and [charging terms and conditions](https://www.gov.uk/government/publications/planning-and-marine-licence-advice-standard-terms-for-our-charges) (<https://www.gov.uk/government/publications/planning-and-marine-licence-advice-standard-terms-for-our-charges>).

Applicants for planning permission (or prior approval for certain permitted development rights, or technical details consent) will find the Agency's [advice on assessing flood risk for planning applications](https://www.gov.uk/flood-risk-assessment-for-planning-applications) (<https://www.gov.uk/flood-risk-assessment-for-planning-applications>) helpful when preparing a site-specific flood risk assessment.

The checklist may be helpful to applicants/developers in preparing a site-specific flood risk assessment.

Advice should also be sought from the local authority and lead local flood authority. See [How should the lead local flood authority be involved when assessing planning applications?](#)

Paragraph: 022 Reference ID: 7-022-20220825

Revision date: 25 08 2022

The sequential approach to the location of development

What is the aim of the sequential approach?

The approach is designed to ensure that areas at little or no risk of flooding from any source are developed in preference to areas at higher risk. This means avoiding, so far as possible, development in current and future medium and high flood risk areas considering all sources of flooding including areas at risk of surface water flooding. Avoiding flood risk through the sequential test is the most effective way of addressing flood risk because it places the least reliance on measures like flood defences, flood warnings and property level resilience features. Even where a flood risk assessment shows the development can be made safe throughout its lifetime without increasing risk elsewhere, the sequential test still needs to be satisfied. Application of the sequential approach in the plan-making and decision-making process will help to ensure that development is steered to the lowest risk areas, where it is compatible with sustainable development objectives to do so, and developers do not waste resources promoting proposals which would fail to satisfy the test. Other forms of flooding need to be treated consistently with river and tidal flooding in mapping probability and assessing vulnerability, so that the sequential approach can be applied across all areas of flood risk.

Paragraph: 023 Reference ID: 7-023-20220825

Revision date: 25 08 2022

How can the Sequential Test be applied to the location of development?

The Sequential Test ensures that a sequential, risk-based approach is followed to steer new development to areas with the lowest risk of flooding, taking all sources of flood risk and climate change into account. Where it is not possible to locate development in low-risk areas, the Sequential Test should go on to compare reasonably available sites:

- Within medium risk areas; and
- Then, only where there are no reasonably available sites in low and medium risk areas, within high-risk areas.

Initially, the presence of existing flood risk management infrastructure should be ignored, as the long-term funding, maintenance and renewal of this infrastructure is uncertain. Climate change will also impact upon the level of protection infrastructure will offer throughout the lifetime of development. The Sequential Test should then consider the spatial variation of risk within medium and then high flood risk areas to identify the lowest risk sites in these areas, ignoring the presence of flood risk management infrastructure.

It may then be appropriate to consider the role of flood risk management infrastructure in the variation of risk within high and medium flood risk areas. In doing so, information such as flood depth, velocity, hazard and speed-of-onset in the event of flood risk management infrastructure exceedance and/or failure, should be considered as appropriate. Information on the probability of flood defence failure is unsuitable for planning purposes given the substantial uncertainties involved in such long-term predictions.

Paragraph: 024 Reference ID: 7-024-20220825

Revision date: 25 08 2022

How can the Sequential Test be applied in the preparation of strategic policies?

