



Department  
for Environment  
Food & Rural Affairs



Ministry of Housing,  
Communities &  
Local Government

# Review of policy for development in areas at flood risk

Date: July 2021

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# 1 Introduction

The government's [Planning for the Future](#) policy paper announced a review of policy for building in areas at flood risk and outlined government's commitment to ensure that communities across the country know that future development will be safe from floods.

The paper explained that the review will assess whether current protections in the National Planning Policy Framework (NPPF) are enough and would consider options for further reform.

The subsequent [Planning for the Future](#) consultation White Paper reaffirmed this commitment and confirmed that the government was assessing the extent to which planning policies and processes for managing flood risk may need to be strengthened.

As climate change brings more extreme weather, it is imperative our country is better protected and better prepared to reduce the likelihood and impacts of flooding and coastal erosion.

We need to ensure that homes, businesses and local communities are resilient – for example through flood defences, infrastructure and flood risk information to support economic recovery as we emerge from the challenges brought by the COVID-19 pandemic.

The government's [Flood and Coastal Erosion Risk Management Policy Statement](#) sets out our ambition to create a nation more resilient to future flood and coastal erosion risk.

The Environment Agency's National Flood and Coastal Erosion Risk Management Strategy for England provides a framework to guide the activities of those involved in flood and coastal erosion risk management.

Taken together, the policy statement and the national strategy will help to ensure that all homes currently at high risk of flooding are better protected or better prepared and to guide the design and location of new development.

These ambitions include a commitment to consider what more can be done in cases where the Environment Agency's flood risk advice on planning applications is not followed.

Some preliminary and immediate findings of this review were incorporated into the government's [consultation](#) on minor revisions to the NPPF which ran from 30 January to 27 March this year.

The NPPF text was primarily revised to implement policy changes in response to the [Building Better Building Beautiful Commission "Living with Beauty"](#) report.

A fuller review of the Framework is likely to be required in due course, depending on the implementation of the government's proposals for wider reform of the planning system as set out in the Planning for the Future consultation document.

## 1.1 Framework for the review

The review was carried out by flood risk policy and operational leads from the Ministry of Housing, Communities and Local Government (MHCLG), the Department for Environment, Food and Rural Affairs (Defra) and the Environment Agency.

The following elements of planning relevant to flood risk were identified:

- the National Planning Policy Framework (the 'Framework') and the accompanying online Planning Practice guidance
- national guidance such as the Environment Agency's strategic flood risk assessment and climate change allowances guidance
- the Town and Country Planning (Development Management Procedure) (England) Order 2015 (DMPO) which sets out statutory consultation arrangements on planning applications and therefore the provision of expert advice
- the Town and Country Planning (Consultation) (England) Direction 2009: circular 02/2009 which sets out the procedure for circumstances where a Local Planning Authority (LPA) seeks to grant planning permission against Environment Agency advice on flood risk<sup>1</sup>
- enforcement and compliance in relation to planning conditions

The review sought views on the clarity, rigor and consistency with which current policies and processes relating to flood risk management are understood, interpreted and implemented throughout the planning process.

The review also examined how expert advice on flood risk management informs local decision making and considered relevant skills and capacity issues which have a role in implementation.

Feedback was collected through online surveys distributed to all LPAs, Lead Local Flood Authorities (LLFAs) and a selection of developers, planning consultancies and the insurance sector.

The review also considered other material including government and Environment Agency held datasets and third party literature and surveys.

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<sup>1</sup> Now superseded by the Town and Country Planning (Consultation) (England) Direction 2021 which came into force on 21 April 2021.

## 1.2 Planning policies and processes on flood risk

The Framework sets out the government's policy approach for preventing inappropriate development in areas at risk of flooding.

The Framework expects local planning authorities, in plan making and when determining planning applications, to ensure development is steered to the lowest areas of flood risk through application of the sequential and, where relevant, the exception tests.

Where development is determined to be necessary in flood risk areas, for example where alternative sites in lower risk areas are not available, the Framework expects local planning authorities to ensure that development will be safe throughout its lifetime. In addition, it should be appropriately flood resistant and resilient without increasing flood risk elsewhere.

The Framework also places an emphasis on the use of Sustainable Drainage Systems (SuDS) particularly for major developments and those within flood risk areas, where appropriate.

The Framework is supported by online planning practice guidance which adds further context to national planning policy. Planning guidance also encourages additional non-statutory consultation, including at pre-application stage.

The DMPO sets out the circumstances where LPAs must seek and receive expert advice from statutory consultees such as the Environment Agency and LLFAs.

In circumstances where LPAs are minded to grant permission for major development contrary to a sustained Environment Agency flood risk objection, circular 02/2009 (now superseded by The Town and Country Planning (Consultation) (England) Direction 2021) requires the authority to refer the application to the Secretary of State for Housing, Communities and Local Government to provide them with the opportunity to call the application in for their own determination.

If called in, a public inquiry is held, the [Planning Inspectorate \(PINS\)](#) make a recommendation and the Secretary of State makes the final determination.

Once planning permission has been granted, the LPA should ensure that relevant planning controls such as planning conditions are complied with. Where non-compliance has occurred, the LPA has powers to take enforcement action.

### 1.3 Aims, objectives and approach of the review

The review considered the following eight themes, identified as key areas of the planning process relating to flood risk management:

- the sequential approach and test - the method of steering development away from flood risk areas
- the exception test - when development can't be steered away from flood risk areas, the test to ensure development is justified and includes flood risk mitigation
- expert advice - whether LPAs are seeking and receiving appropriate expert advice on the full range of flood risk issues
- inappropriate development locations - how such locations are identified, and inappropriate development proposals are prevented
- when Environment Agency advice is not followed - whether the referral and call-in processes are operating effectively
- Sustainable drainage systems (SuDS) - to what extent the policy and process for the integration of multifunctional SuDS in new development is understood and applied
- compliance and enforcement - the extent to which physical inspections of developments take place and the barriers to this happening
- skills and capacity - whether LPAs and LLFAs consider they have access to the relevant skills and adequate resources needed to account for flood risk

The review considered how policy is understood and implemented across the country and potential options to strengthen the current approach.

The review's starting point was the February 2019 edition of the planning Framework.

The "Planning for the Future" White Paper proposals, the 2021 draft NPPF and accompanying draft National Model Design Code consultation were not in scope.

Further work will be undertaken to consider how flood risk and climate change objectives will be incorporated into the proposed wider planning reforms to support the government's commitment to maintain and enhance the existing flood risk safeguards in the planning system. The findings of this review will inform that work.

The preliminary findings of the review informed the 2021 consultation on modifications to the Framework.

## **1.4 Evidence gathered by the review**

In assembling an evidence base under each of the eight themes identified, the approach taken by the review consisted of:

- an appraisal of existing policy, guidance and process
- a review of existing evidence, feedback and other relevant documents such as government published reviews and research.
- surveys of LPAs, LLFAs, developers, consultants and the insurance sector

Survey responses were received from 127 LPAs (of 338 in England), 57 lead local flood authorities (of 152 in England), 6 developers and consultancies.

Additional responses were received from Internal Drainage boards, water and sewerage companies and a trade association.

Surveys were distributed with assistance from the Association of Directors of Environment, Economy, Planning and Transport and the Association of SuDS Authorities.

Conversations were also held with the National Flood Forum, Flood Re and some insurance company representatives.

The review group were given the opportunity to contribute with the addition of questions, to a survey of LPAs conducted by the Town and Country Planning Association (TCPA).

Responses from 65 individual local authorities were received and relevant results from that survey are also discussed here.

The government is grateful to all of those who contributed to the review.



## 2 Findings

This section presents a cross-section of findings from the surveys undertaken during the review. The findings are set out under each of the review's thematic areas.

### 2.1 Sequential and exception test

#### Key findings

- some LPAs expressed uncertainty around the intent and application of the sequential test, such as which sources of flood risk should be included
- half of LPA respondents stated that they apply the sequential test to new homes that form part of non-major development in flood risk areas
- a majority of LPAs understood the objectives of the exception test
- a majority of LPAs were clear that failure to satisfy the tests was a reason to refuse a development
- some developers and LPAs found the terms “wider sustainable development objectives” and “wider sustainability benefits to the community” unclear

#### 2.1.1 Sequential test

The Framework sets out that all plans should apply a sequential, risk-based approach to the location of development. This should be done by applying the sequential test and then, if necessary, the exception test.

The aim of the sequential test is to steer new development to areas with the lowest risk of flooding.

Development should not be allocated or permitted if there are reasonably available sites appropriate for the proposed development in areas with a lower risk of flooding.

63% of LPA respondents felt there is uncertainty about the intent or application of the sequential test, with 30% of LPAs describing applicants as being the most uncertain.

Responses indicated that sources of uncertainty include:

- when and where the test is required
- its relationship with the exception test and what sources of flood risk should be considered

Some LPAs suggested that the policy is sufficiently clear and well understood by applicants.

While others felt that wording was unclear and open to a broad range of interpretations, with key information about when the test is applicable located in the Frameworks' footnotes.

50% of LPA respondents said they would ensure applications for development of fewer than 10 homes in Flood Zone 3 satisfy the sequential test (TCPA survey, 2020).

LPA respondents gave a wide range of answers about what they typically considered to be the appropriate sequential test search area for residential development.

There was limited evidence of it being applied across LPA boundaries. 50% of developers said they limited the area of search to the within the LPA boundary.

Certainty on the outcome of the sequential test is often not achieved until late in the development process, particularly for windfall development. This uncertainty may discourage developers from pursuing development on sites that could satisfy the sequential test.