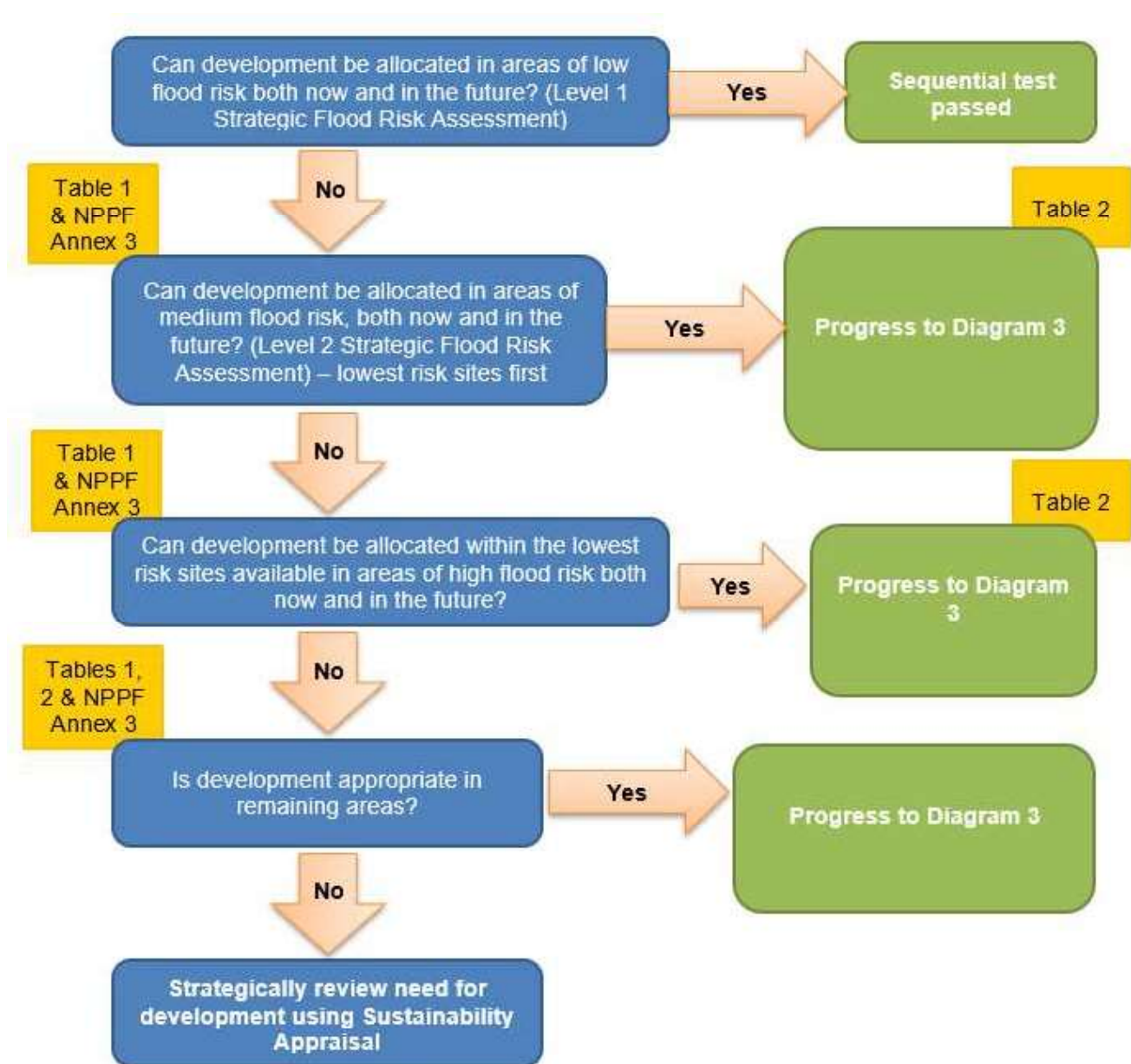
This is illustrated in diagram 2. The Sequential Test needs to be applied to the whole local planning authority area to increase the possibilities of accommodating development which is not exposed to flood risk, both now and in the future.

Where possible, local planning authorities can jointly review development options over a wider area (e.g. a river catchment) where this could potentially broaden the scope for opportunities to reduce flood risk and put the most vulnerable development in lower risk areas, considering flood risk both now and in the future.

Plan policies designed to exempt specific types of planning applications, such as windfall sites, from the sequential test may be considered, where such policies can restrict the exemption to specific sites that have been subject to, and satisfy, the sequential test at the plan-making stage.