3 of the 6 developer or consultant respondents indicated that the sequential test somewhat or significantly discourages their purchase of sites in flood risk areas. They suggested they would have certainty at the point a site (or option) was purchased.

LPA responses indicated that when asked to provide pre-application advice on development in flood risk areas, 81% provide advice on flood risk and of those, 23% would advise on the sequential or exception tests.

The Framework sets out that LPAs can account for "wider sustainable development objectives" when contemplating a grant of planning permission even when lower risk sites have been found.

Although 42% of LPA respondents indicated that this term is somewhat or completely unclear, there was limited commentary to explain why this was felt to be the case.

Of those LPAs who indicated that this term was somewhat or completely clear, some suggested that Local Plans Sustainability Appraisals relate to what "wider sustainable development objectives" will mean and the criteria against which such benefits are assessed.

75% of LPA respondents were of the view that a failure to satisfy the sequential test (where lower risk, reasonably available sites, appropriate for the proposed development were identified) could provide a clear reason for refusal in the context of whether the presumption in favour of sustainable development can be invoked for individual planning applications.

In contrast, 4 of the 6 developer and consultant respondents took the view that the presumption should still apply even when the sequential test is not met.

## 2.1.2 Exception test

Where it is not possible for development to be located in zones with a lower risk of flooding, the Framework explains that the exception test may have to be applied. For a development to be allowed both parts of the exception test need to be passed.

The test requires that the development will provide wider sustainability benefits to the community that outweigh the flood risk and that the development will be safe for its lifetime, without increasing flood risk elsewhere and to reduce flood risk overall if possible.

Survey findings showed a range of approaches in meeting the objectives of the exception test with most LPAs indicating the objective of the exception test as being:

“A test which ensures that when flood risk areas can’t be avoided, development has to be to a higher standard in order to justify the grant of planning permission”.

Similarly, there was some variation across responses in terms of how the NPPF terms “wider sustainability benefits to the community” and “where possible” as used in the Exception test were interpreted.

39% of LPA respondents considered the term “wider sustainability benefits to the community” to be somewhat unclear.

83% of LPA respondents expressed the view that a failure to satisfy both parts of the exception test would provide a clear reason for refusing an application. This was in the context of whether the presumption in favour of sustainable development can be invoked for individual planning applications.

The triggers for the exception test are set out in table 3 of the Planning Practice Guidance (PPG) and are based on a combination of the flood zone and the vulnerability classification of the development proposed.

The exception test and the higher standard it requires are triggered by present day flood risk from rivers or the sea.

## 2.2 Expert advice

### Key findings

- two thirds of LPA respondents would like better access to expert advice on all sources of flood risk
- 81% of LPA respondents provide advice on flood risk to applicants and a majority recommend consultation with the Environment Agency and/or LLFAs when developers ask them for pre-application advice on developments in flood risk areas
- when sought by developers, pre-application flood risk advice is widely given, with a greater focus on some flood risk issues

Local planning authorities are required to seek advice from statutory consultees when determining certain planning applications as set out in The Town and Country Planning (Development Management Procedure) (England) Order 2015.

This covers development in areas which are at current risk of flooding from rivers or the sea or which have critical drainage problems (the Environment Agency), and major development with surface water drainage (the LLFA).

The Framework explains that where development is necessary in high flood risk areas, it should be made safe for its lifetime without increasing flood risk elsewhere.

LPAs can seek advice on flood risk issues such as surface water, ground water, reservoir risk and other issues from a range of flood risk management authorities such as LLFAs, IDBs and others such as reservoir owners and operators – although consultees do not have a duty to respond in these circumstances.

Over two thirds of LPA respondents said the need for better access to expert advice on all sources of flood risk was an area where further support is needed (LPA survey, 2020).

Developers can also voluntarily seek pre-application advice on flood risk issues and LPAs can recommend that developers consult with a range of other expert bodies to inform this. In many cases, LPAs and statutory consultees now charge for this advice to recover their costs.

Where developers seek pre-application advice from LPAs for proposals in flood risk areas, 81% of LPAs stated that they provide advice on flood risk and the vast majority recommended consultation with the Environment Agency and/or the LLFA.

The remaining 19% said that while they do not provide advice on flood risk, they do recommend consultation with the Environment Agency and/or the LLFA.

Where development is proposed in flood risk areas and a developer approaches the LPA for pre-application advice and advice is provided:

- around 70% provide flood risk advice generally
- 32% cover fluvial risks
- 42% cover surface water, groundwater and sewer flood risks
- around 15% provide advice on SuDS (LPA survey, 2020)
- 4% consider wider environmental opportunities

This indicates that when pre-application advice is sought on flood risk issues it is widely given, but there is a greater focus on some aspects than others.