Paragraph: 025 Reference ID: 7-025-20220825

Diagram 2: Application of the Sequential Test for plan preparation



Accessible version

1. Can development be allocated in areas of low flood risk both now and in the future? (Level 1 Strategic Flood Risk Assessment). **If Yes:** Sequential test passed

If No:

2. Can development be allocated in areas of medium flood risk, both now and in the future? (Level 2 Strategic Flood Risk Assessment) – lowest risk sites first. (Table 1 and NPPF Annex 3). **If Yes:** Progress to Diagram 3 (Table 2)

If No:

3. Can development be allocated within the lowest risk sites available in areas of high flood risk both now and in the future? (Table 1 and NPPF Annex 3). **If**

Yes: Progress to Diagram 3 (Table 2)

If No:

4. Is development appropriate in remaining areas? (Tables 1, 2 and NPPF Annex 3). **If Yes:** Progress to Diagram 3

If No:

5. Strategically review need for development using Sustainability Appraisal

Notes to Diagram 2:

Other sources of flooding also need to be considered.

See [Table 1, National Planning Policy Framework Annex 3](#) (<https://www.gov.uk/guidance/national-planning-policy-framework/annex-3-flood-risk-vulnerability-classification>), [Table 2](#) and [Diagram 3](#).

See [guidance on applying the Sequential Test to individual applications](#).

See [further guidance on the role of sustainability appraisal in the sequential test](#).

Paragraph: 026 Reference ID: 7-026-20220825

Revision date: 25 08 2022

How should the Sequential Test be applied to planning applications?

See advice on the [sequential approach to development](#) and the [aim of the sequential test](#).

The Sequential Test should be applied to 'Major' and 'Non-major development' proposed in areas at risk of flooding, but it will not be required where:

- The site has been allocated for development and subject to the test at the plan making stage (provided the proposed development is consistent with the use for which the site was allocated and provided there have been no significant changes to the known level of flood risk to the site, now or in the future which would have affected the outcome of the test).
- The site is in an area at low risk from all sources of flooding, unless the Strategic Flood Risk Assessment, or other information, indicates there may be a risk of flooding in the future.
- The application is for a development type that is exempt from the test, as specified in [footnote 56 of the National Planning Policy Framework](#) (<https://www.gov.uk/guidance/national-planning-policy-framework/14-meeting-the-challenge-of-climate-change-flooding-and-coastal-change>).

For individual planning applications subject to the Sequential Test, the area to apply the test will be defined by local circumstances relating to the catchment area for the type of development proposed. For some developments this may be clear,

for example, the catchment area for a school. In other cases, it may be identified from other Plan policies. For example, where there are large areas in Flood Zones 2 and 3 (medium to high probability of flooding) and development is needed in those areas to sustain the existing community, sites outside them are unlikely to provide reasonable alternatives. Equally, a pragmatic approach needs to be taken where proposals involve comparatively small extensions to existing premises (relative to their existing size), where it may be impractical to accommodate the additional space in an alternative location.

For nationally or regionally important infrastructure the area of search to which the Sequential Test could be applied will be wider than the local planning authority boundary.

See also [advice on who is responsible for deciding whether an application passes the Sequential Test](#) and further advice on the Sequential Test process available from the [Environment Agency \(https://www.gov.uk/flood-risk-assessment-the-sequential-test-for-applicants\)](https://www.gov.uk/flood-risk-assessment-the-sequential-test-for-applicants) (flood risk standing advice).

Paragraph: 027 Reference ID: 7-027-20220825

Revision date: 25 08 2022

What is a “reasonably available” site?

‘Reasonably available sites’ are those in a suitable location for the type of development with a reasonable prospect that the site is available to be developed at the point in time envisaged for the development.

These could include a series of smaller sites and/or part of a larger site if these would be capable of accommodating the proposed development. Such lower-risk sites do not need to be owned by the applicant to be considered ‘reasonably available’.

The absence of a 5-year land supply is not a relevant consideration for the sequential test for individual applications.

Paragraph: 028 Reference ID: 7-028-20220825

Revision date: 25 08 2022

Who is responsible for deciding whether an application passes the Sequential Test?

Relevant decision makers need to consider whether the test is passed, with reference to the information it holds on land availability. The planning authority will need to determine an appropriate area of search, based on the development type proposed and relevant spatial policies. The applicant will need to identify whether there are any other ‘reasonably available’ sites within the area of search, that have not already been identified by the planning authority in site allocations or relevant housing and/or economic land availability assessments, such as sites currently

available on the open market. The applicant may also need to check on the current status of relevant sites to determine if they can be considered 'reasonably available'.

Local planning authorities should inform the applicant and, where relevant, the Environment Agency about the outcome of the sequential test at the earliest opportunity, as this may avoid other work being undertaken unnecessarily.

Local planning authorities may find it helpful to prepare guidance on the appropriate area of search for common development types. They may also find it helpful to keep an up-to-date register of 'reasonably available' sites, clearly ranked in flood risk preference. This could be part of their housing and/or economic land availability assessments or as a separate document. This should be informed by the strategic flood risk assessment with any ranking methodology agreed with the Environment Agency. Such an approach could increase certainty for developers and save time at application stage.

Ultimately the local planning authority needs to be satisfied in all cases that the proposed development would be safe throughout its lifetime and not lead to increased flood risk elsewhere.

Paragraph: 029 Reference ID: 7-029-20220825

Revision date: 25 08 2022

How does the Sequential Approach apply to minerals and waste development?

Waste and mineral planning authorities should apply the sequential approach to the allocation of sites for waste management and, where possible, mineral extraction and processing. It should also be recognised that mineral deposits have to be worked where there is no scope for relocation (and sand and gravel extraction is defined as 'water-compatible development' in [National Planning Policy Framework Annex 3 \(https://www.gov.uk/guidance/national-planning-policy-framework/annex-3-flood-risk-vulnerability-classification\)](https://www.gov.uk/guidance/national-planning-policy-framework/annex-3-flood-risk-vulnerability-classification), acknowledging that these deposits are often in flood risk areas).

However, mineral working should not increase flood risk elsewhere and sites need to be designed, worked and restored accordingly.

Mineral workings can be large and may afford opportunities for applying the sequential approach at the site level. It may be possible to locate ancillary facilities such as processing plant and offices in areas at lowest flood risk. Sequential working and restoration can be designed to reduce flood risk by providing flood storage and attenuation. This is likely to be most effective at a strategic (county) scale.

Paragraph: 030 Reference ID: 7-030-20220825

Revision date: 25 08 2022

The Exception Test

What is the Exception Test?

The Exception Test requires two additional elements to be satisfied (as set out in paragraph 164 of the National Planning Policy Framework) before allowing development to be allocated or permitted in situations where suitable sites at lower risk of flooding are not available following application of the sequential test.

It should be demonstrated that:

- development that has to be in a flood risk area will provide wider [sustainability benefits to the community that outweigh flood risk](#); and
- the development will be safe for its lifetime taking account of the vulnerability of its users, without increasing flood risk elsewhere, and, where possible, will reduce flood risk overall.

The Exception Test is not a tool to justify development in flood risk areas when the Sequential Test has already shown that there are reasonably available, lower risk sites, appropriate for the proposed development. It would only be appropriate to move onto the Exception Test in these cases where, accounting for wider sustainable development objectives, application of relevant local and national policies would provide a clear reason for refusing development in any alternative locations identified. Table 2 sets out the circumstances when the Exception Test will be required.

Paragraph: 031 Reference ID: 7-031-20220825

Revision date: 25 08 2022

Does the Exception Test need to be applied to all proposed development in flood risk areas?

The Exception Test should only be applied as set out in Table 2 and only if the Sequential Test has shown that there are no reasonably available, lower-risk sites, suitable for the proposed development, to which the development could be steered.