## 2.3 Development in inappropriate locations

### Key findings

- around a quarter of LPA respondents were aware of flooding to developments built within the last 10 years. The majority of this being pluvial (surface water) flooding
- there are inconsistencies in how LPAs define and designate functional floodplain
- the majority of LPAs surveyed require further knowledge of how to incorporate climate projections into planning decisions

An appraisal of the Framework, planning practice guidance and Environment Agency strategic flood risk assessment guidance considered:

- how functional floodplain is designated and mapped
- how development is controlled in functional floodplain
- when flood risk assessments are required
- how Local Plans are identifying unsustainable locations, seeking opportunities to relocate development, and controlling new development in these locations
- opportunities to update the language used to describe resilience
- how local plans are meeting the climate change adaptation duty

The Framework sets out that inappropriate development in areas at risk of flooding should be avoided by directing development away from areas at highest risk (existing or future).

It also says the Strategic Flood Risk Assessment (SFRA) should manage flood risk from all sources and be the basis from which to apply the sequential test.

The PPG explains that land that would naturally flood with a 1 in 20 or greater annual probability should form the starting point for identifying and designating the functional floodplain.

Climate change will increase the frequency and severity of flooding through its impacts on rainfall patterns, peak river flow and sea level rise.

Areas of current functional floodplain are therefore likely to grow in size and severity over time. The current approach to denoting the functional floodplain accounts for present day risks.

It is therefore essential that climate change impacts on future flood risks are considered to prevent inappropriate development being granted permission in areas that could be subject to a frequency of flooding considered inappropriate today.

The survey found that 26% of LPA respondents were aware development under 10 years old that had experienced flooding.

68% of these respondents described the source of flooding as pluvial (surface water), indicating the importance of robust designations for these sources of flood risk.

Analysis of SFRA's revealed variation in how LPAs define and designate functional floodplain in terms of anticipated flooding frequency and modelled extents of the flood plain.

All six of the developers who responded said they would prefer to pay for pre-application advice to agree a flood risk assessment with the Environment Agency before their application is submitted, rather than have to resolve any problems after the application is submitted.

In contrast, Environment Agency figures indicate it is only asked to provide pre-application advice on approximately 1 in 5 of the planning applications it is subsequently consulted on.

This is reflected in the statistic that during 2018 to 2019 the Environment Agency provided detailed flood risk advice on over 7,000 planning applications, over 2,700 of which it objected to.

The Environment Agency consider that over 85% of these flood risk objections, were as a result of an inadequate flood risk assessment, or no flood risk assessment being submitted with the application.

This often leads to the need for re-consultation, causing inefficiency and consequentially a slower and less certain application process.

The Framework sets out that plans should take a proactive approach to mitigating and adapting to climate change "in line with the objectives and provisions of the Climate Change Act 2008".

LPA plans are also subject to a legal duty on climate change mitigation and adaptation (section 19 of the Planning and Compulsory Purchase Act 2004).

The TCPA survey findings suggest that LAs would welcome more information on climate change:

- 34% of local authorities consider adapting to climate change as a priority material consideration when deciding whether to grant planning permission
- 77% of local authorities said they needed more information regarding the expected impacts of climate change in the local area in order to better incorporate the impacts of climate change in planning decisions
- 83% said they needed knowledge of how to incorporate climate projections into planning decisions

## 2.4 Sustainable drainage systems

### Key findings

- 91% of LPA respondents stated that their development plan contains requirements to respond to the predicted impacts of climate change in relation to flooding from surface water (for example, sustainable drainage)
- there is a lack of early consideration of SuDS in the design process that can sometimes lead to multi-functional SuDS being under-utilised
- 45% of LPAs stated that few applications include green infrastructure and natural flood management measures for flood management

A review of the application and effectiveness of planning policy for Sustainable Drainage Systems (SuDS) published by MHCLG in 2018 found that planning policy for SuDS has been successful in encouraging the take-up of SuDS in a cross-section of new developments. The review found that almost 90% of all approved planning applications sampled featured SuDS.

Following the review, the Framework was revised. In addition to a number of other changes to the flood risk section, policy was strengthened to require SuDS in all major developments and in all development in flood risk areas, unless there is clear evidence that their use would be inappropriate.

The 2018 review found no evidence to suggest that the adoption and maintenance of SuDS by private companies is problematic, but that further guidance would be welcomed.

Planning practice guidance sets out the multiple benefits that SuDS can provide in mitigating flood risk and improving water quality, amenity, biodiversity and other environmental benefits.

45% of LPA respondents said that few or very few applications submitted include green infrastructure and Natural Flood Management measures for flood management and almost 10% featured none at all.

In general, LPAs suggested that there remains a strong culture among applicants of reliance on traditional underground storage or attenuation tanks.

Whilst these features are likely to make a valuable contribution to peak run-off rate attenuation, they do not routinely deliver any other multifunctional benefits such as biodiversity, amenity or water quality.

91% of LPA respondents stated that their development plan contains requirements to respond to the predicted impacts of climate change in relation to flooding from surface water (for example, sustainable drainage) (TCPA survey, 2020).