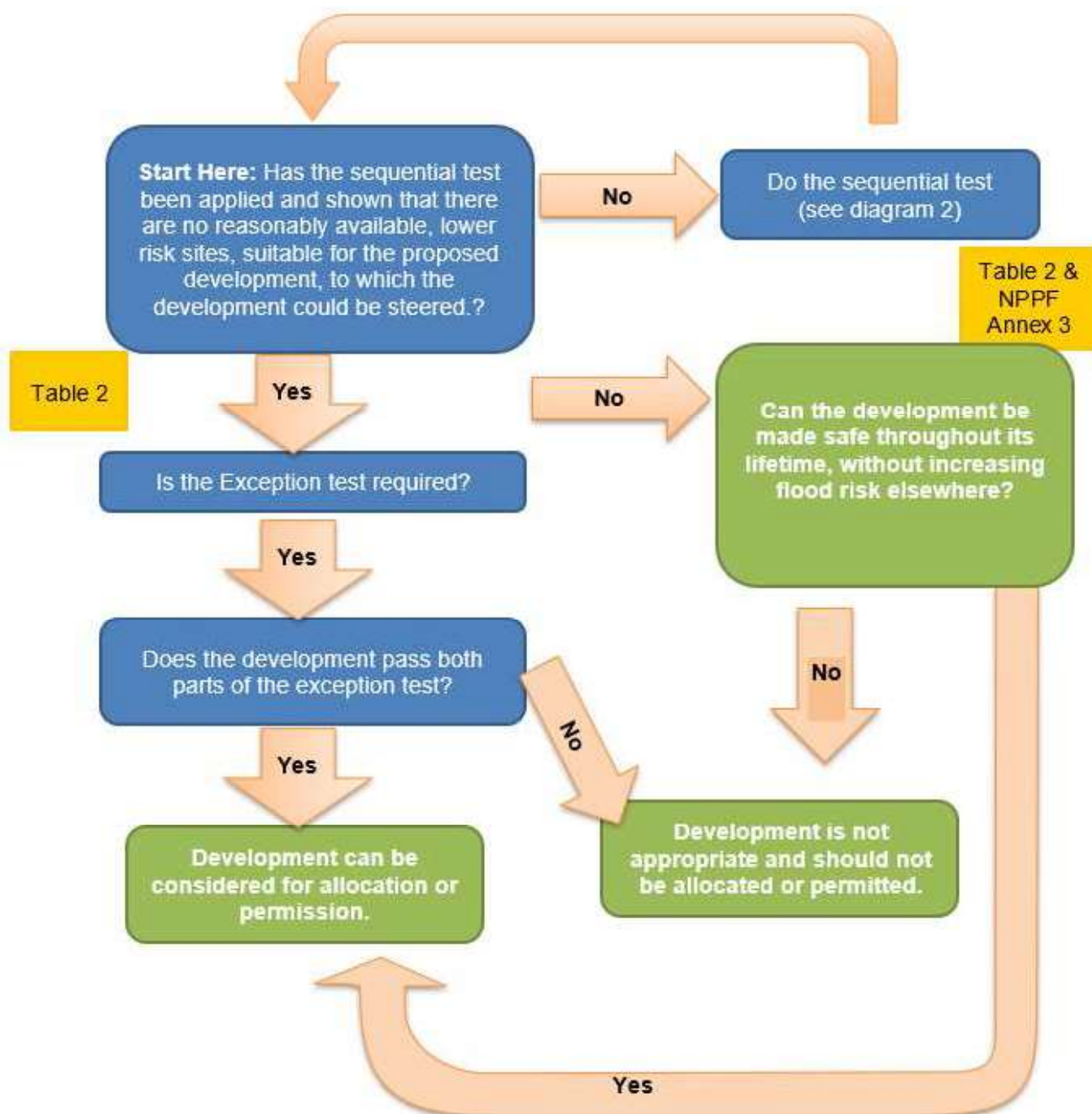
Paragraph: 032 Reference ID: 7-030-20220825

Revision date: 25 08 2022

How can the Exception Test be applied in preparing plan policies?

This is summarised in diagram 3.

Diagram 3: Application of the Exception Test to plan preparation



Accessible version

1. **Start Here:** Has the sequential test been applied and shown that there are no reasonably available, lower risk sites, suitable for the proposed development, to which the development could be steered? **If No:** Do the sequential test (see diagram 2)

If Yes:

2. Is the Exception test required (Table 2)? **If Yes:**

Does the development pass both parts of the exception test?

- **If Yes:** Development can be considered for allocation or permission.
- **If No:** Development is not appropriate and should not be considered.