Of those respondents that have policies in their local plan that promote a reduction in flood risk through the use of nature-based solutions, 80% say they are part of policies on sustainable drainage (TCPA survey, 2020).



38% of LLFA respondents said their advice on multi-functional SuDS is only sometimes followed, with 8% stating it is rarely followed (MHCLG LLFA survey, 2020).

LLFAs also stated that, where their advice on multi-functional SuDS is not followed, 40% say this is because of the impact on viability and 30% say it is because of the loss of developable land (MHCLG LLFA survey, 2020).

Survey feedback indicates that a lack of early consideration of SuDS in the design process is one of the reasons multi-functional SuDS are sometimes being under-utilised.

15% of LPAs said that SuDS and maintenance featured in pre-application discussions on proposed development in flood risk areas.

New evidence from the London Strategic SuDS Pilot study highlights that the flood risk benefits of SuDS, regardless of type, are often greatest when deployed within the central and upper drainage catchments and not at the bottom of drainage catchments where flood risk areas tend to be located.

This is being explored further as part of an Environment Agency and Defra research project.

There are several Defra led research projects which are considering or have recently examined the role of SuDS in surface water management on new developments and as part of retrofit projects. These findings were not available at the time of this review.

## 2.5 Environment Agency advice not followed

### Key findings

- between 97.8% and 99.7% of homes were determined in line with the Environment Agency's flood risk advice between 2011 and 2019.
- 6,033 residential units were granted planning permission contrary to the Environment Agency's advice in the same period
- the call-in process may not be visible enough to all LPAs

The percentage of LPA decisions made in line with Environment Agency flood risk advice ranges from 95.3% to 97.5% for the period 2011 to 2019.

Where development involves residential development, the figures are higher, with between 97.8% and 99.7% of homes determined in line with Environment Agency flood risk advice for the period 2011 to 2019.

These statistics are based on an annual sample of the applications that the Environment Agency object to on flood risk grounds, which for this period was on average 65.7%.

Whilst the percentage of LPA decisions made in line with Environment Agency advice is high, some development is still approved against their advice.

From April 2011 to March 2020, at least 6,033 residential units were granted planning permission, contrary to Environment Agency flood risk objections.

Common reasons for Environment Agency objections are that it considers:

- the development is not likely to be safe from flood risk
- the development will increase flood risk elsewhere
- the application was supported with inadequate information that prevents an informed decision being made

The underlying picture presented by these figures is less clear. This is discussed in more detail under call-in arrangements below.

The 'call-in direction' under circular 02/2009 "The Town and Country Planning (Consultation) (England) Direction 2009"<sup>2</sup>, requires LPAs to refer cases to the government's Planning Casework Unit, where the Environment Agency has sustained an objection on flood risk grounds for major development in flood risk areas.

This provides the opportunity for the Secretary of State for Housing, Communities and Local Government to call-in the application for their own determination.

The scope of the Direction does not include where the Environment Agency has a sustained flood risk objection to non-major development or to development in Flood Zone 1 where the strategic flood risk assessment shows it will be at future flood risk from rivers or the sea.

The direction does not apply to flood risk objections by the LLFA such as those relating to ground or surface water flood risk or sustainable drainage matters.

Survey findings indicate that this process is likely to encourage LPAs to follow Environment Agency advice:

- 67% of LPA respondents feel the call-in direction encourages LPAs to work with the Environment Agency to resolve flood risk issues (MHCLG LPA survey, 2020)

In addition to the Direction, any party is able to request call-in on cases which fall outside of the terms of the Direction.

Based on analysis of information provided by the Planning Casework Unit and Environment Agency records, where the call-in process is triggered, there were 42 referred cases over the period 2011 to 2019. Two of these cases were called-in. Of these two cases, one application was then withdrawn and one application refused.

40 of these cases were referred back to the LPA, 36 were approved. Of these, the Environment Agency had been able to withdraw its objections to 14 cases.

The Environment Agency sustained its objections to 22 applications which involved 1,604 dwellings.

In practice, the process followed from deciding whether to refer an application for call-in and subsequent steps was seen to vary.

Many cases were subject to LPA conditions on the application that deferred consideration of the objection until a flood risk assessment had been submitted. Some of these applications fell outside of the scope of the Direction and others were out of time.

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<sup>2</sup> Now superseded by "The Town and Country Planning (Consultation) (England) Direction 2021"

## 2.6 Compliance and enforcement

### Key findings

- over half of the LPAs surveyed said they rarely or never inspected a new development to check for compliance with flood risk planning conditions
- 73% of LPA respondents stated that they would inspect a new development to check compliance in response to a complaint
- lack of resources and expertise were the main reasons for inspections not taking place

This review sought information to the extent to which physical inspections of developments take place and the barriers to this happening.