2. Is the Exception test required (Table 2)? **If No:**

Can the development be made safe throughout its lifetime, without increasing flood risk elsewhere (NPPF Annex 3 and Table 2)?

- **If Yes:** Development can be considered for allocation or permission.
- **If No:** Development is not appropriate and should not be considered.

Paragraph: 033 Reference ID: 7-033-20220825

Revision date: 25 08 2022

Notes to diagram 3:

- [View diagram 2: Application of the Sequential Test for Local Plan preparation](#)
- [View National Planning Policy Framework Annex 3: Flood Risk Vulnerability Classification \(<https://www.gov.uk/guidance/national-planning-policy-framework/annex-3-flood-risk-vulnerability-classification>\)](#)
- [View table 2: Flood risk vulnerability and flood zone 'incompatibility'](#)

Paragraph: 034 Reference ID: 7-034-20220825

Revision date: 25 08 2022

When should the Exception Test be applied to planning applications?

The Exception Test should only be applied when following application of the Sequential Test, it has been demonstrated that it is not possible for development to be located in areas with a lower risk of flooding (taking into account wider sustainable development objectives). The applicant will need to provide the local planning authority with evidence to demonstrate how both elements of the Exception Test will be satisfied.

Where a development proposal is in accordance with an allocation made in a Plan following the application of the Sequential and Exception Tests, it should not be necessary to repeat aspects of the Exception Test unless:

- Elements of the development that were key to it satisfying the Exception Test at the plan-making stage (such as wider sustainability benefits to the community or measures to reduce flood risk overall) have changed or are not included in the proposed development; or
- The understanding of current or future flood risk has changed significantly.

The test only needs to be repeated to the extent needed to validate its conclusions and secure any measures necessary. In all cases, a suitable site-specific flood risk assessment should be provided at application stage, where prescribed in footnote 55 of the National Planning Policy Framework.

Paragraph: 035 Reference ID: 7-035-20220825

Revision date: 25 08 2022

How can it be demonstrated that wider sustainability benefits to the community outweigh flood risk?

Local planning authorities need to set their own criteria for this assessment, having regard to the objectives of their Plan's Sustainability Appraisal framework, and provide advice which will enable applicants to provide relevant and proportionate evidence.

Examples of wider sustainability benefits to the community could include:

- The re-use of suitable brownfield land as part of a local regeneration scheme,;
- An overall reduction in flood risk to the wider community through the provision of, or financial contribution to, flood risk management infrastructure;
- The provision of multifunctional Sustainable Drainage Systems that integrate with green infrastructure, significantly exceeding National Planning Policy Framework policy requirements for Sustainable Drainage Systems;

Identified sustainability benefits need to be balanced against any associated flood risks, informed by the site-specific flood risk assessment. The impacts of flood risk on social, economic and environmental factors should be considered. Where wider sustainability benefits are absent or where they are outweighed by flood risk, the Exception Test has not been satisfied and the site allocation in the plan should not be made or planning permission should be refused.

Paragraph: 036 Reference ID: 7-036-20220825

Revision date: 25 08 2022

How can it be demonstrated that development will reduce flood risk overall?

Developers should refer to the Strategic Flood Risk Assessments and site-specific Flood Risk Assessments to identify opportunities to reduce flood risk overall and to demonstrate that the measures go beyond just managing the flood risk resulting from the development. Reductions could be achieved, for example by:

- Incorporating green infrastructure within the layout and form of development to make additional space for the flow and storage of flood water;
- Providing Sustainable Drainage Systems, that manage flood risk beyond the proposed site and above the usual standard, such as by removing surface water from existing combined sewers;
- Providing or making contributions to flood risk management infrastructure that will provide additional benefits to existing communities and/or by safeguarding the land that would be needed to deliver it.

Further guidance is provided on [reducing the causes and impacts of flooding](#).

In order to demonstrate that the Exception Test has been satisfied without securing measures that would reduce flood risk overall, it will need to be demonstrated that such measures cannot be identified or are unfeasible.

Please see [How to assess the suitability of development where there is a possibility it will increase flood risk elsewhere](#)

Paragraph: 037 Reference ID: 7-037-20220825

Revision date: 25 08 2022

The role of the Environment Agency and Lead Local Flood Authorities in assessing planning applications

How should the Environment Agency be involved where there is a risk of flooding?

There is a statutory requirement for local planning authorities to consult the Environment Agency for developments in certain areas of flood risk (as defined in [Schedule 4 of the Town and Country Planning \(Development Management Procedure\) \(England\) Order 2015](#) (<http://www.legislation.gov.uk/uksi/2015/595/schedule/4/made>) before granting planning permission. The Environment Agency provides [flood risk guidance](#) (<https://www.gov.uk/guidance/flood-risk-assessment-standing-advice>) for local planning authorities and developers on what to include in a flood risk assessment, [when to consult the Environment Agency](#) (<https://www.gov.uk/guidance/flood-risk-assessment-local-planning-authorities>) and how to address flood risk using standing advice.

When local planning authorities are providing pre-application advice on development proposed in flood risk areas, they can encourage developers to approach the Environment Agency for detailed advice where flood risk standing advice requires consultation with the Environment Agency.

All local planning authorities should [notify the Environment Agency](#) (<https://www.gov.uk/guidance/determining-a-planning-application#para019>) of the decision on any planning application where the Agency has objected on flood risk grounds.

Paragraph: 038 Reference ID: 7-038-20220825

Revision date: 25 08 2022

What must happen if a local planning authority wants to grant permission for a major development against Environment Agency flood risk advice (referral to the Secretary of State)?

For any planning application for major development where the local planning authority is minded to grant permission and the proposal:

1. Is within Flood Zones 2 or 3, or on land within Flood Zone 1 which has been notified to the local planning authority as having critical drainage problems; and
2. Is the subject of a sustained objection by the Environment Agency on flood-risk grounds,

the local planning authority must follow the procedure provided for in the [Town and Country Planning \(Consultation\) \(England\) Direction 2021](https://www.gov.uk/government/publications/the-town-and-country-planning-consultation-england-direction-2021) (<https://www.gov.uk/government/publications/the-town-and-country-planning-consultation-england-direction-2021>). Prior to this, the authority, the Agency and the applicant should first make all reasonable endeavours to negotiate and come to an agreement as to whether changes could be made to the application that would enable the Agency to withdraw its objection. The referral process set out in the Direction will need to be followed by the local planning authority unless the Environment Agency withdraws its flood risk objection in writing. This means that if the Agency still concludes that it is unable to withdraw its objection and the authority is still minded to grant permission, then the authority must refer the application to the Secretary of State for possible call-in. All documents prescribed by the Direction must be submitted as soon as practicably possible to the Secretary of State, upon which 21 days is the prescribed period in which a call-in decision may be made. During that period the Local Planning Authority must not make a decision on the application unless the Secretary of State advises no call-in will be made before the elapse of the 21 days.

In this context, “major development” means:

- in respect of residential development, the provision of 10 or more dwellings, or a site of 0.5 hectares or more if the number of dwellings is unknown;
- in respect of non-residential development, new floorspace of 1,000 square metres or more, or a site of 1 hectare or more.

The Environment Agency publishes transparency data comprising an [annual list of all those planning applications to which it made an initial objection on the basis of flood risk](https://www.gov.uk/government/publications/environment-agency-objections-to-planning-on-the-basis-of-flood-risk) (<https://www.gov.uk/government/publications/environment-agency-objections-to-planning-on-the-basis-of-flood-risk>). Many of these issues will be resolved before a final decision is made by the Local Planning Authority. Where the Environment Agency records the Local Planning Authorities final decision, the list also indicates whether or not Environment Agency advice was followed.

The list will help local authorities complete their annual monitoring reports and meet their reporting obligations to government under the Single Data List. The list also helps measure the effectiveness of local planning in relation to flood risk.

Paragraph: 039 Reference ID: 7-039-20220825

Revision date: 25 08 2022

How should the lead local flood authority be involved when assessing planning applications?