It should be noted that this survey was conducted in 2020 during the COVID-19 restrictions. However, no respondents cited this in their responses as a reason for inspections not taking place.

When asked whether the LPA makes physical inspections of new developments for compliance with flood risk planning conditions:

- 3% said that they always inspected
- 3% said that they often inspected
- 18% said that they sometimes inspected

Over half of those surveyed said that they rarely or never inspected a new development to check for compliance with flood risk planning conditions.

When asked what the barriers to inspections not taking place are, the majority (88%) said this was due to a lack of resources.

Respondents were able to give multiple responses, with a 62% saying that it was due to a lack of expertise within the LPA to carry out inspections.

The survey explored what other mechanisms were being used to ensure developers were building as agreed in approved plans and planning conditions:

- 31% said that they relied on complainants
- 26% said they relied on Building Control
- 73% said they would inspect a new development to check compliance in response to a complaint

## 2.7 Skills and capacity

### Key findings

- a majority of LPAs considered there to be a need for better mapping of flood risk
- the majority of LLFAs responding considered they had the skills to advise on when proposed development is at risk of flooding from surface water with 47% saying they had the capacity to do so
- 70% of LLFAs provide advice that goes beyond their statutory role

LPAs were asked about how they could be further supported in terms of planning for flood risk and were encouraged to provide multiple and free text answers.

- 71% of respondents expressed a desire for more training
- 70% of respondents wanted improved mapping of flood risk
- 15% of respondents said that more resources were needed

The picture was less clear with regard to national guidance, with 40% suggesting more concise guidance is needed and 56% wanting more detailed guidance.

Comments from LPAs considered the complexities around:

- flooding from a combination of sources and surface or groundwater sources of flooding
- guidance on the multi-functional benefits of SuDS and Green infrastructure and biodiversity net gain
- mapping that takes account of climate change
- better dialogue between LPAs and flood risk management bodies

89% of LLFA respondents consider they have the skills needed to advise LPAs on managing the risks posed to new development from surface water flooding but, in contrast, only 47% claim to have the capacity (LLFA survey, 2020).

Almost all LLFAs (96%) stated that they provided advice on surface water flooding to major developments and two-thirds provide surface water drainage advice to non-major development in Flood Zone 1.

The surveys also found:

- 83% of LLFAs expressed a desire to increase skills and resources in this area (LLFA survey, 2020)
- 45% of LLFA respondents consider they have the skills needed to advise LPAs on managing the risks posed to new development from groundwater flooding
- half of LLFA respondents cited a lack of groundwater flooding expertise and capacity (LLFA survey 2020)

- 70% of LLFAs provide advice that goes beyond their statutory role
- nearly two thirds of LLFA respondents cited the need for more resources and mapping, when asked what further support was needed (LLFA survey, 2020)
- over a quarter cited the need for more training and the sharing of best practice (LLFA survey, 2020)
- 12% of local authorities said that they strongly agree that their local authority has the skills and expertise to take account of flood risk and the impacts of climate change on flood risk (TCPA survey, 2020)
- only one local authority said they consider future insurance availability and affordability as a material consideration in planning (TCPA survey, 2020)
- when planning for climate change, only 37% of local authorities actively consider and prioritise measures to support groups of people most vulnerable to the impacts of climate change (TCPA survey, 2020)
- 34% of local authorities consider adapting to climate change as a priority material consideration when deciding whether to grant planning permission (TCPA survey, 2020)

### 3. Conclusions

The review has found that there are robust measures in place to protect people and property from flooding which all local planning authorities are expected to follow.

In, 2019 to 2020 95.4% of planning decisions were made in line with Environment Agency advice and 97.6% of residential units included in planning applications were determined in line with Environment Agency advice in their [Flood and coastal erosion risk management report](#).

However, the review also found that there are opportunities to strengthen current policy, guidance and its implementation.

There is also a need to revise the planning practice guidance across a number of areas to clarify guidance and bring it up to date in light of recent policy changes concerning the environment introduced through the 25 Year Environment Plan, the updated flood and coastal erosion risk management policy statement and national strategy and other important publications.

The next section sets out the specific actions the government will take forward in response to the review's findings in the immediate and longer term.

These actions will help to strengthen current policy, guidance and its implementation and support the government's ambition to create a nation more resilient to future flood and coastal erosion risk.

### 4. Next steps

Work is already underway to take forward action across a number of areas that this review has considered including:

- better mapping of flood risk
- clarifications to the National Planning Policy Framework
- proposals for standardised flood risk assessment templates or checklists as set out in the government's White Paper

A significantly revised and updated flood risk Planning Practice Guidance will be published later this year.

The government will use the findings of this review to inform a future more detailed review of the National Planning Policy Framework which is likely to be required, as implementation of the government's proposals for wider reform of the planning system in the Planning for the Future White Paper are announced, as part of our response to the White Paper consultation.