When considering proposals for major development the local planning authority will need to consult the lead local flood authority on surface water drainage. Local planning authorities may find it helpful to agree with lead local flood authorities the circumstances and locations where site specific flood risk assessments will be required due to surface water or other local flood risks and lead local flood

authority advice can be sought on other planning applications which raise surface water or other local flood risk issues. This can be achieved by having regard to the available information on local flood risks, including the Strategic Flood Risk Assessment and the [updated map of flood risk from surface water \(https://flood-warning-information.service.gov.uk/long-term-flood-risk/#x=357683&y=355134&scale=2\)](https://flood-warning-information.service.gov.uk/long-term-flood-risk/#x=357683&y=355134&scale=2).

Where surface water or other local flood risks are likely to significantly affect a proposed development site, early discussions between the planning authority and the developer will help to identify the flood risk issues that the authority would expect to see addressed in the planning application and accompanying site-specific flood risk assessment.

Paragraph: 040 Reference ID: 7-040-20220825

Revision date: 25 08 2022

Addressing residual flood risk

What is “residual risk”?

Residual risk comes in two main forms:

- Residual risk from flood risk management infrastructure; and
- Residual risk to a development once any site-specific flood mitigation measures are taken into account.

Examples of residual flood risk from flood risk management infrastructure include:

- a breach of a raised flood defence, blockage of a surface water conveyance system or failure of a pumped drainage system;
- failure of a [reservoir](#); and
- a flood event that exceeds a flood management design standard, such as a flood that overtops a raised flood defence, or an intense rainfall event which the drainage system cannot accommodate.

Examples of residual flood risk to a development include:

- the depth of internal flooding predicted after any raising of land or floor levels;
- the flood hazard to which people would be exposed on access or escape routes after they have been raised; and
- a failure of flood forecasting or flood warning and the risks associated with people not receiving warnings or acting upon them.

When considering residual risks over the lifetime of development, local planning authorities will need to make informed decisions about the likely presence of flood risk management infrastructure in future, taking advice from relevant risk management authorities. Where flood risk management infrastructure is likely to be improved to keep pace with climate change, the potential consequences of flooding

resulting from breach or failure of that improved infrastructure is likely to be the main driver for mitigation.

Where infrastructure is unlikely to be improved, the potential consequences of flooding resulting from overtopping or the design standard being exceeded will also be an important consideration. It is important to consider the consequences of both overtopping and breach, as the nature of flooding will be different in each case. There may, therefore, be a need for different flood risk management measures.

Paragraph: 041 Reference ID: 7-041-20220825

Revision date: 25 08 2022

How can residual risk be addressed?

Residual risk should be minimised using each stage of the process set out in [paragraph 004](#) of this guidance. It will not be appropriate to rely solely on emergency plans to mitigate residual risk.

Where residual risk from flood risk management infrastructure affects large areas, the Strategic Flood Risk Assessment will need to indicate the nature, severity and variation in risk within this area, and provide guidance for residual risk issues to be covered in site-specific flood risk assessments. It may also be appropriate for this information to inform a sequential approach to the location of development within these areas, where the initial application of the Sequential Test is unable to steer development to lower risk areas. Where necessary, local planning authorities should use information on identified residual risk to state in strategic policies their preferred mitigation strategy for ensuring development will be safe throughout its lifetime in relation to urban form, risk management and where flood mitigation measures are likely to have wider sustainable design implications.

Areas behind flood defences are at particular risk from rapid onset of fast-flowing and deep-water flooding, with little or no warning if defences are breached. Measures need to be designed to:

- avoid internal flooding from residual risk from flood risk management infrastructure wherever possible; and
- ensure people are not exposed to hazardous flooding, irrespective of the development's vulnerability classification.

Paragraph: 042 Reference ID: 7-042-20220825

Revision date: 25 08 2022

When are emergency plans needed?

One of the considerations to ensure that any new development is safe, including where there is a residual risk of flooding for flood risk management infrastructure, is whether adequate flood warnings would be available to people using the development. An emergency plan will be needed wherever emergency flood