The government will also publish a further update on how wider planning reforms will help to deliver the flood risk and planning commitments set out in the flood Policy Statement.

The section below provides an overview of specific government action or future commitments to strengthen current policy, guidance and its implementation as a consequence of the findings of the review.

## **4.1 Sequential and exception test**

The government will clarify, standardise and simplify the language and terminology relating to the sequential and exception tests in both national planning policy and guidance.

- we have consulted on amended wording in the Framework related to the sequential test to make clear that the test applies to all sources of flood risk
- we will publish a significant update to the flood risk and coastal change section of Planning Practice guidance. For example, updated guidance will provide more clarity on key terms such as “reasonably available” and “wider sustainable development objectives” and greater detail on the ways LPA’s can improve the speed, certainty and effectiveness of the sequential test
- as part of our reform of the planning system, a fuller review of the Framework is likely to be required at the right time to reflect those wider reforms - subject to decisions on how they are to be taken forward
- where it is a statutory consultee on flood risk the Environment Agency will also make clear when the sequential test is needed in its planning application responses and flood risk standing advice, even when no objections are raised to the flood risk assessment. However, the Environment Agency will not always be consulted when the sequential test is required and ultimate responsibility for correct application of the test remains with LPAs

## **4.2 Expert advice**

The review has found that expert advice is sought and obtained by LPAs relating to a range of different sources of flood risk and sustainable drainage.

It is imperative that LPAs make full use of the processes and powers at their disposal to ensure that all sources of flood risk and sustainable drainage systems are carefully considered.

Development and associated drainage must be constructed as specified in plans.

- as set out in the government’s consultation response, we have amended the Framework to clarify that areas should take an integrated approach to flood risk management. This includes considering the opportunities from new development for improvements in green and other infrastructure and making as much use as possible of natural flood management techniques



Appropriate expert advice is critical to ensure that any strategically planned area-wide network of environmental features is designed to protect and helps to deliver biodiversity where possible in both urban and rural settings

- government will explore opportunities in planning practice guidance to clarify guidance to LPAs to help them account for flood risk in circumstances where statutory expert advice is not available
- LLFAs and the Environment Agency should continue to explore opportunities to improve the quality and consistency of flood risk mapping
- LLFAs should undertake flood modelling work in a way which allows it to be assimilated into Environment Agency's national [Risk of Flooding from Surface Water](#) map, and new or updated modelling should be routinely shared with the Environment Agency
- the Environment Agency is helping to support this through work to establish a simplified set of requirements, to make it easier for other organisations to supply data for incorporation into national flood maps
- the government has invested £2 million since April 2019 to enable the Environment Agency to support LLFAs to update their surface water risk maps - covering over 2,400km<sup>2</sup>. A total population of 3.3 million people who live in the mapped area will benefit.
- the Environment Agency will produce a new national assessment of flood risk (NaFRA2) that will help places better plan and adapt to future risks from flooding from rivers, the sea and surface water from 2024
- In addition, the Environment Agency continues to update and improve its Risk of Flooding from Surface Water Map on a quarterly basis, allowing appropriate locally-produced LLFA mapping to be assimilated into this national map

### 4.3 Reservoir flood risk and expert advice

Reservoirs provide a range of benefits to society and the environment, supplying water for our use, opportunities for well-being, sport and recreation. They also provide water for irrigating our farmlands and allow a broad range of biodiversity to flourish.

In undertaking flood risk assessments, whether strategic or site-specific, it is essential that the LPA considers potential risks that reservoir flooding may pose to new development.

As well as how a new development may impact upon reservoir owners and the reservoirs that they own and operate.

- the Environment Agency published revised flood risk maps for most large raised reservoirs in May 2021. This will help to ensure that these risks are appropriately assessed in a site-specific flood risk assessment
- the government will also consider the findings of Professor Balmforth's [Independent Reservoir Review Report](#) (PDF), published in May 2021 and respond in due course
- Defra will take forward detailed work with the Environment Agency and the industry, to explore the review recommendations to ensure we have a reservoir safety regime that is fit for the future

## 4.4 Development in inappropriate locations

It is important that likely future extents of functional floodplain are understood and consistently mapped to show future likely extents due to the impacts of climate change, and that development in such areas is appropriately controlled.

Environment agency modelling forms the starting point for the mapping of the functional floodplain in most instances.

Local planning authorities should identify areas of functional floodplain in their Strategic Flood Risk Assessments in discussion with the Environment Agency and the Lead Local Flood Authority.

The identification of functional floodplain should take account of local circumstances.

- the Environment Agency's FCERM Strategy Action Plan commits it to updating its Flood Map for Planning Service to provide quicker response times to data requests for flood risk assessments for new development proposals. This will help LPAs and developers access the information they need to undertake strategic and site-specific flood risk assessments respectively
- national planning practice guidance will be revised to provide greater clarity about how areas could be identified in plans as 'unsustainable locations'
- to improve the clarity and consistency of language used on flood risk matters such as resilience, the Framework has been amended. The changes clarify that in ensuring that development is appropriately flood resistant and resilient that it can be demonstrated that, in the event of a flood, it could be quickly brought back into use without significant refurbishment
- the government's White Paper, "Planning for the Future" consultation response will set out how the planning system can continue to support a sustainable approach to placemaking whilst meeting our Net Zero commitment. The White paper proposed a single statutory "sustainable development" test for local plans and this too will be set out in the government's response

## 4.5 Sustainable drainage systems (SuDS)

Planning practice guidance sets out the multiple benefits that SuDS can provide in mitigating flood risk and improving water quality, amenity, and biodiversity and other environmental benefits. The government wants to encourage greater uptake of multi-functional SuDS.

- we have amended the framework to clarify that areas should take an integrated approach to flood risk management considering the opportunities from new development, the opportunities from improvements in green and other infrastructure and making as much use as possible of natural flood management techniques
- national planning practice guidance will be updated following publication of the revised Framework to provide greater context on multi-functional SuDS and natural flood management techniques

- as part of our reform of the planning system and a potential further review of the Framework, we will take account of the latest research and evidence on how and where SuDS are most effectively deployed. This will help to ensure SuDS are being encouraged in those locations where their use will bring the greatest benefits for flood risk reduction and environmental enhancement
- the planning practice guidance will be updated to highlight opportunities for LPAs to increase speed and certainty for developers about the types of SuDS likely to be appropriate in different locations. For example, due to ground conditions or pollution risks or bring the greatest benefits for flood risk mitigation
- the planning practice guidance will also be kept under review as additional evidence on SuDS becomes available
- the government's £150 million Flood and Coastal Resilience Innovation programme, delivered by the Environment agency, is supporting a project in County Durham to develop a new approach to designing, delivering and monitoring sustainable drainage systems, such as raingardens, smart butts and street trees. This will include inviting UK based Small and Medium Enterprises(SMEs) to run competitions to find innovative solutions to community sustainable drainage

#### **4.6 Environment Agency advice not followed**

LPAs are required to refer major planning applications to the Secretary of State for MHCLG where the Environment Agency sustains a flood risk objection and the Local Planning Authority is minded granting permission against this advice.

To ensure LPAs are aware of this requirement the government will take steps to improve visibility of the Call-in requirements and increase accountability for decision makers.

- the government will include information on the roles and responsibilities of LPAs in relation to the direction in the [Chief Planner's newsletter](#) and statutory consultees, such as the Environment agency, will seek to remind LPAs of their responsibilities under the Direction where appropriate
- the Environment Agency will seek to increase the transparency of LPA decisions to approve applications against Environment Agency advice. In its FCERM Strategy Action Plan, the Environment Agency commits to publishing information where planning permission is granted against flood and coastal advice (when notified of planning decisions) by September 2021
- as part of our reforms to the planning system, the government will consider what mechanisms and policy may be needed to ensure wider flood risk issues are considered during decision making. This includes future flood risk from rivers and the sea, surface and ground water flood risk. This could be via the Direction, or potentially as part of the revised Framework
- the government will update planning practice guidance to address circumstances in which development proposals are subsequently revised following prior agreement with the Environment Agency on flood risk matters. This will help to mitigate the risk that revised proposals do not receive the same level of scrutiny

## 4.7 Compliance and enforcement

With regard to flood risk, LPAs need to undertake onsite compliance checks for new residential developments in at risk areas and to explore providing relevant training and guidance to compliance officers to help them do this.

This could include how to identify relevant flood mitigation measures. This would help further incentivise developers to comply with planning conditions related to building in flood mitigation measures and give assurances to the insurance industry.

It is concerning that almost a quarter of non-compliance issues raised were related to drainage not having been installed as approved.

- we want to strengthen the existing planning enforcement regime to support the new planning system. This could include raising fee thresholds for a breach of planning condition, increasing the time local authorities have to prepare a case against a breach of planning, and strengthening the policy around intentional unauthorised development

## 4.8 Skills and capacity

The surveys provided clear and consistent feedback from both LPAs and LLFAs that further support is needed in relation to the management of flood risk, including in relation to other sources of flooding such as groundwater and surface water.

A need to increase capacity across these areas was also identified.

- the [National FCERM strategy](#) recognises the importance of risk management authorities supporting the development of planning skills and capabilities they need to ensure new development and spatial plans are resilient to flooding and coastal change
- the [Strategy Action Plan](#) published in May 2021 sets out steps the Environment Agency will take to contribute to this
- the government have committed to developing a comprehensive resources and skills strategy for the planning sector to support the implementation of our "Planning White Paper" reforms
- part of achieving this will include supporting the modernisation of the planning process, so that routine tasks are automated and decision making is improved by better access to the data and digital services local authorities need but are often unable to take advantage of